

Research Article

Religio-economic Culture as a Determinant of Interest in Higher Education Among Mbororo-fulanis in Cameroon

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Abstract

The study examined religio-economic culture as a determinant of interest in higher education among Mbororo-Fulani citizens in Cameroon. The study sought to answer two research questions and test two hypotheses with regards to religious beliefs and pastoral nomadism, as indicators of religio-economic culture and interest in higher education. The mixed method research design was adopted and the study made use of the sequential explanatory and correctional research designs. A structured closed-ended Mbororo-Fulani Higher Education Stakeholders Questionnaire (M-HES-Q) of 17 items and a Focus Group Discussion Guide (FGDG) were used to collect data from 357 purposively sampled Mbororo-Fulani Higher Education Stakeholders (M-HES) across the national territory. The data was analyzed using descriptive statistics of simple frequencies and percentages, and inferential statistics techniques such as Chi-square Test of Independence and Spearman rho correlation. Qualitative data from the FGDG was analyzed using thematic analyses. The results revealed the following: 69.2% of M-HES agreed with the opinion that religious beliefs negatively influence interest in higher education among Mbororo-Fulani citizens, as against 30.8% who disagreed. After verifying the hypothesis, the calculated p-value stood at 0.064, which was greater than 0.005 (rule of thumb). Based on this, the null hypothesis that: “there is no significant influence of religious beliefs on interest in higher education among Mbororo-Fulani citizens in Cameroon was therefore upheld”. Overall, 70.1% of the Mbororo-Fulani stakeholders agreed that pastoral nomadism negatively determines interest in higher education among Mbororo-Fulani citizens. After verifying the second hypothesis, the calculated p-value stood at -0.165, which is less than 0.005. Thus, the null hypothesis which stated that; “there is no significant relationship between pastoral nomadism and interest in higher education among Mbororo-Fulani citizens in Cameroon” was accepted, while the alternate hypothesis was rejected. Concluding from the results, we see that religio-economic culture significantly and negatively influences interest in higher education among Mbororo-Fulanis in Cameroon. However, there is some little hope following government efforts in the basic and secondary education sectors aimed at ensuring the inclusion of Mbororo-Fulani citizens in the mainstream educational system. The main recommendation therefore was on the need for government to continuously work in collaboration with key Mbororo-Fulani stakeholders (particularly religious authorities) and international partners like UNESCO and the World Bank towards changing the negative narrative through religious and economic cultural adaptation. This is particularly necessary in this era of the quest for national emergence and sustainable international development.

Keywords

Religio-economic Culture, Interest, Higher Education, Mbororos-fulani Citizens, Mbororos-fulani, Cameroon

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1. Introduction

The Mbororo-fulani are a semi-nomadic cattle-rearing people who arrived in the Northern parts of Cameroon in the early 1900s. They belong to a sub-ethnic group of the largest nomadic group globally – the Fulanis, spread across West, Central, and North Africa [15, 17]. Apart from their semi-nomadic disposition due to cattle rearing/ pastoral nomadism as their critical economic activity; the Mbororos are unique in their physique and belief system. They live in self-isolation from non-Mbororo communities; they have coiled hairs, narrower noses, thinner lips, longer faces, essentially slim body structure, and usually have a fair complexion, while some are dark in complexion like the typical Fulanis. They speak the Fulfulde dialect called "kano-katsina Mbororo Fulbe" [19]. There are two different types of Fulanis based on settlement patterns -the pastoral or Mbororo (the semi-nomadic) and the settled or town Fulani. A critical difference between the Mbororo-Fulanis and other migratory groups is their unique culture of pastoral nomadism and self-isolation from non-Mbororo-Fulani communities [3]. The Mbororo-Fulanis in Cameroon are settled chiefly on the grassland hills and fringes of marginal lands in the North West, West, Adamawa, and the Northern Region of Cameroon, which have favorable climatic conditions in terms of vegetation and abundant pasture necessary for their main economic activity – cattle rearing [19]. Other aspects of their unique culture include their religious beliefs – with a tenacious belief and practice of conservative Islamic tenets, particularly in self-isolation from non-Islamic communities, insistence on koranic education, and resistance to formal Western education among other socio-cultural uniqueness [4].

Culture refers to the shared beliefs, values, customs, practices, and social behavior of a particular nation, ethnic group, or people, often handed down from one generation to the other through formal, informal, and non-formal education. According to [9], culture could socially be transferred through patterns of behavior, arts and craft, beliefs, morals, customs, institutions, and other human activity products and thoughts. To [2], culture is the social heritage acquired by people from preceding generations through learning, which is different from the biological heritage passed on automatically through the genes. These two scholarly definitions imply that culture is a complex whole that constitutes the above characteristics and other capabilities and habits acquired by man as a member of a particular society. The religio-economic culture of the Mbororos in the context of this study refers to their religious beliefs (conservative Islamic doctrines) and pastoral nomadism/cattle rearing.

Religious beliefs, deriving from ideas that are exclusive to religion, often relate to the existence, characteristics, and worship of a deity or deities, to the idea of divine intervention in the universe and human life, or the deontological views for the practices and values concentrated around the teachings of

a spiritual leader or community. Contrary to other belief systems, religious beliefs are usually codified [14]. A popular view holds that different religions have identifiable and exclusive beliefs. However, surveys of religious belief have often found that the official doctrine and descriptions of religious authorities' beliefs do not always agree with the privately held beliefs of the people who identify as members of a particular religion [25]. Mbororo-Fulani citizens are ardent Muslims, with conservatism and Islam's fundamentalist ideologies. Conservative Islam as the religious belief of Mbororo-Fulani citizens is a powerful, influential aspect of the Mbororo-Fulani Culture, given its ability to dictate other aspects of their culture, customs, and socialization code. For instance, [15] notes that, the annual fasting programs on the Islamic Calendar, often respected by Muslims worldwide, make Mbororo-Fulani children in Cameroon stay away from school and non-Islamic communities, as a way to avoid being religiously defiled by non-Mbororo-Fulani adherents. This explains the strong resistance towards Western formal education by this group of citizens over the years, who prefer koranic education over Western formal education. This is undoubtedly a fundamentalist religious ideology because; it is not what prevails elsewhere, especially in most advanced Islamic countries. Women's sole role within Mbororo-Fulani culture derived from their conservative Islamic beliefs is procreation and taking care of their homes and husbands. Men and women, including husband and wife, are not allowed to in the same room, especially during ceremonies or walk along the road together. This partly accounts for the self-isolated and exclusivist living style of the Mbororo-Fulanis. They cannot go close to other communities with a contrasting religious culture to advocate for equality and socio-cultural integration [19].

Pastoral nomadism is a way of life of peoples who do not live continually in the same place but move cyclically or periodically for pastoral reasons. Pastoral nomads depend on livestock herding and often migrate in an established territory to find pasturage for their animals. According to [5], pastoral nomadism is when livestock are herded to find fresh pastures on which to graze. True nomads follow an irregular movement pattern, in contrast with transhumance, where seasonal pastures are fixed. Most nomadic groups have focal sites for considerable periods of the year. Pastoral nomads may depend entirely on their herds or hunt or gather, practice agriculture, or trade with agricultural people for grain and other goods [6]. Pastoral nomads mostly settle in isolated hills from their host communities to have adequate land for their pasturing activities and avoid conflict with host communities. In sub-regions such as Chad, the movement cycle is as follows: In the wet season, the groups live in village homes made of sturdy material such as clay, intended for a comfortable stay. Older men and women remain in this village when the grazers move the

herds in the dry season. During the dry season, the people move their herds to southern villages with a more temporary character and then move inland to stay in tent camps. The pastoralist Mbororo-Fulani minority in Cameroon, apart from their self-isolated settlements where they could access grazing areas for their cattle, are always on a seasonal movement from one place to another in search of pasture and water herds. Consequently, it becomes pretty challenging to provide formal education to a group of people who are always in motion, especially when the male children are indigenously undergoing training to inherit the pastoralist trade from their parents [1].

It is thus common knowledge that the pastoral Mbororo-Fulani community in the country is often stereotyped or perceived as people who reject formal education in favor of their pastoral trade. The nomadic disposition of the Mbororo-Fulani makes education in the nomadic pastoral community a classic problem in social and development science. On these bases, some stakeholders have argued that investing in formal education for this group of people is a waste of resources [1]. According to [13], Mbororo-Fulani, since the early 1990s, have struggled to gain recognition as indigenous people and respect for their unique religio-economic culture. However, their low education attainment levels, emanating primarily from their historical reliance on pastoral nomadism, and stiff Islamic religious dogmas among others, have formed a critical barrier to their integration and inclusion within the mainstream educational system and Cameroon society as a whole. The Mbororo Social and Cultural Development Association (MBOSCUDA) was created to solve some of these root problems. Founded in 1992 to protect the rights and culture of the Mbororo-Fulani citizens, MBOSCUDA has over the years increasingly worked together with the Cameroon government to create education awareness and provide infrastructure in most remote Mbororo settlements as well as integrate them into mainstream society. Several schools and classrooms have been constructed and managed by the government under the Universal Primary Education program ([19]. An adult functional literacy program, called REFLECT, was introduced in 20 Mbororo-Fulani communities across the North West Region in early 2000. Through this program, Men and women could read and write their names, know their problems, and sought a means of addressing them. As a result of these activities, school enrollment at the primary and secondary levels increased significantly leading to improved scholarisation among the Mbororos at the basic education level ([10, 19]).

The successes at the basic education level, has led a few qualified Mbororo-Fulani citizens to have access to higher education and they are today contributing to national development across the country. Nevertheless, a majority of the Mbororo-Fulani communities continue to endure challenges with regards to interest in and access to higher education institutions in the country. According to the 2001 law on the orientation of higher education in Cameroon, it is the gov-

ernment's responsibility in collaboration with stakeholders to ensure that all qualified citizens have access to higher education. This is reflected in the objectives of higher education in the country, one of which is to ensure national integration and respect for all citizens' rights regardless of their political, economic, and socio-cultural backgrounds [20]. The problems of exclusion and self-imposed isolation of the Mbororos as a result of religio-economic conservatism will be challenging to completely overcome without the acquisition of advanced knowledge and enlightenment, especially amongst those who have attained basic education level. The seeming lack of interest in higher education and the low higher education attainment rate therefore remains a problem, and the unique religio-economic culture appears to be the determinant indicator [23].

Theoretically, this study hinged on two theories that demonstrate how the religio-economic culture (religious beliefs and pastoral nomadism) of the Mbororo-Fulani influence their interest in higher education in Cameroon. These theories include; the ecological system theory of Urie Bronfenbrenner [7], and the Stakeholders theory by Edward Freeman [2]. The rationale behind these theories is that they emphasize the importance of education stakeholders' cultural environment and interest in learners and individuals' learning and social development. Following these perspectives, the cultural environment mediates learning processes by providing culturally learned values, skills, and tools that influence social interaction. The ecological theory of Urie Bronfenbrenner has been used to show how the enlarged environment influences people's behaviour and how confusion can come as a result of different values in the various spheres of society and handicap the interest in and access of higher education by Mbororo-Fulani students. The stakeholder theory looks at all higher education stakeholders' role and interest in ensuring access to higher education amongst the Mbororo-Fulani citizens and cultural integration between the Mbororo-Fulani and non-Mbororo-Fulani cultures.

The researchers observed a seeming lack of interest in higher education among the Mbororo-Fulani citizens in Cameroon. This appears to be explained by their insignificant number in higher education institutions, and in nation-building/development sectors that require some level of higher education attainment. No official statistics exist on the number of this group of persons who have successfully graduated from higher education institutions over the years. However, a 2017 study by the African Educational Research Network estimated that less than 5% of Mbororos (ages 18 – 25) accessed higher education, compared to the national average of 12% for Cameroon. The study opined that fewer than 500 Mbororo students were enrolled in Universities despite their estimated population of 1.2 million, representing about 5% of the nation's population [21]. In terms of gender disparity, a 2020 report by MBOSCUDA (Mbororo Social and Cultural Development Association) found that less than 10% of Mbororo university students were female [14]. According to

the 2019 Annual Statistical Yearbook of Higher Education in Cameroon, the University of Ngaound é (in the Adamawa Region, with a large Mbororo population) had only about 150 Mbororo students in 2019, per university records. This was in contrast to the University of Yaound éI (the largest university in Cameroon) had fewer than 200 Mbororo students despite its larger enrollment [8]. Comparatively, while over 300,000 students were enrolled in Cameroonian universities in 2020 [24], Mbororos, who make up 5% of the population, should theoretically have above 15,000 students in higher education if enrollment were proportional. However, estimates suggest the actual number is below 1,000 [23].

Interestingly, this seeming lack of interest in higher education among the Mbororo-Fulani seems to be exhibited at a time when the Government of Cameroon has, in recent years following international legislations, made significant progress in their mainstreaming, integration, and inclusion into the formal education sector of the country through policy contextualization and practice. Nevertheless, before, and in the course of the Cameroon government's efforts to mainstream, integrate and promote the inclusion of the Mbororo-Fulani in the formal education sector, some scholars, in studies carried out mainly in the English-Speaking regions of Cameroon, were able to establish a correlation between Mbororo-Fulani's cultural practices, and their acceptance or rejection of formal universal basic education and schooling.

Their views and beliefs about Islam as their religion; pastoral nomadic lifestyle as their main economic activity, marriage customs and gender segregation, Mbororo-Fulani socialization code (pulaaku); parents' education status, and economic background were established to have influence and correlation on formal educational development within their communities. Notably, conservative perception and misleading understanding of Islamic tenets, pastoral nomadism, early marriage, polygamous customs, gender discrimination, low educational status, and poor economic background negatively affected the essential education development of

Mbororo-Fulani citizens. However, the researchers also found that advocacy on the adaptation of socio-cultural practices to meet contemporary societies' needs could positively affect basic education development among the Mbororo-Fulani ([12-15, 18, 19]). From the above-mentioned previous studies one is tempted to note that the seeming lack of interest in higher education among the Mbororo-Fulani could also be pointing to their cultural background of self-isolation, exclusivity, religious conservatism, and pastoral nomadism among other reasons. Therefore, this study aims to bridge the methodological and thematic gaps from previous studies by empirically verifying from a scholarly standpoint and making appropriate recommendations that could inform higher education policies on integrating the Mbororo-Fulani youth into the mainstream higher education system of Cameroon. Consequently, in a rapidly changing society and an era of modernization, cultural integration, intercultural dialogue, and inclusion; all championed by the quest for sustainable development— with inclusive quality higher education playing a significant role in its attainment [22], it becomes imperative to empirically establish the relationship between the religio-economic culture of the Mbororo-Fulani on their interest in higher education in the country.

2. Objectives of the Study

Generally, the study examined religio-economic culture as a determinant of interest in higher education among Mbororo-fulani citizens in Cameroon.

Specifically, the study examined:

1. Examine the relationship between religious beliefs and the interest of Mbororo-Fulani citizens in higher education in Cameroon.
2. Examine the relationship between pastoral nomadism and the interest of Mbororo-Fulani citizens in higher education in Cameroon.

3. Research Methods

Table 1. Summary of research methods.

Method	Mixed method Qualitative Quantitative
Research Design	Correlational survey design and Sequential explanatory design
Population	Target population – 1.5 million Mbororo-Fulani citizens in Cameroon (MBOSCUDA, 2020). Accessible population – 5,000 Mbororo-Fulani citizens who are registered university or higher institutions of learning, graduates from universities or higher institutions of learning, secondary education graduates, and educated community leaders and elites
Sample Size	357 Mbororo-Fulani citizens in possession of the characteristics of the accessible population
Sampling Technique	Purposive and snowball or referral sampling techniques

Instruments for data collection	Mbororo-Fulani Higher Education Stakeholders Questionnaire (M-HES-Q) made up of 17 items & Focus Group Discussion Guide (FG-DG)
Validation of Instrument	Face, content, and construct validity
Pilot testing & Reliability	25 Mbororo-Fulani citizens with accessible population characteristics participated in a pilot study. Cronbach Alpha reliability was used to conduct reliability test with a reliability coefficient of 0.70
Method of data collection	Face-to-face or self-administration of M-HES-Q and FG-DG in two regions (NWR and Adamawa). Use of research assistants in other regions to administer M-HES-Q)
Method of data analysis	Thematic analyses for Focus Group Discussion Descriptive statistics (frequencies and percentages) Inferential statistics (Spearman's rho correlation, chi-square test, and binary logistic regression analysis)
Ethical Consideration	All ethical procedures were respected including having the consent of the participants through an informed consent form.

4. Results and Discussion

Research Objective 1: Examine the relationship between religious beliefs and the interest of Mbororo-Fulani citizens in higher education in Cameroon.

Religious beliefs of Mbororo-Fulanis are highly related to their attainment of education as a whole and higher education in particular. The results for this variable are presented on the table below (Table 2).

Table 2. Religious Beliefs of Mbororo-Fulanis & interest in Higher Education.

Religious Beliefs	Responses in (%)				Decision
	SA	A	D	SD	
1. No interaction with non-Islam	28.5	30.2	27.6	13.7	Accepted
2. Western education is against Islam	37.9	34.5	8.8	18.8	Accepted
3. Clerics don't encourage university education	28.5	25.4	33.3	12.8	Accepted
4. Limited public interaction of Mbororo-Fulani youths	18.2	35.3	37.0	9.4	Accepted
5. Preference of Koranic education	29.1	49.6	14.0	7.4	Accepted
6. Misinterpretation of Islamic scriptures	45.3	35.0	9.7	10.0	Accepted
7. Conservative Islam among Mbororo-Fulanis	24.5	48.1	19.4	8.0	Accepted
8. University education limits daily religious responsibilities	30.5	28.5	28.8	12.3	Accepted
9. Role of women is procreation	37.6	35.6	19.7	7.1	Accepted
10. Imams rarely sensitize on the importance of higher education	51.9	38.2	4.3	5.7	Accepted
Average	33.2	36.0	20.3	10.5	

Source: Fieldwork, 2023.

Using a four-point Likert scale to assess this variable, all the entries affirmed that the religious beliefs of the Mbororo-Fulani citizens have a significant influence on their interest in higher education. Out of the ten indicators treated for this variable, it stands out that interest in higher education

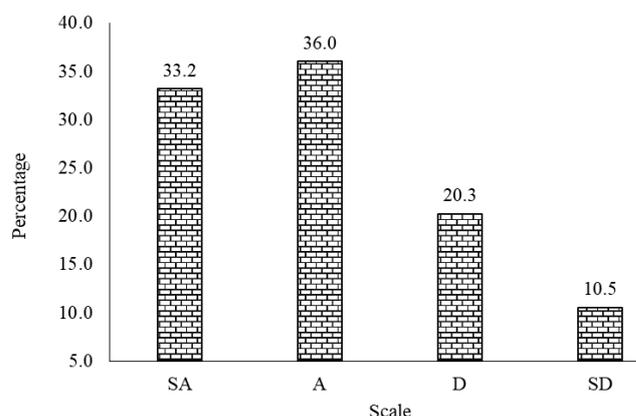
among Mbororo-Fulani citizens could improve if Islamic clerics (Imams) sensitize the people on the importance of higher education (51.9%). Again, the misinterpretation of Islamic scriptures (Quran and Sunnah) by some Mbororo-Fulanis negatively affects their interest in education,

significantly higher education (45.3%). This was corroborated by views expressed during the focus group discussions. It was revealed that the integration of Mbororo-Fulanis in higher education remains unreal since, in reality, the rate of these citizens' involvement in higher education is very minimal. Thus, there is a need to inculcate in the population the merits of the Mbororo-Fulani culture for the latter to have value and open up so that there is a large number in higher education; if not, history will forever remain the same. Again, it was also revealed that Mbororo-Fulani citizens are less registered in higher education institutions than other ethnic groups in Cameroon. For them, pursuing higher education is an exception, notwithstanding the advantages and privileges that it offers.

Thus, the Mbororo-Fulanis are very few in terms of their representation in higher education in Cameroon due to their cultural beliefs. For instance, the belief that a woman's place is in the home and both men and women should marry early to fulfill their religious beliefs has affected the objective of attaining higher education levels. In the last decade, it is encouraging, and much progress remains to be made for a significant representation of this group of citizens to be present in school. Due to cultural/religious reasons, Mbororo-Fulanis who find themselves schooling often face difficulties a regular citizen would not face, and the result is usually drop out, thereby accounting for their insignificant number in school. Before, we rarely saw Mbororo-Fulani citizens at the superior level due to religious and cultural reasons. Today, the trend is changing though still very slow as the number in higher education is still very not encouraging. As a minority population that needs to be given special considerations to promote in-

clusion, the representation in higher education institutions is very insignificant due to these religious beliefs that hinder their educational attainment.

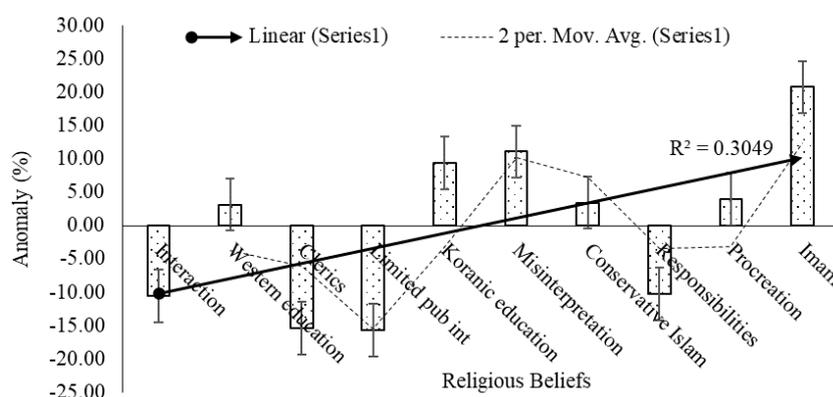
In the overall assessment, the sampled population, to a great extent, agreed that religious beliefs negatively influence higher education attainment. This is illustrated on the bar chart below where; 33.2% strongly agreed, 36% agreed, 20.3% disagreed, and strongly disagreed (10.5%).



Source: Fieldwork, 2023.

Figure 1. Assessment of religious beliefs of the Mbororo-Fulani.

To further affirm the influence of religious beliefs on interest higher education attainment among the Mbororo-Fulanis, an anomaly trend was established (Figure 2).



Source: Fieldwork, 2023.

Figure 2. Trend of the influence of religious beliefs on interest in higher education among Mbororo-Fulanis in Cameroon.

The following indicators have a negative contribution: most Mbororo-Fulanis believe that it is not in the interest of their culture to interact too much with people who do not have the same religious beliefs like them; Islamic clerics (Imams) in Mbororo-Fulani communities do not encourage Mbororo-Fulani citizens during Jumah prayers to enroll in a

university or higher education; because of the limited public interaction between boys and girls as practiced in Islam, it scares young Mbororo-Fulani citizens from enrolling into universities and higher institutes where there is a day-to-day interaction with boys and girls, and some Mbororo-Fulanis think that attending Universities or any higher institute will

limit their daily religious responsibilities (praying five times daily) to Allah. The coefficient of determination (R^2) of 0.3049 indicates that religious beliefs of the Mbororo-Fulani contribute 30.49% to the discouragement of interest in higher

education. This has an increasing trend. Table 3 below is a thematic summary of views shared by Mbororo-Fulani stakeholders during the focus group discussion on religious beliefs and higher education attainment.

Table 3. Thematic summary of focus group discussion on religious beliefs and higher education attainment.

Focus Group Participants	Description		
	Theme of Discussion	Key Response Theme	Striking Statements made during the discussion
Mbororo-Fulani Stakeholders	Religious beliefs and interest in higher education among the Mbororo-Fulani citizens	<ul style="list-style-type: none"> - Misinterpretation of Islamic scriptures - Illiteracy amongst many Mbororos - Misunderstanding of scripture limits education - University education is still a mystery - Islam supports education and science - Universities as easy destroyers of Mbororo and Islamic culture - Radical Islamic fights circular education - Islam is a religion of peace and solidarity - Islam promotes cultural integration and interaction - Reorientation of Mbororo Islamic clerics 	<ul style="list-style-type: none"> - Wrong interpretation of scriptures by Mbororo-Fulani citizens negatively affect higher education attainment - Literacy rate among Mbororos is shallow, and a majority of them do not understand the Koran because they cannot read and write - Most Mbororos still see higher education as a mystery, but Christianity and other polytheistic religions do not find it difficult to educate their people - The teaching of Prophet Mohammed encourages Muslims to seek education and knowledge to any level they want - Some radical Mbororo Muslims, due to lack of adequate knowledge and understanding, have misinterpreted the Quran to justify their radical stand against educational attainment - As a religion of peace and solidarity, Islam in all directions advocates the mixing of cultures and the acceptance of others and has never prohibited Muslims from pursuing higher education - Most times, the Mbororo Islamic clerics are to blame for teaching the wrong things even though they teach with the pulaaku too in mind. There is a need for reorientation of Mbororo clerics by more sound Islamic scholars

Testing Hypothesis 1: Statistical evaluation of the relationship between religious beliefs and interest in Higher Education among Mbororo-Fulani citizens.

The first specific null hypothesis for this study stated that there is no significant relationship between religious beliefs and interest in higher education among Mbororo-Fulani citizens in Cameroon, while the alternative stated that there is a significant relationship between religious beliefs and interest in higher education among Mbororo-Fulani citizens in Cameroon. The result is presented in table 4 below:

Table 4. Chi-Square Test of Independence on the Relationship Between Religious Beliefs and Interest in Higher Education Among Mbororo-Fulani Citizens in Cameroon.

Statistic	Value
Degrees of Freedom (df)	9

Statistic	Value
Sample Size (N)	351
Chi-square (χ^2)	7.32
P-value	0.064

Source: Field data, 2023, computed in SPSS20.

The test yielded a χ^2 value of approximately 7.32 with 9 degrees of freedom and a p-value of 0.064. As the p-value exceeds the 0.05 threshold, the result is not statistically significant, indicating that no strong association could be established based on the available summary data. Therefore, the null hypothesis is retained, suggesting that religious beliefs are not significantly associated with interest in higher education among the study population — based on the inferential test.

This result is in line with that of [16] carried out in Ohio on the relationship between religion and female education attainment in which they observed a powerful negative relationship between female educational attainment and the proportion of ethno-religious, Hindu, and Muslim adherents. The result is however contrary to the findings of [11] on adolescent religiosity and academic attainment. Lance and Philip had confirmed that, like academic outcomes, religious youth are more likely to complete high school and enroll in college even when controlling for other individual and interpersonal factors that affect educational attainment. They also established that informal mentorships, particularly those with adults who have official religious positions (e.g., priest, minister, rabbi) play an important role in college enrolment educational attainment among adolescents. The implication here is that even though religious beliefs negatively influence

interest in higher education among the Mbororo-fulani, this trend is gradually changing as the relationship is no statistically significant. This could be implied on the fact that the more the Mbororo-fulani citizens have access to higher, the more it shapes their minds positively against fanatical religious beliefs that undermine their educational attainment.

Research Objective 2: Examine the relationship between pastoral nomadism and the interest of Mbororo-Fulani citizens in higher education in Cameroon.

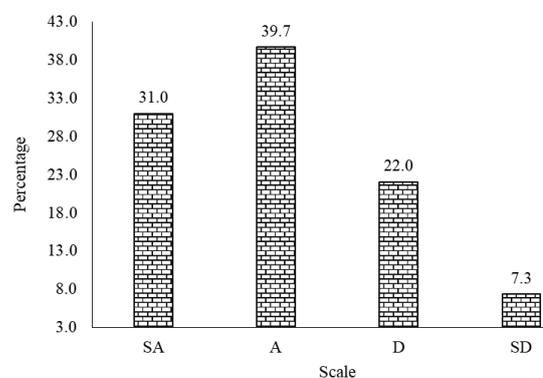
Pastoral nomadism is the traditional economic activity of the Mbororo-Fulani of tropical Africa. As a result of the seasonality of this tradition, results from the data collected from the field revealed that this activity has impediments on the educational attainment of these communities from basic to higher education. The results are tabulated below in table 5.

Table 5. Pastoral nomadism and higher education attainment among Mbororo-Fulani citizens.

Pastoral nomadism	Responses in (%)				Decision
	SA	A	D	SD	
11. Pastoralism as main economic activity	40.7	48.7	9.4	1.1	Accepted
12. Pastoralism is more profitable than higher education	35.3	44.7	17.1	2.8	Accepted
13. Seasonal movement limits the ability to acquire higher education	36.5	44.2	17.1	2.3	Accepted
14. Nomadism compels women to take care of their families	31.6	37.0	26.8	4.6	Accepted
15. Nomadism sustains Mbororo-Fulani inherited a cultural economy	33.6	39.6	22.2	4.6	Accepted
16. Investment in formal education is wasteful than pastoralism	24.8	24.5	24.8	25.9	Rejected
17. Modern ranching may not increase enrolment in higher education	14.2	39.0	36.8	10.0	Accepted
Average	31.0	39.7	22.0	7.3	

Source: Fieldwork, 2023.

The sampled population affirmed that all the indicators of pastoral nomadism contribute negatively to interest in higher education among Mbororo-Fulani. The most outstanding indicator is that; pastoral nomadism is still the main economic activity of most Mbororo-Fulani citizens in Cameroon (40.7%), followed by the constant movement for cattle rearing as a culture among the Mbororo-Fulani, which is limiting their male children from going beyond basic and secondary education acquisition (36.5%). Some Mbororo-Fulani citizens believe that pastoral nomadism as their main economic activity is more profitable than acquiring higher education (35.3%). Given these opinions, 31% of the sampled opinion strongly agreed that pastoral nomadism negatively contributes to the low interest of Mbororo-Fulani youth in higher education. The analyses are further illustrated in Figure 3 below:

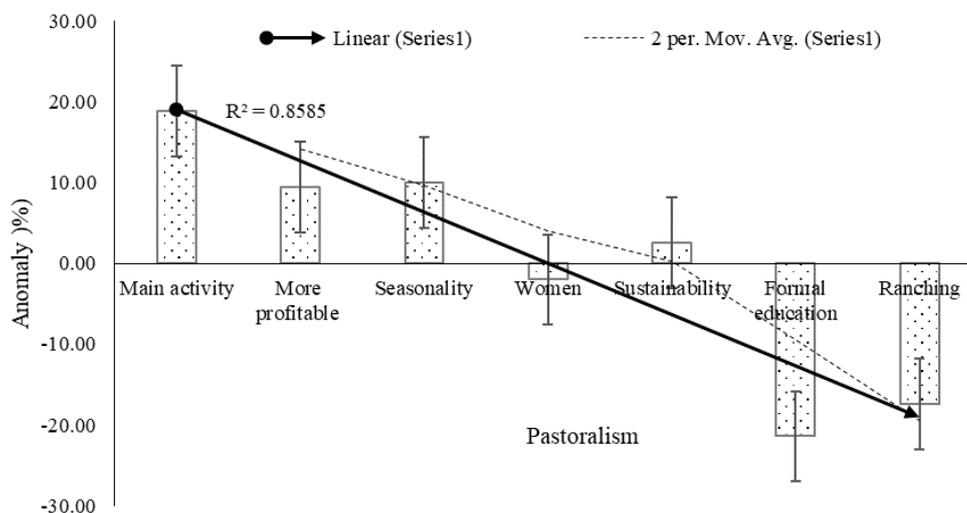


Source: Fieldwork, 2023.

Figure 3. Assessment of the contribution of pastoral nomadism to interest in higher education among Mbororo-Fulani in Cameroon.

In the same vein, 39.7% of the sample agreed that pastoral nomadism negatively contributes to the low interest and attainment of Mbororo-Fulani youths in higher education.

Looking at these perceptions closely, the overall contribution of pastoral nomadism to interest in education by Mbororo-Fulanis shows a decreasing trend in Figure 4 below.



Source: Fieldwork, 2023.

Figure 4. Trend of the contribution of pastoral nomadism to interest in higher education among Mbororo-Fulanis in Cameroon.

The indicators that contribute most to this decreasing trend are the fact that due to the nomadic activities of male Mbororos, the role of women is limited to taking care of the family and so no chance to acquire knowledge beyond basic and secondary education. This confirms the view by stakeholders during the focus group discussion that; most Mbororo-Fulani citizens see investment in any form of formal education for nomadic Mbororo-Fulani citizens in the country as a waste of resources since most of them are always on the move, and modifying nomadic cattle rearing to cattle ranching may not really increase the enrolment of Mbororo-Fulani citizens into higher education institutions. The coefficient of determination (R^2) for these indicators stands at 0.8585 (85.85%).

More insights from focus group discussions revealed that the nomadic pastoral Mbororo-Fulani culture in Cameroon has so much disappeared. Those who live in cities move almost less because they tend to trade rather than breed. It is left in the self-isolated Mbororo-Fulani villages. Their seasonal movements affect children's schooling because they will be forced to choose: leave with their parents or stay to continue their studies. Again, the stakeholders noted that Mbororo-Fulani culture should not be confused with Islamic culture despite some affinities, as a note should be taken between these two. On the one hand, nomadic-pastoral culture is an obstacle to higher studies. Their constant displacement prevents instruction because universities are primarily found

in large metropolitan cities.

On the other hand, their UN status as indigenous people gives them advantages if there is a collective will. The pastoral nomadic culture of the Mbororo-Fulani, according to Mbororo-Fulani stakeholders, is the first cause of the low rate of Mbororo-Fulanis in higher education because, with the seasonal trips, the Fulani citizen cannot combine trips and studies which require a minimum of concentration. Pastoral culture has long been a handicap for the Mbororo-Fulani as they are in constant movement. However, in the 21st century, a sedentary lifestyle is gradually becoming the norm everywhere. Those rare cases of nomads are visible typical self-isolated Mbororo-Fulani. The nomadic culture prevents students from going to school and progressing to university. This is why in the northern states of Nigeria, where the presence of Mbororo-Fulanis is significant, the federated states have created nomadic schools (primary) which follow them in their seasonal movements so that their children can attain certain levels of education. The relationship between nomads-distances from primary and secondary schools hinders most of them from reaching higher education. Also, it is noted that the activity (pastoral nomadism) does not unite the Mbororo-Fulani population in a robust community where they can study with ease in their communities. Views expressed by stakeholders on pastoral nomadism and interest in higher education during the focus group discussion are thematically summarized in Table 6 below.

Table 6. Thematic summary of Focus group discussion on pastoral nomadism and higher education attainment.

Focus Group Participants	Description		Striking Statements made during the discussion
	Theme of Discussion	Key Response Themes	
Mbororo-Fulani Stakeholders	Pastoral nomadism and higher education attainment among the Mbororo-Fulani citizens	<ul style="list-style-type: none"> - Culture of pastoral nomadic gradually disappearing - Pastoral nomadism now practiced by those in the village - Mbororos integrating themselves in cities - Mbororos now involved in trading and other jobs - Pastoral nomadism is not an Islamic culture - Nomadic culture is the first cause of Mbororo under-solarisation 	<ul style="list-style-type: none"> - "Pastoral culture has long been a handicap for the Mbororo-Fulani ... but in the 21st-century sedentary lifestyle is gradually becoming the norm ... and those rare cases of nomads are visible". - "nomadic culture of the Mbororo-Fulani is for me the first cause of the low rate of Mbororo-Fulani in higher education because... the citizen cannot combine trips and studies which require a minimum of concentration." - "Nomadic culture ... prevents students from progressing to university...this is why in the northern states of Nigeria where the presence of Mbororo is large, the federated states have created schools (primary) which follow them in their seasonal movements." - ... It prevents the pupil from progressing to university. In my case, my Dad offered three cows for me to drop from school ... he believed that the strength of a man is measured by the number of cows he owns... non-Fulani friends shaped my thoughts about education. Today I am still in school, though Dad sees it as deviating from the norms of our ancestors."

Testing Hypothesis 2: Statistical Evaluation of the relationship between Pastoral Nomadism and interest in Higher Education among Mbororo-Fulani citizens.

In order to evaluate the relationship between pastoral nomadism and interest in higher education, the null hypothesis stated that there is no significant relationship between pastoral nomadism and interest in higher education among

Mbororo-Fulani citizens in Cameroon, while the alternative hypothesis stated that there is a significant relationship between pastoral nomadism and interest in higher education among Mbororo-Fulani citizens in Cameroon. The Spearman's rho was used to verify this hypothesis, as presented in Table 7.

Table 7. Spearman's rho for pastoral nomadism and higher education attainment among Mbororo-Fulani citizens in Cameroon.

Correlations		Pastoralism nomadism	HE attainment rate
Spearman's rho	Correlation Coefficient	1.000-	-.165**
	Pastoralism nomadism	Sig. (2-tailed)	.002
	N	351	351
	Interest in HE	Correlation Coefficient	-.165**
	Sig. (2-tailed)	.002	.

Correlations		
	Pastoralism nomadism	HE attainment rate
N	351	351

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Field data, 2023, computed in SPSS₂₀.

The results revealed a negative correlation coefficient of -0.165, which was statistically significant at the 0.01 level ($p = 0.002$). This indicates a weak but significant negative relationship between the degree of pastoral nomadism and the rate of higher education attainment among Mbororo-Fulani citizens. In other words, as pastoral nomadism increases, interest or attainment in higher education tends to decrease. Therefore, we reject the null hypothesis and conclude that pastoral nomadism is significantly and negatively associated with interest in higher education among this population.

The results are in tandem with the investigation of [3], who notes that the Cameroonian government of recent, together with some stakeholders has been looking for a lasting solution to the perennial pastoral migratory and farmer-grazer problems among the Mbororo-Fulanis in Cameroon and the local population. One of such measures include; the promotion of intercultural dialogue between Mbororos and local ethnic groups, integration of the Mbororos into the mainstream institutions, and the provision of educational opportunities. These measures according to [3] are aimed at enabling both the Mbororos and local population to live in peace and harmony with the local population while engaging in their different socio-economic and cultural activities. In addition to, this, [19] posit that, the culture of Pastoral nomadism among the Mbororos though still in existence is not as intense as when they were still seeking permanent settlement within the highlands and fringes in Cameroon. According to [18] their acquisition of permanent settlement areas in the North West, West, Adamawa, and the Northern Region of Cameroon which are grassland regions with a favourable climate and perceived abundant pasture for cattle rearing has greatly reduced their constant yearly movement. This has certainly led to the setting up of educational institutions within their communities and the promotion of social harmony and integration with the local non-Mbororo-Fulani communities.

5. Conclusion and Recommendations

The general outcome of this study therefore aligns with the conceptual, theoretical and empirical views of other scholars that investigate the effect of culture and religion on education, especially within the Mbororo-Fulani ethnic group in Africa and Cameroon in particular. According to, [13, 15, 19], conservative Mbororo-Fulani culture has been established as a

contributor in determining the successful implementation of formal basic education policy within their communities. It is these findings that have over the years informed the government’s efforts towards promoting integration, intercultural dialogue, and inclusion between Mbororo-Fulani and non-Mbororo-Fulani communities. They argued that, considering the importance of higher education attainment among the Mbororo-Fulanis as an advanced tool of inclusive economic, political, and socio-cultural integration, it also becomes necessary as a matter of empiricism, contribution to research and the body of knowledge, for researchers to invest in this domain. Substantiating the position culture occupies within the Mbororo-Fulani ethnic group [10] noted that religious beliefs are a very strong aspect of Mbororo culture – with a tenacious belief and practice of conservative Islamic te-nets. This practice is particularly in terms of isolation from non-Islamic communities, insistence on koranic education and resistance to formal Western education. There is also the unique economic culture of pastoral nomadism characterized by seasonal migratory cattle-rearing activities among others. These cultural practices according to [12-15, 18, 19], act as impediments to basic and secondary educational development among the Mbororo-Fulani community. This has been confirmed by this study as the same situation prevailing in the higher education sector eventhough with some indicative signs of change. The religio-economic culture of the Mbororos can therefore be said to be of a negative effect on educational attainment among Mbororo-Fulani citizens from the basic to tertiary level of education in Cameroon. This, therefore, justifies the recommended task before the indigenous Mbororo-Fulani organization (MBOSCUDA) to tirelessly work with the government and other national and international stakeholders towards reversing the tides and integrating the conservative resistant Mbororo-Fulani communities into mainstream society, and promote scholarization among them at all level.

Abbreviations

M-HES-Q	Mbororo-fulani Higher Education Stakeholders Questionnaire
FGDG	Focus Group Discussion Guide
M-HES	Mbororo-fulani Higher Education Stakeholders

MBOSCUDA Mbororo Social and Cultural Development Association

Conflicts of Interest

The authors declare no conflicts of interest.

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