

# A Field Survey to Assess the Consumption of *Nkang* for Standardization and Valorization in the North-West Region of Cameroon

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## Abstract

In African communities, traditional beer drinking remains a unifying factor within its populations both socially, commercially, culturally, politically, in health and nutrition and for some ritual practices. In this research a field survey was carried out to investigate the consumption of corn beer and in particular *Nkang* in the North-West Region of Cameroon. The tools that were employed to carry out these investigations included face-to-face interviews and the use of properly designed questionnaires. Results from the survey showed that three types of maize-based beverages are drunk in the North-West Region of Cameroon, which are locally called *Kwacha* (whitish, most viscous and most turbid), *Sha-ah* (cream white, viscous and turbid) and *Nkang* (dark brown, least viscous and least turbid) in terms of colour, viscosity and turbidity. The percentage awareness of the existence of these beers from the sampled population gave the following values; 60.9% for *Kwacha*, 100% for *Sha-ah* and 89.1% for *Nkang*. Nonetheless, 54.5% of the 60.9% of those who were aware of the existence of *kwacha* had at least tasted it. Also 98.2% out of the 100% for *Sha-ah* and 85.5% out of 89.1% for *Nkang* had tasted them, too. *Nkang* was found to be the most preferred to *Sha-ah* then *Kwacha* in that order by the consumers since *Nkang* is very tasteful, least alcoholic, least turbid, least viscous, has the most attractive colour than the others, has a significant impact on the culture of some localities in this region and as well as it is natural and nutritious. However, *Nkang* as well as the other two has varying organoleptic properties, unsatisfactory conservation and short shelf-life. Hence are consumed within a short period of time from their production. Because of the low alcoholic content of *Nkang*, the beverage is consumed by both adults (most elderly), children, those who have health problems and it is mostly preferred by some Christians though not frequently

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seen in the markets. It was equally observed that the little quantity of *Nkang* found in the markets is of poor quality which keeps dropping everyday thus an indication of its risk becoming extinct. Therefore, if *Nkang* is clarified and its quality improved, the problems can be solved as even attested by the consumers who say they will buy at even a higher price if clarify. As well as those who want it for their cultural reasons do not want it to face out too.

### Keywords

Corn Beer, *Kwacha*, *Sha-ah*, *Nkang*, Alcoholic Content, Least Viscous, Shelf-Life

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## 1. Introduction

Indigenous fermented products play an important role in the diet of most people in the developing countries [1]. An example of these indigenous fermented products is beer which has become a staple part of the diet in many cultures [2]. The traditional African sorghum beers are very rich in calories, B-group vitamins including thiamine, folic acid, riboflavin, and nicotinic acid, and essential amino acids such as lysine [3] [4]. Beer has been found to increase the plasma high-density lipoprotein (HDL) which is a scavenger of cholesterol thus reducing risk of cardiovascular diseases, gallstones and stomach ulcers and protection of brain against mental decline due to aging [5]. It is also a tonic, nutritive, digestive, appetizer, soothing and sedative beverage [6]. It is galactogene thus a small quantity is good for pregnant and lactating women. The beers are consumed at various festivals and African ceremonies such as marriages, births, baptism ceremonies, the handing over of a dowry, are very important for political, social and for economic interactions *inter alia* as well as constituting a source of economic return for the female beer producers [7]. Beer differs in its significance, acceptability and importance from culture to culture. Other examples of these African traditional beers include; *ikigage* in Rwanda [8], *tchoukoutou* in Benin and Togo [9], *dolo* in Burkina Faso [10], pito or burkutu in Nigeria and Ghana and amgba in Cameroon as well as maize-based beers (generally called corn beer) of various types such as *Nkang* which are often consumed in the North West Region of Cameroon. *Nkang* which is one of the corn beer types has some cultural affiliations to the people of Bali, one of the ethnic groups found in the North-West Region of Cameroon pointing out the degree of cultural attachment to *Nkang* by the people of this locality. However, traditional African beers are generally “opaque” beers [11], less attractive than Western beers brewed with barley malt because of their relatively poor hygienic quality, low ethanol content (usually less than 5% v/v), organoleptic variation and unsatisfactory conservation [8] [12]. *Nkang* and related locally made alcoholic beverages suffer the same fate. To overcome these constraints, some of these African traditional beers have been industrialized by standardizing their production

processes, for example Star Lager (Nigerian Beer), Tusker Lager (Kenyan Beer), Castle Lager (from South Africa), Casablanca, (Moroccan Beer) [10]. In the same light, because of its cultural significant, if *Nkang* beer production process can be standardized and documented as no literature is found on, this will go a long way to prolong its shelf-life [13]. To standardize such a process, a survey on its consumption from those who drink it is sine qua none to upgrading the beer in terms of production, shelf-life enhancement and quality enhancement and assurance and thus standardizing the product, since some sensory qualities and preferential appreciations can be investigated [14] [15]. This study was aimed at carrying out a field survey on the consumption of corn beer and in particular *Nkang* beer in the North-West Region of Cameroon and using the results to attempt to design a standardization scheme for *Nkang*.

## 2. Materials and Method

### 2.1. Materials

Questionnaires were used for data collection. Software Sphinx V5 was used to format the questionnaires, treat and analyzed the data collected from the field.

### 2.2. Study Area

The survey was carried out in four Divisions (Bui, Mezam, Momo, Ngoketunjia), with co-ordinates in degree, minutes, seconds as 10°0'0" to 11°0'0"E Latitudes and 6°0'0"to 6°30'0"N Longitude using the WJS 84 system of projection, chosen from the seven Divisions of the North-West Region of Cameroon considered to be the prime areas where *Nkang* is drunk most going by the number of people involved in such activities and the population of these areas.

### 2.3. Methods

In order to deduce the quality of corn beer the inhabitants of the North West are exposed to, one hundred and ten (110) corn beer consumers were identified and interviewed by administering questionnaires within the chosen study area. Eighty-six (86) questions each per questionnaire were developed with the idea of checking on the quality of corn beer types and the consumption sustainability of the corn beer with emphasis on *Nkang*. The questions were grouped under five sub-sections:

#### 2.3.1. Socio-Economic Status

To know the type of people who drink corn beer and particularly *Nkang*, their age group, sex, and occupation to evaluate the preference given to domestic products and to see how many people love adhere to tradition or prefer the so called modernism.

#### 2.3.2. Consumers General Knowledge on Corn Beer and the Various Types

✓ Here we wish to know whether the present generation knows the type of local

beers that existed before and how many do exist.

- ✓ To verify if those who know these beers have even tasted any.
- ✓ To see if they know the starting raw material for corn beer production?
- ✓ Degree of awareness with Age group, to see whether those who are aware and have tasted these corn beers do vary with the age group.
- ✓ To rate the drinking of corn beer with age group thus identify which age group drinks highest.
- ✓ To have knowledge of the sensory attributes of the corn beer types. To see if the consumers can identify these corn beer types in terms of colour, taste, cloudiness (turbidity) and viscosity.
- ✓ Preference for these corn beer types; to know which type do they prefer and why?
- ✓ Reasons for not drinking any of these corn beers; to know why some consumers do not drink all of the three types of corn beer and to know the qualities of the type of beer they want.
- ✓ Comparing their love for corn beer to other available industrial beers in the market and why?

### **2.3.3. Particular Knowledge and Quality of *Nkang* and Its Marketability**

- ✓ How many people have actually tasted *Nkang* and their reactions and to identify those aspects which they like or dislike about *Nkang*.
- ✓ Some preferred attributes of *Nkang* by the consumers.
- ✓ Other quality aspects of *Nkang*; to know whether the consumers like clarified *Nkang* and why?
- ✓ Desire Qualities of *Nkang*; to know which aspects of *Nkang* will they like the producers to work on so as to improve on its quality?
- ✓ To see if *Nkang* is frequently found in the market?
- ✓ To rate whether the purchasing power of the consumers depend on the price or quality of the beer? How much they can offer for a liter of *Nkang*?
- ✓ To check on whether their preference for one bar to another depends on the quality or price of the beer per bottle?
- ✓ To verify if *Nkang* is clarified, will they buy it or not?

### **2.3.4. Knowledge on *Nkang* Production from Consumer's View**

- ✓ To see if there are some consumers who know how to produce *Nkang*.
- ✓ To know who taught them? (*i.e.* source of technology transfer)
- ✓ To investigate why some do not know how to produce *Nkang* though it is locally made? (*i.e.* to see the degree of negligent on their custom and culture)

### **2.3.5. Some Cultural Aspects of *Nkang***

- ✓ To see if *Nkang* has an impact on their culture and to what extent?
- ✓ Do they wish this tradition of *Nkang* production for cultural reasons to continue?
- ✓ What is their opinion on *Nkang* if it is substituted with red wine or Whiskey?

### 3. Results and Discussions

#### 3.1. Socio-Economic Status

A demographic representation of Corn Beer consumers in the North West Region of Cameroon is as shown on **Table 1**.

From **Table 1**, corn beer is consumed by both men and women with a percentage of 53.6% and 46.4% respectively in conformity with the report of [16]. Considering the age groups, from the highest to the least age group in terms of drinking corn beer, we have from 30 - 50, 50 - 65, 65 and above, 20 - 30 and then to 15 - 20 showing that the younger generation does not like drinking it as shown by a 0.9% for those between 15 - 20 years and 12.7% for those between 20 - 30 years, indicating a gradual shift from culture to modernism with age [17]. It can also be observed from the table that the highest consumers are from Momo

**Table 1.** Demographic characteristics of consumers of corn beer.

Variable	Group	Percentage (%)
<b>Sex</b>	Female	46.4
	Male	<b>53.6</b>
<b>Age</b>	15 - 20	0.9
	20 - 30	12.7
	30 - 50	<b>44.5</b>
	50 - 65	25.5
	65 and above	16.4
<b>Division of Origin</b>	Momo	<b>48.2</b>
	Mezam	30.9
	Ngoketunjia	13.6
	Bui	4.5
<b>Level of Education</b>	Menchun	1.8
	None scholar	8.2
	Primary	<b>50</b>
	Standard	4.5
	Secondary	26.4
<b>Occupation</b>	University	10.9
	Farmer	<b>44.6</b>
	Civil servant	12.3
	Non-public Workers	2.3
	Private worker	13.8
	Business	16.2
	Non-Workers	6.2
	Retired Civil servant	4.6

origin, most of them having primary school level of education and are mostly farmers, showing the population settlement at the local level.

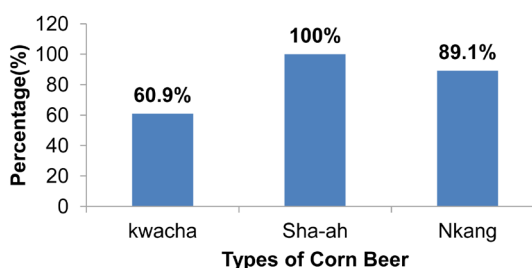
### 3.2. Consumer's General Knowledge on Corn Beer and the Various Corn Beer Types

The general knowledge of the various types of corn beer is depicted in terms of percentage of sampled population by **Figure 1**.

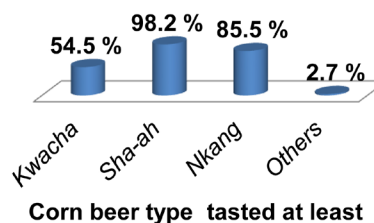
From **Figure 1**, three types of corn beer (*kwacha*, *sha-ah* and *Nkang*) do exist with the percentage awareness by consumers of 60.9% for Kwacha, 89.1% for Nkang and 100% for Sha-ah. These show that *Sha-ah* is the most popular and available than *Nkang* and then *Kwacha*. However, 54.5% of the 60.9% of those who are aware of the existence of *Kwacha* has at least tasted it, same as 98.2% out of the 100% for *Sha-ah* and 85.5% out of 89.1% for *Nkang* as shown on **Figure 2**. From this observation we can say that, the actual Population of those who have at least tasted any of these three types of corn beer is lower than those who are aware of their existence indicating that not everybody that knows about the existence of these beers has tasted it. Therefore, the present generation at least has an idea of locally produced corn beer. As for the starting raw material for corn beer production, 65.4% say that it is corn, 23.1% talk of germinated corn thus they are aware that the beer is from corn. This is also an indication of some degree of preference for domestic beverages [18].

### 3.3. Those Who Have at Least Tasted Any of These Three Types of Corn Beer

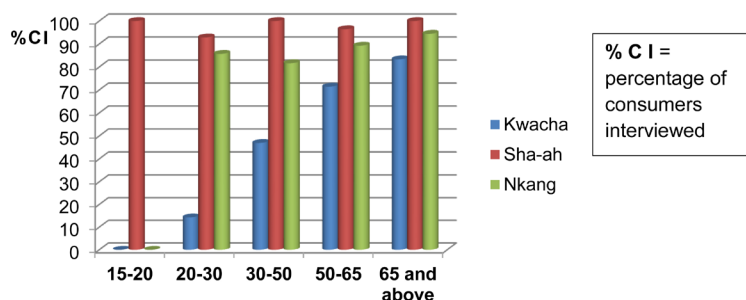
From **Figure 2**, *Sha-ah* is the most popular corn beer type in the study area and closely followed by *Nkang* and then Kwacha showing how the knowledge on Nkang and Kwacha is dying down thus a point of concern, see **Figure 3**.



**Figure 1.** Percentage awareness of corn beer types.



**Figure 2.** Percentages of those who have at least tasted any of these three corn beer types.



**Figure 3.** Awareness of consumers and their knowledge on corn beer types versus age group.

### 3.4. Degree of Awareness with Age Group

**Figure 3**, shows that the degree of awareness by the consumers of *kwacha* and *Nkang* increases from the age group 20 - 30 up to 65 and above, with *no person* within the age group 15 - 20 years knowing *Kwacha* and *Nkang*. This is an indication of the ebbing awareness of *Nkang* and *Kwacha* as generation pass on. On the other hand, all age groups interviewed have an idea of *sha-ah* meaning that it is the only corn beer type known by all at moment.

### 3.5. Rate of Drinking Corn Beer with Age Group

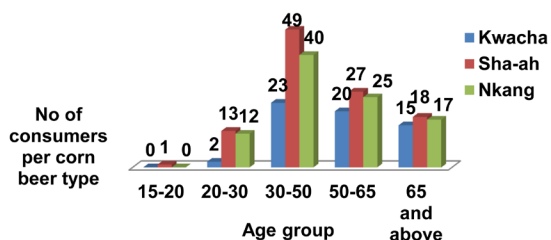
The actual Population that have at least tasted any of these corn beers within each group with the highest being those of the age group 30 to 50 years is as shown on **Figure 4**. It can also be observed from the figure that the drinking ability decreases on both sides of the age group 30 - 50, per each beer type showing that it is the active age group that drinks the highest. Hence if *Nkang* and related corn beers are standardized, they will be demanded and consumed by the active population which exceeds the other age groups [19].

### 3.6. Knowledge on Some Sensory Attributes of the Corn Beer Types

It can be observed from **Figure 5**, that *Kwacha* is whitish in colour, *Sha-ah* is cream white and *Nkang* is dark brown. As for the taste attributes, *Kwacha* is not sweet, *Sha-ah* is sweet and *Nkang* is very sweet. While *kwacha* is very viscous, *Sha-ah* is less viscous and *Nkang* is least viscous. Considering turbidity, *Kwacha* is very turbid, *Sha-ah* is turbid and *Nkang* is least turbid [20]. Thus prospect increase in *Nkang's* shelf life as filtration is improved and faster throughput [21]. This shows that the consumers can easily identify these beers types from their sensory attributes [22].

### 3.7. Preference for These Corn Beer Types

**Table 2**, shows the various percentages for the reasons why the consumers prefer drinking each of the three types of corn beer. 100% of those who drink *Kwacha* prefer it because it serves as food (makes their stomach full) and, 57.1% say it is more alcoholic than the other two and 57.1% also say they have the habit of

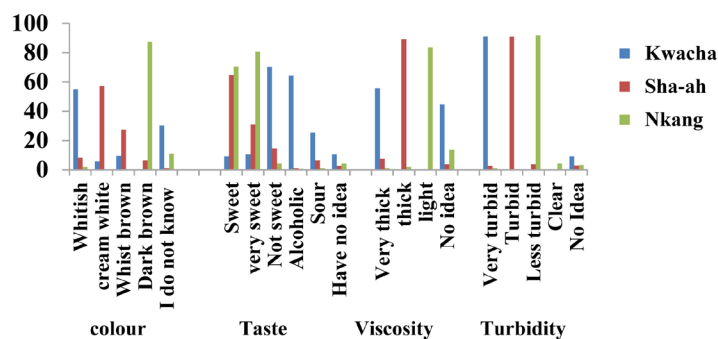


**Figure 4.** Number of interviewers who have at least tasted the various types of corn beer within each age group.

**Table 2.** Preference for each corn beer type by the consumers.

Corn Beer Type	Preference for each corn beer type	Percentage affirmative
Kwacha	It is not sweet	14.30%
	More alcoholic than others	57.10%
	It is a habit	57.10%
	It's the cheapest	14.30%
	The heaviest( most viscous and turbid)	42.90%
	Serves as food	100.00%
	Does not cause running stomach	14.30%
Sha-ah	Sweeter than Kwacha too sweet as Nkang	37.50%
	Less alcoholic than Kwacha	41.10%
	More alcoholic than Nkang	16.10%
	Good taste	76.80%
	Has an attractive colour	53.60%
	It is a habit	69.60%
	It is available (easy to find)	78.60%
	Good for my system	41.10%
	Serves as food	85.70%
	It's Cheap	46.40%
Knows how to produce it	19.60%	
Nkang	Due to scarcity of Nkang in the market	19.60%
	It is very sweet	66.70%
	Has a very good taste	96.10%
	least alcoholic than all	94.10%
	It is clear(least turbid)	92.20%
	Least viscous	94.10%
	Has an attractive colour	90.20%
	Satisfactory as food	72.50%
	Quenches thirst	54.90%
	Gives pleasure	52.90%
Knows how to produce it	19.60%	
Do not causes any health problems	62.70%	





**Figure 5.** Some sensory attributes of the three types of corn beer.

drinking it. While 42.90% prefer drinking *Kwacha* because it is more viscous and turbid. These are indications to show that *Kwacha* is the most turbid, viscous and most alcoholic amongst the three types of corn beer confirming the information on **Figure 5** for *Kwacha*. Different physical with attendant chemical properties leads varied preferences for locally brewed drinks and is a function of demand for the products [23]

Considering those who like drinking *Sha-ah*, 85.70% like drinking it because it serves as food 'so it fills their stomach' but not as *kwacha* does. 78.60% say *Sha-ah* is more available indicating the most popular and the most available than the others as also indicated on **Figure 1**, 76.80% says it has a good taste *i.e.* good mouth-feel, 69.60% says it is a habit, 41.10% says it is good for their system, 41.10% says it is less alcoholic than *Kwacha*, 37.50% say it is sweeter than *Kwacha* and not too sweet as *Nkang* meaning that *Sha-ah* is not too sweet and has moderate alcoholic content from the other two.

As to those who prefer drinking *Nkang*, 96.10% says it has a very good taste, 94.10% says it is less alcoholic, 94.10% says it is least viscous, 92.20% says it is clear that is least turbid, thus it easy to drink as they do not feel particles at the throat during drinking as its the case with the other two, 90.20% say it has an attractive colour, 66.70% says it is very sweet, these imply that *Nkang* has a very good taste, nice colour and is sweet. 19.60% know how to produce it showing that only a small population knows the *Nkang* production technology.

### 3.8. Reasons for Not Drinking Any of These Corn Beer

**Table 3** shows why some people will not like to drink any or all of these corn beer types. We can observe that, 66.90% of the consumers do not like drinking *Kwacha* and 64.80% for *Sha-ah* because they feel particles at the throat during drinking, 45.60% for *Kwacha* and 42.60% for *sha-ah* talk of them to be too heavy and thick as food not as a drink (*i.e.* they are viscous and turbid) as they have to chew before swallowing. 42.70% say *Kwacha* needs to be heated before drinking showing how viscous *kwacha* is while 25.40% say *Nkang* is least viscous as it can be compared to water [24]. 42.70% say they do not know *Kwacha* with 15.30% not also knowing *Nkang* and 33.90% say *Nkang* is not available indicating their scarcity in the markets. From these observations we can say that *kwacha* and

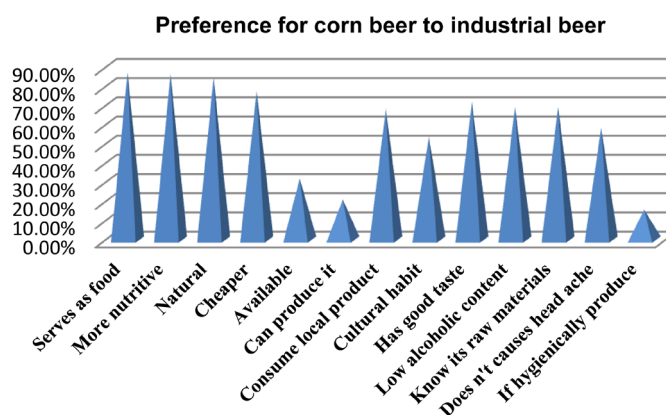
**Table 3.** Deterrents from corn beer products.

Corn beer type	Reasons for not drinking any of the corn beer type	Percentages disapproval
<b>Kwacha</b>	Too heavy & thick as food not as a drink	45.60%
	Colour and taste not appreciable	34.00%
	High alcoholic content than others	43.70%
	Feel particles not easy to drink	66.90%
	Not sweet	36.90%
	Need to be heated before drinking	42.70%
	Don't know it	42.70%
<b>Sha-ah</b>	Heavy & thick as food not as a drink	42.60%
	Colour and taste not appreciable	46.30%
	High alcoholic content	42.60%
	Feel particles not easy to drink	64.80%
	Not sweet	27.80%
	Provokes vomiting	13.00%
<b>Nkang</b>	Least viscous can be liken to water	25.40%
	Has less alcoholic content	8.50%
	Too sweet	22.00%
	Not available (cannot easily be seen )	33.90%
	Don't know it	15.30%
	Poor quality	10.20%

*Nkang* are scarce in the markets and that the population want beer that is least turbid and least viscous indicating that a clarify corn beer will be preferred as confirmed by **Figure 8**. On the other hand they population wish that corn beer should have moderate alcoholic content as can be deduced from the following observations; 43.70% says *kwacha* has a high alcoholic content than others, 42.60% say same for *sha-ah* while a very small percentage of 8.5% say *Nkang* has the least alcoholic content with 22.0% saying that *Nkang* is too sweet. Therefore the consumers dislike corn beer that has high alcoholic content, viscous and turbid, but are comfortable with that which is sweet with moderate alcoholic content [25].

### 3.9. Relative Desire for Corn Beer

From **Figure 6**; 87.30%, 86.40%, 84.50%, 77.30%, 71.80%, 69.10%, 69.10%, 68.20% of the population says that they love drinking corn beer to industrial beer because it serves as food, more nutritive, natural, cheaper, has good taste, low alcoholic content, know its raw materials and to consume local products respectively. While 31.80% which falls below average says that they drink corn beer because it is available meaning that corn beer is scarce in our markets. Also,



**Figure 6.** Preference for corn beer to industrial beer.

only 20.90% of the consumers know how to produce any of the corn beer type meaning that there are lesser producers reason why the product is rare in the market. 15.50% says if corn beer is hygienically produced, they will like it meaning that corn beer has some unhygienic aspects but has upgrading potentials.

From **Figure 7**, 50.0%, 49.10%, 49.10%, 47.30%, 46.40% of the Population interviewed love industrial beer because it looks more hygienic, well made, of high quality, less turbid, less viscous and well packaged respectively than corn beer. While 70.90% say they do not prefer industrial beer to corn beer meaning they still love corn beer even if it does not have the above mentioned qualities as the industrial beer. This indicates that though many people love industrial beer because of its quality, they still have an attachment of great love for traditionally made products. This is corroborated by the low 14.50% for those who love industrial beer because it is modern.

### 3.10. Particular Knowledge and Quality of *Nkang* and Its Marketability

85.5% of the consumers have actually tasted *Nkang* as from **Figure 2**, with a 67.3% and 42.7% haven tasted it from the market and their homes respectively.

*Nkang* is most preferred by the consumers as can be seen from **Table 2** (with the highest percentages) and **Table 3** (with the lowest percentages) with their preference for *Nkang* to sha-ah and kwacha as shown on **Table 4**.

### 3.11. *Nkang* Clarification, Standardization and Valorization

95% of the population wish that *Nkang* should be clarified according to **Figure 8** because it will look attractive as 96.8% consumers affirmed, 87.3% says it will improve its quality, 81.0% say it would be conserved easily, 79.4% says clarification will make it portable as it can be bottled and 90.5% talk of increase in its shelf life thus standardizing *Nkang* and hence quality control [26].

Considering **Figure 9** with blocks A, B, C; 73.60% say they cannot produce *Nkang* with just 21.80% that can, thus technology not known by all. From block B, 70.80% of the 21.80% that knows how to produce *Nkang* learnt it from their

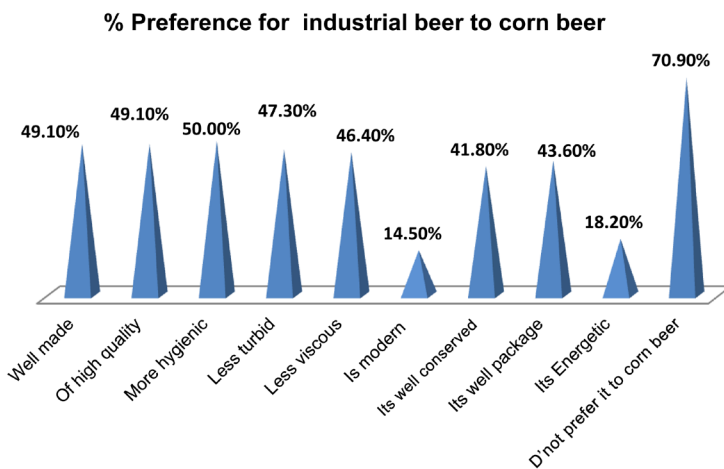


Figure 7. Preference for industrial beer to corn Beer.

Should Nkang beer be Clarified

■ Yes ■ No ■ I have nothing to say

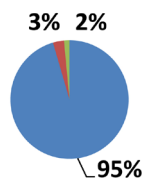


Figure 8. Acceptability for Nkang to be clarified in percentages.

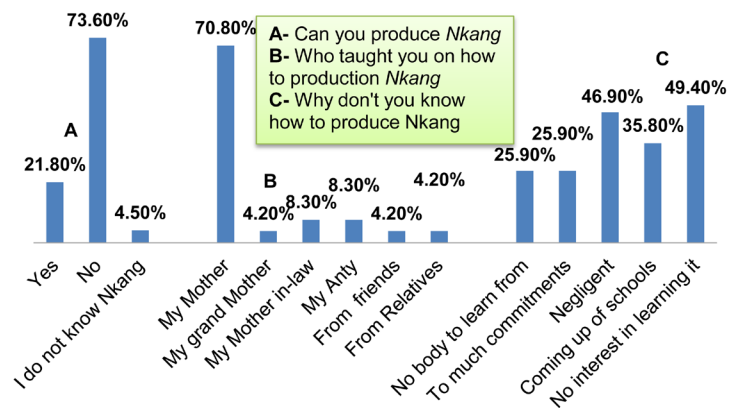


Figure 9. Consumer’s production know-how and source of technology transfer.

Table 4. Preference for Nkang to Sha-ah and Kwacha.

Preference for Nkang to sha-ah and kwacha	Score in Percentage (%)
Very tasteful	54.6
Least alcoholic	55.5
Least turbid	54.6
Least viscous	55.5
Has an attractive colour	51.8
Has an impact on the culture	60.0

mothers, 8.30% from mother in-law and 4.20% from their grandmothers indicating that mostly women are involved in the production of *Nkang* [7] [27] and that the technology is a hand down process from parent to children without documentation. 49.40% have no interest in learning on how to produce *Nkang*, 46.90% are negligent, 35.80% says with the coming up of schools they do not have time to learn it as well as those who are too committed with other things that make up 25.90% and no body to learn from that make up 25.90%, too. This is an indication that the technology is dying out thus need to be valorize.

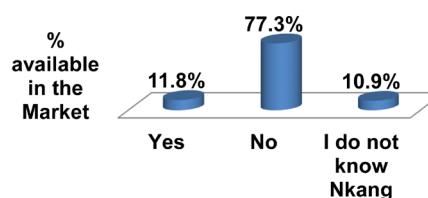
Although *Nkang* is not frequently found in the markets with a 77.3% as shown on **Figure 10**, some consumers that make up 72.90% from **Figure 11**, point out that this is due to less producers and a 61.20% saying that they believe that the technology is not well transferred to the children as those who say it is due to poor quality thus drop in the market make up 37.60%, However, 22.40% of the consumers attribute it to the death of most of the producers which can be confirmed with the 36.5% who says that the *Nkang* beer is mostly produced by older women. Nonetheless, 58.80% say it is due to the coming up of schools and 54.10%, talk of coming up of many other types of drinks especially sweet drinks but it seems the present generation has no interest in its production as shows on **Figure 11**, with a 7.10%.

### 3.12. Purchasing Power with the Price or the Quality of the Beer

According to **Figure 12**, 86.40% of the consumers say that, their purchasing power is a function of the price/quality ratio of the beer. 85.50% say they drink *Nkang* not because of the price but because of the quality of the beer that is the overall sensory attributes and its nutritious nature. With respect to bar preference, 89.10% say that they like one bar to another depending on the quality, 83.60% like the quality of services, 80.00% cleanness and neatness of the bar and the shop owner, 63.60% say it depends on the availability of the beer. Thus their purchasing power and drinking habit is a function of the quality and not the price [28].

### 3.13. Cultural Attachment to *Nkang*

We can observe from **Figure 13** that, 92.40% of the consumers say *Nkang* drinking should continue so as to preserve their cultural values. While 80.30%, 66.70%, 50.00% also attest that *Nkang* drinking, should be promoted because it serves as a unifying factor, source of entertainment and to maintain their tradition, respectively [29]. 13.60% says that according to their tradition and custom



**Figure 10.** Percentage availability of *Nkang* in the Markets.

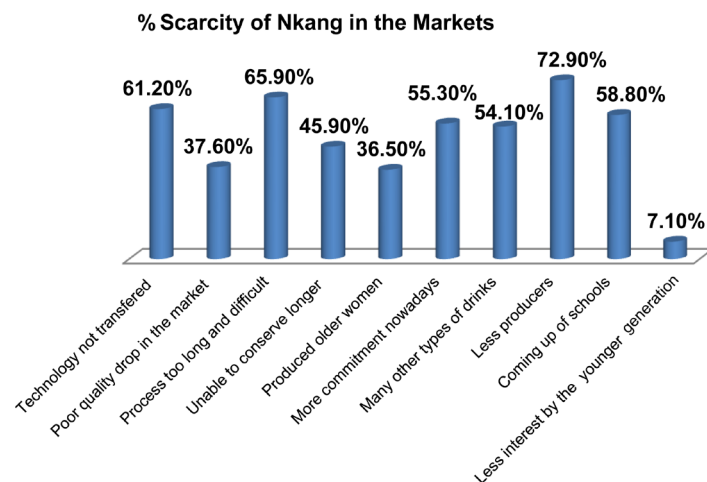


Figure 11. Why Nkang is scarce in the market in percentages.

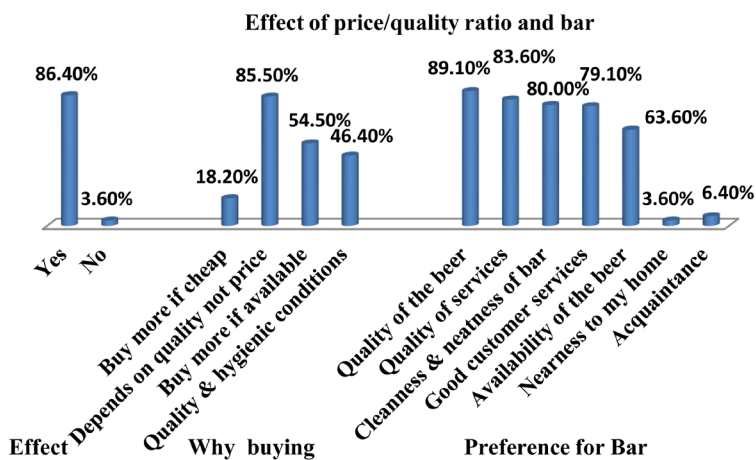


Figure 12. Effect of price/quality ratio and bar with their drinking habit.

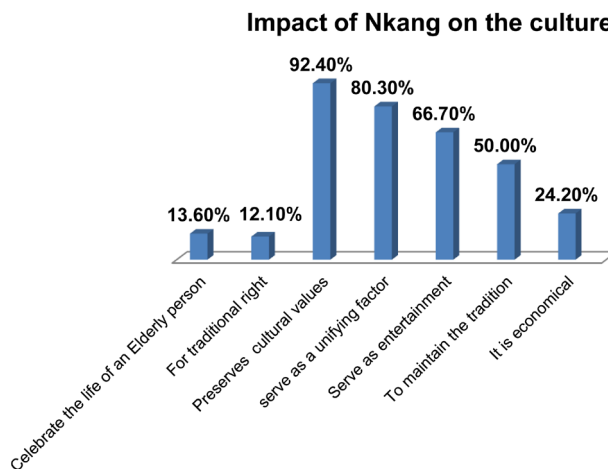


Figure 13. Cultural impact of Nkang.

Nkang must be prepared when an elderly person of rightful age dies and 12.10% uses Nkang for traditional rights.

Further investigation was made to see if the consumers will like Nkang to be replaced with red wine or whiskey for rituals and there was a 100.0% dislike by the consumers. When asked why; the following responses were got; 98.2% saying that they have to promote their cultural, 85.5% says its dignity be preserved for continuity, 83.6% says it is natural, 83.6% says it can serve many people at a time, 81.8% say it is produced locally, 69.1% says their culture must be conserved, 60.0% talk of Nkang being nutritious and 58.2% less alcoholic than the red wine.

#### 4. Conclusion

Results from the survey show that corn beer locally made beer, as well as palm wine and industrially produced beer from barley are consumed in the North-West Region of Cameroon. Three types of corn beer *kwacha*, *sha-ah* and *Nkang* do exist with *Sha-ah* being the most popular, most available but with *Nkang*, the most appreciated by the consumers. On the other hand, *Kwacha* and *Nkang* are not frequently seen in the markets. This is an indication of them running the risk of extinction. *Kwacha* is more turbid and viscous than *Sha-ah* and then *Nkang*. *Kwacha* is whitish, *Sha-ah* is cream white and *Nkang* is dark brown in colour. *Nkang* is the most preferred to *Sha-ah* and then *Kwacha* by the consumers due to the fact that *Nkang* is very tasteful, least alcoholic, least turbid, least viscous, has the most attractive colour, has a significant impact on the culture of some localities in this region, *Nkang* is also natural and nutritious as the others. But it has a short shelf-life like the other two and is consumed within a short period of its production. Thus people tend to consume it more when freshly made because most households cannot afford cooling devices to extend the keeping quality of the *Nkang* which could result in further fermentation with final sour taste. Because of its low alcoholic content, the beverage is consumed by both adults (the most elderly), children, those who have health problems and mostly preferred by some Christians. However, it is less popular as comparing with *Sha-ah*, not available as it is not frequently seen in the markets. The consumers complain that the little found in the markets is of poor quality which keeps dropping everyday, thus an indication of it disappearing and risk becoming extinct. Consumers also attest that if *Nkang* is clarified and its quality improved, then they will be happy and can even buy it at a higher price. While those who want it for cultural reason say that, they do not want the culture to die down so its production process can be improved so as to have quality *Nkang* which can sustain their culture. Hence further works can be carried out on how to improve its quality and conservative method so as to make it sustainable.

#### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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