# BIBLIOGRAPHY

DAYAOEN, MARCITA. APRIL 2012. Consumers Acceptability between Camote and Ube Wine. Benguet State University, La Trinidad, Benguet.

Adviser: Evangeline B. Cungihan, MSc.

# ABSTRACT

The study was conducted in La Trinidad, Benguet specifically at the Benguet State University and at the Municipal gymnasium where consumers were asked to do a sensory evaluation of the two wines and fill up the questionnaire. The study was conducted to find out the reasons of consumers in buying wine and find out their preference between the camote and ube wine and also the level of acceptability of these wines to the consumer. A total of ninety respondents served as panel evaluators. Findings showed that majority of the consumer buy and drink wine for health benefits. Camote and ube wines were equally preferred by the consumers in terms of their appearance, taste, aroma, and general acceptability. However, ube wine is significantly cheaper than camote wine. The two wines were equally accepted by the consumers.



# **RESULTS AND DISCUSSION**

# Profile of Respondents

Table 1. Present the profile of the respondents in terms of age, gender, marital status, religion, educational background, occupation and average income.

<u>Age</u>. The ages of the respondents ranged from 15 years old to 62 years old. All the student belonged to the 15-35 years old bracket. Majority of the professional group and the non-professional group belonged to the age bracket of 15 - 35 years old with 70% and 87%, respectively.

<u>Gender</u>. Majority of the professionals (73 %) were male while majority of the student (53 %) and non-professionals (50%) were female.

<u>Marital status</u>. Most of the student (93%) were single. Majority of the professionals were married with (60%) while majority of the non-professionals were single (60%). There were a few among the professionals who were separated.

Educational Background. One hundred percent of the professionals were college graduate, and all the student were in the college level. For the non-professional, 23% finished college, 20% vocational, 13% elementary and 10% high school.

<u>Main occupation/employment status</u>. Most (83%) of the professional were government employees. Majority of the non-professionals were housekeepers (57%), 23% were laborer, 20% were farmers, and 17% were businessmen/women.

<u>Average income</u>. Twenty three percent of the professionals had an average income of P10,000 or less, 30% each had P10,001 – P20,000 and P20,001 – P30,000 and 10% each had P30,001-P40,000 and over P40,000. On the other hand, most (80%) of the non-



professionals had an average income of P10,000 and below. Very few of them had income level more than P30,000. Most of the students had family income of P10,000 or less.

	PROFES	SIONALS	NO	DN-	STUDENTS		
PARTICULARS			PROSES	SIONALS			
	F	%	F	%	F	%	
Age							
15 – 35	21	70	26	87	30	100	
36 - 55	8	27	3	10	0	0	
56 & above	1	3	1	3	0	0	
TOTAL	30	100	30	100	30	100	
Gender							
Male	22	73	15	50	14	47	
Female	8	27	15	50	16	53	
TOTAL	30	100	30	100	30	100	
Marital Status							
Single	11	37	18	60	28	93	
Married	18	60	12	40	2	7	
Separated	1	3	0	0	0	0	
TOTAL	30	100	30	100	30	100	
Educational Backg	ground						
Elementary	0	0	4	13	-	-	
High school	0	0	3	10	-	-	
Vocational	0	0	6	20	-	-	
College	30	100	17	57	30	100	
TOTAL	30	100	30	100	30	100	

Table 1. Socio-economic profile of respondents



Table 1. continued...

	PROFES	SIONALS	NC	DN-	STUD	DENTS
PARTICULARS			PROSES	SIONALS		
	F	%	F	%	F	%
Occupation						
Students	0	0	6	20	30	100
Gov't Empl.	25	83	0	0	0	0
Businessman	5	17	0	0	0	0
Laborer	0	0	7	23	0	0
Housekeeper	0	0	17	57	0	0
TOTAL	30	100	30	100	30	100
Average Income (i	n pesos)					
10,000 or less	7	23	24	80	21	70
10,001-20,000	9	30	3	10	9	30
20,001-30,000	9	30	2	7	0	0
30,001-40,000	3	10	1	3	0	0
Over 40,000	9	10	0	0	0	0
TOTAL	30	100	30	100	30	100

# Reasons for Buying Wine

Table 2 present the reasons of the respondents for buying wine. Findings show that majority of the professional look at health benefits as the foremost reason for buying wine. Likewise, students consider the same reason but for the non-professionals majority considered the price of the wine as the foremost factor. This is an interesting finding because students have no source of income yet they considered price as a secondary factor in buying wine. For the professionals, this is plausible because majority were employed and have higher level of income. On the other hand majority of non-professionals considered health benefit as secondary reason since majority have less than



Table 2. Reasons for buying wine

PARTICULAR	PROFES- SIONAL		NON- PROF.		STUDENTS		ALL RES- PONDENTS	
	F	%	F	%	F	%	F	%
Attractive packaging	8	27	10	33	10	33	28	31
Health benefits	22	73	10	33	14	47	46	51
Cheaper than the imported	12	40	13	43	8	27	33	37

\*Multiple answers

P10,000 income. Attractive packaging is the least consideration among all the respondents.

# Packaging Design Preferred by the Consumers

Table 3 presents the preference of consumers on packaging design. Majority (70%) of the professionals preferred the ethnic design. Thirty percent preferred an elegant design, 13% preferred plain while 3% said any packaging design will do. For the non-professionals, 73% preferred the ethnic design, 33 for an elegant design, and 7% for plain. Fifty three percent of the students prefer the ethnic design, 27% for an elegant design, 10% for plain and 13% said any design will do.

In terms of with ethnic design (70%) of the professional consumers, majority (73%) of the household consumer prefer the packaging with ethnic design, (53%) of the student consumer prefer the packaging with ethnic design.

This finding shows that consumers differ in their preferences regarding the packaging design and there are consumers who are not particular on the design of the packaging material.

Table 3. Packaging design preferred by the respondents



PACKAGING DESIGN	PROFES- SIONAL		NON- PROF.		STUDENTS		ALL RES- PONDENTS	
	F	%	F	%	F	%	F	%
Plain	4	13	2	7	3	10	9	10
Ethnic design	21	70	22	73	16	53	59	66
Elegant design	9	30	10	33	8	27	27	30
Any packaging design	1	3	-	-	4	13	5	6

\*Multiple answers

# Price of Wine that Consumers can Afford

Table 4 presents the prices of wine that the consumers can afford to pay for a 750 ml. Among the professionals, majority (63) can afford to pay a price ranging from 101-150 pesos while 17% can afford 51 - 100 pesos, 3% 30 -50 pesos, and 7% can afford to pay 151 – 200 pesos. Among the non-professionals, majority (63%) can afford 51 – 100 pesos, 33% can afford 101- 150 pesos, and 3% 50 pesos or less. For the students majority can afford 51 – 100 pesos, 20% 101 – 150 pesos, and 3% 50 pesos or less.

The average price that the professionals can afford is 127 pesos, the non-professionals is 99 pesos, the students is 62 pesos and the average for all the respondents is 117 pesos. This shows that even among the students who have no income, they can afford to spend more than 50 pesos to buy a 750 ml. bottle of wine.



PRICE IN PESOS	PROFES- SIONAL		NON- PROF.		STUDENTS		ALL RES- PONDENTS	
	F	%	F	%	F	%	F	%
50 and below	1	3	1	3	1	3	3	
51 - 100	8	17	19	23	23	77	50	56
101 – 150	19	63	10	33	6	20	35	39
151 – 200	2	7	-	-	-	-	2	2
TOTAL	30	100	30	100	30	100	90	100
Average Price	P12	7.00	P99	9.00	P62	2.00	P11	7.00

Table 4. Price of wine that the consumers can afford

# Preference of Consumers Between Camote and Ube Wine

Table 5 presents the preferences of the different consumers between ube wine and camote wine. In terms of appearance 16 of the professionals prefer the ube wine and 14. The chisquare test revealed that the appearance of the two wine is not significantly different as seen by the professionals. For the non-professionals 16 prefer the appearance of the camote wine and 14 for the ube wine. However, there was no significant difference on the appearance among the non-professionals. But among the students the appearance of the camote wine is significantly different from the appearance of the ube wine.

In terms of taste there is no significant difference among the professionals and even among the non-professionals and the students. The same was true for the aroma. In terms of packaging there was a significant difference among the professionals and among the nonprofessionals but no significant difference among the students. Difference in the prices of camote wine and ube wine was highly significant among the professionals and students



and significant among the non-professionals. However, in terms of general acceptability, there was no significant difference between the two wines among the different groups of consumers. This finding implies that both wine are equally preferred by all the consumers in terms of the appearance, taste, aroma, and general acceptability. It is only their prices that are significantly different. Ube wine is significantly cheaper than camote wine.

ATTRIBUTES	PROFES- SIONAL		NON- PROF.		STUDENTS		ALL RES- PONDENTS	
	CW	UW	CW	UW	CW	UW	CW	UW
Appearance	14	16	16	14	20	10	50	39
Taste	12	18	19	15	17	13	48	46
Aroma	12	18	10	19	14	16	36	53
Packaging	20	9	20	9	19	12	59	30
Price	5	25	10	19	6	24	21	68
General appearance	12	18	15	14	16	14	43	46

Table 5. Preference distribution of consumers between camote and ube wine base on their attributes

		Chi-square values	S	
_	Professionals	Non-professionals	Students	
Appearance	.267 <sup>ns</sup>	1.669 <sup>ns</sup>	5.455*	
_				
Taste	$2.400^{ns}$	$.000^{ns}$	.601 <sup>ns</sup>	
A #0m0	1.669 <sup>ns</sup>	3.270 <sup>ns</sup>	.067 <sup>ns</sup>	
Aroma	1.009	5.270	.007	
Packaging	6.696**	8.076**	1.669 <sup>ns</sup>	
r uonuging	0.070	0.070	11007	
Price	24.093**	5.400*	11.380**	
General appearance	$2.400^{ns}$	.601 <sup>ns</sup>	.067 <sup>ns</sup>	



# Factors Affecting the Preference of Consumers on Wine

Table 6 presents the ranking of the respondents on the factors that affect their preferences on wine. Base on the weighted mean of the rankings made by the respondents, appearance of the wine was ranked 2 by the professionals, and the students and 4 by the nonprofessionals. For taste as a factor, it was ranked 1 by all the three groups of respondents. Price was ranked 5 by the professionals, 2 by the non-professionals and 3 by the students. Aroma was ranked 3 by both the professionals and non-professionals and 4 by the students. Packaging was ranked 4 by the professionals and 5 by both the non-professionals and students. The source or manufacturer of the wine was ranked 6 by all the three groups of respondents and availability of the product in the market was ranked 7 by all the three groups of respondents.

The ranking by all the respondents of the factors from the most important to the least important is as follows: taste, appearance, aroma, price, packaging, manufacturer, and product availability.

PARTICULARS	PROF SIONA		NON-I	PROF	STUDE	ENT	AL REPONI	
	WM	R	WM	R	WM	R	WM	R
Appearance	3.33	2	3.93	4	3.53	2	10.79	2
Taste	2.36	1	1.53	1	2.53	1	6.42	1
Price	4.26	5	3.06	2	3.8	3	11.12	4
Aroma	3.7	3	3.43	3	3.93	4	11.06	3
Packaging	3.75	4	4.3	5	4.03	5	12.08	5
Processors	4.76	6	5.8	6	5.03	6	15.60	6
Availability	5.76	7	6.06	7	5.83	7	17.65	7

Table 6. Weighted mean on the ranking of the factors influencing preferences of the respondent on a certain kind of wine



# Level of Acceptability of Camote Wine and Ube Wine

Table 7 shows that level of acceptability of the two wines in terms of the different product attributes. The respondents were asked to rate the attributes using a scale of 1 to 5. In terms of appearance, 1 stands for ruby red or a dark color and 5 for colorless. For taste 1 stands for dry and 5 for sweet. For aroma/scent 1 stands for aromatic or pleasant smell to no odor. For clarity, 1 means very clear and 5 means murky and for alcohol content 1 stands for 14%, 2 for 13%, 3 for 12%, 4 for 11%, and 5 for 10%. Findings reveal that there are no significant difference in the level of acceptability between the comote wine and the ube wine in terms of their appearance, taste, aroma, clarity, and alcohol content. This implies that both the comote wine and the ube wine have the same level of acceptability to the consumers. In terms of appearance, the consumers accept both wines that are not so red and not so light. The taste is not so sweet and not so dry. The aroma should not be odorless and not so aromatic and as to clarity the wines should be in between murky and very clear. The alcohol content of both wine should be between 11% and 12%.

	PRO	PROFES- NON-				ALL	RES-	
ATTRIBUTES	SIOI	NAL	PR	OF.	STUD	ENTS	PONDENTS	
	CW	UW	CW	UW	CW	UW	CW	UW
Appearance	2.67	2.30	2.77	2.70	3.03	3.10	2.81	2.70
Taste	2.83	2.87	3.00	2.80	3.33	3.03	3.06	2.90
Aroma	2.43	2.60	2.97	2.80	3.03	2.97	2.81	2.79
Clarity	2.57	2.73	3.07	2.63	3.23	3.60	2.96	2.99
Alcohol content	3.03	2.80	3.03	3.07	3.33	3.43	3.20	3.08

Table 7. Level of acceptability of consumers of the camote wine and ube wine base on product attributes



Table 7. Continued ...

		T- VALUES								
ATTRIBUTES	Professional	Non-	Students	All						
		Professional		Respondents						
Appearance	-1.217 <sup>ns</sup>	268 <sup>ns</sup>	.229 <sup>ns</sup>	695 <sup>ns</sup>						
Taste	.101 <sup>ns</sup>	862 <sup>ns</sup>	-1.166 <sup>ns</sup>	973 <sup>ns</sup>						
Aroma	.642 <sup>ns</sup>	636 <sup>ns</sup>	278 <sup>ns</sup>	150 <sup>ns</sup>						
Clarity	.715 <sup>ns</sup>	-1.953 <sup>ns</sup>	1.521 <sup>ns</sup>	.232 <sup>ns</sup>						
Alcohol content	-1.116 <sup>ns</sup>	748 <sup>ns</sup>	.394 <sup>ns</sup>	837 <sup>ns</sup>						



#### SUMMARY, CONCLUSSIONS AND RECOMMENDATIONS

### Summary

This study was conducted to find out and compare the acceptability of camote wine and ube wine in terms of their different attributes. The panelist evaluated the wine as to appearance, taste, aroma, packaging, price and general acceptability.

The data was gathered through the use of questionnaires issued to the respondents.

Sensory evaluation was employed to determine the sensory characteristics and consumers acceptability of the product. There were 90 respondents categorized as: Professional, Non-professional, and student, the product taste evaluation was conducted at Benguet State University during the CA week, and at the municipal gymnasium, La Trinidad Benguet.

Results of the study shows that majority of the respondents belonged to the age bracket of 15-35 years old. Most of the professionals were male while there was an equal distribution between male and female for non-professionals. Majority of the students were female. Majority of the professionals were married while majority of the non-professionals were single. All the professionals reached the college level and likewise for majority of the non-professionals were government employees while for the non-professional majority were housekeeper. Majority of the respondents had an income per month of P10,000 and below. Their reasons for buying wine were the following: it has health benefit, cheaper than the imported wine and because of their attractive packaging. The ethnic design for the packaging was preferred by most of the respondents. As to affordability of the ube and camote wine, it was found that professional could afford an average price of P127 for the 750 ml. bottle,



P99 for the non-professionals, and P62 for the students. The finding reveals that except for the packaging and the prices of camote and ube wine, there were no significant difference on the preferences of consumers between camote wine and ube wine in terms of appearance, taste, aroma and the general appearance. For the factors influencing the preference of consumers to buy wine, they considered the taste and the appearance as the most important factors. The manufacturer and product availability were the least factor they consider in preferring a kind of wine. As to the level of acceptability between the camote wine and the ube wine, there was no significant difference as to their appearance, taste, aroma, clarity, and alcohol content. Consumers equally accept both wines in terms of the above attributes.

### Conclusions

Based on the findings of the study the following conclusions are derived:

1. When buying wine, consumers consider first and foremost its health benefit before its price.

2. Generally, both the camote wine and the ube wine are liked/accepted by the consumers in terms of their appearance, taste, aroma, packaging, and general acceptability while in terms of price they prefer the ube wine.

# **Recommendations**

In the light of the findings and conclusions of the study the following recommendation are presented:



1. Processing of both camote wine and ube wine could be promoted since both are accepted by the consumers. However, it is also recommended that feasibility study should be done to verify their profitability.

2. The product processors should continue improving or making innovation on the product to make it more desirable to the consumers, especially the purity of the products to give health benefits to the drinkers.

3. It is important for processors of ube and camote wine product to include their labels, product information such as ingredients, nutrition information, alcohol content, BFAD certification and number, processors and others. This is vital for small enterprises whose products and brand are not yet known in the market.

4. Small-scale ube wine and camote wine processors may find it costly to established their own brand and label. A municipal or provincial "Seal of Quality" may be explored where the local government unit in partnership with concerned line agencies and processors who would comply with set standards. This strategy is being done in many provinces to promote their specialty products.



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