

**MAKERERE UNIVERSITY**

**COLLEGE OF ENVIRONMENTAL AND AGRICULTURAL SCIENCES**

**SCHOOL OF AGRICULTURAL SCIENCES**

**DEPARTMENT OF AGRIBUSINESS AND NATURAL RESOURCE ECONOMICS**

**CONSUMER DEMAND AND PREFERENCES OF PINEAPPLE JUICE IN MARKETS  
OF KAMPALA CITY. A CASE OF KALERWE AND NAKAWA MARKETS**

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**A RESEARCH REPORT SUBMITTED TO MAKERERE UNIVERSITY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF  
AGRIBUSINESS MANAGEMENT OF MAKERERE UNIVERSITY**

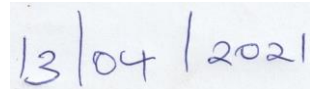
**FEBRUARY, 2021**

## DECLARATION

I, **Talemwa Patience** declare that the information presented in this research report is a result of my own effort and has not been published or submitted for award of any other degree. Were other information is used, due acknowledgement has been made.



Sign.....



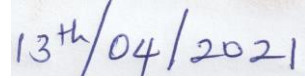
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## APPROVAL

This is to certify that this research report was under my supervision as the academic supervisor and is now due for submission with my due approval.



Sign.....



Date.....

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## **ACKNOWLEDGEMENT**

This research report is lovingly dedicated to my parents and other family members who have been my constant source of inspiration. They have given me the drive and discipline to tackle my task with enthusiasm and determination. I thank the almighty God for enabling me come this far with my education, for his protection, love, knowledge and always leading me through the right path as I flow in his footsteps.

I would like to send my sincere gratitude to my academic supervisor Dr. Alex Tatwangire for guidance, support and encouragement as I carried out my research study. I would like to appreciate the MasterCard foundation scholars program at Makerere University for the support and guidance rendered to me during the research process.

## **DEDICATION**

With great honor, gratitude and bliss, I dedicate this work to my beloved family members, relatives, friends and parents for their tireless love, support and care that they have shown me right from the inception of my academic career till this level, may the Almighty Lord bless you endlessly. Furthermore, I extend my pleasure to my classmates, lecturers and all the staffs in the faculty of Agribusiness and Natural Resource Economics.

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## ABSTRACT

Pineapple (*Ananas comosus*) is a tropical fruit with exceptional juiciness, vibrant tropical flavors and immense health benefits. Most countries produce the fruit primarily for fresh fruit markets and the processing industry where it can be utilized for making pineapple juice. Due to the short shelf life of the fruit, most traders have resorted to making of pineapple juice. This study therefore sought to assess consumer demand and preferences of pineapple juice, a case of markets in Kampala city. The study specifically characterized pineapple juice preference and consumption and also assessed the determinants for demand for pineapple juice. The study was a survey and it adopted a cross-sectional study design with quantitative and qualitative data collection and analysis methods. The study was conducted in 2 purposively selected markets in Kampala city. The target populations were pineapple juice traders and pineapple juice consumers in the selected market centers. The researcher randomly selected 40 pineapple juice traders. From each of the traders selected, 3 consumers were then generated randomly making a total of 120 pineapple juice consumers. Data was collected with the aid of questionnaires that comprised of both open and closed ended questions. The information collected was coded and analyzed using statistical package for social scientists. Descriptive statistics were used for objective one while for the second objective, regression analysis was carried out. The study found out that most of the pineapple juice consumers in Kalerwe (73.3%) and Nakawa (71.7%) markets were females. A similar trend was observed among traders were the majority in Nakawa (65%) and Kalerwe (70%) were they were females. Atleast half of the consumers (50% and 50% respectively) did consume pineapple juice on a daily. In Kalerwe market, 31.7% of the consumers consumed between 0-3 litres monthly while in Nakawa, the majority (31.7%) consumed atleast between 4-6 litres per month. The study further realized that most consumers in Kalerwe (51.7%) would consume pineapple juice during lunchtime while those within Nakawa markets (51.7%) had no specific time of consumption of pineapple juice. The results also showed that in both markets (Kalerwe and Nakawa), demand for pineapple juice is positively influenced by the lifestyle (Beta = .000), health (Beta = .038), habit (Beta = .034) and also thirst (Beta = .100). Basing on the findings of the study, it was herein recommended that further studies along the same field be embarked on but with a widened geographical coverage and sample size for a more valid generalized conclusion to be drawn.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background

Pineapple (*Ananas comosus*) is a tropical fruit with exceptional juiciness, vibrant tropical flavours and immense health benefits. Mature fruit contains sugar, a protein digesting enzyme bromelin, citric acid, malic acid, vitamin A and B (Joy, 2010). It can be used as supplementary nutritional fruit for good health with an excellent source of vitamins and minerals and contains considerable calcium, potassium, fibre, and vitamin C. The origin of pineapple has been traced to Brazil and Paraguay in the Amazon basin where the fruit was first domesticated (Hossain, 2016). According to the researcher, worldwide production started by 15th century. Pineapple was distributed in Europe and the tropical regions of the world. The most spread variety is Smooth Cayenne (*Cayena lisa*), which was first introduced in Europe from French Guyana. Pineapple production is concentrated in the tropical regions of the world. It is grown in over 82 countries with over 2.1 million acres under the fruit. World pineapple production was 23.33 million metric tons in 2012 and showed gradually increasing trends from 2002 to 2012 (Hossain, 2016). The five leading pineapple producing countries are Costa Rica, Brazil, Philippines, Thailand and Indonesia (FAO STAT, 2013). Nigeria is ranked 7th on the list for world pineapple production as well as the leading producer in Africa with an estimated production of about 1.4 million metric tonnes (Akhilomen et al.; 2015).

Pineapples may be cultivated from a crown cutting of the fruit, possibly flowering in 20-24 months and fruiting in the following six months. According to Hossain (2016), a green pineapple fruit should be stored at a temperature of 10°C and a relative humidity of 85- 95%. Under these conditions, the fruit should have a storage life of two to three weeks. This fruit is highly perishable and seasonal. Most countries produce the fruit primarily for fresh fruit markets and the processing industry and it can increase national income through the expansion of local industries and higher incomes for farmers involved in its production (Kayitesi, 2011). In the Philippines, the fermented pulp is made into a popular sweetmeat called “nata de pina” while in In Africa, young, tender shoots are eaten in salads (Hossain, 2016). A large number of value-added products like, pineapple juice, jam, jelly mixed jam, etc. can be produced from it, which will provide remunerative prices to the farming community and will also generate employment for rural people (Das et al., 2016).

Pineapple juice is largely consumed around the world, mostly as a canning industry byproduct, in the form of single strength, reconstituted or concentrated and in the blend composition to obtain new flavors in beverages and other products (Hossain and Abdulla, 2015).

Recent studies by Elepu (2018), show that processed fruit juice is a heterogeneous product consisting of many objective and hidden quality attributes, such as freshness, taste, flavour, texture, shelf life, packaging material, brand, and origin, which influences its price. Using revealed preference methods, previous studies have shown nutrition, packaging, brand, and origin of processed fruit juice influence its market price or the price consumer's demand. Based on the purpose, pineapple as one of agricultural products needs more attention, either in terms of its quantity or marketing system. An increased product without a good support from the marketing system cannot last for long, and can reduce the motivation of farmers to increase their production (Yusi, 2016). Thus, the study emphasized more on pineapple juice as the research explored consumer preferences and demands for pineapple juice within selected markets in Kampala city (Nakawa and Kalerwe markets).

## **1.2 Statement of the problem**

Rationally, pineapples are one of the fruit that contains high nutrients which needed by human health as it bring multiple benefits to the human body (Othman et al., 2017). Pineapples are commonly consumed fresh; however, the marketing of fresh pineapple poses a serious problem due to its high perishability. According to Das et al., (2016), the major part of loss (1.4%) occurs during transportation of raw fruits and for ripened fruits, it is 13 per cent which occurs in wholesalers' store. Due to this trend, a number of traders have resorted to making of pineapple juice in a bid to maximize sales and also make more profits. However, not much is known about the likely consumer demands and the profits that may accrue from sale of pineapple juice. This study therefore attempted to explore the evidence of demand for pineapple juice and how it can be further improved.

## **1.3 General objective**

To assess consumers demand and preferences of pineapple juice in Kampala city, a case of Kalerwe and Nakawa markets.

### 1.3.1 Specific objectives

- i). To characterize pineapple juice preference and consumption in Nakawa and Kalerwe markets
- ii). To assess the determinants for demand for pineapple juice in Nakawa and Kalerwe markets.

### 1.3.2 Research questions

1. How pineapple juice demand and preference characterized?
2. What is the level of demand for pineapple juice?
3. What are the key determinants of demand for pineapple juice?

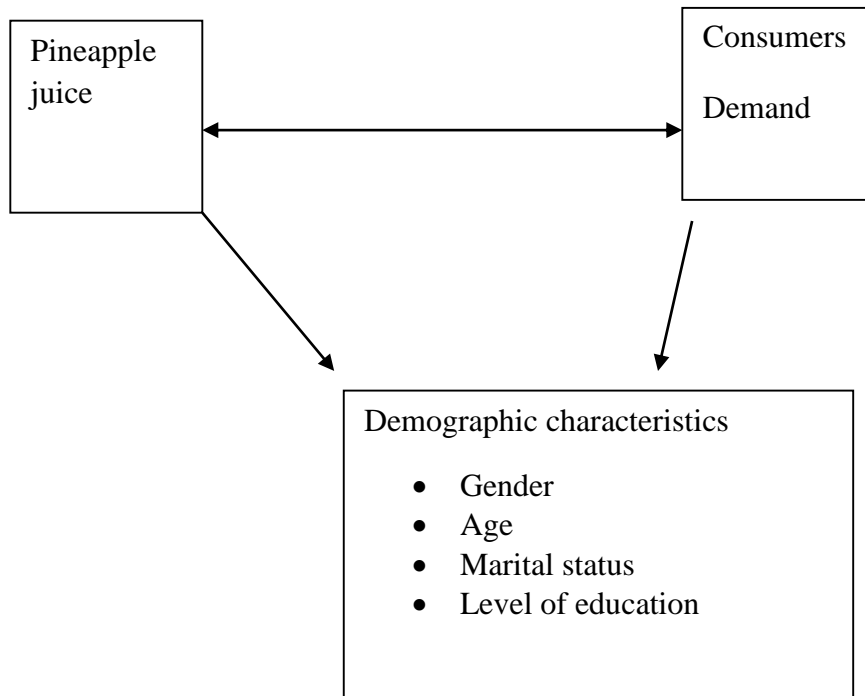
### 1.4 Justification of the study

To create awareness amongst pineapple juice consumers in Kampala city about the health benefits of consuming pineapple juice hence, enhancing dietary benefit for human health. Result dissemination from this study will enrich the reference base needed by partners seeking to improve community nutrition as well as supporting further research initiatives to improve fruit juice consumption.

### 1.5 Conceptual frame work

#### Independent variables

#### dependent variables



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

This chapter involves a critical review of existing works on the variables that is to say what the different authors have talked about demand and preference of pineapple juice. The literature review will be carried out from the text book, newspaper, government journals, magazines and the internet.

### **2.1 Production**

According to FAO statistics (2014), the pineapple is the eleventh most cultivated fruit, with just over 24.8 million tonnes produced in 2013. World's production is climbing steadily and has risen by more than 8 million tonnes between 2000 and 2013. The top ten pineapple producing countries are; Thailand (2,650,000 tons) Costa Rica (2,484,729) Brazil (2,478,178) Philippines (2,397,628) Indonesia (1,780,889) India (1,456,000) Nigeria (1 420 000) China (1 000 000) Mexico (759,976) and Colombia (551,133).

### **2.3 World trade of fresh pineapple**

Globally, Costa Rica stands out by virtue of its specialization as the largest exporter of pineapples (UNCTAD, 2016). The world number two producer is the leading exporter country since it sells nearly all of its production fresh, with the remaining aimed at the juice industry. Conversely, the Philippines only exports approximately 20 % of its production fresh, while the remaining 80% is mainly aimed at processing. Mexico is in a similar situation, though for considerably lower quantities. This means that the main producer countries, apart from Costa Rica, send their production for local consumption, and above all processing.

The monthly exports from Costa Rica, by far the predominant source in terms of supply to the European Union, the United States and Japan, remain fairly stable due to the schedulability of production with quantities of around 150 000 tonnes/month. According to UNCTAD (2016), World production is able to meet further growth in fresh pineapple demand, since only 12 to 13 % of the production is exported. The main limiting factor however remains the price for potential consumers counterbalanced by the revenue for producers/exporters.

## **2.4 Products and uses of pineapples**

A large number of value-added products can be produced from pineapples, which can help provide remunerative prices to the farming community and will also generate employment for people. According to Das et al., (2016), three types of processed products are mainly prepared from pineapple, and these are (a) juice or concentrates, (b) jam, and (c) tit-bits/canned pineapple. However, some of these include;

### **2.4.1 Pineapple Juice**

Pineapple juice is largely consumed around the world, mostly as a canning industry byproduct, in the form of single strength, reconstituted or concentrated and in the blend composition to obtain new flavors in beverages and other products (Debnath et al., 2012). It is a common practice to blend batches of juices to attain proper acidity and sensory qualities. Juices from other fruits can be blended with pineapples and interesting mixtures make novel products. A major observation in Uganda is that to many actors along the pineapple value chain, the pineapple pulp left after extraction of pineapple juice and wine is never put to any beneficial use, yet this pulp is rich in digestive fiber, which is essential for human health (Dhingra et al., 2012).

### **2.4.2 Crushed pineapple**

To prepare crushed pineapple, shredded pineapple is first pumped into steam jacketed kettles and heated to 90°C. To ensure optimum consistency of the product some of the juice is drained away. Sufficient heavy sucrose syrup (230-350B) is added to the product if it is to be sweetened. The hot mixture is automatically packed into cans, sealed after giving a short heat processing to ensure quality and finally cooled (Sarkar et al., 2018)

### **2.4.3 Pineapple Wine**

Wine is an alcoholic beverage typically made of fermented fruit juice. Any fruit with good proportion of sugar may be used in producing wine and the resultant wine is normally named after the fruit. The type of wine to be produced dictates the fruit and strain of yeast to be involved (Prakitchaiwattana et al., 2017).

#### **2.4.4 Frozen pineapple**

Rectangular chunks of pineapple are used to prepare frozen pineapple. The slices can be kept well in syrup of 250-490B for 1 year but forms a stale taste. Ascorbic acid may be added to stabilize the flavor in this case. Smooth Cayenne variety is mainly used for freezing application.

#### **2.4.5 Medicine**

In addition to its nourishing uses, pineapple has long served medical purposes in folk medicine. It is used to arouse appetite, is effective as a diuretic, contraceptive and in the expulsion of intestinal worms. It has been used to prevent ulcers, enhance fat excretion, among many other uses. Pineapple is the source of the proteolytic enzyme bromelain which is used in commercial meat tenderizers (Hossain, 2016).

#### **2.4.6 Dried pineapple**

In this product, most of the free water of the fruit is eliminated. Usually, chunks or slices are prepared for better presentation and make handling easier. Final moisture is near 5%, and this allows the dried fruit to have a long shelf life as long as proper packing is provided and storage is done in a fresh place.

#### **2.4.7 Animal feeds**

The outer peel or skin and core from the pineapple canning industries, called bran, and the leaves are being utilized as feed for ruminants. Cattle preferred fermented pineapple waste with higher acidity to fresh waste and pineapple waste from the field or from the cannery are being used as dairy feed. Dried and ensiled pineapple waste can be used as supplemental roughage and could replace 50% roughage in the total mixed ration for dairy cattle (Hossain and Bepary, 2015).

### **2.5 Consumer demand and Preferences**

There are various definitions of consumer demand across researchers. According to Othman et al., (2017), consumer demand includes emotional mental activity, physical and emotional that people use during selection, purchase, use and dispose of products and services that satisfy needs and desires. Each person has a different thought, feeling, perception and decision when purchasing a product, because they have different needs and wants. Abbasi and Torkamani (2010) also supported this view, pointing to the fact that each individual has different needs and preferences



so their behavior will be different and consequently make consumer's behavior more complex. Consumer demand and preference can be influenced by a number of factors that include;

### **2.5.1 Labelling**

The objective of nutritional labelling will give consumers with information which may affect the consumer buying choices as a mechanism to help consumer to make an informed choice. Label can raise consumer's awareness and increase product transparency because it provides additional information about benefit of product.

### **2.5.2 Subjective norms**

The predictor social factor termed subjective norm is the perceived social pressure to comply with expectations about engaging the behavior which should influence the individual's intention to perform or not the behavior. According to Cheng et al., (2011), the study of subjective norms has been applied in counterfeits study, where the results indicated that subjective norms exert the greatest impact on customer intention to purchase counterfeits.

### **2.5.3 Prior Knowledge**

Consumers decide whether to buy or not based on three main aspects: knowledge, attitude, and intention. Consumers' knowledge is a construct that affects how and what consumers decide to buy. People's knowledge is affected by the type and quality of information made available to consumers (Aryal et al, 2009).

### **2.5.4 Perceive Value**

In previous studies by Othman et al., (2017), it has been uttered that consumers are willing to purchase pineapple products especially in canned pineapple if the price offered is affordable. Therefore, the consumer will make an assumption based on their evaluations or perceptions towards the product before purchasing. Thus, each consumer will have different assumption and perception based on what they believed and information from other users or the companies offer through marketing tools.

### **2.5.5 Consumer's Lifestyle**

According to Hung (2009) lifestyle usually reflects a person's attitudes, values or view of life, and describes their consumer's preferences. By the same view, lifestyle relates to the economic level at which people live, how they spend their money, and how they allocate their time. In generally,

“Lifestyle” is the way of an individual life, but in marketing definition it describes the behaviour of individuals, a small group of interacting people, and large groups of people acting as potential consumers. Thus, in this study consumer more likely to be influenced by their lifestyle when making a purchase decision towards canned pineapple products.

## **CHAPTER THREE: METHODOLOGY**

### **3.0 Introduction**

This chapter focuses on the methodology that the researcher used when conducting the study. It describes the research design, the sample population, sample size techniques, strategies of sample selection and data collection. The chapter also describes the data collection methods and tools. The chapter further shows how data presentation and analysis will be tackled.

### **3.1 Research Design**

The study was a survey and it adopted a cross-sectional study design with quantitative and qualitative data collection and analysis methods. The design is one of the important aspects in that it is cheaper since it looks at the problem at a particular time with no need for follow up. The study design also saves time. Quantitative paradigm involved the use of questionnaires with dummy and close ended questions. This method was used because it is more reliable and objective while qualitative methods involved the use of key informant interviews.

### **3.2 Study area**

The study was conducted in selected markets in Kampala city. These include Nakawa market and Kalerwe market since they are situated and a business Centre for most pineapple juice traders.

Nakawa Market is located along the Kampala–Jinja Highway, in the neighborhood of Nakawa, in Kampala's Nakawa division, approximately 5 kilometers (3 mi), by road, east of the central business district of the city.

Kalerwe market is located on Gayaza road near the northern by-pass about 5 kilometers from Kampala city center. It is managed by the Kampala capital city authority (KCCA). The study was carried out from December 2020 to March, 2021.

### **3.3 Study Population**

The target population were the pineapple juice traders and pineapple juice consumers in the selected market centers. These included 40 traders in the selected markets and 120 pineapple juice consumers. These helped to provide the required information to satisfy the main objective of this study.

### **3.4 Sample size and Selection**

The researcher randomly selected 2 markets in Kampala city from which a random sample of 40 traders was obtained. From each of the traders selected, 3 consumers were generated randomly making a total of 120 pineapple juice consumers.

The sample population was obtained using Yamane's formula. This is a simplified formula for calculation of sample size from a population which is an alternative to Cochran's formula (Mugenda, 2003). According to this formula, for a 95% confidence level and  $e=0.05$ , size of the sample should be; -

$$n = \frac{N}{1+N(e^2)} \text{ (Where N is the population and e is the margin error or maximum variability).}$$

Therefore; for this case, the researcher obtained data from a sample of 160 respondents, 40 of whom were pineapple juice traders and 120 were the pineapple juice consumers.

### **3.5 Sampling techniques**

The research used purposive and simple random sampling techniques. Purposive sampling was used to select the pineapple traders in the selected markets. The researcher used simple random sampling to select pineapple juice consumers through a referral from the pineapple traders. For each of the trader, the researcher randomly selected at least 3 consumers

### **3.6 Data type and source**

The study will use both primary and secondary data in fulfilling the objectives;

#### **3.6.1 Primary data**

Primary data is that kind of data that has been gathered for the first time, it has never been reported anywhere. Primary data was obtained from pineapple traders and consumers who will be issued with questionnaires and also through observation.

#### **3.6.2 Secondary data**

Secondary data is that kind of data that is available, already reported by some other scholars. Secondary data was obtained from relevant research reports, journals, articles and media information. This helped supplement data to be obtained at primarily for a concrete fact.

### **3.7 Methods of data collection**

In this study the researcher used questionnaires and interview guides to aid in the data collection process.

#### **3.7.1 Questionnaires**

This is an important method of data collection as per summations by Hoards (2017) who revealed that a questionnaire is justifiable in data collection mainly because, it enables the researcher to collect large amount of data within a short time period, it also provides opportunity for respondents to give frank anonymous answers. Such similar questionnaires were designed for the respondents. They included questions rated on a five-point Likert scale, dummy and structured questions that were answered to obtain quantitative data. The questionnaires were used because they are cheap and don't require much effort relative to telephone surveys.

#### **3.7.2 Interview Guides**

Semi structured interview guides were used to obtain the views of the respondents who were found unable to read and write as a way to obtain qualitative data. This method was used in order to attain detailed information regarding the topic of study since the respondents could not be able to give their views.

### **3.8 Data validation and entry**

The researcher validated the data through editing in case of spelling errors and other mistakes in the data, coding it and then entering it into an appropriate statistical package (SPSS) for analysis.

### **3.9 Data Quality Control**

This validated and check on the reliability of data instruments which was used during the study.

#### **3.9.1 Reliability**

The researcher conducted a reliability test of the instrument using test retest method where by the questionnaires will be distributed to different groups of people at different points of time to test whether the same information can be provided (Polit and Beck, 2004).

#### **3.9.2 Validity**

According to Mugenda & Mugenda (2008), the usual procedure in assessing the content validity of a measure is to use a professional expert in a particular field. After designing the instruments

for data collection, the researcher contacted the supervisor to test whether the questions in the questionnaire were valid and reliable for the study variables as well as objectives.

### **3.10 Data processing**

After collection of data, editing was done to ensure accuracy and completeness. Editing was done to find out how well the answered questionnaires are in line with consideration to questions and responses from interview guide that were answered by the study respondents. Coding involved assigning numbers to similar questions from which answers gave unique looks to make the work easier. Data processing involved sorting, coding, classifying and tabulating the collected data so that they are ready for analysis.

### **3.11 Data analysis**

The data obtained from the field findings was analyzed qualitatively and quantitatively. For the first object that seeks to characterize the demand and preference for pineapple juice, the researcher used descriptive statistics to analyze the data. However, for the second objective, the researcher analyzed the data collected using multiple regressions.

#### **3.11.1 Data presentation**

Data was organized and presented in tables, graphs or charts, so that logical and statistical conclusions can easily be derived from the collected measurements. The tables were accompanied by short explanations to make the matter clearer and understandable.

### **3.12 Ethical Considerations**

The research tools was submitted to the Faculty for review and approval. Permission to proceed with data collection was sought from the Faculty and at the same time an introductory letter was obtained from the same department. During the data collection, the respondents were assured that the study was for academic purpose only. Therefore, responses from respondents were kept with utmost confidentiality. The researcher thus paid close attention to ethical matters guiding the research study.

### **3.13 Limitations and delimitations of the study**

Some participants were not willing to participate, especially those who had doubts about the study purpose and this was solved by providing full explanation of the purpose of the study.

The researcher also faced financial constraints that somewhat constrained travelling and printing of research materials. This was however condensed by lobbying for financial support from parents, friends and other close relatives.

It was also be hard to get all the participants at a single time. This caused delays in completion of the research. This was addressed by organizing prior meetings with the participants so that they weren't caught by surprise.

## CHAPTER FOUR: RESULTS

### 4.0 Introduction

This chapter displays the findings of the study on consumer demand and preferences of pineapple juice, a case of markets in Kampala city. The results were presented in tabular form backed up with pictures taken during the course of the experiment.

### 4.1 Demographic characteristics of Respondents

This study captured the demographic characteristics of the respondents that included age, marital status, gender and education level as in Table 1 below.

**Table 1. Demographic characteristics of Respondents**

	CONSUMERS (N=120)				TRADERS (N= 40)			
	KALERWE		NAKAWA		KALERWE		NAKAWA	
<b>Gender</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>
Male	16	26.7	17	28.3	6	30	7	35
Female	44	73.3	43	71.7	14	70	13	65
<b>Age (Years)</b>								
20-29	9	15	11	18.3	6	30	8	40
30-39	30	60	30	50	14	70	12	60
40-49	21	35	19	31.7	0	0	0	0
<b>Marital Status</b>								
Married	34	56.7	30	50	11	55	15	75
Not married	21	35	27	45	4	20	4	20
Divorced	5	8.3	3	5	5	25	1	5
<b>Education</b>								
None	0	0	0	0	2	10	6	30
Primary	18	30	12	20	3	15	2	10
Secondary	10	16.7	11	18.3	7	35	3	15
Diploma	12	20	16	26.7	0	0	0	0
Degree	20	13.3	21	35	8	40	9	45



The study shows that most of the pineapple juice consumers in Kalerwe (73.3%) and Nakawa (71.7%) markets were females. A similar trend was observed among traders where the majority in Nakawa (65%) and Kalerwe (70%) were also females. The study also showed that pineapple juice is consumed by people of all age ranges though the majority in Nakawa (50%) and Kalerwe (60%) were between 30-39 years. Meanwhile trading of pineapple juice was actively done by 70% (Kalerwe) and 60% (Nakawa) of people between 30-39 years. Given the age ranges, it is undisputed that the study found many of the consumers of pineapple juice in Kalerwe and Nakawa (56.7 and 50% respectively) and the traders (55 and 75%) to be married.

As regards the education level, the study established that pineapple juice was consumed by people of numerous education levels within the two markets of Kalerwe and Nakawa. These included; primary (30 and 20%), secondary (16.7 and 18.3%), diploma (20 and 26.7%) and degree (13.3 and 30%) respectively. Meanwhile the trading of pineapple juice was mostly done by people who have attained up to degree level of education in Nakawa (45%) and Kalerwe markets (40%) respectively.

#### **4.2 characterize pineapple juice preference and consumption in Nakawa and Kalerwe markets**

This study similarly sought to characterize pineapple juice preference and consumption in Nakawa and Kalerwe markets. The findings were presented as in the Table below.

**Table 2. Characterized pineapple juice preference and consumption**

<b>Time of consumption</b>	<b>KALERWE MARKET</b>		<b>NAKAWA MARKET</b>	
	<b>(N = 60)</b>		<b>(N = 60)</b>	
	f	%	f	%
Daily	30	50	30	50
Once a week	20	33.3	20	33.3
Twice a week	10	16.7	10	16.7
<b>Monthly consumption</b>				
0-3	19	31.7	21	35
4-6	21	35	19	31.7
7-9	9	15	11	18.3
10 litres and above	11	18.3	9	15

<b>Preferred Consumption</b>				
½ litre	40	66.7	40	66.7
1 litre	9	15	11	18.3
More than a litre	11	18.3	9	15
<b>Time of consumption</b>				
Lunch	31	51.7	29	48.3
No specific time	29	48.3	31	51.7
<b>Satisfaction with taste</b>				
Yes	49	81.7	51	85
No	11	18.3	9	15
<b>Reason for dissatisfaction</b>				
Little sugar in the juice	11	18.3	9	15
<b>Price Satisfaction</b>				
Yes	60	100	60	100
No	0	0	0	0

Findings of the study showed that in both Kalerwe and Nakawa markets, atleast half of the consumers (50% and 50% respectively) did consume pineapple juice on a daily basis though some for example in Kalerwe market consumed the same juice atleast once a week (33.3) and other twice a week (16.7%). When asked how much they consumed in a month, responses garnered showed that in Kalerwe market, 31.7% of the consumers consumed between 0-3 litres monthly while in Nakawa, the majority (31.7%) consumed atleast between 4-6 litres per month. However, it was realized that most consumers prefer to buy ½ litre of pineapple juice in both Kalerwe (66.7%) and Nakawa markets (66.7%) respectively.

The study further realized that most consumers in Kalerwe (51.7%) would consume pineapple juice during lunchtime while those within Nakawa markets (51.7%) had no specific time of consumption of pineapple juice. In relation to the taste, most consumers in Kalerwe (81.7%) and in Nakawa (85%) were satisfied with the taste of pineapple juice. Those who weren't satisfied with the taste with Kalerwe and Nakawa markets (18.3 and 15%) complained of little sugar added to

the juice. However, all the consumers in the two markets had no queries as regards the price of pineapple juice (Table 2).

### 4.3 Determinants of demand for Pineapple Juice

The study analyzed the different determinants of demand for pineapple juice I Kalerwe and Nakawa markets. The results were displayed in the Tables 3.

#### 4.3.1 Monthly Expenditure on pineapple Juice

The monthly expenditure on pineapple juice was rolled out on Table 3 below.

**Table 3. Monthly Expenditure on Pineapple Juice**

<b>Expenditure per month</b>	<b>Frequency (N = 120)</b>	<b>Percentage (%)</b>
10,000	20	16.7
20,000	40	33.3
30,000	20	16.7
50,000	20	16.7
60,000	20	16.7

Basing on the results (Table 3 above), close to half of the consumers of pineapple juice in Kalerwe and Nakawa markets (40%) spent atleast 20,000 UGX per month on pineapple juice while a similar partition of 16.7% equally spent 10,000, 30,000, 50,000 and 60,000 UGX respectively.

#### 4.3.2 Determinants of demand for pineapple juice regressed against the Markets

The determinants of demand for pineapple juice were regressed against the markets and the results were presented as below;

Table 4. Determinants of demand for pineapple juice regressed against the Markets

<b>Model</b>	<b>Unstandardized Coefficients</b>	<b>Standardized Coefficients</b>
--------------	------------------------------------	----------------------------------

	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
(Constant)	1.300	.457		2.843	.005
Availability	-.025	.268	-.024	-.093	.926
Lifestyle	-1.000E -17	.162	.000	.000	1.000
Health	.025	.081	.038	.309	.758
Habit	.025	.081	.034	.309	.758
Thirst	.100	.198	.100	.505	.615

**Model summary**

df = 5

p = .979<sup>a</sup>

R = .082<sup>a</sup>

R Square = .007

R-Square (adj) = -.037

a. Predictors: (Constant), Thirst, Lifestyle, Health, Habit, Availability

b. Dependent Variable: Market

Reduced Regression Equation:

Y demand for pineapple juice = 1.300 - .024 (availability of pineapple juice) + 0.000 (Lifestyle) + 0.038 (health) + .034 (habit) + .100 (thirst)

The study result shows that in both markets (Kalerwe and Nakawa), demand for pineapple juice is not influenced by availability of the juice. However, the demand for pineapple juice was seen to be positively influenced by lifestyle (Beta = .000), health (Beta = .038), habit (Beta = .034) and also thirst (Beta = .100).

## **CHAPTER FIVE: DISCUSSIONS**

### **5.1 Introduction**

This chapter expounds on the findings of the study which sought to characterize pineapple juice preference and consumption and also assessed the determinants for demand for pineapple juice. The findings are backed up with relevant literature gathered from recent articles, journals and also reports as herein cited.

### **5.2 Demographic characteristics of respondents**

Demographic results have it that 73.3% of consumers in Kalerwe and 71.7% in Nakawa markets were females. A similar trend was observed among traders where the majority in Nakawa (65%) and Kalerwe (70%) were also females. This could be because women are highly involved when it comes to matters concerning nutrition and feeding. According to Fonseca et al. (2011), despite the modernity of food habits, women continue to be mostly involved in food family demands, such as shopping and organizing the menu. According to Santos et al., (2017), this might be connected to the main concern of women to consume healthier products; i.e., the exchange of soda for fruit juice is believed to be a healthier option. Similarly, Nunes & Gallon (2013) also showed that females were more interested and consumed more low-calorie products, lower in fat and sodium. This might be associated with women's greater concern with health and body aesthetics.

The study also showed that pineapple juice is consumed by people of all age ranges. This could be attached to the numerous health benefits that come in with consumption of pineapple juice.

As regards the education level, the study established that pineapple juice was consumed by people of numerous education levels. This implies they were at least able to read and write. For Miller and Cassady (2015) nutrition knowledge could support the use of nutrition information on food label use. According to studies by Rebecca (2011), educated people apply better production methods and they can earn more income to spend on different needs. Monthly soft drink consumption has been found to be higher amongst students, those in the lower income cadre and singles (Isibor et al., 2019).

Most pineapple juice consumers were married. This is undisputable considering the age ranges of the farmers. Being married is one way of showing the responsibilities that one holds. Umar and Kamsang (2014) in their study concluded that married people have more responsibilities to shoulder in terms of providing basic needs for their family with food being the most important.

### **5.3 Characterized pineapple juice preference and consumption in Nakawa and Kalerwe markets**

Understanding of consumers' wants, needs and perceptions is a necessary requirement for obtaining successful products. In both Kalerwe and Nakawa markets, at least half of the consumers (50% and 50% respectively) consumed pineapple juice on a daily basis. When asked how much they consumed in a month, responses garnered showed that in Kalerwe market, 31.7% of the consumers consumed between 0-3 litres monthly while in Nakawa, the majority (31.7%) consumed at least between 4-6 litres per month. However, it was realized that most consumers prefer to buy ½ litre of pineapple juice in both Kalerwe (66.7%) and Nakawa markets (66.7%) respectively. This indicates a low level of consumption of pineapple juice. This matches earlier observations by Sartor et al., (2011), which echoed that despite the global increase in the consumption of soft drinks to around one-can per day (Sartor *et al*, 2011), general results shows that consumption of both regular and light soft drinks is still very low (Renwick & Nordmann, 2007).

In other studies by Oluwayesimi et al., (2017), its asserted that consumption of a particular commodity is highly influenced by income. A high income means one can easily acquire any more of a product. This shows no disparity with the earlier works of Oluwayesimi et al., (2017) that echoed that the affordability is important determinant of adoption of a product. This finding also somewhat corresponds to that of (Oseni &Winters, 2009; Chavas et al., 2016) who observed that alternative income resources can help farmers to make necessary and timely investments.

The study further realized that most consumers in Kalerwe (51.7%) would consume pineapple juice during lunch time while those within Nakawa markets (51.7%) had no specific time of consumption of pineapple juice.

#### **5.4 Determinants of demand for Pineapple Juice**

Results of this study showed that demand for pineapple juice is positively influenced by lifestyle. Health, habit and also thirst though the R square value was so small. According to Othman et al., (2017), having a low R square values in a field of human behavior are normal. This is because humans are simply hard to predict. Therefore, a lot of factors can be predictors of consumer purchase decision towards pineapple juice other than current predictors for this study.

According to Hung (2009) lifestyle usually reflects a person's attitudes, values or view of life, and describes their consumer's preferences. The lifestyle relates to the economic level at which people live, how they spend their money, and how they allocate their time. Generally, consumers are more likely to be influenced by their lifestyle when making a purchase decision towards canned pineapple products (Othman et al., 2017). Similarly, Silva et al., (2005) stated that due to the fast pace of life in today's society, consumers have shown interest in acquiring more and more practical products (Silva et al., 2005). There is also a growing concern about the health and lifestyle of the population, as reflected by the search for healthier foods and drinks (Voorpostel *et al.*, 2014).

However, studies by Lee et al., (2015a), reported that price is the main factor that influences the intention to purchase fruit juices in the market. Ferrarezi et al. (2013) observed that in addition to price, the brand and the information provided on the product influences the intention of buying pineapple juice. In other studies, it has been articulated that factors whether qualitative or quantitative solve specific consumer problems or needs and add value to their consumption (Aggarwal, 2004). A major factor that has been found to determine consumer perception, preference and satisfaction is perceived quality (Bedi, 2010).

These results however disagree with that by Santos et al., (2017). According to the researcher, preference for quality or price suggests that people with higher socioeconomic status have a greater concern for the quality of food consumed, whereas people with lower socioeconomic status are more concerned about price.

## **CHAPTER SIX**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter encompasses the main conclusions of the study in relation to the objectives and findings of the study and also highlights some recommendations.

#### **6.2 Conclusions**

Basing on the objectives and findings of the study, the following were the conclusions;

- In respect to the first object that sought to characterize pineapple juice preference and consumption in Nakawa and Kalerwe markets, the study therefore concludes that most consumers consumed pineapple juice on a daily basis and this was mainly preferred in ½ litre. Consumers in Kalerwe market mostly consumed pineapple juice during lunch time while those in Nakawa had no specific time of consumption.
- Lastly as per objective number two that sought to figure out the determinants of demand for pineapple juice in Nakawa and Kalerwe markets, the study concludes that demand for pineapple juice is positively influenced by the lifestyle, health, habit and thirst for both markets.

#### **6.3 Recommendations**

Basing on the findings and conclusions of the study, the following were the recommendations;

- As with other research studies, the identification of limitations serves as the basis for recommendations regarding future research to cross-validate the results of the present study, as well as to determine the generalizability of these results. Since this research was concentrated in Nakawa and Kalerwe markets, it is important to widen the scope of this study both geographically and sample-wise to allow generalization of findings.
- Furthermore, the number of respondent may not portray the population response with regard to canned pineapple consumption. In order to obtain a more generalized result, a larger sample is required. So, for further research, it is suggested that a higher amount of respondents will be accounted for a better result.



## REFERENCES

- Akhilomen, L. O., Bivan, G. M., Rahman, S.A and Sanni, S.A (2015). The Profitability Analysis and Perceived Constraints of Farmers in Pineapple Production in Edo State, Nigeria. *American Journal of Experimental Agriculture* 5(6): 546-554.
- Das, B., Das, K.K. and Roy, T.N. (2016). Study on Marketing System and Value Addition of Pineapple Fruit (*Ananus comosus*) in West Bengal. *Agricultural Economics Research Review*. Vol. 29 (No.2) pp 279-285.
- Debnath P, Dey P, Chanda A, Bhakta T. (2012). A Survey on Pineapple and its medicinal value. *Scholars Academic J Pharm.* ;1(1).
- Elepu, G (2018). Market valuation of processed fruit juice attributes in Uganda: what do market prices of processed fruit juice reflect? *Afr. J. Food Agric. Nutr. Dev.* 2018; 18(2): 13438-13451.
- Food and Agriculture Organization Corporate Statistical Database (FAOSTAT) 2011 (<http://www.fao.org/> August 30, 2013).
- Food and Agriculture Organization of the United Nations Statistics Division (FAO STAT) 2013. [http://faostat3.fao.org/browse/rankings/countries\\_by\\_commodity/E](http://faostat3.fao.org/browse/rankings/countries_by_commodity/E) Accessed on 15 July, 2020.
- Hossain M and RH Bepary Post-Harvest Handling of Pineapples: A Key Role to Minimize the Post-Harvest Loss. *International Journal of Recent Scientific Research*, 2015; 6(9):6069-6075.
- Hossain, M and Abdulla, F (2015). A Time Series Analysis for the Pineapple Production in Bangladesh. *Jahangirnagar University Journal of Science* Vol. 38, No. 2, pp. 49-59.
- Hossain, M and Bepary, R. H. (2015) Post-Harvest Handling of Pineapples: A Key Role to Minimize the Post-Harvest Loss. *International Journal of Recent Scientific Research*,; 6(9):6069-6075. Indiaagronet.com. 2000.Pawpaw processing. Agricultural Resource Center.
- Hossain, M.F (2016). World pineapple production: an overview. *Afr. J. Food Agric. Nutr. Dev.* 2018; 16(): 11443-11456.

- Joy, P. P. (2010). Benefits and uses of pineapple. Pineapple Research Station, Kerala Agricultural University, Vazhakulam-686 670, Muvattupuzha, Ernakulam District, Kerala, India.. <http://www.kau.edu/prsvkm/Html/BenefitsofPA.htm> Accessed on 21 December 2014.
- Kayitesi R. 2011. Factors affecting small scale farmers' pineapple production: the study of Ngoma District, Rwanda. Unpublished Professional Master Degree in Management of Development Van Hall Larenstein University of Applied Sciences, Rwanda. 51 pp.
- Othman, R.R., Noor, M.N.M and Marmaya, N.H (2017). Consumer's Purchase Decision towards Canned Pineapple Products in Malaysia. International Journal of Business and Social Science, Volume 8 (9): 69-78.
- Prakitchaiwattana C, Boonin K, Kaewklin P.(2017). Deacidification of fresh whole pineapple juice wine by secondary malolactic fermentation with lactic acid bacteria, International Food Research Journal.; 24(1):223-231.
- Sarkar, R.T., Nayak, P., and Chakraborty, R. (2018). Pineapple [*Ananas comosus* (L.)] Product processing techniques and packaging: a review. Dept. of Food Technology and Biochemical Engineering, Jadavpur University, Kolkata, INDIA
- The United Nations Conference on Trade and Development (UNCTAD) Pineapple. <http://www.unctad.info/en/Infocomm/AACP-Products/COMMODITY-PROFILE---Pineapple/> Accessed on 25 December 2014).
- United Nations Conference On Trade And Development (2016). Pineapple; An INFOCOMM Commodity Profile. United Nations; New York and Geneva.
- Yusi, M.S (2016). The analysis of production function and farm marketing efficiency of pineapple (*Ananas comosus* L Merr) in South Sumatera Province, Indonesia. African Journal of Agricultural Research. Vol. 11(23), pp. 1990-1998.

## APPENDICES

### Appendix I: Questionnaire for Pineapple Juice Consumers

Dear respondent,

I am TALEMWA PATIENCE a student of Makerere University conducting an academic research study on “*Consumer Demand and Preferences of Pineapple Juice*” as part of the requirements for an award of a bachelor’s degree in agribusiness management of Makerere University. My humble request is to avail me with accurate information in regard to this subject matter. Information given here will exclusively be used for study purposes and it will be kept confidential.

#### SECTION A: Demographic Characteristics of Respondents

1. What is your gender? (Check the appropriate option)

Male  Female

2). what is your age? (Check the appropriate option)

20-29 Years  30-39 Years  40-49 Years  50 and Above

3). what is your marital status? (Check the appropriate option)

Married  Not married  Widowed  Divorced

4). what is your level of education? (Check the appropriate option)

None  Primary  Secondary  Diploma   ee

#### SECTION B: characterizing pineapple juice preference and consumption

How often do you drink pineapple juice? (Check the appropriate option)

Daily

Once a week

Twice a week

Rarely

How much juice do you consume in a month? (Check the appropriate option)

0 – 3 litres

4 – 6 litres

7 – 9 litres

10 litres and above

**What quantity do you prefer to consume (Check the appropriate option)**

½ Litre

1 Litre

More than a litre

**During what time of the day do you take the pineapple juice? (Check the appropriate option)**

Between meals

Lunch time

Breakfast

No specific time

**Are you satisfied with the taste of the pineapple juice? (Check the appropriate option)**

Yes

No

**If NO, why?**

.....  
.....

**Are you satisfied with the price of the pineapple juice? (Check the appropriate option)**

Yes

No

**If NO, why?**

.....  
.....

**Why do you consume the pineapple juice?**

.....  
.....  
.....  
.....  
.....  
.....

**Do you like the taste of the pineapple juice? (Check the appropriate option)**

Yes

No

**If NO, why**

.....  
.....  
.....

**SECTION C: determinants for demand for pineapple juice**

**What is your monthly expenditure on pineapple juice?**

.....  
.....  
.....

**What do you prefer most when buying pineapple juice?**

.....  
.....  
.....

**Which factor influences you to purchase pineapple juice? (Check the appropriate option)**

<b>FACTOR</b>	<b>S.A</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>S.D</b>
Availability					
Lifestyle					
Price					
Health concern					
Change in food habit					
Freshness					
I like the taste					
To quench my thirst					
<b>NOTE:</b> S.A (Strongly agree) A (Agree) N (Neutral) D (Disagree) S.D (Strongly disagree)					

“Thanks a lot for your time and commitment”

**Appendix II: Questionnaire for Pineapple Juice Traders**

Dear respondent,

I am TALEMWA PATIENCE a student of Makerere University conducting an academic research study on *“Consumer Demand and Preferences of Pineapple Juice”* as part of the requirements for an award of a bachelor’s degree in agribusiness management of Makerere University. My humble request is to avail me with accurate information in regard to this subject matter. Information given here will exclusively be used for study purposes and it will be kept confidential.

**SECTION A: Demographic Characteristics of Respondents**

1. What is your gender? (Check the appropriate option)

Male  Female

2). what is your age? (Check the appropriate option)

20-29 Years  30-39 Years  40-49 Years  50 and Above

3). what is your marital status? (Check the appropriate option)

Married  Not married  Widowed  Divorced

4). what is your level of education? (Check the appropriate option)

None  Primary  Secondary  Diploma   ee

**SECTION B: characterizing pineapple juice preference and consumption**

**How often do you prepare pineapple juice? (Check the appropriate option)**

Daily   
Once a week   
Twice a week   
Rarely

**How much juice do your customers consume on a daily basis? (Give an estimate in litres)**

.....

**In case you have prepared the pineapple juice, how long does it take for the amount prepared to be consumed?**

- One day
- Two days
- Three days
- More than three days

**How do you market the pineapple juice (Check the appropriate option?)**

- Moving door to door
- Placed in the shop
- Taken to specific consumers
- Others (specify) .....

**At what time of the day do you mostly sale pineapple juice? (Check the appropriate option)**

- Between meals
- Lunch time
- Breakfast
- No specific time

**What feedback do the consumers give you regarding the taste of the pineapple juice?**

.....

.....

.....

.....

**SECTION C: Determinants for demand for pineapple juice**

**When did you start preparing pineapple juice?**

.....

.....

.....

**How do you package the pineapple juice?**

- Using polythene
- Put in mineral water bottles
- Others (specify) .....

**How much do you invest in making pineapple juice (specify)**

.....

Do you earn any profits from making pineapple juice?

Yes

No

In your opinion, has the demand for pineapple juice increased?

Yes

No

**If yes, to what extent do you think the following has increased the demand for pineapple juice? (Check the appropriate option)**

<b>FACTOR</b>	<b>S.A</b>	<b>A</b>	<b>N</b>	<b>D</b>	<b>S.D</b>
Information on nutrition benefits					
Lower prices					
Increased awareness via adverts					
Improved taste					
<b>NOTE:</b>					
<b>S.A</b> (Strongly agree) <b>A</b> (Agree) <b>N</b> (Neutral) <b>D</b> (Disagree) <b>S.D</b> (Strongly disagree)					

“Thanks a lot for your time and commitment”