ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

Analysis of the effectiveness of Pineapple Marketing channels in Bureti Sub County, Kericho County, Kenya

[1*]Jacob O. Okal, [2]Christopher O Gor, [3]Michael E. Omunyin

[1]Department of Agricultural Biosystems and Economics, University of Kabianga, Kericho, Kenya
[2]Department of Agricultural Economics and Extension, Jaramogi Oginga Odinga University of Science and Technology, P.O Box Bondo, Kenya
[3]Department of Horticulture, University of Kabianga, Kericho, Kenya
*University of Kabianga, P.O Box 2030-20200 Kericho

Abstract: **Effective marketing channels ensures timely transfer of products and services from the production point to the consumption point at a cost or price so that all the participants in marketing benefits. Most marketing channels in developing nations like Kenya are ineffective resulting into losses, high transaction cost and high prices for the end consumer. The purpose of the study was to evaluate pineapple marketing channel effectiveness in Bureti Sub County., Kericho County, Kenya. Descriptive research design was used in this study with quantitative and qualitative approaches in data collection and analysis. Structured interview schedule was used to collect primary data from farmers and traders through a face to face interview. Secondary data was collected from different published and unpublished sources including government institutions, journals, working papers and the website. Descriptive statistics was used to analyse the data. Results of this study show that there were eight marketing channels and that most of the produce passed through the longer channels implying high costs Results also revealed that pineapple purchased were of average quality and affordable to consumers. Most of the consumers were concerned about freshness of the pineapple fruits. In addition the time taken to deliver pineapple by both farmers and traders was within 3 days. Based on the findings this study conclude that the number of actors along the marketing channel affect its effectiveness because of the cost implications and that the pineapple marketing channels were not very effective in delivering the expected produce quality and consumer preference at an affordable price to the consumers. This study recommends improvement of market infrastructure, market support services, collective marketing and value addition so as a way of improving the effectiveness pineapple marketing channels.**

Keywords: **Pineapples, marketing channels, marketing effectiveness, Bureti Sub County, Kericho-Kenya.**

I. INTRODUCTION

Pineapple fruits the second the most traded commercial tropical fruit in the world after bananas. Its production is concentrated in the tropical regions of the world. The main producer include Thailand, Philippines, Brazil, China, Costa Rica, Nigeria, Kenya, Mexico and Indonesia (Ndungu, 2014). Over the years, it has exhibited increasing demand with the global trade estimated at 50% as fresh produce, 30% as canned product and 20% as juice concentrates. The main producers of pineapple is estimated to contribute about 90% of the world demand of fresh pineapple fruits (International Society for Horticultural Science, 2015). In Kenya pineapples is grown by large scale, medium scale and small scale farmers. Large scale farmers include Delmonte Company in Thika and Kakuzi in Muranga. Smalll and medium scale production takes place in Homabay, Kisii, Migori, Kiambu, Muranga, Kericho, Homabay, Malindi and Kilifi counties(HCDA and USAID, 2012). Pineapples in Kenya is sold either fresh or processed into a number of products especially into concentrates which accounts for 80% of the trade. Smooth cayenne account for over 80% of the pineapple produced in Kenya because of its ability to last long and its taste (Koech et al., 2014). Other varieties grown include MD2 and Sweet 16. Pineapple fruits are perishable and therefore require an organized and a well-functioning marketing system that ensures the produce moves from production to consumption in the shortest time at least cost.

Marketing channels ensure that there is ready market for farm produce by providing the necessary services (Saminathan, 2012). Successful marketing of both agricultural and non-agricultural products requires effective marketing channel (Chalwe, 2011). This is because different channels are characterized by different benefits and costs. Therefore producers or traders may receive higher or lower returns depending on the marketing channel they use to transfer their products. Most agricultural marketing channels in developing nations like Kenya are however long and complex with high transaction costs resulting into lower producer share of the consumer price (Shiferaw et al., 2006). According to Muthini (2015) that better market information can improve farmers' bargaining position, reduce search costs, and give them the choice to travel to distant markets if prices there are higher. Similarly Dagar (2015) stated that up to date information helps traders to shift production from surplus to deficit markets and help to mitigate against the variations between the markets and prices. Channel intermediaries ensure that produce are in the form, place, and time by performing various functions such as sorting, transportation, quality control, storage, standardization, processing and financing (Udimal, 2015). Agricultural produce or commodity have different channel depending on the nature of marketing agency, perishability of the produce, availability of storage facility, bulk and weight and the distance between the producer and consumers (Kotler and Armstrong, 2003). The marketing channels therefore have great influence on marketing costs and market margins received by the intermediaries such as trader, commission agent, wholesaler and retailer as well as price to be paid by the consumer and share of it received by the farmer producer (Soe et al., 2016).

In the marketing literature, marketing effectiveness is described as the extent to which marketing actions have helped the company to achieve its business goals. According to Nwokah and Ahiauzu (2008), marketing effectiveness is the quality of how marketers go to market with the goal of optimizing their spending to achieve good results for both the short-term and long-term. The effectiveness of marketing channels involves assessment of activities performed and services offered along the market channels in order to maximize consumer satisfaction. All the functions are aimed at creating consumer convenience in terms of time, form and place. According to Timmer *et al.* (1983) marketing functions and price formation are simultaneously connected in that one affects the other. For instance if storage costs increase, price of the commodity would also increase. They further indicated that marketing agents' links producers and consumers physically by actually buying, storing, transporting, processing and selling commodities. Kariuki (2011) noted that the effectiveness of marketing channels involved assessment of activities performed and services offered by Omena market actors along the market channels in selected outlets in Kenya in order to maximize consumer satisfaction. LeRoux et al. (2010) concluded that a combination of different marketing channels was necessary to increase overall marketing of fruits and vegetables in Central New York.

In Kenya, the market for horticulture produce like pineapples is informally organized and poorly integrated leading to high transaction costs and losses between the farm gate and consumption. Onyuma et al (2006) established that pineapple marketing system in Kenya was characterized by the interlinkage among farmers, village collectors, wholesalers and retailers. A value chain analysis study by Ministry of Agriculture (2012) established that pineapple market in Bureti Sub County was streamlined resulting into exploitation by middlemen who offered low prices to farmers. The report also established that the marketing channel comprises of farmers, brokers, mobile traders, transporters, wholesalers and retailers. Nyaupane and Gillespie (2010) contend that producers are guided by the price they receive from the marketing channel. Panda and Sreekumar (2012) further noted that although farmers are interested in selling to channels offering the highest prices, their socio-economic and institutional environment may not enable them to exploit the opportunity. Collins (2007) opined that improving market effectiveness requires alignment of marketing services, activities and strategies with business goals. Consequently an effective marketing channel should serve the interest of all the market actors by aiding the transfer of commodities by performing the functions such as exchange (buying and selling), sorting, processing, transportation, standardization, financing and market information. Ideally, an effective marketing channel should ensures consistent supply of produce to the consumer at an affordable price and acceptable quantity/quality; ensures intermediaries earn normal profit consistent with functions performed; and ensures producers receive a fair share of profit. This study therefore sought to evaluate the effectiveness of pineapple marketing channel in Bureti Sub County, Kericho, Kenya. The specific objectives included identification of the pineapples marketing channels, assessing the activities and services offered along the pineapple marketing channel for effectiveness and evaluating the level of customer satisfaction.

2. METHODOLOGY

Descriptive design was used in this study to evaluate the effectiveness of the pineapple marketing channel in Bureti Sub County, Kericho, Kenya. Both quantitative and qualitative approaches were used in data collection and analysis. Descriptive design was preferred because it makes enough provision for bias and maximizes reliability. The design can also be used to determine the relationship between two variables and therefore enhances understanding and interpretation

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

of findings. The study was conducted in four wards of Bureti Sub-County where pineapple production is concentrated. The wards which includes Kisiara, Tebesonik, Chemosot and Cheboin. Pineapple is one of the major enterprises after tea and dairy in Bureti Sub County. Pineapple marketing in the area is not organized and is characterized by low and fluctuating prices due to seasonality. The target population was pineapple traders in the major market centers of Bureti Sub-County. Both purposive sampling and systematic sampling were used to select traders for interview. Purposive sampling was used to select the major market centers in the study area while systematic sampling was used to select the specific traders for the interview from the list of traders obtained from the Department of trade, Bureti Sub County.

Multistage sampling was used to select 133 farmers, purposive and systematic sampling used to select 37 traders using traders register from the County Government of Kericho at the Bureti Sub County Office for this study while random sampling was used to select 20 consumers in the major pineapple marketing centers. Structured interview schedule through face to face interviews were used in this study to collect primary data. Secondary data was collected from different published and unpublished sources including government institutions, journals, working papers and the website. Structured traders interview schedule was used to collect primary data through a face to face interviews. Secondary data was collected from different published and unpublished sources government institutions, journals, working papers and the internet sources. Research authorization letter was obtained from Kenya National Commission of Science and Technology (NACOSTI).

Descriptive statistics was used to analyze the effectiveness of the existing pineapple marketing channels. Analysis of effectiveness involved first the identification of the marketing channels and the market participants offering services and performing function as pineapple produce is transferred from the producer to the consumer. The analysis also considered how well the channels meet the consumer preferences which are associated with the cost of produce, freshness, nutritive value, accessibility when needed, quality and unit quantity that can be purchased at a given time. The effectiveness of pineapple marketing channels was investigated by considering various activities and services offered in the market to maximize consumer satisfaction. The activities and services included assembling, distribution, storage, transportation, sorting, grading and financing. Information on effectiveness of the pineapple marketing channels was presented in tables, charts and graphs

3. RESULTS AND DISCUSSION

Figure 1 shows that the main participants in the pineapple marketing channel included producers, rural assemblers, mobile traders, wholesalers and retailers. From the figure, the main receivers of fresh pineapple fruits from pineapple farmers were wholesalers, mobile traders, local assembler, retailers and consumers. Result further show that 33.4% of the produce from the farmer passed through channel V, 25.3% through channels VI, VII and VIII, 18.8% through channels III and IV while 9% through channel I.

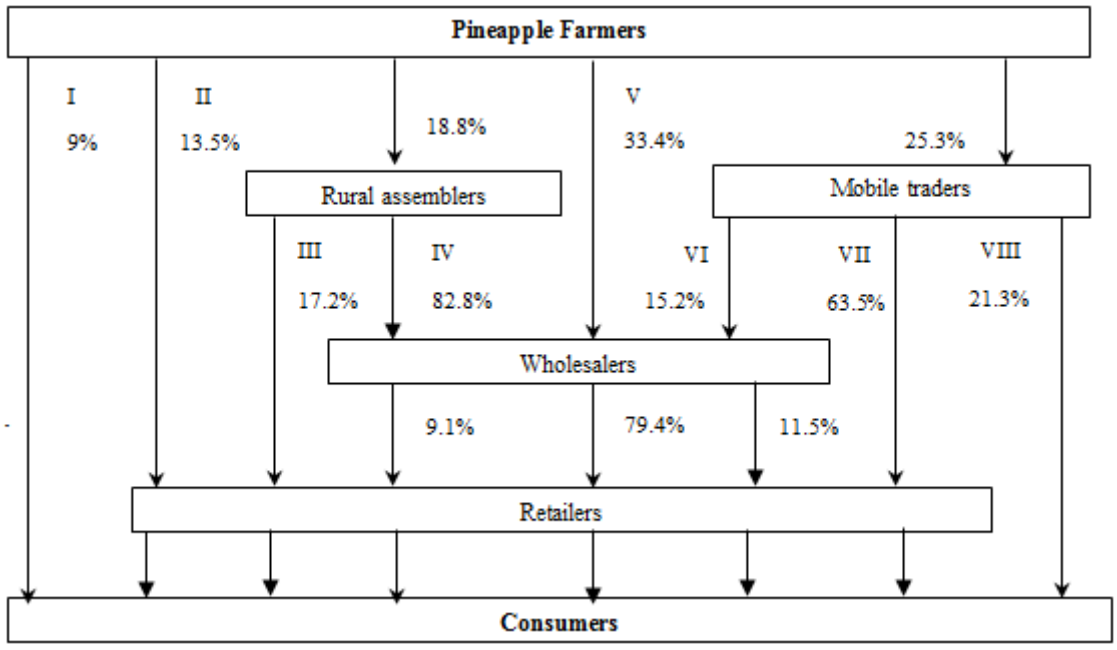

Figure 1: Pineapple marketing channels in Bureti, Kenya

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

From the Figure, channels IV and VI are the longest each with 5 market actors. This is followed by channels III, V and VII each with 4 market actors, channels II and VIII each with 3 market actors and channel I with 2 market actors. This implies that farmers have several outlets for their produce. It also clear from the findings that most of the produce from the producer was transferred through channel V and least produce through channel I where farmers sold their produce directly to the consumer.

Table 1 shows the marketing costs incurred along each of the marketing channels. The costs were high for channel IV followed by channels IV, V and VII respectively. The costs were lower where producers sold their pineapples directly to the consumers.

Table 1: Marketing costs along the marketing channels in Bureti, 2016

Channel	Marketing Cost per 2kg fruit(Kshs)					Total marketing cost(Kshs)
	Producer	Rural assemblers	Mobile trader	Wholesaler	Retailer	
I	1.7					1.7
II	1.7				3.0	4.7
III	1.7	1.5			3.0	6.2
IV	1.7	1.5		4.0	3.0	10.2
V	1.7			4.0	3.0	8.7
VI	1.7		3.5	4.0	3.0	12.2
VII	1.7		3.5		3.0	8.2
VIII	1.7		3.5			5.2

From the Table channels VI had higher costs than channel IV yet both has 5 actors. It can be implied that channel IV could be more effective in delivering the produce to the consumers than channel VII since higher cost in most cases is a sign of lower effectiveness. Notably from Figure 1, more produce from the farmers' passes though channel VI than channel IV which based on the cost comparison is less effective. Similarly channel V has higher marketing when compared channels III and VII but the same total number of market actors. Significantly more produce is transferred through channel V than channels III and VII. Channel VIII has higher average total marketing cost when compared to channel II which has the same number of actors. Again more produce is transferred through channel VIII than channel II. Clearly most produce were transferred through channels with relatively higher cost which could be an indication of marketing channel ineffectiveness.

It was however necessary to understand the price at which farmers, traders and consumers sold or purchased the pineapple fruits to clearly make a conclusion on the operations of the marketing channels since according to Chandra (2012), the arrangement of the marketing channels determined the price levels at each level of the marketing channels from farm gate to the ultimate consume which in turn would indicate effectiveness or ineffectiveness of the marketing channels given the price at each level and the variations. Results in Table 2 show the average prices of various actors along the marketing channel. From the table the average farm gate price was Kshs 15 with a variation of between Kshs 10 to Kshs 20. The average price for rural assemblers was Kshs 17.5 with a variation of between Kshs 10-35, the average price of the mobile trader was Kshs 27.5 with a variation of between Kshs 15-40, the average price of the wholesaler was Kshs 30 with a variation of between Kshs 20-40 while the average price of the retailers was Kshs 40 with a variation of between Kshs 20-60. It is clear from the findings that retail prices was the highest and that there was wide price variations for all the market actors which according to Garba et al. (2015) is as a result of inconsistent supply which signifies ineffectiveness in the marketing system. This is because prices guides the choice of marketing channels by producers at any one time (Nyaupane and Gillespie, 2010). Ideally most farmers are interested in selling their produce to the marketing channels offering highest prices but their socioeconomic and institutional capacity often does not allow then to exploit this opportunities. Hence an effective marketing channel should ensure consistent supply of the produce to the consumer at affordable price and acceptable quantity and quality while ensuring that market actors earn normal profit consistent with functions performed.

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

Table 2: Average prices for pineapple market actors in Bureti Sub County , 2016

Price category	Prices (Kshs/2Kg)		
	Min	Max	Mean
Farm gate price	10	20	15
Rural assembler price	10	35	17.5
Mobile trader price	15	40	27.5
Wholesale price	20	40	30
Retail price	20	60	40

For a marketing channel to be effective in delivering the produce to the intended consumers, it should provide services like market information, packaging, prompt payment, credit, better prices, transport services, storage facilities and assured market (Udimal, 2015). This services then influences, the quantity of the produce, the quality of the produce, marketing cost, produce price at each stage of the marketing channel, the consumer price, the time of delivery of the produce to the consumer which in turn affects consumer level of satisfaction. Results of packaging revealed that most farmers packed pineapple fruit in polypropylene sacks before transportation. In some instances both farmers and traders packed the fruits directly in the trucks. This is contrary to Mitcham (2015) who indicated that polyethylene sacks or bags should not be used for packing and transport, as this will cause a high level of mechanical damage and eventual losses in quality pineapples but should normally be packed in cartons based on colour and sizes. This implies that the quality of pineapple fruits supplied to the market was compromised and therefore confirming the opinion of the traders and consumers on the quality of pineapples purchased.

Result in Table 3 show other services offered along the marketing channel as the produce moves from the point of production to point of consumption. The services include storage, transportation, marketing information and access to credit.

Table 3: Access to storage facility by farmers and traders in Bureti, Kenya

Services	Response	Farmers (N=133)		Traders (N=37)	
		Frequency	Percent	Frequency	Percent
Storage	Yes	0	0	5	13.5
	No	133	100	32	86.5
Transportation	Yes	118	34.7	24	64.9
	No	15	65.3	13	35.1
Marketing information	Yes	47	35.3	13	35.1
	No	86	64.7	24	64.9
Access to credit	Yes	22	16.5	11	29.7
	No	111	83.5	26	70.3

Source: Study Data (2016)

From the Table, none of the pineapple farmers had a pineapple store in their farms and in most instances sold the produce directly after harvesting. Similarly 86% of the traders did not have appropriate storage facilities and were therefore forced to sell the produce quickly before they were spoilt. The lack of appropriate storage for both farmers and traders could signify high postharvest loss and unavailability of pineapple fruits when needed by the consumers. As regards transportation, results show that 34.7% of farmers had access to transportation while 64.9% of the traders had access to

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

transportation. This imply delayed delivery of the produce to the market which would also point to the low quality of produce in the market. Traders however had better access to transportation indicating that they had the ability to deliver their produce to the desired destination in time.

Result further indicate that 35.3% of the farmers and 35.1% of the traders accessed marketing information This implied limited production planning ability by the farmers and poor marketing decision by the traders. This is supported by Muthini (2015 who established that better market information can improve farmers' bargaining position, reduce search costs, and give them the choice to travel to distant markets if prices there are higher. The low marketing information access would also imply poor marketing decisions by the traders as Dagar (2015) stated that up to date information helps traders to shift production from surplus to deficit markets and help to mitigate against the variations between the markets and prices.

Result also show that only 16.5% of the farmers' had access to credit. This could indicate constrained capacity to purchase quality inputs hence low productivity and low supply to the market and high prices. Similar observations were made by Abraham (2013) that access to credit enhances the financial capacity of farmers to purchase inputs, thereby increasing vegetable production and market share size. Results also show that only 29.7% of the traders had access to credit. This imply lack of finances to expand their and to offer essential services for effectiveness in operations.

Understanding the consumer opinion was important because according to Kotler and Armstrong (2003), maximizing consumer satisfaction by understanding and delivering his expectation in terms of quantity, acceptable quality, timeliness and price is one of the goals to an effective marketing channel. Consumers are presumed to make decisions on purchases based on their preferences. Results presented in Figure 2 revealed that 60% of the consumers purchased pineapple on a weekly basis with 30% of the consumers purchasing every 2 days while 10% every two weeks. When asked about quality, 70% of the consumers indicated that the pineapple they purchased were of average quality, 20% good quality while only 10% very good quality as presented in Figure 3.

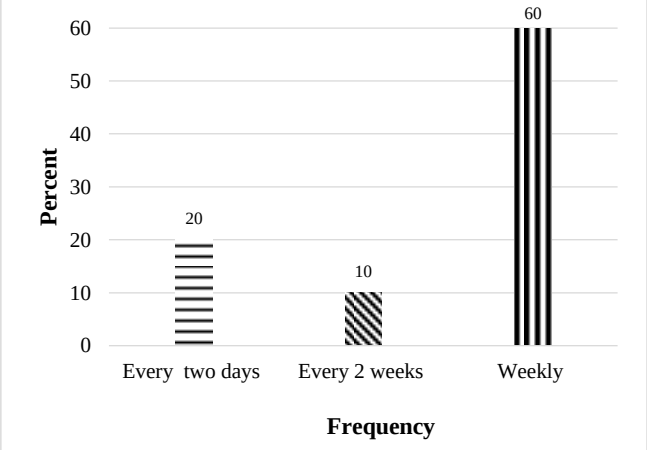

Figure 2: Frequency of Pineapple purchase by consumers in Bureti, Kenya

Source: Study Data (2016)

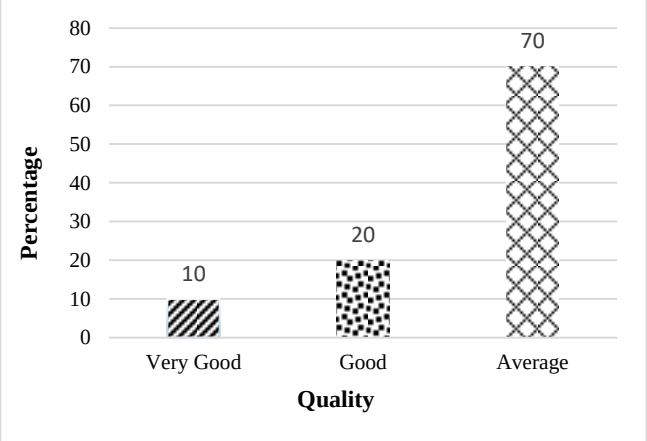

Figure 3: Opinion of on pineapple quality by consumers in Bureti, Kenya

Source: Study Data (2016)

Result in Figure 4a further revealed that 57% of the consumers agreed that the price of pineapple fruits they purchased was affordable. This could be an indication of marketing channel effectiveness, however because of the opinion on the quality of the pineapple produce where 35% of consumers indicated that they were not satisfied with the quality of pineapple fruits purchased and in their opinion 70% of the pineapple fruits were of average quality. The opinion on price therefore could not necessarily mean effectiveness in the marketing channels since effective marketing channel should deliver quality produce at a fair price to the consumers.

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 4, pp: (1185-1193), Month: October - December 2018, Available at: www.researchpublish.com

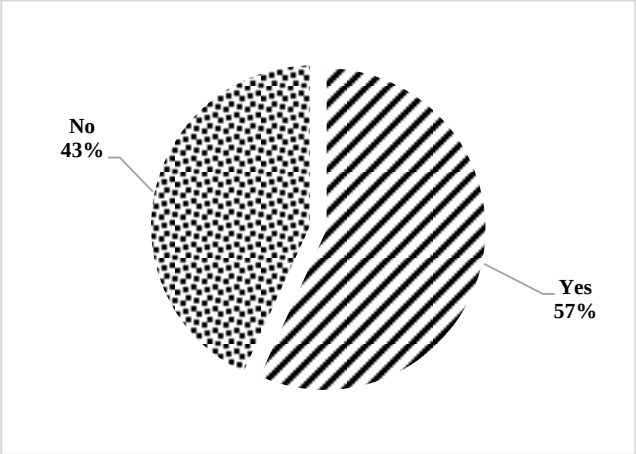

Figure 4a: Price affordability to the final consumers in Bureti, Kenya

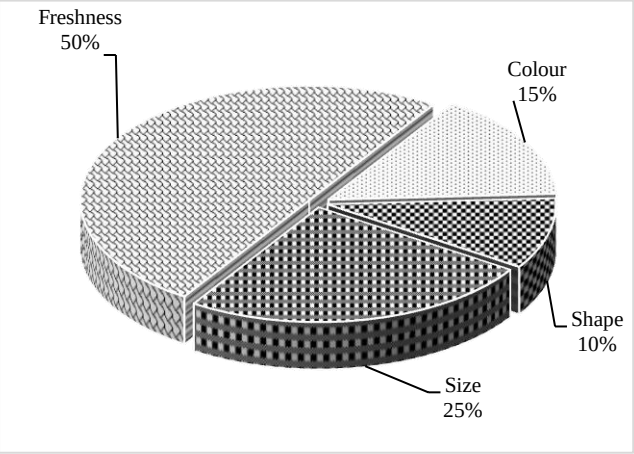

Figure 4b: Factors considered during purchase by consumers in Bureti, 2016

Source: Study Data (2016)

Result in Figure 4b show that consumers were concerned about the freshness, size, colour and maturity of the pineapple fruits. Most (50%) of the consumers were concerned about the freshness, 25% about size, 15% about colour and 10% about shape. All this characteristics perceptively affected the quality of fresh pineapple fruits. When asked if they received pineapple produce of their preference only 37% agreed they obtained fruits that met the desired preference. This could be a sign of low effectiveness in the pineapple marketing channels.

Moreover result in Table 3, 65.4% of the farmers delivered pineapples to the market within 3 days while 40.5% of the traders delivered pineapples to the consumers within 3 days. Similarly 8.3% of the farmers sold the produce to the farmers and 24.3% of the traders sold pineapple fruits after 3 days. Only 25% of the consumers received pineapple fruits when needed. This is probably due to the problem in storage given that fresh pineapple is perishable and can last for a maximum of 5 days as stated by Joy and Rajuva (2016).

Table 4: Delivery time of pineapples to the consumers

Response	Farmers		Traders	
	Frequency	**Percent**	**Frequency**	**Percent**
< 1 day	35	26.3	13	35.2
1-3 days	87	65.4	15	40.5
> 3 days	11	8.3	9	24.3
Totals	**133**	**100**	**37**	**100.0**

Source: Study Data, 2016

4. CONCLUSION AND RECOMMENDATIONS

From the findings this study concludes the number of actors in a channel affect the length of the channel and that pineapple marketing channels were not very effective in delivering quality pineapple fruits that met the consumer's preference at affordable price. This was because most pineapple produce passed through longer channels implying high costs. The study also concludes that shorter channels were more effective that longer channels in the transfer of pineapples from the farmers to the consumers because less marketing given the minimal number of market participants. Overall, the study concludes that effectiveness of pineapple marketing channels would ensure a reduction in costs and consistent/timely supply of quality produce that meets consumer preference at affordable price.

Based on the conclusion the study recommends improvement of market infrastructure and marketing support services especially storage facilities, transportation, market information and credit access. Beside the study recommends collective marketing since this would ensure sufficient volumes is collected, help in cost reduction of services offered along the marketing channel due to economies of scale, promote fair pricing at each level of the marketing channel and necessitate adherence to quality standards therefore delivering produce that meets taste and preferences of the final consumers. It further recommends value addition on the pineapple to increase the shelve life so that pineapple is available when needed by customers as well as increase the returns per unit of produce.

ACKNOWLEDGEMENT

I thank the Almighty God for the gift of life and acknowledges the offer of admission to the University of Kabianga for MSc studies. Special thanks to Prof M. E. Omunyin and Prof Christopher O. Gor for their guidance during the study. I also acknowledge the provision of valuable information by the farmers, traders and consumer during this research.

REFERENCES

[1] Abraham, T. (2013). Value chain analysis of vegetables: Oromiya Region, Ethiopia. (MSc. Thesis). Haramaya, Ethiopia: Haramaya University.

[2] Chalwe S. (2011). Factors influencing bean producers' choice of marketing channels in Zambia. University of Zambia

[3] Chandra U. T. S. (2012) Impact of Emerging Marketing Channels in Agricultural Marketing, Benefits to Producer, Seller and Marketing Costs and Margins of Agricultural Commodities in Haryana. Research Study No. 2012/01.

[4] Collins, K. (2007). Marketing performance management improves accountability. Retrieved from http://www. gartner.com

[5] Dagar, G. (2015). Study of agricultural marketing information system models and their implications. AIMA Journal of Management and Research, 9 (2). Retrieved from http:/apps.aima.in.

[6] Garba, I. D, Sanni, S. A. and Adebayo, C. O. (2015). Analyzing the structure and performance of shea butter market in Bosso and Borgu Local Government Areas of Niger State, Nigeria. International Journal of Science and Technology, 8, (2), 321-336.

[7] International Society for Horticultural Sciences (2015). Pineapple News, Newsletter of Pineapple working group, Issue No. 22, June, 2015. Retrieved from www.ishs.org.

[8] Joy, PP. and Rajuva, R.T.A. (2016). Harvesting and post-harvest handling of pineapples. Pineapple research Station (Kerala Agricultural University), Web: http://prsvkm.kau.in.

[9] HCDA and USAID, (2012), Kenya horticultural crops performance report. Prepared for Ministry of Agriculture, Kenya.

[10] Kariuki, J. M. (2011). Analysis of market performance: a case of 'Omena' fish in selected outlets in Kenya. (Master's Thesis). Egerton University, Kenya.

[11] Kolter, P. G. and Armstrong (2003). Principle of marketing. 10th Edition, Hall of India Pvt. Ltd., New Delhi. 5-12p.

[12] LeRoux, M., D., Streeter, M., Roth, and Schmit, T. (2010). Evaluating marketing channel options for small-scale fruit and vegetable producers. Renewable Agriculture and Food Systems 25 (1): 16-23.Central New York.

[13] Lunaa, F. and Wilson, P. N. (2015). An Economic Exploration of Smallholder Value Chains: Coffee Transactions in Chiapas, Mexico, International Food and Agribusiness Management Review, 18(3).

[14] Mitcham, B. (2015). "Tropical fruits - banana, pineapple: Postharvest handling systems" Postharvest technology of horticultural crops short course (c) Postharvest technology center, UC Regents.

[15] MoA (2012). Report on banana, pineapple and tomatoes participatory value chain analysis in Bureti District. Smallholder Horticulture Marketing Programme. Prepared for Capital Guardians Consultancy Firm.

[16] Muthini, M. D. (2015). An assessment of mango farmers' choice of marketing channels in Makueni, Kenya. Unpublished thesis, university of Nairobi.

[17] Ndungu, S. (2014). A Report on conventional pineapple production in Kenya. Prepared for Swedish Society for Nature Conservation (SSNC), Sweden

[18] Nyaupane, P. N. and Gillespie, J. M. (2010). Factors influencing producers' marketing decisions in the Louisiana Crawfish Industry, Bolton Rounge, LA; Louisiana State University, Agricultural center.

[19] Nwokah, N. G.; Ahiauzu, A. I. (2008). Managerial competencies and marketing effectiveness in corporate organizations in Nigeria, Journal of Management Development 27(8): 858–878. http://dx.doi.org/10.1108/02621710810895677

[20] Onyuma, O. S., Icart, E., and Owuor, G. (2006). Testing market integration for fresh pineapples in Kenya, Poster Paper prepared for presentation at the International Association of Agricultural Economist Conference, Gold Coast, Australia.

[21] Panda, R. and Sreekumar (2012). Marketing Channel Choice and Marketing Efficiency Assessment in Agribusiness. Journal of International Food & Agribusiness Marketing, 24:3, 213-230, DOI: 10.1080/08974438.2012. 691812.

[22] Saminthan, S. (2012). Sustainable contract farming for increased competitiveness case study on poultry sector in Sarawak, Malaysia

[23] Shiferaw. B., Obare, G., and Muricho, G. (2006). Rural institutions and producer organizations in imperfect markets: Experiences from Producer Marketing Groups in semi-arid eastern Kenya; ICRISAT Socioeconomics and Policy Working Paper Series No. 23, International Crops Research Institute for the Semi-Arid Tropics

[24] Soe, W. PP., Moritaka, M and Fukuda, S. (2016). An analysis of factors influencing marketing channel choice by Paddy rice farmers in Myanmar, Japan. J. Fac. Agr., Kyushu Univ., 60 (2), 535–542

[25] Timmer C.P, Falcon W.P, Pearson R. S. (1983). Food policy analysis. Batimore and London. The Johns Hopkins University Press

[26] Udimal B. T (2015). Factors influencing soybeans producers' choice of marketing channels in the Saboba District of Northern region, Ghana (unpublished Master's thesis). Kumasi. Kwame Nkrumah University of Science and Technology.