

Evaluation of market opportunities of Meat in Uganda

Nalubega, J.¹, Mugisha, J.¹ & Mpairwe, D.²

¹Department of Agricultural Economics and Agribusiness, Faculty of Agriculture,
Makerere University, P. O. Box 7062, Kampala, Uganda

²Department of Animal Science, Faculty of Agriculture, Makerere University, P. O. Box 7062,
Kampala, Uganda

Corresponding author: jus_ssesanga@yahoo.co.uk

Abstract

Beef production in Uganda is estimated at an average of 160,000 metric tonnes per year giving the national meat consumption per capita in Uganda as 11 kg which is lower than the 40 kg recommended by the World Health Organization. The present study aims at evaluating market opportunities for good quality meat in Uganda. The Heckman 2-step model will be used to determine factors that influence the sales of quality meat. A probit model will be used to establish factors that influence traders' choice of type of meat (beef) they stock. Results generated from this study will contribute to policy formulations of improved quality standards of meat in the country.

Key words: Beef, markets, meat consumption, Uganda

Résumé

La production de viande bovine en Ouganda est estimée à une moyenne de 160.000 tonnes métriques par an donnant la consommation de viande par habitant en Ouganda de 11kgs, ce qui est inférieur à 40 kg la quantité recommandée par l'Organisation mondiale de la Santé. La présente étude vise à évaluer les opportunités de marché pour la viande de bonne qualité en Ouganda. Le modèle de « Heckman 2-step » sera utilisé pour déterminer les facteurs qui influencent les ventes de viande de qualité. Un modèle de probabilité sera utilisé pour établir les facteurs qui influencent le choix des commerçants du type de viande (boeuf) qu'ils stockent. Les résultats générés par cette étude contribueront à la formulation des politiques de normes de qualité améliorée de la viande dans le pays.

Mots clés: le Bœuf, les marchés, la consommation de viande, l'Ouganda

Background

Livestock population in Uganda is estimated at 7.2 million heads of cattle, 8.3 million goats and 2.1 million pigs (UBOS, 2008). The Government of Uganda (GoU) embarked on a national cattle restocking/redistribution program in order to boost livestock

production to meet increasing demand and alleviate poverty (ADF, 2002). Despite the increasing demand for meat in Uganda, quality of meat produced in some areas is still poor. Consequently, a meat quality and safety improvement strategy (MQSIS) for Uganda has been developed (MAAIF, 2005). However the market opportunities for quality meat in Uganda have not been evaluated.

Literature Summary

Meat quality is a variable trait of which the definition depends on whose needs are to be met. The target is a consumer product which delivers safety/wholesomeness, tenderness, juiciness and flavor (palatability traits) (Kauffman *et al.*, 1969; Greer, 1988). The study will establish perceptions in regard to quality meat in Uganda. An opportunity is a trend or event that could lead to a significant upward change in sales and profit patterns, given the appropriate strategic response (Aaker, 2007). Market evaluation provides a clear and comprehensive assessment of how markets are structured, the main drivers and pressures which influence them and what is likely to happen in the future.

This study will establish the main drivers and pressures which influence the sales of quality meat in Uganda. Buyer groups or potential customers, to whom a firm can sell, do not usually exercise equal power. The choice of buyer groups is therefore a key decision which influences the business environment of the firm (Stokes, 2002). Grunert (2002) considers product attributes as one of the perspectives to increase understanding of consumer or buyer choice. Food choices are affected by demographic, social and economic factors (Gould *et al.*, 1991). This study will identify the factors that determine the sales of quality or non quality meat and will establish the factors that influence meat stocked by traders. This study will be guided by the consumer behavior theory (Ben Akiva and Lerman, 1985). The foundation of this theory is the concept that individuals choose from among alternative bundles of goods and services with the objective of maximizing their overall satisfaction, or utility.

Study Approach

The study will be conducted in Kampala district (Central Uganda) in the five divisions including, Kawempe, Nakawa, Makindye, Kampala Central and Rubaga. Kampala is the Capital City of Uganda. The city is estimated to have a population of 1.2 million people (population census of 2002). Kampala district was chosen to be the area of study because it is the only town in Uganda where abattoirs are still functioning

reasonably well, producing relatively quality meat compared to other slaughter houses/slabs in Uganda. In addition, Kampala has relatively higher income earnings that increases the demand for meat compared with rural population where very few people have disposable income.

Multi stage sampling techniques including purposive, stratified selection and simple random sampling will be used to identify respondents that will participate in the study. Four parishes will be purposively selected (depending on the concentration of meat sellers) from each of the five divisions that make up Kampala district. A total of 20 parishes will be selected. A randomized sample selection technique will be used to identify 15 respondents (meat sellers of different categories; wholesalers, retailers, supermarkets). A total of 300 respondents will be interviewed. The unit of study will be a meat trader.

Descriptive statistics will be used to classify meat sold, characterize sellers of meat and traders perception of good quality meat in Uganda. The study will adopt a Heckman's two-step model to determine the factors that influence the sales of quality meat, as used by Heckman (1979), Nkonya *et al.* (1998), Heltberg and Tarp (2001), Makhura *et al.* (2001) and Diaz-Valenzuela *et al.* (2008). In making market choices traders face a two stage decision problem (Goetz, 1992). The first decision is to sell quality meat or non-quality meat. The second decision is dependent on quantities sold. Factors that influence traders' choice for the meat stocked will be established by the probit model because of its advantage (the probit model) over many others in that the probabilities are bounded between 0 and 1. At the same time, the probit model compels the error terms to be homoscedastic for reason that the forms of probability functions depend on the distribution of the difference between the error terms associated with one particular type and another (Gujarati, 2004).

Research Application

The producers and all those engaged in the meat value chain need to be aware of the opportunities of quality meat and how the markets for meat are structured. This will guide them towards production of good quality meat. Results generated from this study will thus contribute to policy formulations towards improved quality standards of meat in the country. This research will enrich the set programs under the Uganda Framework of the Meat Quality and Safety Improvement Strategy. Research will be used as a stepping stone by other researchers dealing in

meat and meat products for more innovations along the value chain.

Acknowledgement

The study is being supported with funding from the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) and Danida Fellowship Centre for financial support of Enriching Research Capacity in Africa (ENRECA) project for income generation through market access and improved feed utilization in production of quality beef and goat meat (IGMAFU).

References

- Aaker, A.D. 2007. Strategic market management. Seventh Edition, Leyh Publishing LLC.
- Ben Akiva, A. and Lerman, S.R. 1985. Discrete choice analysis. Cambridge, MA: The MIT Press.
- Gould, B.W., Cox, T.L. and Perali, F. 1991. Demand for food fats and oils: The role of Demographic variables and government donations. *American Journal of Agriculture Economics* 73 (1):212-221.
- Greer, G.G. 1988. Bacteria and meat quality. *Can. Inst. Food Sci. Technol. J.* 22:116.
- Grunert, K.G. 2002. Current issues in the understanding of consumer food choice. *Trends in Food Science and Technology* 13:275-285.
- Gujarati, N.D. 2004. Basic Econometrics. Fourth Edition. McGraw-Hill: New York.
- Heltberg, R. and Tarp, F. 2001. Agricultural supply response and poverty in Mozambique. Institute of Economics, University of Copenhagen.
- Kauffman, R.G., Sybesma, W. and Eikelenboom, G. 1990. In search of quality. *J. Can. Inst. Food Sci. Technol.* 23: 4/5.
- Makhura, M.N., Kirsten, J. and Delgado, C. 2001. Transaction costs and smallholder participation in the maize market in the northern province of south Africa. Proceedings of the Seventh Eastern and Southern Africa Regional Maize Conference 11th – 15th, 2001. pp. 463 - 467.
- Nkonya, E., Xavery, P., Akonaay, H., Mwangi, W., Anandajayasekeram, P., Verkuijl, H., Martella, D. and Moshi, A. 1998. Adoption of Maize Production Technologies in Northern Tanzania. Mexico D.F: International Maize and Wheat Improvement Center (CIMMYT), The Republic of Tanzania, and the Southern African Center for Cooperation in Agricultural Research (SACCAR).
- Picken, J.C. 2007. Commercialization and entrepreneurship boot camp – December 7, 2007. The Institute for Innovation and Entrepreneurship.

Second RUFORUM Biennial Meeting 20 - 24 September 2010, Entebbe, Uganda

Stokes, D. 2002. *Small Business Management*. Fourth edition. TJ International, Padstow, Cornwall.

Uganda Bureau of Statistics (UBOS), 2008. *Statistical Abstract Report, 2008*. UBOS, Kampala, Uganda.