

Full Length Research Paper

Perceptions of rural consumers on the quality of mutton in the Eastern Cape Province, South Africa

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The objective of the study was to determine the perceptions of consumers from the Eastern Cape Province of South Africa on the quality of mutton. A survey was conducted on 215 consumers from five different municipalities in the Eastern Cape province of South Africa. Data was gathered from interviewed consumers at the point of purchase, or when they left the shops. Door to door visits were also carried out. Consumers who lived and shopped in the studied areas were randomly selected. The most important quality cues which indicate consumers' perception were included in interview. One of the major factors affecting the purchasing decisions of consumers is shown to be the price of mutton. Investigation results indicate, that 34% of the consumers preferred mutton, as compared to other protein sources, but were not buying it, because it was expensive for them. Educational status had an effect on the consumers' perception when they choose meat colour, preference on sheep meat parts and health effects. The study also showed that consumers were more concerned about the price, than on the fat in mutton, which may have a negative effect on their health. Both male and female consumers suggested that, there was a need for some more sheep farmers, as the way for reducing the levels of imported mutton into South Africa. They also suggested more efforts in selection programmes that result in efficient sheep production and reduced mutton prices.

Key words: Mutton, meat quality, consumers' perception, Eastern Cape Province, South Africa.

INTRODUCTION

Consumers' perception of meat and meat products is a critical issue for the meat industry, because it directly impacts on its profitability (Troy and Kerry, 2010). Consumers' perception must be positive towards particular food type. When making food purchasing decisions, consumers consider different attributes (Engel et al., 1995). The most important attribute in choosing meat product is quality. Meat quality describes how attractive meat is to consumers (Dinh, 2006). Meat

quality can refer to some of the following attributes: carcass characteristics and composition; meat characteristics such as colour, marbling, pH and eating quality characteristics including tenderness, juiciness and flavour (Bredahl et al., 1998; Muchenje et al., 2009). Consumers are becoming more demanding about food type and the preferred attributes with expected quality of the red meat (Corcoran et al., 2001).

Successfully marketed food, especially meat products

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has to meet changeable consumers' expectations (Corcoran, 1999). According to Glitsch (2000), quality judged at the point-of-purchase highlights the role of "quality in the shop". At the point of purchase consumers use cues to evaluate quality. Therefore, cues such as price, labelling, freshness and colour are important. The colour has been regarded as the most important factor, since it is a visual measure of freshness and quality (Faustman and Cassens, 1990).

Consumption of red meat has shown lower mutton meat consumption over year due related consumers' perception. Sainsbury (2009) highlighted that mutton is no longer being consumed as often as other red meat in South Africa. According to Burger et al. (2004), total consumption of sheep meat is dominated by whites, thus a focus on aggregate consumption patterns ignores the important differences between blacks and whites. However, it is important to note that consumption patterns may differ systematically by race, given income, either, because tastes is different between race groups due to culture, or a different history. Also, South African sheep farmers are faced with increasing input costs and low product price, resulting in reducing profit (Hoffman et al., 2003). Local farmers feel that they need to run their enterprises, in the most effective manner, in order to survive economically. Because of increasing economic pressures on sheep farmers, it is necessary for red meat industry to pay attention on finding ways for solving existing problems. Research on consumer perceptions on mutton can be a relevant way in addressing this issue.

Several studies on consumers' perception of meat have been conducted in different countries (Grunert et al., 2004; Brunso et al., 2005; Banovic et al., 2009; Troy and Kerry, 2010; Sarcevic et al, 2011), but research on perceptions of black consumers from rural areas is rare in literature. Similar work was done during 1994 on mostly white consumers from suburban South Africa. Findings from this research may result in a serious mind shift for decision makers in the South African meat industry. Therefore, the objective of this study was to determine consumers' perception on mutton quality in Eastern Cape Province of South Africa. The null hypothesis tested was that consumers' perception of meat quality at purchase point is similar.

MATERIALS AND METHODS

Study site

The study was conducted from five different municipalities situated in the Eastern Cape province of South Africa. Chosen municipalities were Buffalo City municipality (East London and King Williams Town), Nkonkobe municipality (Alice, Middledrift and Fort Beaufort), Nxuba municipality (Adelaide), Lukhanje municipality (Queenstown), and Amahlathi municipality (Sutterheim, Cathcart) and Ngqushwa (Peddie). Selected areas were categorized into urban and rural towns. East London, King Williams Town, Queenstown, Sutterheim, Cathcart, Adelaide, and Fort Beaufort were categorised as urban while Alice, Middledrift and Peddie were

classified as rural towns.

Selection of consumers

A survey was conducted on 215 consumers. The selection of consumers was limited mostly to those consumers who were directly purchasing mutton from shops and butcheries in the chosen areas, though some homesteads from the villages were also visited. Selection of these consumers was done randomly.

Demographics of respondents

Data were collected included demographic information such as gender and age, employment status, source of income, number of household members, education and race of the respondents. The consumers also answered questions pertaining to meat purchasing decisions, preference to source of protein, preferred meat parts, and their ability to assess the quality of mutton by visual observation. Questions focussing on mutton meat quality and consumers' health were also included.

Data collection

Questionnaires were administered to 215 randomly selected consumers from all the selected points of sale. The respondents were interviewed with permission from the butcher and shop owners at point of purchase or when they left the shop. Trained enumerators administered the questionnaires. Each consumer had to sign a consent form, before the interviews were conducted. The enumerators also, paid some door to door visits, where consumers were interviewed at their homes. Time taken to interview each consumer was 10 min.

Statistical analyses

Frequencies for consumer profiles and perceptions were determined using the PROC FREQ procedures of the Statistical Analyses Systems (SAS) (2003). The chi-square test of SAS (2003) was computed to determine associations between age, gender, educational qualifications, employment status, source of income, total monthly income, meat quality traits of sheep meat and factors influencing meat purchasing decisions.

RESULTS

Consumer demography and characteristics

The distribution of participants according to municipality is shown in Figure 1. Nkonkobe municipality had the highest number of participants (43%) followed by the Buffalo City municipality. The socio-economic profiles of the respondents in this survey are shown in Table 1. Of the 215 consumers who were interviewed in this study, 53% were male and 47% were females. Of all the consumers 71.6% were blacks and 58.1% of them were single. It was observed that the age range from 31 to 40 years had many participants. The majority of the consumers had basic formal education and more than 39.1% of them had gone through matriculation. Among these consumers 54% were employed (Figure 2) and

Municipalities

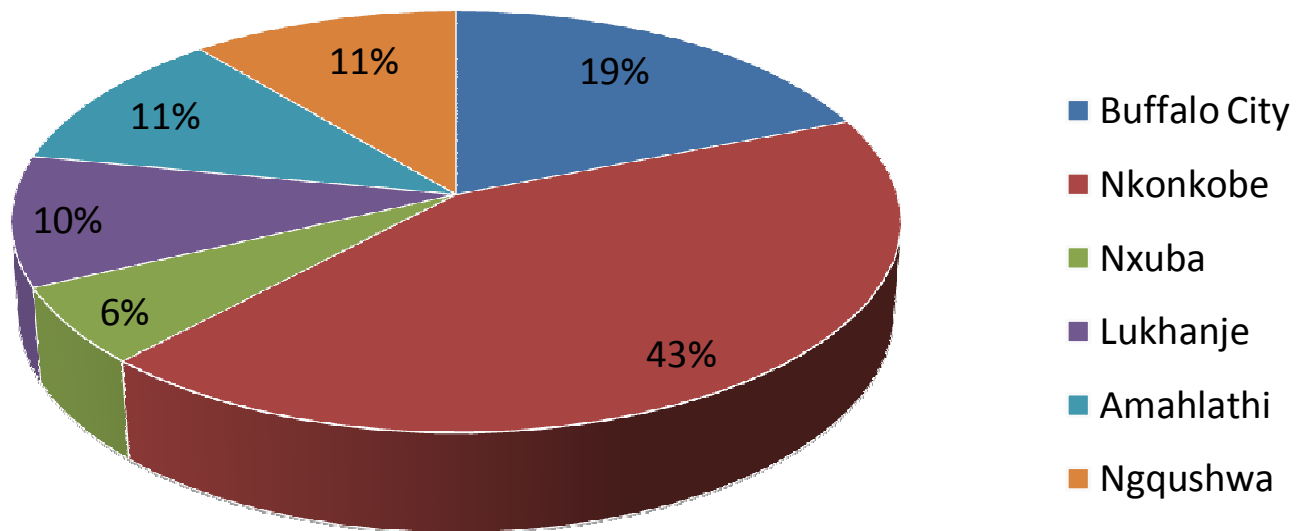


Figure 1. Percentage numbers of consumers who participated in survey from different municipalities.

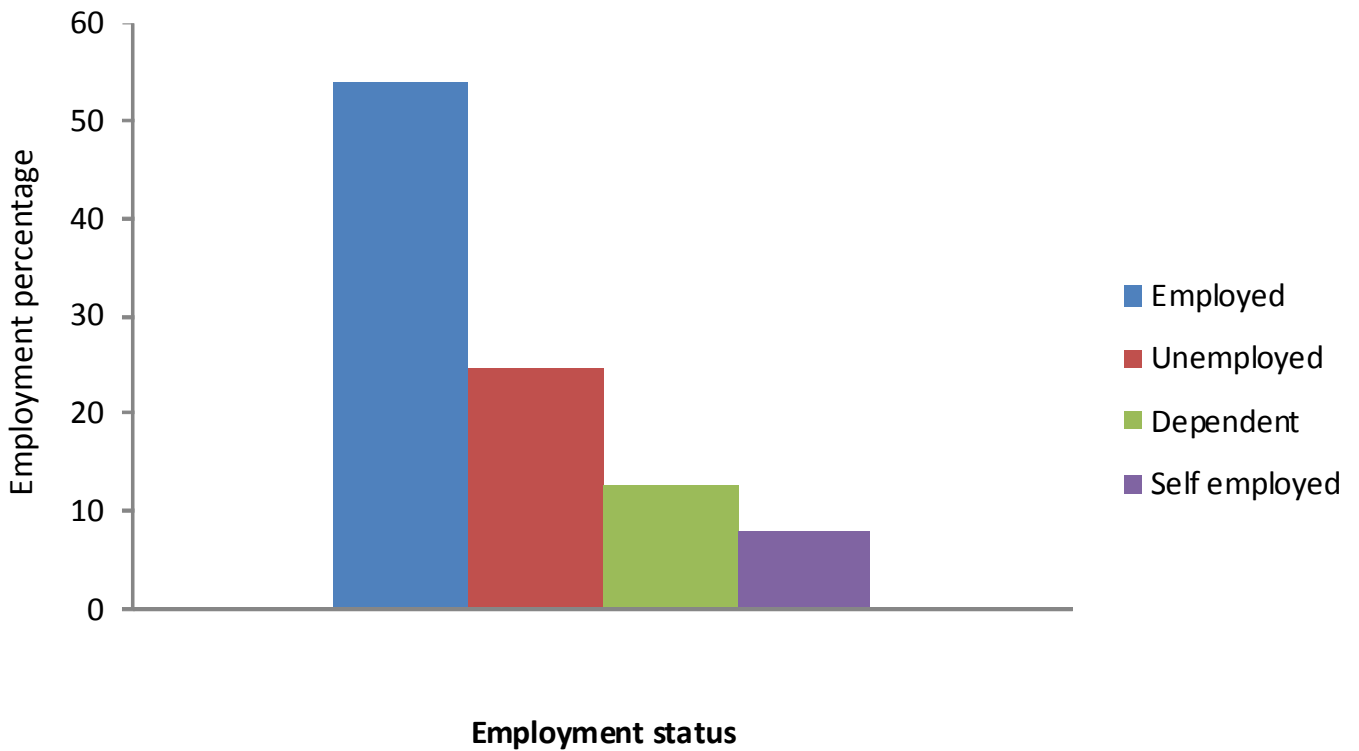


Figure 2. Employment status of consumers who participated in the survey.

Table 1. Demographic characteristics of consumers interviewed in Eastern Cape.

Demographic characteristics	Frequency	Percentage
Gender		
Male	114	53
Female	101	47
Age group (years)		
<20	12	5.6
21 to 30	60	27.9
31 to 40	62	28.8
40 to 50	51	23.7
>50	30	14
Race		
Black	154	71.6
White	23	10.7
Coloured	34	15.8
Indians	4	1.9
Marital status		
Single	125	58.1
Married	73	34
Widowed	8	3.7
Divorced	9	4.2
Educational status		
No formal education	22	10.2
Grade 1 to 7	26	12.1
Grade 8 to 12	84	39.1
Tertiary	83	38.6
Family size		
<3	51	23.7
3 to 5	98	45.6

mostly earning amounts between R500 to R2500 per month (Figure 4). Salaries and wages being 53.5%, were the highest source of income for the consumers as shown in Figure 3. The highest source of income, 53% were from their salaries and wages as shown in Figure 3.

Consumer perceptions on the factors influencing their mutton purchasing decisions and their perception on mutton quality

The primary factors that consumers consider when purchasing meat are shown in Figure 5. Most consumers considered price as the most important factor they use when purchasing meat in a retail store. They consider quality of the product after price. Health aspect was the

least factor. Figure 6 represents different meat types preferred by consumers. Results show that the highest preference was on mutton followed by beef, and the least was on fish.

Consumers' perception about the colour that appetises them the most when purchasing mutton is shown in Figure 7. Most consumers, 35% reported that red colour in mutton appetises them the most when purchased in shops. Hence 25% preferred bright red meat, while 10% reported that they have no knowledge on colour preference of mutton. Figure 8 represents perceptions of consumers on what makes mutton quality superior. Most consumers interviewed in this study agreed that the special quality of mutton lies on its taste, followed by its juiciness, at the least factor was mentioned colour.

Results on the association between demographic information, factors influencing purchasing decision and perception on meat quality traits of sheep are shown in Table 2. Source of income had an effect on the way consumers choose their source of protein, when purchasing meat. Source of income also had an association with reasons given by consumers for not purchasing mutton meat. Most consumers, about 34% preferred mutton, but were not buying it, reasons being because price of mutton is too high, compared to other protein sources. Consumers also raised, that in most shops mutton is unavailable, because most of the time it would not be fresh, and freshness of the meat is the good indicator of its quality. Some consumers complained in some shops especially in rural towns, mutton had a darker colour. Gender was associated ($P < 0.05$) with the following aspects: suggestions raised by consumers on what would improve their choice on mutton, and on whether quality of mutton can be judged just by looking at it in a retail store. Both male and female suggested, that the price of mutton should be reduced, because it is expensive compared to other protein sources at point of purchase. Reasons for expensive price were not known.

Consumers also raised that more sheep farmers should be added. If it is genetically possible, too much fat from sheep meat must be reduced. They also suggested reducing of imported meat, because they feel it is one of the reasons why mutton meat is expensive. Some consumers complained about the unavailability of mutton at different purchasing points. Consumers would prefer sheep slaughtered while still young, and sold immediately after slaughtering. There was a connection between gender and the way consumers evaluated mutton quality at purchasing point. Age, educational status, employment, source of income, and total monthly income significantly affected consumers' preference on mutton meat parts. In the case of consumers asked whether they preferred their meat lean, fat or moderate age, educational background significantly had an effect on their choice. Total monthly income affects the way consumers evaluated meat quality, which makes mutton meat superior. Some consumers think that mutton meat

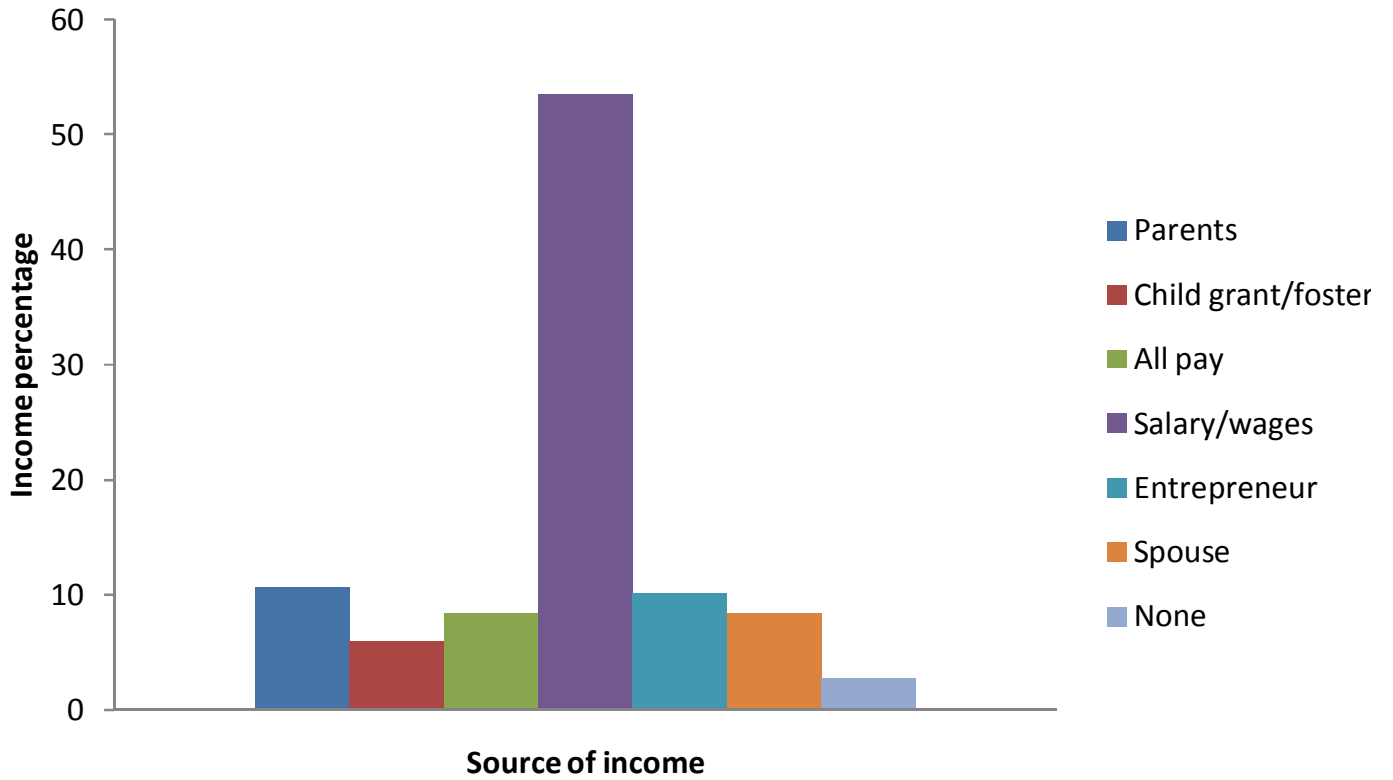


Figure 3. Source of income for consumers interviewed in the survey.

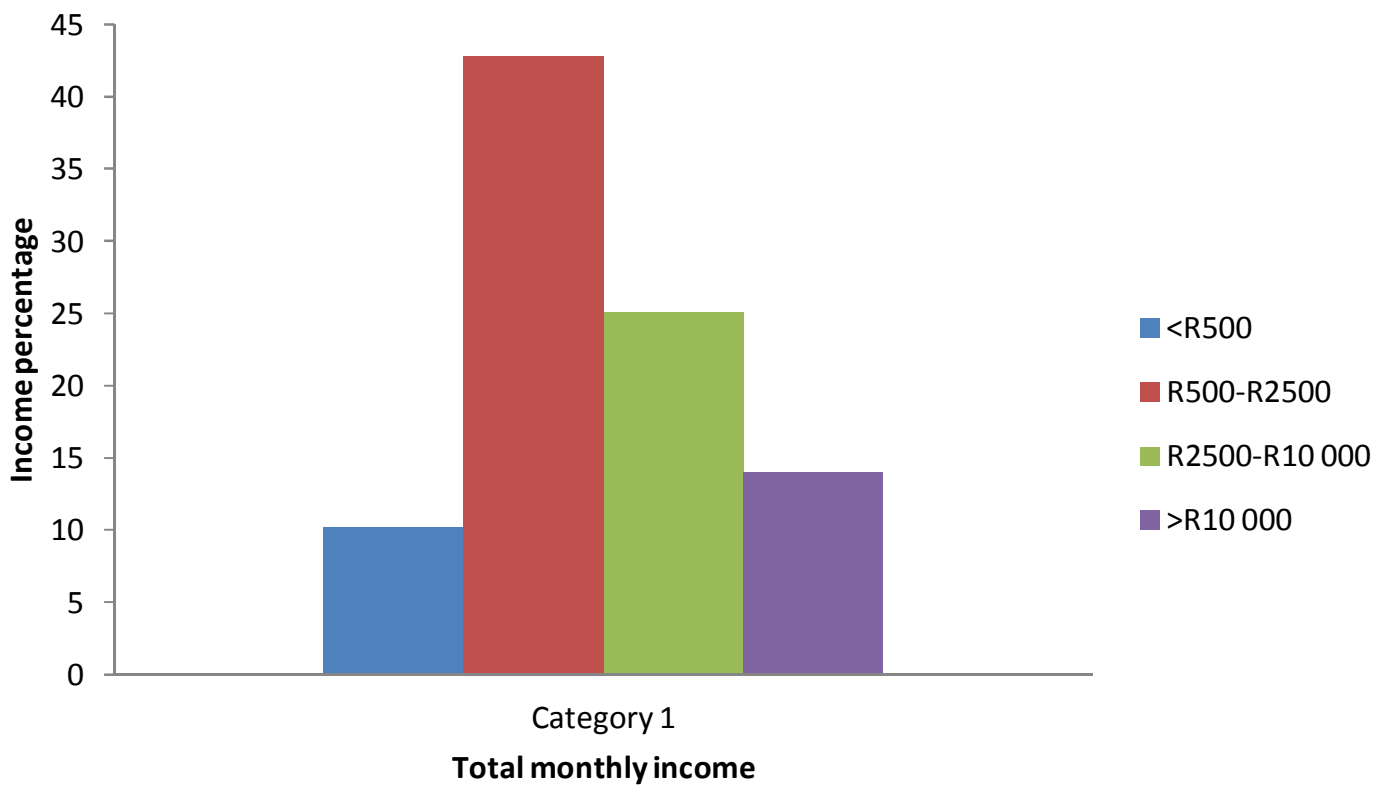


Figure 4. Total monthly income of consumers interviewed in the survey.

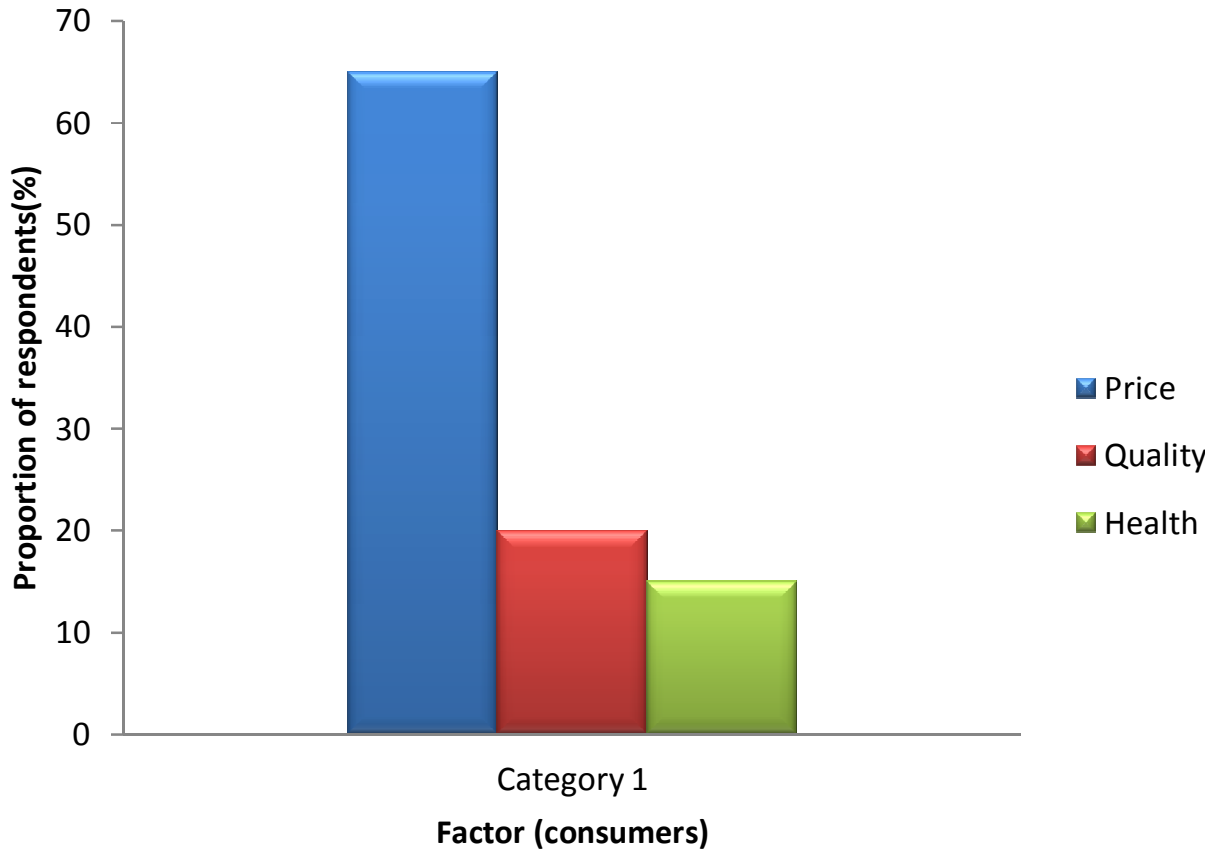


Figure 5. Primary factor in meat purchasing decision.

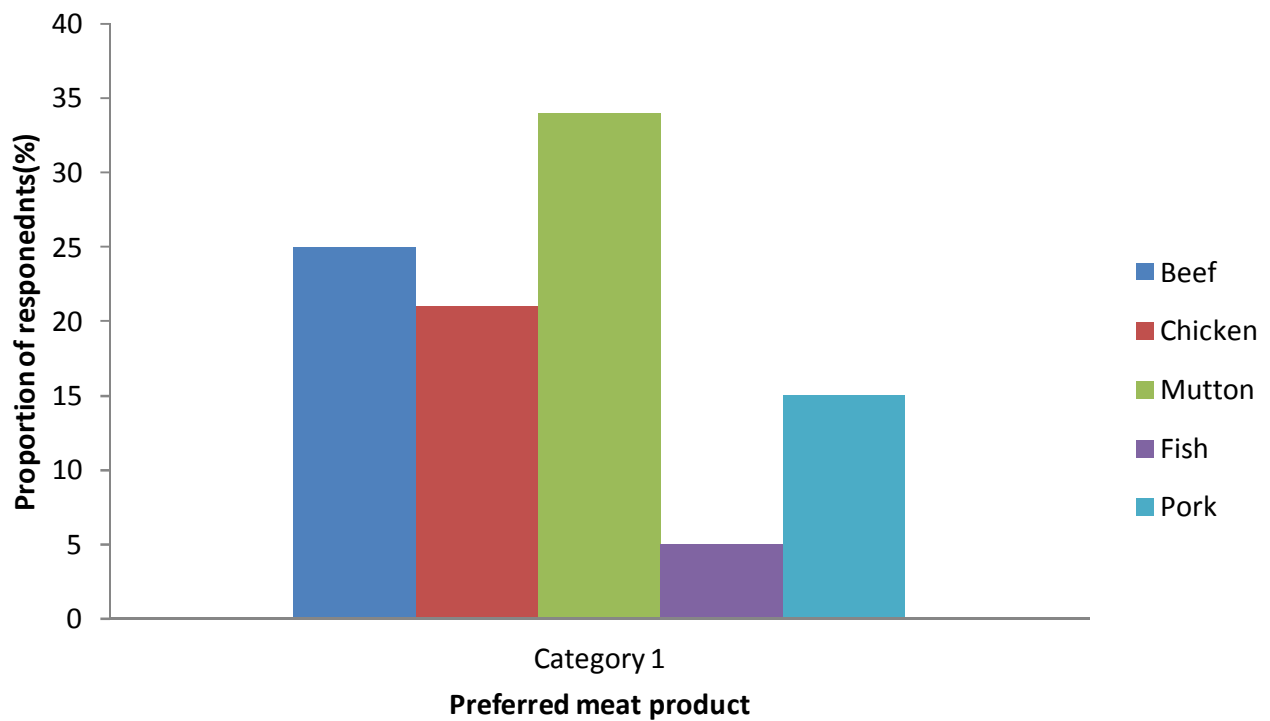


Figure 6. Meat types preferred by consumers interviewed in this study.

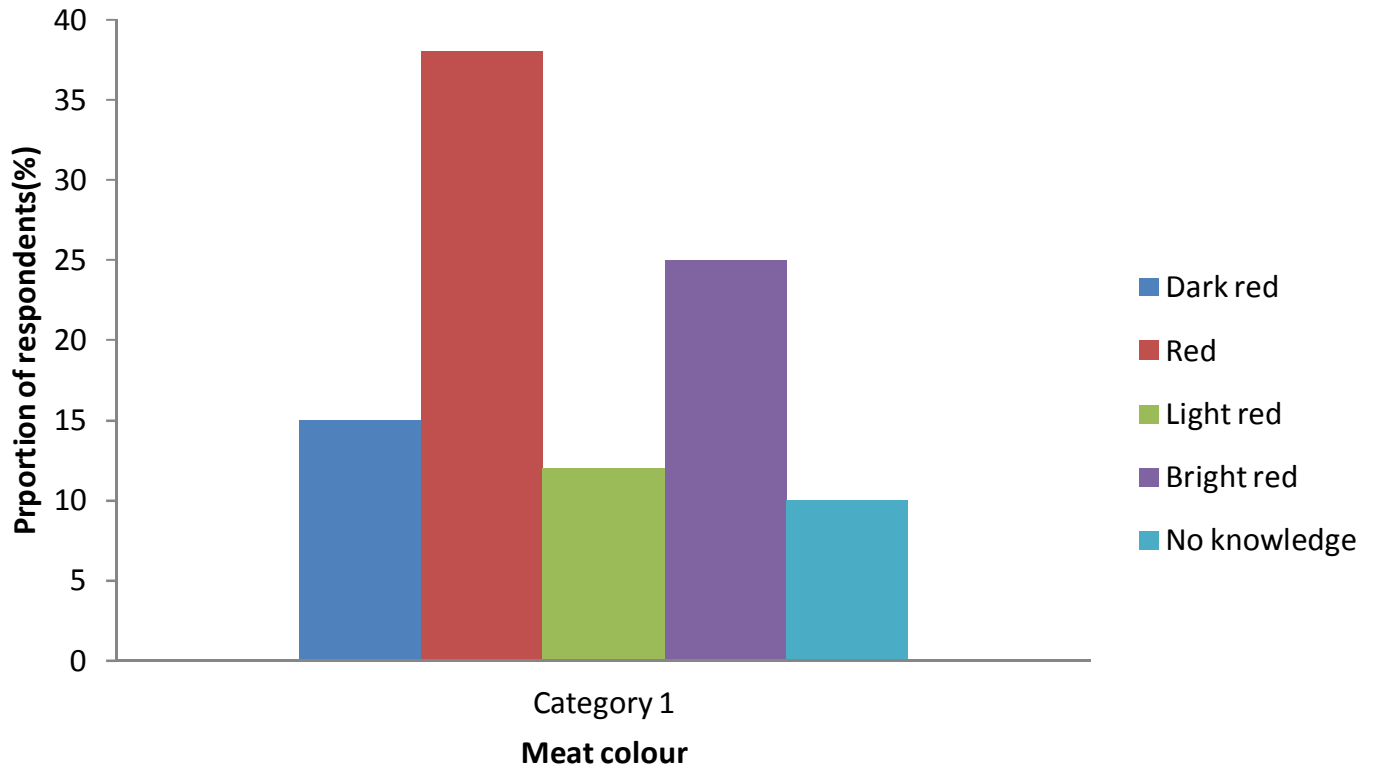


Figure 7. Representing perceptions of consumers on colour preference when purchasing mutton.

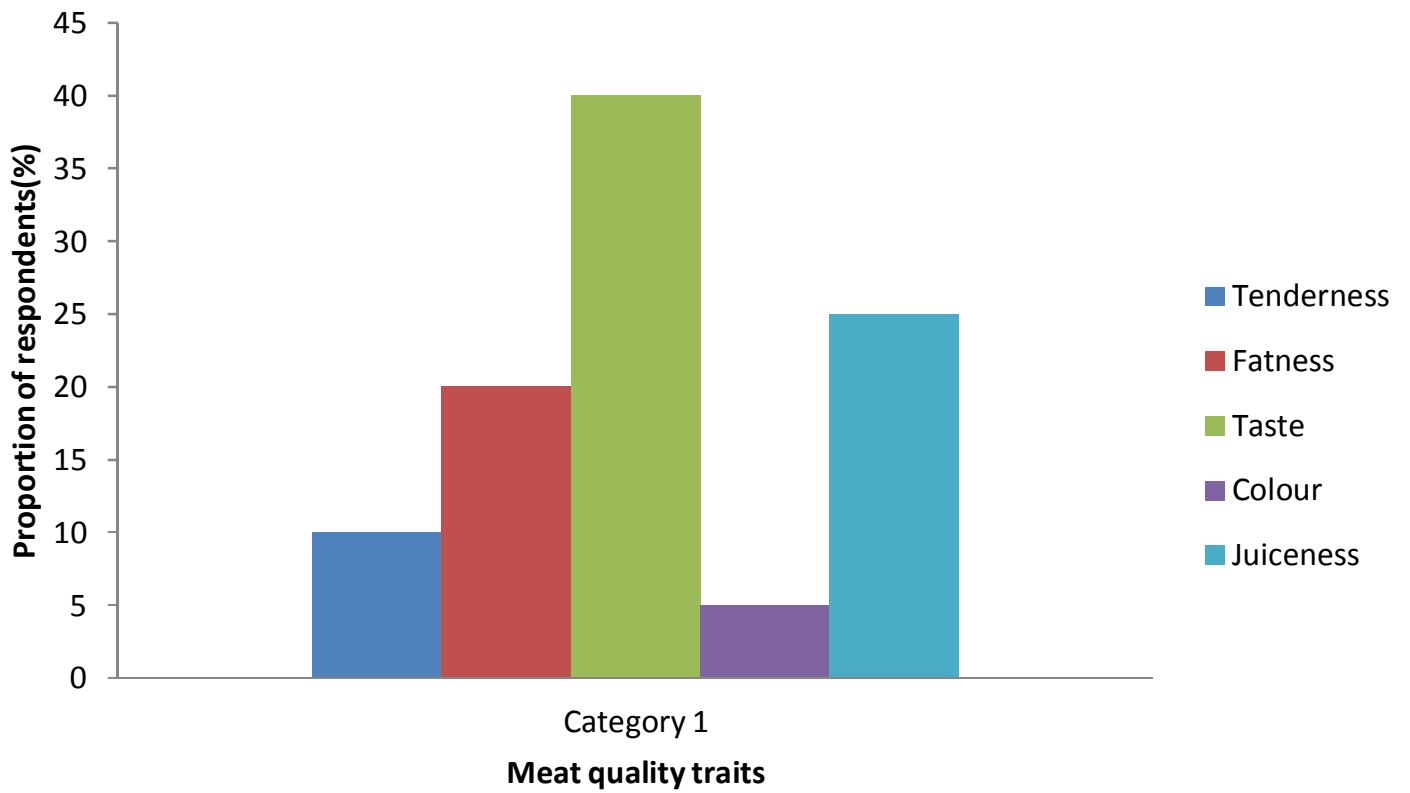


Figure 8. Representing perceptions of consumers on what makes mutton quality superior.

Table 2. Representing association between demographic information, factors influencing purchasing decision and perception on mutton quality.

Demographic factor	Primary factor	Source of protein	Reasons for not buying	Improve choice of mutton	Colour	Quality	Part most	Like it	Superior	Consider
Gender	NS	NS	NS	***	***	***	NS	NS	NS	NS
Age	NS	NS	NS	NS	NS	NS	***	***	NS	NS
Educational status	***	NS	NS	NS	*	NS	*	*	NS	***
Employment	NS	NS	NS	NS	NS	NS	**	NS	NS	NS
Source income	NS	**	**	NS	NS	NS	***	NS	NS	*
Total monthly income	***	NS	NS	NS	NS	**	***	NS	**	NS

***, **, * p < 0.001, p < 0.01 and p < 0.05, respectively. Primary factor = price, quality, health; Source of protein = beef, chicken, mutton, fish, pork; Colour= that appetises the most when purchasing mutton; Quality= can you tell quality of mutton by looking at it; Part most = loin, leg, shoulder, rib chops, liver, lungs, ofals; Like it = fat, lean, moderate; Superior= tender, fatness, taste, colour, juiciness, do not know.

had too much fat, which influence consumers purchase decision in area of its health responsibility. Then later was included the fact that they can or cannot afford to buy themselves mutton meat. Educational and employment status were found to have an effect on their decision.

Consumer perception on important quality cues used at point of purchase

In this study, consumers found place of purchase, as one of the most important quality cue, which can be used as a good indicator of mutton quality. Consumers agreed, that stores where they purchase meat, indicates the quality of meat. Consumers also found that, good indicator of mutton quality is information on the labelling/packaging. Consumers, whether educated or not, young or old, all agreed that texture of the meat at purchasing point, is an indicator of mutton quality. Freshness was also, one of the most important quality cue, identified by consumers, as a good indicator of mutton quality.

Consumers' perception about the price of mutton is presented in Figures 9 and 10 respectively. Consumers, especially those rated under no formal education, did not agree with the fact, that price of mutton can be used as an indicator of mutton quality. Unemployed, dependent and self employed consumers felt that price of mutton is not a good indicator of mutton quality. They highlighted that mutton has always been sold at a higher price, even when it is not of good quality. About 57% of employed consumers indicated that higher price indicates good quality of a product. Therefore, employed consumers agreed, that price of mutton is a good indicator of its quality.

DISCUSSION

The present study showed that, price was regarded as the primary factor affecting purchasing decision of consumers, largely due to the fact, that most of the

respondents were from rural/communal areas. Vimiso (2012) and Ballantine et al. (2008) highlighted that for consumers from rural and poor background, most purchases are determined by the amount of disposable cash available. Quality of a product was rated as the second factor in the current study. Case (1998) conducted a study focusing on black consumption patterns, where she found that most black consumers buy lower quality foods, thus they faced far lower average prices. Consumers rated health, as the least primary factor affecting their purchasing decision. It is contradictory to observations made from developed countries where consumers considered health as the most critical factor judged by consumers at purchase point (Grunert et al., 2004; Brunso et al., 2005). This may be due to the fact, that high priced products may indicate products with high quality and more health benefits. Issanchou (1996) highlighted, that price can be a cost factor, as well as a quality indicator. As an indicator of quality, a buyer can have two price limits in mind. An upper limit, beyond which she/he would find the meat too expensive and indicating high quality, and a lower price limit below which the quality would be suspected. Grunert (1995) states that consumers, who perceive quality as primary factor when purchasing meat, are willing to pay the price, demanded by shop, when meat quality is perceived as high. Zeithaml (1998) refers to the relationship between perceived quality and price as value for money.

Some demographic factors, like educational status and monthly income of consumers, had a connection with primary factors judged by the consumer at point of purchase. This may be due to the fact, that educated consumers are more concerned about their health. They might be having an advantage of being more knowledgeable on the factors that might have a negative impact on their health, hence their income allows them to purchase what they want. Source of income, age, educational background significantly had an effect on consumer's choice between lean and fat meat. Lean meat is usually more expensive than fat meat. Therefore consumers earning low amounts, or those living under

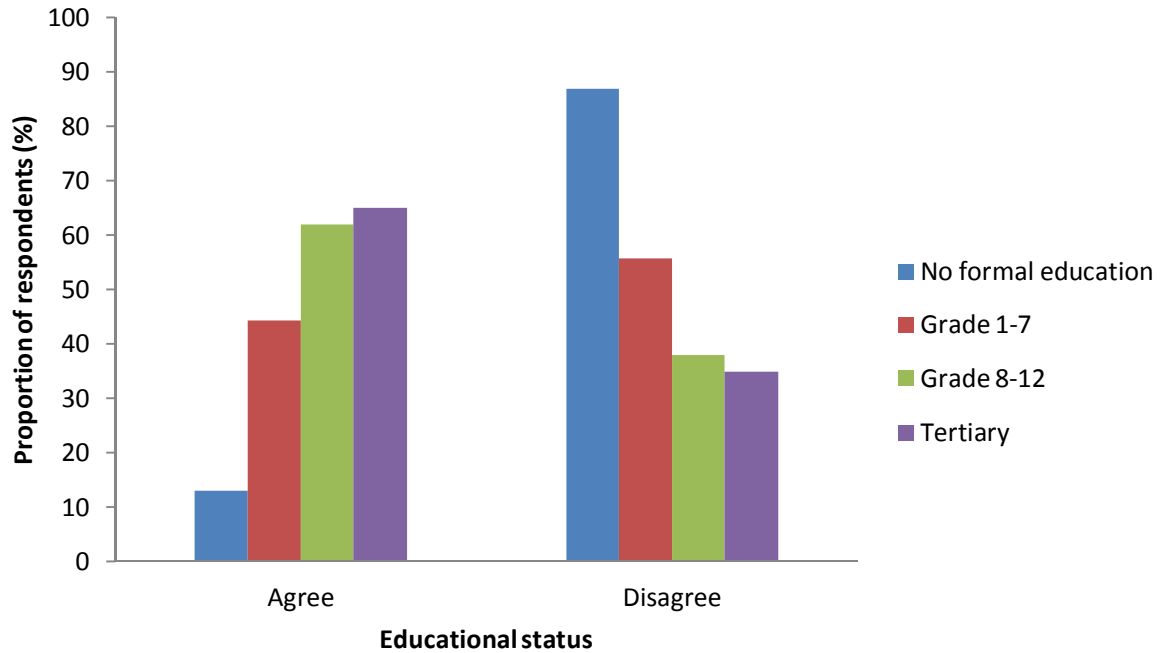


Figure 9. Graph representing educational status of consumers on whether price of mutton is a good indicator of mutton quality.

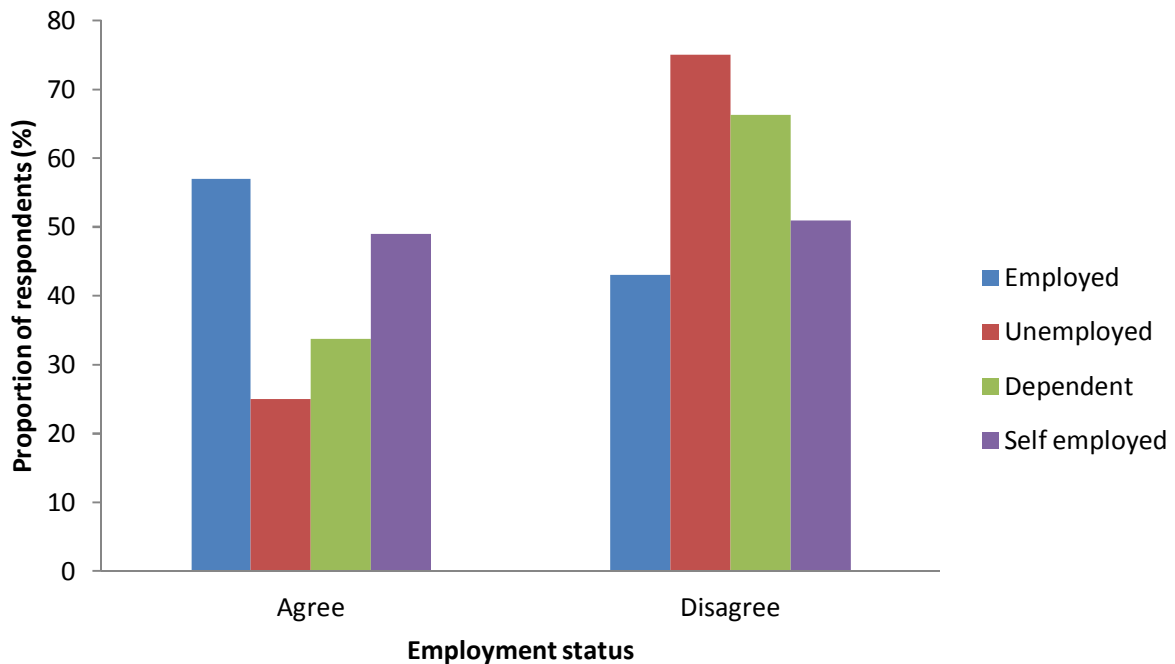


Figure 10. Graph representing employment status of consumers on whether price of mutton is a good indicator of mutton quality.

the poverty datum line, usually afford meat that is not of high quality. Hence, Johansson and Andersen (1998) define cost of food, as a major factor in determining food choice, particularly in the lower socio-economic groups.

Also, consumers older than age group of fifty, are often associated with being in danger of being exposed to chronic diseases, such as heart disease. Because of that they are encouraged to consume lean meat most of the

time. Therefore, consumers complained about mutton containing too much fat. It is important for research to be conducted on breeding practices as an indicator of mutton quality.

The current study showed that consumers had high preference for mutton, but consumption was low. Ahmed (2007) highlighted from his research, that consumers had least preference for mutton, and high preference for beef and chicken. Also, in a study by (Vimiso et al., 2012) consumers preferred beef, than any other meat product. Viljoen and Gericke (2001) also found, that half of the studied group consumers, consumed beef four to ten times out of thirty days, whilst also having high preference for mutton. According to Ahmed (2007) price of mutton was found, as the major factor preventing consumers from buying mutton, also its unavailability. This is in line with perception of consumers from the current study, where consumers complained about price of mutton, strongly suggesting that it should be reduced. Interviewed consumers believed that prices are controlled by butcher and shop owners, and we should find a way of influencing them to decrease the price of mutton. Therefore, it was crucial, that some butcher and shop owners were interviewed on this matter. When asked on how they determine price per kg, almost all the shop and butchery owners, priced their mutton, according to the purchase price to ensure profitability. This implies that the price of mutton is not entirely determined by the butcheries and shop owners. According to Laas (1995) consumer prices start with production costs. Therefore, further studies or research on how price of mutton at the abattoir are determined is of importance, as a way to help consumers to understand why mutton is so expensive.

In a study by Dodds and Monroe (1985), when comparing two similar products, the higher-priced alternative is usually expected to be of better quality. But consumers in current study agreed that, price of mutton cannot be used as a good indicator of mutton quality, hence even when not in good quality, it is always expensive. The current study indicated, there is an association between gender and the way consumers evaluate mutton quality at purchasing point. This can be due to the fact that, women spend more time when purchasing a product comparing in a shop as compared to men (Devasahayam, 2005). Le Roux (2003) found that 55% of the respondents, in a study on red meat believed, that they can judge quality of meat simply by looking at it, which is in line with the results from the current study. The fact that, there was an association between employment, source of income, total monthly income and consumer preference for sheep meat parts in this study is economically sensible. Consumers earning low amounts of income and those earning high amounts cannot afford to purchase certain sheep parts. For example loin is usually more expensive, than other parts like rib, shoulder or leg chop.

Consumers rated place of purchase as one of the most

important quality cues that can be used as good indicator of mutton quality. These results are in line with study by Becker et al. (2000), where place of purchase was ranked as most helpful in assessing meat quality in the shop. Meat labeling has been reported as a promising strategy to regain consumer confidence (Wagner and Beimdick, 1997; Wit et al., 1998). Most consumers in this study agreed that labelling/packaging is a good indicator of mutton quality. They agreed that, when meat bears a label it contains a great amount of information (Bredahl, 2004), and is considered as a cue, that allows the quality of the meat to be inferred (Bello and Calvo, 2000). Tenderness, texture and freshness of the meat are also more important in the appreciation of meat quality. Freshness of meat is known, as a search attribute, due to the fact, that it is known before purchase. In the mind of the average consumer about to purchase meat, colour and freshness are determining factors.

CONCLUSION AND RECOMMENDATIONS

Consumers from the Eastern Cape Province had a high preference for mutton, but could not afford it, because of its high prices. The study showed that consumers are more concerned about the price of mutton, and relatively more about influence of fat in mutton meat, which may have negative impact on their health. It is evident that there is some misunderstanding between consumers and meat marketers on prices which are given to products in a shop, or at point of purchase. Further studies demonstrating the flow market channels based on mutton prices are recommended. Consumers from this study perceive the quality mutton as the best, with its taste and tenderness rated as the most important traits that make mutton meat superior. Further research on how genetic traits on sheep can be manipulated to reduce too much fat from sheep meat. It is important to continue study about fat content of mutton meat, because of negative consumers' perception about it. The study showed demographic factors have an influence on the way that consumers make their purchasing decisions. This investigation results shows that, educational status and income, have an effect on consumers evaluation attitude, about mutton eating quality in a shop.

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