An analysis of consumer preferences of meat in townships

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ABSTRACT

This study investigated the factors which influence consumer preferences of meat in townships. This was done to better understand the consumer behavioural aspects of meat consumers in the informal market so that the right products can be presented at the right time in the right place at the right price with the right service. This process in return enhances customer satisfaction and brand loyalty which will lead to increased loyalty, sales in the long term and ultimately creating sustainability. Convenience sampling was used to select 300 participants from a total population of 87,701 people living in Ikageng, a township of Potchefstroom in the North West province of South Africa. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy measured 0.795 indicating that the sample size was adequate. Questionnaires were completed via interviews with the respondents by the field agent who are fluent in the home tongue and have a good business acumen. A total of 299 completed questionnaires were collected by the cut-off date. The major findings of the study were that the questionnaire used for this study was developed after an in-depth literature study was done on consumer preferences in formal markets. The main categories of the questionnaire were: quality, price, service, location, health, culture and religion, and presentation. However, after applying an Exploratory Factor Analysis on the data the following grouped factors were found to have the greatest effect on consumer preferences in the informal market. 67.71% of the Total Variance is explained by the following ten factors. The factors are: Quality (12.86%), Presentation (8.43%), Customer orientation (8.27%), Culture & Religion (6.62%), Specific choice criteria (6.28%), Visual stimuli (5.85%), Fat content (5.72%), Experience (4.88%), Post-purchase evaluation (4.67%) and Specific preferences (4.32%). The majority of the factors returned satisfactory reliability coefficients.

Key terms: Consumer preferences, meat, quality, price, service, location, health, culture and religion, and presentation.

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CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

South African consumers in general are meat lovers (CountryMeat, 2016) and frequently eat meat as part of their daily diet (SA, 2015). The South African government has even implemented a national “Braai” day to unite South Africans around a fire and to enjoy a piece of South African meat. The National Braai Day initiative aims to position National Heritage Day as South Africa’s annual day of celebration. We call on all South Africans to unite around fires, share our heritage and wave the South African flag on 24th of September every year” (Jan Braai, 2015).

Twenty-two years of post-apartheid has seen the South African market develop from where the low income segment was ignored to where businesses have realised what opportunity they offer. In general there is little information available as to who these consumers are, what their preferences are and what their buying behaviour is. The economy has grown with 65% since 1991 to 1998 and a strong black upper, middle and lower class economy are developing. Although relatively small at 10%, the middle class has seen considerable growth in the black middle class (Businesstech, 2015). Sustained acceleration in private sector investment realized and grew form 8% of GDP in 1992 to 14% in 2008, after which it levelled off at 13% of GDP in response to the recession (Laubscher, 2013). Unfortunately 2015/16 had no economic growth whilst South Africa now dwindles on the edge of downgrading to rubble status due to poor economic forecasts and political leadership (Gumede, 2016). In addition to the increased size of the economy, electricity also became available to the middleclass opening up new markets for fresh produce. Fresh meat consumption also increased with white meats leading the trend. However, although numerous studies target the middle and upper class black consumer markets, limited research is done on the lower Living Standards Measure market (LSM 3-4), partially because of its lower economic impact and less attractive market expenditure.

This study aims to fill a small part of this “gap” through compiling an analysis of consumer preferences of meat in townships[1]. The study was done in Ikageng, a township, part of Potchefstroom in the North West province of South Africa. This study examined consumer preferences and behaviour, and analysed the data to ascertain what factors affected these consumer preferences the most. Factors that were taken into consideration in the survey were demographic factors, marketing factors (product, quality, price, service, location and presentation) as well as personal factors (health, culture and religion).

1.2 PROBLEM STATEMENT

In South Africa high growth levels of meat as protein source in diets amongst black consumers are prevalent. Future projections support this growth trend (SA, 2015). SA (2015) also indicates that white meat is gaining popularity faster than red meat, and importantly, indicating that lower LSM groups prefer pro rata more white meat than red meat as protein source in their diets, making this developing market more elusive to target scientifically. However, little is known about specific consumer preferences and buying behaviour of consumers in townships across South Africa even though the majority of most cities’ populations live in these areas.

There are many factors that affect consumer preferences. The main factors assessed in this study will be quality, price, service, location, health, presentation and culture and religion. It is also assumed that culture and religion will play a bigger role in their preferences than those in the more formal markets. Demographic factors were also included in the questionnaire to learn more about the respondents and their background.

[1] According to the International Encyclopedia of the Social Sciences (Sills & Mertoin, 2008:406) in South Africa, the terms township and location usually refer to the often underdeveloped urban living areas that, from the late 19th century until the end of apartheid, were reserved for non-white residents, namely black Africans, Coloureds and Indians). Townships were usually built on the periphery of towns and cities. The term *township* also has a distinct legal meaning in South Africa's system of land title, which carries no racial connotations

1.3 STUDY OBJECTIVES

1.3.1 Primary objectives

The primary objective of the study is to determine the most important factors affecting consumer preferences of meat in townships.

1.3.2 Secondary objectives

In order to achieve the primary objective, a number of secondary objectives have been formulated. These secondary objectives are:

- To undertake an extensive literature study on consumer preferences as well as on factors affecting these preferences.
- Compile a questionnaire to measure buying behaviour of meat customers.
- Measure the buying behaviour of meat customers in the informal market.
- Determine the latent buying behaviour drivers.
- Draw conclusions and present recommendations.

1.4 RESEARCH METHODOLOGY

The research methodology consists of an extensive literature study on specific topics related to the article as well as an empirical study in which different quantitative statistical analyses were employed to analyse the data.

1.4.1 Literature study

An extensive literature study was undertaken in the article of the study. Overall the literature study focuses on consumer preferences of meat in townships as well as the factors that influence these preferences. The literature was drawn from scientific journals, text books, internet and previous dissertations. The following databases were consulted:

- Google Scholar;
- Ebscohost; and
- Sabinet.

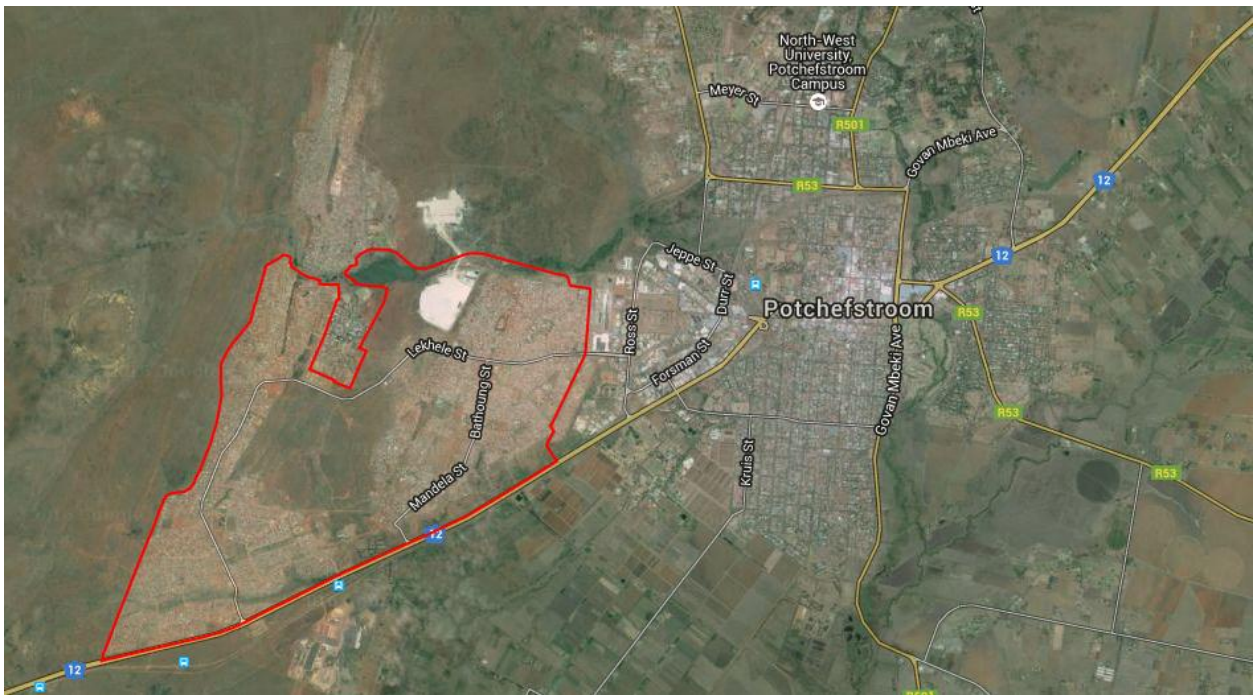
Professional library personnel at the North-West University were consulted to locate the relevant literature.

1.4.2 Empirical study

1.4.2.1 Research design

The empirical study was employed in an article to determine the factors that mostly affect consumer preferences of meat in townships. The research design employed quantitative research, collecting data from a sample within the target population of Ikageng, a township on the outskirts of Potchefstroom in the North West province of South Africa. In Figure 1 Ikageng is highlighted with a red boundary.

Figure 1: Map of Ikageng township



Source: Stats SA (2011)

1.4.2.2 Data collection

Data were collected by means of a structured questionnaire that was distributed to the sample population in Ikageng. The purpose of the questionnaire was to gather data and through statistical analysis empirically substantiate the findings of the literature study. A field agent was used to distribute the questionnaires by ways of convenient sampling throughout Ikageng. The field agent collected all the questionnaires and returned them to the researcher for data capturing and analysis.

1.4.2.3 Research instrument

A structured questionnaire was compiled by the researcher, based on the literature study and previously used questionnaires, to address the study objectives. The questionnaire focused on three sections:

- Demographical information of the respondents.
- Buying behaviour of the respondents.
- Factors affecting consumer preferences.

The setting of the variables was done according to the five-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree or disagree, 4 = Somewhat agree, 5 = Strongly agree). The use of a field agent fluent in Tswana, which the home tongue of the region, ensured that the respondents understood and applied the Likert scale correctly.

1.4.2.4 Study population and sampling

The population of Ikageng is estimated to be 87,701 in 2011 according to SA Stats (2011). Convenience sampling was used to cover the different suburbs of Ikageng to engage 300 participants in the study. A total of 299 completed questionnaires were completed by participants and collected by the field worker. The successful data collection is a credit to the field worker who waited for the questionnaires to be completed by the participants and then collecting it.

1.5 STATISTICAL ANALYSIS

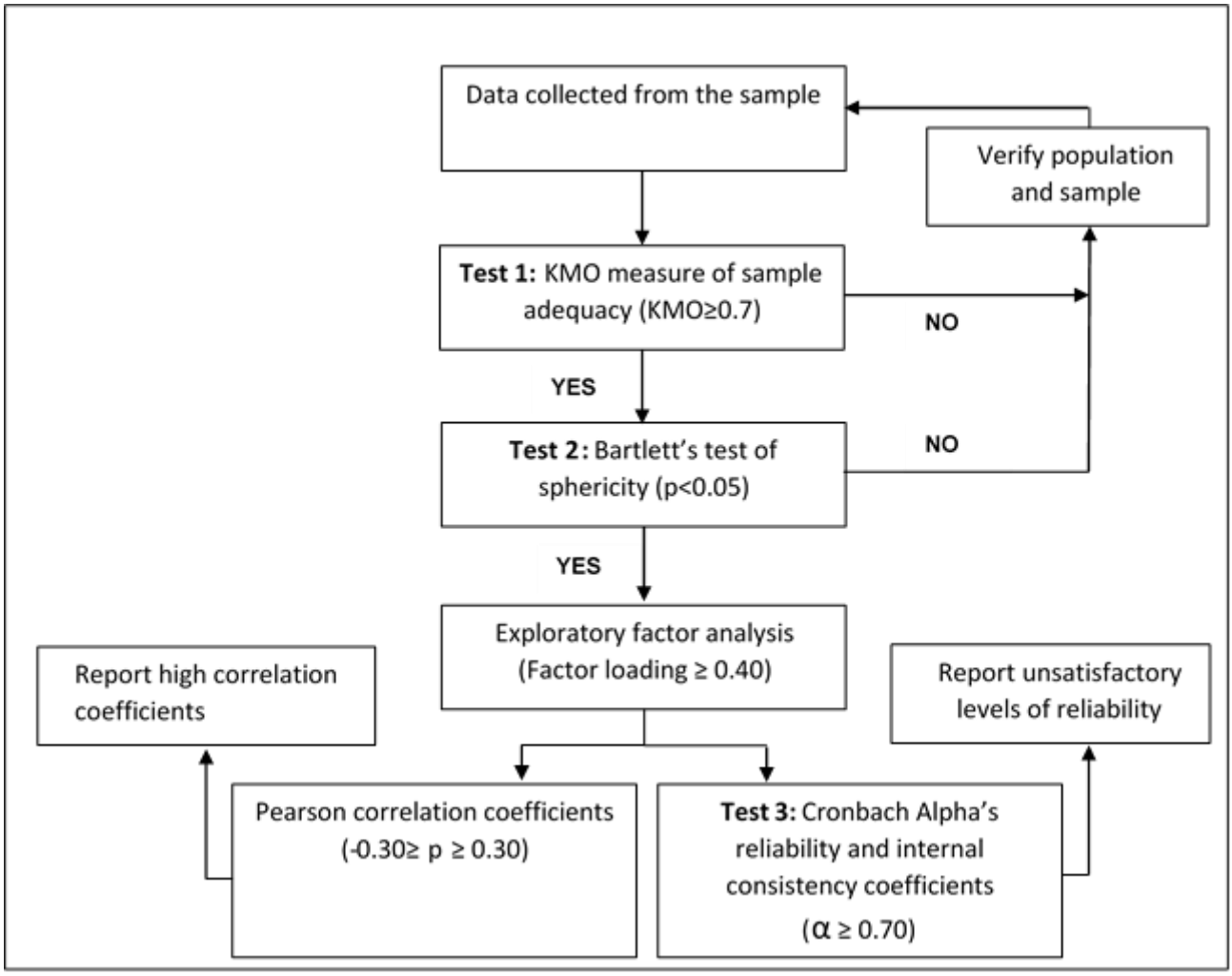
Qualitative analysis was used to analyse the data, in particular the statistical software programme SPSS 23.0 for Windows (SPSS Inc., 2016). The following quantitative statistical techniques were used:

- Kaiser-Meyer-Olkin measure of sampling adequacy;
- Cronbach Alpha's reliability coefficient;
- Bartlett's test of sphericity; and
- Exploratory factor analysis.

These techniques were used because of their superiority in providing statistical procedures for analysing data. The KMO measure determines whether the sample

size of the population is adequate. Cronbach alpha coefficients were calculated for each factor to determine the reliability and to ensure the internal consistency of the collected data. The Bartlett test indicates whether the data is suitable to be subjected to multivariate statistical analysis such as factor analysis. In Figure 2 the statistical analysis process that was followed in this study is illustrated. This decision-tree diagram was developed by Naidoo (2011:12) in a study on stress management and its impact on work performance of educators. Naidoo's diagram was used because this study has similar constructs and it provides an excellent data analysis process. (Note that no Pearson correlations were employed as this fall outside the scope of the study).

Figure 2: Data analysis decision-tree



Source: Naidoo (2011:12)

The application and interpretation of the statistical techniques and methods in this study are interpreted below.

1.5.1 Kaiser-Meyer-Olkin measure of sampling

According to Field (2009:659) the KMO measure of sampling adequacy determines whether the relationship between variables is strong enough to proceed with factor analysis. The KMO statistic varies between 0 and 1. A value of 0 suggests that the sum of partial correlation is large relative to the sum of correlations, indicating diffusion in the pattern of correlations while a value close to 1 indicates that patterns of correlation are relatively compact and therefore factor analysis should yield distinct reliable factors. The larger the KMO value, the more reliable the factor analysis for the particular sample size. Field (2009:660-663) explains that factor analysis is likely inappropriate for values smaller than 0.5. If such small values occur, more data should be collected or different factors may be selected for analysis.

1.5.2 Crobach's reliability coefficient

Following the use of the questionnaire as instrument for collecting data for this study, the reliability of the data must be examined. Salkind (2000:106) suggests that reliability is when a test measures the same thing more than once and it results in the same outcome. Cronbach alpha values of 0.70 are deemed to be satisfactory (Field, 2009:675).

1.5.3 Bartlett's test of sphericity

The Bartlett test of sphericity examines whether a variance-covariance matrix is proportional to the identity matrix. Field (2009:660) further states that it also indicates the suitability of data and ensures that the data could be subjected to factor analysis. The Bartlett test of sphericity is therefore an indicator of the strength of the relationship among variables as well as an indicator of the suitability of data towards a multivariate statistical technique such as factor analysis. Field (2009:659) states that all values of the Bartlett test below 0.05 are regarded to be significant.

1.5.4 Exploratory factor analysis

In the social science field, researchers strive to measure latent variables (constructs that cannot be measured directly). Factor analysis is used to fill this gap by being

able to measure these latent variables. It also identifies whether the correlations between a set of observed variables stem from their relationship to one or more variables in the data, each of which takes a linear model (Field, 2009:731). Costello and Osborne (2009:5) also state that factor analysis is an important tool that can be used to identify groups and clusters of variables. In summary, factor analysis has the following uses:

- Reduces the data set to a more manageable size.
- Simplifies the structure of a set of variables for better understanding.
- Identifies underlying constructs or variables from data sets.

1.6 ETHICAL CONSIDERATIONS

The study was approved by the ethical committee of the Faculty Economic and Management Sciences at the North-West University (Potchefstroom campus).

In addition, participants have always been treated with the greatest respect and it is of utmost importance to explain to them exactly what is required from them, why this study is important and what their participation would contribute towards. The following points were taken into consideration in this study:

- Anonymity (Respondents were guaranteed safety with regard to anonymity).
- Confidentiality (Respondents were guaranteed that all data supplied will stay confidential).
- Voluntary (It was explained to the participants that they were there on a voluntary basis and that they could at any time withdraw from the study).
- Treat with respect (Each respondent was treated with respect).
- Protect from discomfort and harm (The researcher took responsibility to make sure respondents were protected against harm and discomfort).
- Fairness, unbiased, and culturally sensitivity was assured.
- Transcriptions and written documents are kept in a safe place, where only the researcher has access to it.

1.7 STUDY LAYOUT

This mini-dissertation is divided into three chapters. It is important to note that the study is presented in the North-West University approved article format. This means that the second chapter consists of a scientific article aimed at publication in an acceptable journal. This also means that some of the text is repeated, or reworded, in the article. The problem statement or research methodology serves as typical examples of repeat text or repeat concept. A summary of the contents in these chapters follows.

Chapter 1: Introduction

This chapter forms the introduction to the dissertation. The problem statement, study objectives, and background, that form the basis for conducting this study, are discussed. The chapter concludes with the research methodology and statistical analysis.

Chapter 2: Scientific article

An analysis of consumer preferences of meat in South African townships.

In this article a literature study is conducted on consumer preferences as well as perceived factors that influence them. Statistical and factor analysis are applied to the data. These results are discussed and a group of factors that influence consumer preferences of meat in townships is established and discussed. The chapter concludes with recommendations.

Chapter 3: Conclusions and recommendations

In this final chapter the conclusions and recommendations of the study are presented. A summary of the main findings of the study is presented and discussed. The dissertation is concluded by mentioning opportunities for further research and presenting a summary of the whole study.

1.8 LIMITATIONS OF THE STUDY

The study was not done without limitations. One of the biggest limitations with a mini-dissertation is the time limit. There was only a few months to complete the whole study which makes it difficult to do an in-depth study. The second major limitation is the geographical spread of townships across South Africa. It would have been a

great opportunity to compare townships in different provinces in South Africa, but that is an opportunity for further research. Lastly, financial resources are always limited with studies. This study was done with limited resources, so planning effectively and efficiently was the key to success.

1.9 SUMMARY

In this chapter, the overall focus of the study was laid down. The problem statement, research objectives, methodology, population, sample and gathering of the data was explained. The statistical analysis with the various techniques to analyse the data were comprehensively discussed and the criteria pertaining to each technique was set out for this study. The chapter also contributes to a general understanding of the research need and the research problems. Lastly, the ethical considerations, study layout and limitations of the study were discussed.

Chapter 2 is the scientific journal article of the study.

CHAPTER 2

RESEARCH ARTICLE

AN ANALYSIS OF CONSUMER PREFERENCES OF MEAT IN A SOUTH AFRICAN TOWNSHIP

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The article has been submitted for perusal to the ISI & Scopus listed journal *Ponté: An interdisciplinary journal*. The article is prepared and referenced as per journal guidelines.

ABSTRACT

This study investigated the factors which influence consumer preferences of meat in townships. This was done to better understand the consumer behavioural aspects of meat consumers in the informal market so that the right products can be presented at the right time in the right place at the right price with the right service. This process in return enhances customer satisfaction and brand loyalty which will lead to increased loyalty, sales in the long term and ultimately creating sustainability. Convenience sampling was used to select 300 participants from a total population of 87,701 people living in Ikageng, a township of Potchefstroom in the North West province of South Africa. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy measured 0.795 indicating that the sample size was adequate. Questionnaires were completed during interviews with the respondents by the field agent who are fluent in the home tongue and have a good business acumen. A total of 299 completed questionnaires were returned by the cut-off date. The major findings of the study were that the questionnaire used for this study was developed after an in-depth literature study was done on consumer preferences in formal markets. The main categories of the questionnaire were: quality, price, service, location, health, culture and religion, and presentation. However, after applying an Exploratory Factor Analysis on the data the following grouped factors were found to have the greatest effect on consumer preferences in the informal market. 67.71% of the Total Variance is explained by these ten factors. The factors are: Quality (12.86%), Presentation (8.43%), Customer orientation (8.27%), Culture & Religion (6.62%), Specific choice criteria (6.28%), Visual stimuli (5.85%), Fat content (5.72%), Experience (4.88%), Post-purchase evaluation (4.67%) and Specific preferences (4.32%). The majority of the factors returned satisfactory reliability coefficients.

Key terms: Consumer preferences, meat, quality, price, service, location, health, culture and religion, and presentation.

Jel code: M31; M39

INTRODUCTION

The consumer research company AC Nielsen (2016) has concluded over a decade ago that the South African consumers, in general, are meat lovers and that they frequently eat meat as part of their daily diet (Countrymeat, 2016). In her report, Holmes (2016) indicated that this has not changed, and that in fact, South Africans also increased their meat consumption by indulging in fast-foods and especially chicken outlets. Chicken consumption via fast-food increased almost 3% per annum since 2014 and that a projected 42% of the population will eat chicken take-out by 2018 once a month (compared to 29% in 2014) (Gillmore in Holmes, 2016). South Africans has even implemented a national "barbeque day" to add to the festivities of South Africa's National Heritage day on the 24th of September. The barbeque day is hosted by the celebrity "Jan Braai". South Africans and expats all over the world are encouraged to gather with friends and family around a fire and to enjoy a piece of South African meat roasted over coals, each with his or her unique barbeque recipe (Jan Braai, 2016). "The National Braai Day initiative aims to position National Heritage Day as South Africa's annual day of celebration. We call on all South Africans to unite around fires, share our heritage and wave our flag on 24 September every year" (Jan Braai, 2016).

Twenty-two years of post-apartheid has seen the South African market transformed from where the low-income black market segment was largely ignored or serviced by cheap meat cuts and often off-cuts, to a market where business are actively targeting the upcoming black middle-class; realizing the market and business opportunities this market offers. The consumption of red meat increased moderately while white meat has been growing strongly. According to the Department of Agriculture, Forestry and Fisheries of South Africa (SA, 2015), South Africans were eating 22.4 kg of red meat per capita in 2000, while fourteen years later, they had increased consumption to 26.6kg per capita (representing a 19% growth). The consumption of poultry (broiler meat mostly) increased from 21.5 kg per capita in 2000 to 38.5 kg per capita per year (signifying almost 80% growth) in 2014. Resultantly, the relatively affordability of poultry meat led to poultry becoming a major protein source in the diet of the majority of South Africans (SA, 2015).

Studies amongst black consumers indicate a preference for white meat (which constitutes poultry in South Africa). Regarding game, Hoffman *et al.* (2005:38) indicated no willingness to pay a price premium for game, nor a specific demand for game meat products amongst black middle class consumers because they "do not consider game meat as a 'regular' type of meat, but rather as an exotic, seasonal product". Burger, Van der Berg and Nieftagodien (2004), using Engel's curves, have indicated that consumption variation exists in black consumers' behaviour; further behavioural studies are needed. Most studies, such as Malindi (2010) and Uys (2015), do not isolate their target market as black consumers, but rather use LSM or the type of meat (i.e. red, white, game) as classifying variable. (Given the historical political environment in South Africa, an oversensitivity to race as differential variables developed; this explains the limited studies focussing on specific race groups after the first democratic election in South Africa in 1994 (Zalka, Downes, & Paul, 1997:29; Iqani, 2012:22)). However, business sanity prevailed and the cultural, behavioural and other dissimilarities influencing buying behaviour between different race groups are once again recognisable and specific target markets are serviced according to customer preferences and needs. More recently, Dicey (2016) indicates that the black consumers are also falling prey to obesity and that they are strongly influenced by international trends in their consumer behaviour trends.

The economy has grown with 65% since 1991 to 1998 and a strong black upper, middle and lower class economy are developing. Although relatively small at 10%, the middle class has seen considerable growth in the black middle class (Businesstech, 2015). Sustained acceleration in private sector investment realized and grew form 8% of GDP in 1992 to 14% in 2008, after which it levelled off at 13% of GDP in response to the recession (Laubscher, 2013). Unfortunately 2015/16 had no economic growth whilst South Africa now dwindles on the edge of downgrading to rubble status due to poor economic forecasts and political leadership (Gumede, 2016). In addition to the increased size of the economy, electricity also became available to the middleclass opening up new markets for fresh produce. Fresh meat consumption also increased with white meats leading the trend. However, although numerous studies target the middle and upper class black consumer markets, limited research is done on the lower Living Standards Measure market (LSM 3-4), partially because of its lower economic impact and less attractive market expenditure.

Although various sources indicate large growth in black markets, most research projects focus on the middle and higher income groups (Living Standards Measure 6 and higher). Limited focused research (for example, on meat consumption and its respective consumer behavioural attributes) have been conducted as of yet. This point has been made by Mahanjana in 2005, however, it still seems that apart from the low level of attention lower end markets receive (Chummun & Bisschoff, 2016), and limited information is available. This is due to poor research and documentation, the informal market contribution remains invisible in the national economic data. There seems to be very little research done on the informal market in general and therefore its contribution remains silent and as a result, the behaviours of the emerging sector remains unclear.

This article aims to fill a small part of this "gap" through compiling an analysis of consumer preferences of meat in townships. The study was done in Ikageng, a black low-income township, part of Potchefstroom in the North West province of South Africa. Factors that were taken into consideration in the survey were demographic factors, marketing factors (product, quality, price, service, location and presentation) as well as personal factors (health, culture and religion).

PROBLEM STATEMENT

In South Africa high growth levels of meat as protein source in diets amongst black consumers are prevalent. Future projections support this growth trend (SA, 2015). SA (2015) also indicates that white meat is gaining popularity faster than red meat, and importantly, indicating that lower LSM groups prefer pro rata more white meat than red meat as protein source in their diets, making this developing market more elusive to target scientifically. However, little is known about specific consumer preferences and buying behaviour of consumers in townships across South Africa even though the majority of most city's populations live in these areas.

This study focuses on learning more about the consumer preferences of meat in Ikageng, a township of Potchefstroom in the North West province of South Africa. According to Stats SA's 2011 census the total population of Potchefstroom was 14,8875 which comprises: Ikageng 87,701, Potchefstroom central 43,448, Promosa 16,125 and Mohadin 1,601. This shows that 59% of the population of the city of

Potchefstroom lives in Ikageng, and yet, very little is known about these consumers and their preferences. Although most of the population in Ikageng rank in the lower income level, they are evolving and becoming an important contributor to the economy. It is therefore important to study these consumers and to find out what their preferences are so that the right products can be marketed to them.

OJECTIVES

Primary objectives

The primary objective of the study is to determine the most important factors affecting consumer preferences of meat in townships.

Secondary objectives

In order to achieve the primary objective, a number of secondary objectives have been formulated. These secondary objectives are to:

- Identify consumer preferences from the literature study.
- Compile a questionnaire to measure buying behaviour of meat customers.
- Measure the buying behaviour of meat customers in the informal market.
- Determine the latent buying behaviour drivers.
- Draw conclusions and present recommendations.

CONSUMER PREFERENCES

Verbeke (1999:8) states the behaviour of consumers is increasingly driven by product quality and health consciousness, with a new consumption pattern called “healthy eating”. This includes characteristics like taste, health, marbling and fat content. This explains why many organisations, producers and Government have been involved in debates regarding fat and cholesterol, growth hormones and price, just to name a few.

Consumer buying behaviour is directly linked to what the consumers’ preferences are. Consumer behaviour refers to the selection, purchase and consumption of goods for the satisfaction of their wants (Widmar, 2014:143). Botes-Marais (2014:6) states that the Google generation is very critical of what is on offer on our retail shelves. They don’t care about large-scale savings on bulk buying but rather focus

on specific cuts and have a no wastage policy. What is concerning is that although consumers incorporate a multitude of criteria into their food purchasing decisions, they generally (7%) never read the labels on the foodstuffs, 19% rarely do and 26% seldom read the label information on food products. Higher income consumers are more educated consumers and are more aware of issues such as meat tenderness, safety, ethical issues, colour, packaging and labelling while lower income consumers are more aware of price (Du Pisane, 2014:10).

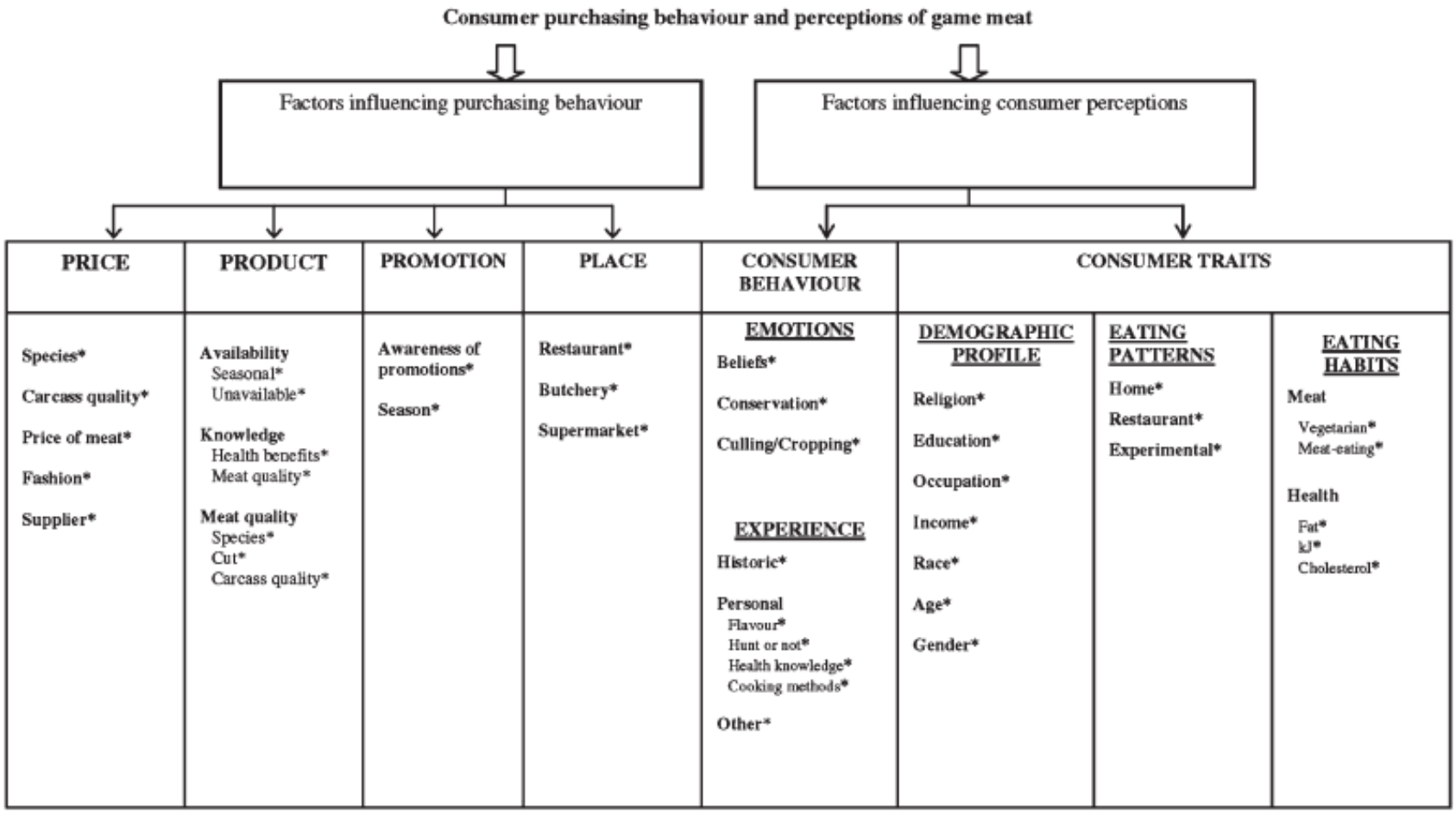
According to Stats SA (2011) marginalised consumers spend 38% of their income on grain-based staple foods, followed by 22% on meat products, 11% on vegetables and 8% on dairy and eggs. Despite consuming all meat types, these consumers have a clear preference for chicken followed by beef (Vermeulen *et al*., 2015).

Aaslyng (2009) claims that irrespective of purchasing ability, each consumer wants to have the best eating experience for their money; a view supported by Uys, 2015:64). The lower income consumers eat meat for nutritional value, while the higher income consumers consume meat for the eating experience itself. He also states that as consumers become wealthier their meat consumption increases. However, the type and amount of meat consumed is influenced by demographic factors such as gender, age and marital status. Veblen (1988:129) established six components which are important to the consumer when purchasing meat, namely convenience, price, nutrition, variety, quality and good taste; these variables are still considered as important (Uys, 2015:31). Perceived factors that influence consumer preferences and their buying behaviour are discussed next.

Factors influencing consumer preferences of meat

According to a survey done by Stats SA (2010), on Income and Expenditures, it revealed that the top twenty factors influencing marginalised consumers preferences of meat was price, appearance, cleanliness, meat colour, quality guarantee, convenience, tenderness, expiry date, bone-to-meat-ratio, eaten by all, easy to prepare, fat-to-meat-ratio, packaging size, fat colour, preparation time, freshness, taste, juiciness, packaging type and flavour (Vermeulen *et al*., 2015). Hoffman *et al*. (2005) developed a dendrogram to quantify consumer purchasing behaviour and perceptions of game meat. Figure 1 illustrates their dendrogram.

Figure 1: Consumer expectations and perceptions of South African game meat.



Dendrogram developed to quantify consumer purchasing behaviour and perceptions of game meat.

Source: Hoffman *et al*. (2005)

As indicated in the dendogram above by Hoffman et al. (2005), there are many factors that affect consumer preferences. The main factors assessed in this study will be quality, price, service, location, health, presentation and culture and religion. It is also assumed that culture and religion will play a bigger role in their preferences than those in the more formal markets. Demographic factors were also included in the questionnaire to learn more about the respondents and their background. After considering the above factors, based on informal discussions with consumers and merchants in Ikageng and literature support, following consumer behavioural drivers were selected and used to draft the questionnaire that collected the data to measure the effects they have on consumer buying preferences of meat in Ikageng.

Product

Ehmke *et al*. (2016) refer to products as the goods and services you offer to your customers. In this study the product refers to meat which includes beef, chicken, mutton, pork and fish. The product includes attributes such as quality, features, options, services, warranties and brand names. The products' appearance, function and support make up the package the customer is buying.

Quality

Malindi (2010) in pursuit of Menkhaus *et al*. (1993) investigated which factors affect a consumer's quality perception of beef. The results from Menkhaus *et al*. (1993) showed that concerns towards cholesterol, calorie content, artificial ingredients, convenience characteristics, price and how it is displayed in the store adversely affected the quality perception of beef. Shongwe *et al*. (2007) state that meat quality is the measure of traits that are sought and valued by the customer. Malindi (2010) however indicated that quality issues such as freshness, colour, marbling and display of the meat products are more important quality indicators. Quality is believed to be high when meat is attractive in appearance, appetizing, nutritious, wholesome and palatable in its final prepared state.

Vermeulen *et al*. (2015) found in a study of lower income respondents that there were seven dominant consumer associations with the quality of red meat, namely:

- Freshness (40.0%);

- Meat colour red (21.2%);
- Clean meat (12.1%);
- Appearance (4.8%);
- Grading (4.2%);
- Price (3.0%);
- Nutritional value (1.8%);
- Shelf life (1.8%);
- Smell (1.8%); and
- Tenderness & taste (1.8%).

Quality of meat is ensured at source of origin. In South Africa a carcass classification system is strictly applied to ensure more consistent meat quality, composition and consumer satisfaction (Webb, 2015:229) (See Figure 2).

Figure 2: Carcass classification

Source: Du Pisane (2015)

Carcass properties recorded in the system include (Du Pisane, 2015:44):

- The age of the animal.
  - **AAA:** This code means that the colour of the roller mark on the carcass is **PURPLE** and is an indication that the meat is from a

young animal (no permanent incisors) and thus the more tender meat.

- **ABAB:** This code means that the colour of the roller mark on the carcass is **GREEN** and is an indication that the meat is from a young animal in transition to an adult animal (1-2 permanent incisors) and thus tender meat.
- **BBB:** This code means that the colour of the roller mark on the carcass is **BROWN** and is an indication that the meat is from an adult animal (1-6 permanent incisors) and thus less tender but with a lot of flavour.
- **CCC:** This code means that the colour of the roller mark on the carcass is **RED** and is an indication that the meat is from an adult animal (>6 permanent incisors) and thus less tender but perfect for stews.

- The fat content of the carcass (Malindi 2010:20-21).
  It is the right of the consumer to choose how much visible fat they prefer. Fat classes are indicated in the following manner:
  - **000** - means no visible fat on carcass;
  - **111** - means a very lean carcass;
  - **222** - means a lean carcass;
  - **333** - means a medium fat carcass;
  - **444** - means a fat carcass;
  - **555** - means an over-fat carcass; and
  - **666** - means an excessively fat carcass.
- Carcass information determined by the shape of the carcass – from completely flat to medium to very round.
- Any damage to the carcass from a little to a lot.
- The gender of the animals - Only bull and ram carcasses as well as that of a wether, a billy[2] or an ox showing signs of late castration in the AB- B- en C-age classes are marked with a **BLACK** "MD" stamp in order to inform prospective buyers that these carcasses are from male animals since the taste and colour of the meat might differ from other carcasses.

[2] *Wether* (castrated sheep ram); *Billy* (castrated goat). Done at young age for improved meat quality

- A calf is an animal with a carcass weight of no more than 100kg, of which no or only the first molar tooth in the upper jaw has cut. These carcasses are marked with a **BROWN** roller mark. Veal forms a very small percentage of the market.

Price

Lamb *et al*. (2016) state that price refers to how much you charge for your product or service. In this study the price revolves around meat which includes beef, chicken, mutton, pork and fish. They explain further that price is all about finding the right balance that reflects the appropriate positioning of your product in the market, giving the consumer value for money on the one side and including a profit for future growth on the other.

To ensure sustainability the whole value chain of the meat industry must ensure that the price structures are spread fairly from the producer to the end user. Price in the lower-income market segments is set either per weight or per “piece” of meat (especially when pre-prepared). Malindi (2010:42) also indicates that price is a crucial buyer behaviour attribute and that especially texture also plays a role in the selection of meat types (for example, poultry versus beef) in providing a meal.

Promotion

Ehmke *et al*. (2016) state that promotion refers to all internal services to promote the products as well as external activities to do so. Advertising and promotional efforts are focused to sell a product. Customers must be educated on product availability, use and also the benefits thereof. Customers must know what the product is and why they (must) buy it to satisfy their specific needs. In presenting the product professionally Uys (2015:68) found that displaying and clearly indicating the content of packaged meat plays a positive role, even in the lower-end markets. Here, Malindi (2010:38) has already indicated the value of attractive visual stimuli in the selection of meat products.

Location

Ehmke *et al*. (2016) claim that location is the physical place where a product is sold or the distribution channels used to get your product to the customers. The position in the distribution chain determines whether wholesale, retail or sell directly to the end users comes into play. In townships location is positively related to sales figures because of the transport limitation of the lower end market. This means that buyers must be able to purchase the meat conveniently and close enough to home to preserve the meat because of its ability to spoil. Here Uys (2015:68) has indicated that convenience as part of location (thus easily accessible) is an important driver of buying behaviour; this is especially true since transportation to shopping areas in the lower-income market requires taking a taxi or making use of public transport services.

Health

Health has become a very important factor to many consumers and many studies show that health is as important as taste. Consumers form preferences based on this health factor motivated by expectations of a longer life and one of higher quality (Roininen *et al*., 1999).

Sañudo *et al*. (2000:341-342) explain that consumers are concerned about the amount of fat and cholesterol food contains as well as the long-term effect it will have on their well-being. Too much visible fat on the meat will discourage consumers from buying it, especially the younger consumers. Coronary heart diseases are considered to be caused by too much fat in the diet and its saturated fatty acid content. As indicated by the Department of Agriculture, Forestry and Fisheries (SA, 2015) the meat consumption increased dramatically as part of increased income and affordability of animal proteins in the diet. However, Mungall-Singh (2014) indicates that obesity and other dietary related illnesses (and deaths) have dramatically increased in the black population of South Africa after 1994; this is indicative of a better lifestyle and more expansive eating habits. Interestingly, Mungall-Singh (2014) indicates that it has recently been discovered that the black South African population has a genetic variation that makes it more sensitive to salt, leading to a condition called salt-sensitive hypertension which in turn leads to a greater risk of bleeds in the brain, cardiovascular disease, stroke and high blood pressure.

It is noteworthy that both the researchers Malindi (2010) and Uys (2015) have also identified health as buying behavioural driver of meat. Health is also in both these studies related to the information displayed via labelling and packaging practices.

Culture and religion

According to Gajjar (2013:11) culture forms part of every society and is the important cause of wants and behaviour of people. Marketers must be very thorough in analysing the culture of different groups, regions or countries as the reality can be very different from what is perceived and the influence of culture on buying behaviour varies from country to country.

Religion was seminally defined as a “unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden – beliefs and practices which unite into one single moral community called a Church, all those who adhere to them” (Durkeim, 1912) or "the state of being grasped by an ultimate concern, a concern which qualifies all other concerns as preliminary, and a concern that in itself provides the answer to the question of the meaning of our existence” (Tillich, 1951). In South Africa religion does play a huge part in meat consumption, for example, some religions avoid eating pork or specific rules dictate the handling of the slaughtering and meat processing processes.

Presentation of meat

Presentation of the product represented three categories in the questionnaire:

- Bulk or small packaging – would the respondent buy bulk if it was cheaper per kg?
- Specific cuts – does the respondent go to buy a specific cut or do they go and see what is available?
- Packaging – how neat, bright, eye-catching or functional is the packaging of the meat?
- Labelling – displaying important issues such as fat content, grading and best-before of sell-by dates.

Demographic factors

Demographic factors do influence buying behaviour of meat. In this regard Malindi (2010:19) indicated that after the age of 50 meat consumption declines. Demographic variables in addition to age that plays a role in meat consumption and buying behaviour are for example, gender, income per household, cultural groups (within the black community), transportation mode, education, marital status and occupation. In addition buying behavioural variables also come into play and frequency, quantity, quality, value/cost, and buyer decision-making role-players all influence actual procurement of animal protein for the family diet.

RESEARCH METHODOLOGY

The research methodology consists of an extensive literature study on specific topics related to the article as well as an empirical study in which different quantitative statistical analyses were employed to analyse the data.

Literature study

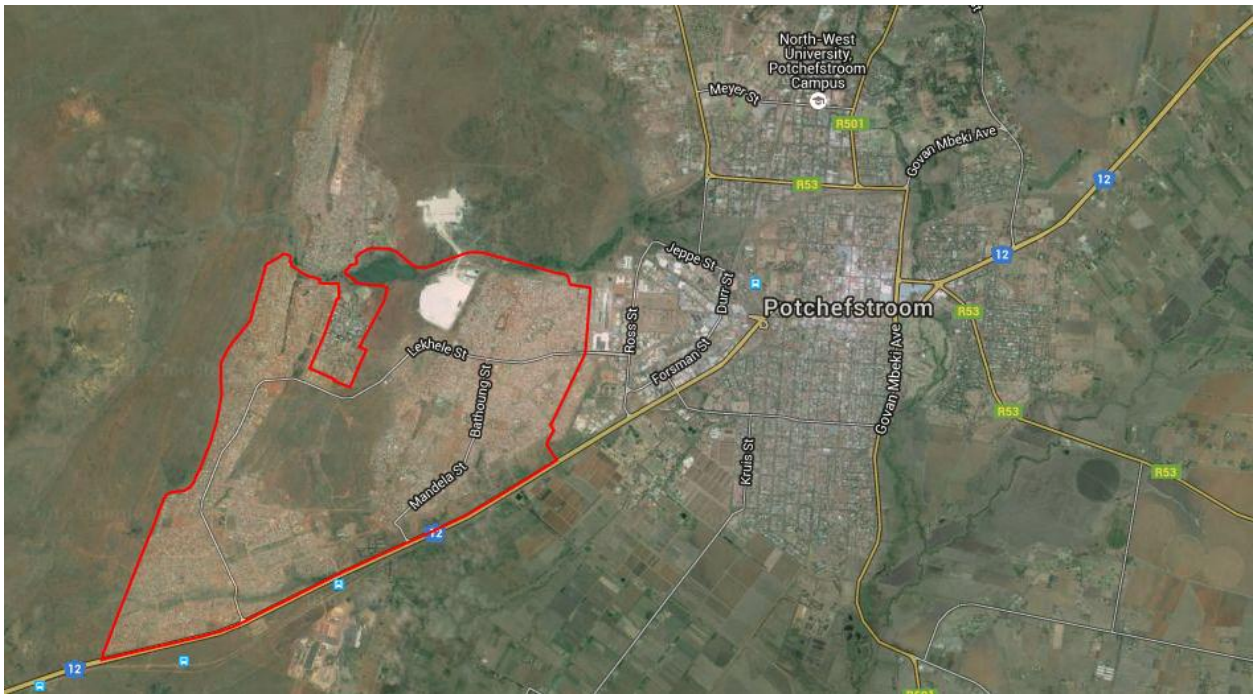
An extensive literature study was undertaken in the article of the study. Overall the literature study focuses on consumer preferences of meat in townships as well as the factors that influence these preferences. The literature was drawn from scientific journals, text books, internet and previous dissertations. A wide array of databases were consulted via the North-West University's library access system. The Professional library personnel at the North-West University assisted greatly to locate the relevant literature.

Empirical study

Research design

The empirical study was employed in an article to determine the factors that mostly affect consumer preferences of meat in townships. The research design employed quantitative research, collecting data from a sample within the target population of Ikageng, a township on the outskirts of Potchefstroom in the North West province of South Africa. In Figure 3, Ikageng is high-lighted with a red boundary.

Figure 3: Map of Ikageng township



Source: Stats SA (2011)

Data collection

Data were collected by means of a structured questionnaire that was distributed to the sample population in Ikageng. The purpose of the questionnaire was to gather data and through statistical analysis empirically substantiate the findings of the literature study. A field agent was used to distribute the questionnaires by ways of convenient sampling throughout Ikageng. The field agent collected all the questionnaires and returned them to the researcher for data capturing and analysis.

Research instrument

A structured questionnaire was compiled by the researcher, based on the literature study and previously used questionnaires, to address the study objectives. The questionnaire focused on three sections:

- Demographical information of the respondents;
- Buying behaviour of the respondents; and
- Factors affecting consumer preferences.

The setting of the variables was done according to the five-point Likert scale (1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree or disagree, 4 = Somewhat agree, 5 = Strongly agree).

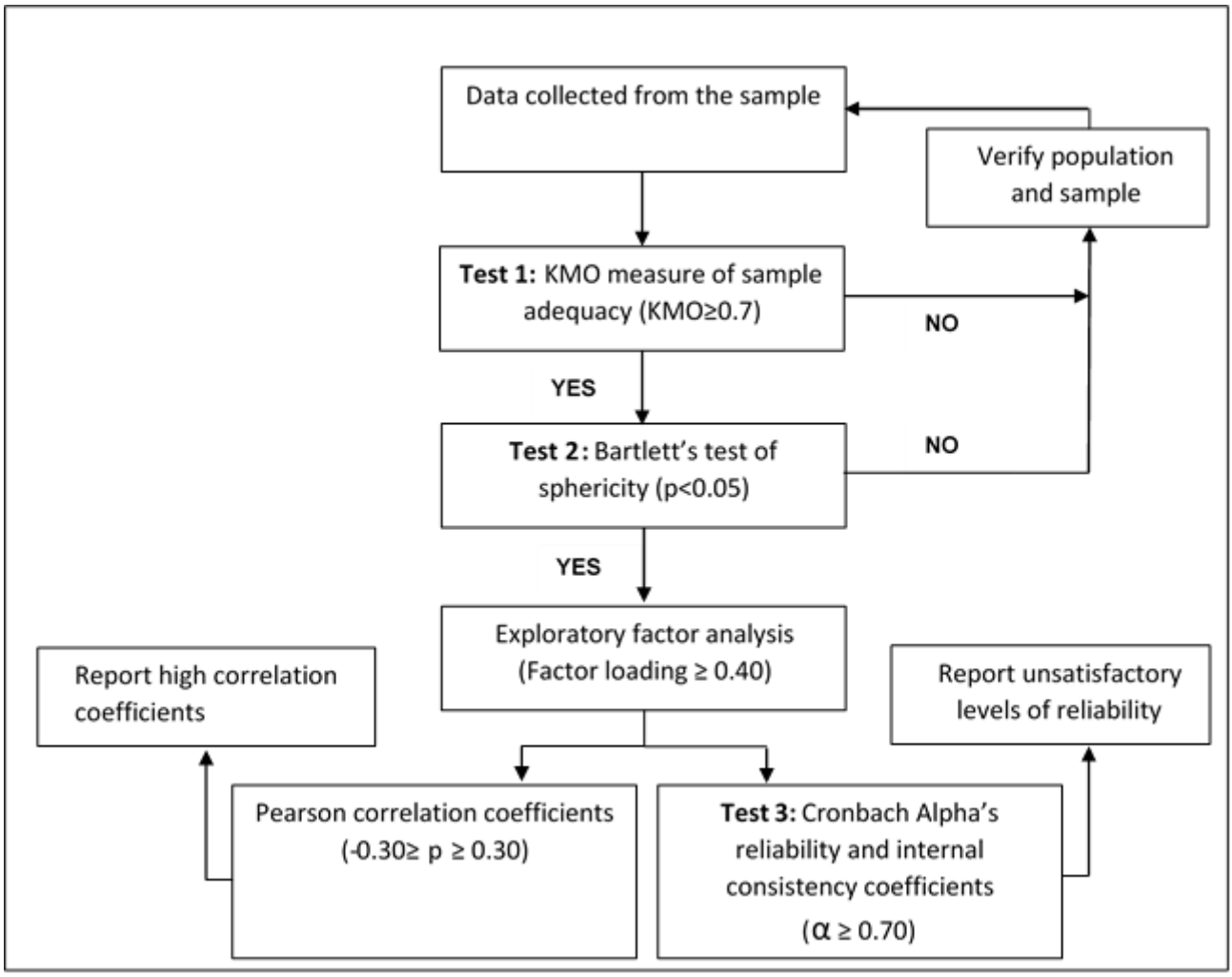
Study population and sampling

The population of Ikageng is estimated to be 87,701 in 2011 according to the last census (Stats SA, 2011). Convenience sampling was used to target the different suburbs of Ikageng. A total response of 300 participants was envisaged. In practice, the research continued to collect data until a total of 299 usable questionnaires were completed and returned. The good response on the request for participation was largely due to the field agent who patiently waited, explained and collected the questionnaires.

Statistical analysis

Qualitative data analysis employed the statistical software program SPSS 23.0 for Windows (SPSS Inc., 2016). The techniques employed, as suggested by Naidoo (2011:12), were the Kaiser-Meyer-Olkin measure of sampling adequacy, Cronbach Alpha's reliability coefficient, Bartlett's test of sphericity and Exploratory factor analysis. As indicated in Figure 2, the decision criteria for these techniques are a KMO value and a reliability coefficient of 0.70 and higher, Bartlett's test to be below 0.005, and factor loadings in excess of 0.40. A satisfactory variance explained exceeds 60% (Field, 2009:661) (See also Figure 4). The study did not employ correlational analysis as suggested by Naidoo because it falls outside the scope of this study.

Figure 4: Data analysis decision-tree



Source: Naidoo (2011:12)

RESULTS

Demographic information

The analysis of the demographical profile of the respondents in the study covered age, gender, monthly income per household, language, citizenship, mode of transport, highest educational level, marital status and occupation. Table 1 gives a summary of the respondents' demographical information. In the age, gender and language sections the respondents were evenly spread between the different classes. The biggest age group was the 41 to 45 year group at 16%. Male respondents were slightly more at 51% and the four most spoken languages were Setswana at 26%, Sesotho at 19%, Isizulu at 18% and Isixhoza at 16%. All respondents were South Africans and 55% of them use taxis as transport mode. The largest group under educational level was respondents who achieved Matric at 25%.

Under marital status 49.2% of the respondents were married and the rest single, divorced or widowed. The monthly household income section showed interesting results with the largest group earning R2501 to R5000 at 30%. It further shows that 73% of the respondents come from households where the total monthly income is less than R5,000. The average monthly household income of these respondents was calculated at R4,168.73[3].

Table 1: Demographic Profile of respondents

		Number of Respondents	% Respondents
Age category	18-25	39	13%
	26-30	29	10%
	31-35	31	10%
	36-40	42	14%
	41-45	**47**	**16%**
	46-50	37	12%
	51-55	32	11%
	56-60	19	6%
	>60	23	8%
Gender	**Male**	**151**	**51%**
	Female	147	49%
Income segment Monthly income per household (ZAR)	R0-R900	30	10%
	R901-R1500	56	19%
	R1501-2500	41	14%
	R2501-R5000	**91**	**30%**
	R5001-R10000	59	20%
	R10001-15000	17	6%
	R15001-R20000	5	2%
	R20001-R35000	0	0%
	>R35000	0	0%
Home language	Afrikaans	5	2%
	Isizulu	54	18%
	Iswati	17	6%
	Xitsonga	5	2%
	English	4	1%
	Sesotho	56	19%
	Ndebele	15	5%
	IsiXhosa	47	16%
	Setswana	**79**	**26%**
	Tshivenda	7	2%
	Other	10	3%

[3] US$1 = ZAR 14.32 (14 Oct. 2016; 16:00)

Table 1: Demographic Profile of respondents (continued)

Citizenship	**RSA**	**299**	**100%**
Mode of transport	Own car	93	31%
	Taxi	**165**	**55%**
	Train	2	1%
	Walk	38	13%
Highest educational level	Primary school	28	9%
	High school	42	14%
	Matric	**76**	**25%**
	Diploma	49	16%
	Technical college	56	19%
	University degree	38	13%
	None	10	3%
Marital status	Single	109	36.5%
	Married	**147**	**49.2%**
	Divorced	25	8.4%
	Widower	17	5.7%
Occupation	Housewife/ man	60	20.2%
	Chief	1	0.3%
	Student	36	12.1%
	Manual labour	**113**	**38.0%**
	White collar	45	15.2%
	Pensioner	42	14.1%

(n=299)

Other general information

The following section discusses other general information that was gathered to better understand the buying behaviour of the respondents. Table 2 gives a summary of the questions asked as well as the results. It was very interesting to see that the average household spends about R251.59 per week on meat which amounts to about R1093.22 per month. Under the demographic information in the previous section it was found that the average monthly household income was around R4168.73. This means that 26.22% of an average households' monthly income is spent on meat thus concluding that meat purchases make up one of the largest portions of each household's budget.

The results also indicate that these respondents buy the cheaper cuts of meat in general, maybe also including offal. The average household buys 10.26kg of meat

weekly at R251.59, which means the average price of meat purchased is R24.52 per kg.

The results also indicate that although 66.10% of meat purchases was done by males, the decision of which meat cuts to buy was dominated by females at 52.80%. The average household size of the respondents was 3.93 and on average 4.97 meals a week included meat. Their favourite distribution channel of meat was butcheries, which indicated that 63.40% of meat sales was done through butcheries. Lastly, the results showed that chicken was purchased the most at 42%, followed by beef at 32%, mutton 10%, pork 9% and fish 7%.

Table 2: Additional respondent information

How much does your household spend on meat each week? (ZAR)	Average per week		R251.59
Who buys the meat in your household?	Males		66.10%
Who decides what meat cuts to buy?	Females		52.80%
How many people in your household?	Average		3.93
In your household, how many meals per week include meat?	Average		4.97
I prefer to buy my meat from?	Butchery		63.40%
	Grocery store		17.80%
	Supermarket		9.10%
	Spazza		5.70%
	Farmer		4.00%
What quantity (kg) of each meat do you buy each week?	Chicken	4.26kg	42%
	Beef	3.25kg	32%
	Mutton	1.02kg	10%
	Pork	0.97kg	9%
	Fish	0.76kg	7%

(n=299)

Research methodology

This article investigates an analysis of consumer preferences of meat in townships. The empirical results of the article are presented thematically in accordance with the questionnaire (See Appendix A).

Firstly, the data were subjected to the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy to ensure that the sample of the article was adequate, and that the data is suitable for factor analysis (Field, 2009:671). KMO values of at least 0.6 should be present for factor analysis to be considered, although Du Plessis (2010:26) states that values between 0.5 and 0.7 are too low. Field (2009:660) also explains that values above 0.7 are regarded as good. Secondly, Bartlett's test of sphericity was used to test the null hypothesis that the variables in the population correlation matrix are uncorrelated (Coakes & Steed, 1997). The acceptable significance level is equal to or below 0.05 (Field, 2009:661). If the value is below 0.05, the data is suitable to proceed with factor analysis (Du Plessis, 2010). Thirdly, the Cronbach alpha was calculated to determine the reliability and the internal consistency of the data (Wuensch, 2009:58). An acceptable Alpha coefficient is above 0.70 but in certain cases 0.57 and above is also accepted. Lastly, exploratory factor analysis was used as a statistical tool to measure factors affecting consumer preferences.

KMO and Bartlett tests

The sampling adequacy and the suitability of employing factor analysis were determined by the KMO measure of sampling adequacy and the Bartlett test of sphericity. Table 3 presents the results.

Table 3: Summary of the four rounds of KMO and Bartlett Tests

Elimination round	KMO	Bartlett's Test	Variance Explained	Questions eliminated after each round
1	0.815	0.000	57.250	Q13, H31, H35
2	0.815	0.000	60.369	S21, P18, P14, Q5
3	0.798	0.000	66.566	H30, P17, H34
4	0.795	0.000	67.711	

After the first round of analysis the KMO value was 0.815 and the Bartlett's test of sphericity value was 0.000. This was acceptable but the total variance explained by the factors was regarded to be too low at 57.25%. Closer inspection revealed low-loading and dual-loading questions in the rotated matrix. These questions (Q13, H31 & H35) were subsequently removed. After removal of these questions, the statistical procedure were repeated to determine if an improved matrix could be generated.

This process was repeated four times whereafter no unsatisfactory loading variables remained, whilst the variance explained improved handsomely 67.71%. Bartlett's test remained stable, hence acceptable. The KMO values declined marginally from 0.815 to 0.795; this is still very satisfactory and exceeds the margin of 0.70 comfortably. A total of 10 factors were extracted. Table 4 shows the individual factors' variance explained as well as the total variance explained by the ten factors (67.71%).

Table 4 Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.135	20.386	20.386	7.135	20.386	20.386	4.504	12.869	12.869
2	3.451	9.860	30.246	3.451	9.860	30.246	2.952	8.435	21.304
3	2.538	7.250	37.496	2.538	7.250	37.496	2.897	8.276	29.580
4	2.399	6.854	44.350	2.399	6.854	44.350	2.315	6.615	36.195
5	1.702	4.863	49.212	1.702	4.863	49.212	2.198	6.280	42.474
6	1.513	4.322	53.535	1.513	4.322	53.535	2.046	5.845	48.319
7	1.416	4.047	57.582	1.416	4.047	57.582	2.005	5.727	54.046
8	1.322	3.776	61.358	1.322	3.776	61.358	1.707	4.876	58.922
9	1.174	3.353	64.711	1.174	3.353	64.711	1.563	4.466	63.388
10	1.050	3.000	67.711	1.050	3.000	67.711	1.513	4.324	67.711

Extraction Method: Principal Component Analysis.

Exploratory factor analysis

The exploratory factor analysis identified ten factors by means of Varimax rotation. According to Field (2009:664), Varimax is a method of orthogonal rotation that attempts to maximise the dispersion of factor loadings by loading a smaller number of variables highly onto each factor resulting in a more interpretable cluster of factors. Factors loadings equal to and above 0.40 are considered to be significant and used in the analysis. Table 5 below shows that after the elimination process, 35 statements were loaded onto ten factors. The factor loadings are shown below in the table. Ten factors explain a favourable cumulative variance of 67.71%.

Table 5 Exploratory factor analysis

Rotated Component Matrix

	Component									
	1	2	3	4	5	6	7	8	9	10
S26	0.815									
S23	0.799									
S28	0.771									
S25	-0.721									
S24	0.720									
S27	-0.676									
P16	-0.583									
Q3	0.513									
P43		0.847								
P44		0.798								
P41		0.775								
P42		0.726								
S19			0.790							
S20			0.778							
S22			0.683							
P15			0.626							
Q12			0.572							
C36				0.697						
C39				0.695						
C40				0.666						
C38				0.657						
H32					0.656					
P45					-0.631					
C37					0.582					
Q4						0.735				
Q1						0.644				
Q7						0.593				
Q2							0.896			
H29							0.883			
Q10								0.781		
Q9								0.780		
Q6									-0.817	
Q8									0.708	
H33										0.779
Q11										0.621
Reliability	0.252	0.870	0.774	0.676	0.003	0.686	0.848	0.626	-0.995	0.401
Var expl.	12.869	8.435	8.276	6.615	6.280	5.845	5.727	4.876	4.466	4.324
Cum Var Expl.	12.869	21.304	29.580	36.195	42.474	48.319	54.046	58.922	63.388	67.711

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

The 10 factors are discussed and labelled as:

- **Factor 1: Quality**

  A total of eight statements, namely S26, S23, S28, S25, S24, S27, P16 and Q3 loaded on factor 1. All these statements under Factor 1 relate to

the quality of meat and has the most significant effect on consumer preferences. This factor explains a variance of 12.86%.

- **Factor 2: Presentation**
  Statements P43, P44, P41 and P42 are all loaded on factor 2 and are related to the presentation of meat. This factor explains a variance of 8.43%.
- **Factor 3: Customer orientation**
  Statements S19, S20, S22, P15 and Q12 are all loaded on factor 3 and are all related to customer orientation. This factor explains a variance of 8.27%.
- **Factor 4: Culture & Religion**
  Statements C36, C39, C40 and C38 are all loaded on factor 4 and are all related to culture and religion. This factor explains a variance of 6.62%.
- **Factor 5: Specific choice criteria**
  Statements H32, P45 and C37 are all loaded on factor 5 and are all related to specific choice criteria. This factor explains a variance of 6.28%.
- **Factor 6: Visual stimuli**
  Statements Q4, Q1 and Q7 are all loaded on factor 6 and are all related to visual stimuli. This factor explains a variance of 5.85%.
- **Factor 7: Fat content**
  Only two statements namely Q2 and H29 are loaded on factor 7 and are all related to fat content. This factor explains a variance of 5.72%.
- **Factor 8: Experience**
  Only statements Q10 and Q9 are loaded on factor 8 and are all related to experience. This factor explains a variance of 4.88%.
- **Factor 9: Post-purchase evaluation**
  Only statements Q6 and Q8 are loaded on factor 9 and are all related to post-purchase evaluation. This factor explains a variance of 4.67%.
- **Factor 10: Specific preferences**
  Only statements H33 and Q11 are loaded on factor 10 and are all related to specific preferences. This factor explains a variance of 4.32%.

Noteworthy is the fact that the factors decline in their importance. Hence Factor 1 (Quality) is deemed more important than the next factor (Factor 2: Presentation of meat). Factor 10 (Special preferences) is the least important factor. In practice this

means that best return on managerial effort would be gained from addressing the quality of the meat, then to present the meat products well and so on. Attending to specific preferences some customers may have yielded the least return on time invested. This is so because the first factor explains 12.87% variance whilst the last factor only 4.47% of variance, signifying the level of importance in the consumer behaviour of meat products.

Reliability

The reliability of the ten factors is shown in Table 6 below. Factors 1, 5 and 9 show negative loadings in the component matrix (see Table 5), hence inversion of the variables were needed before reliability of these factors could be established (Field, 2009:672; 678-9). Factors 1, 2, 3, and 7 have high reliability coefficients above 0.7. Then, Factors 4, 5, 6 and 8 have acceptable reliability levels of between the lower level of 0.57, as suggested by Cortina (1993:99) (in Field, 2009:675), and 0.7. Lastly, Factors 9 and 10 shows a low level of reliability at 0.449 and 0.401.

Table 6: Reliability of the factors

Factor		Reliability: Cronbach's Alpha
1	Quality	0.839
2	Presentation	0.870
3	Customer orientation	0.774
4	Culture & Religion	0.676
5	Specific choice criteria	0.583
6	Visual stimuli	0.686
7	Fat content	0.848
8	Experience	0.626
9	Post-purchase evaluation	0.499
10	Specific preferences	0.401

DISCUSSION

Although Ikageng mostly represents households with lower income levels than the rest of Potchefstroom, it has become an important contributor to the economy and makes up 59% of the population in Potchefstroom. Very little information is available about these consumers and their buying behaviour.

The aim of the article was to identify factors that affect consumer preferences of meat in townships. A thorough literature study was undertaken on consumer preferences and factors perceived to affect these preferences. A questionnaire was then compiled to measure buying behaviour of township consumers. The buying behaviour of meat in townships was then measured and finally the latent buying behaviour drivers were determined. The results show that, quality, presentation, customer orientation, culture and religion, specific choice criteria, visual stimuli, fat content, experience, post-purchase evaluation and specific preferences are the main factors responsible for influencing consumer preferences.

RECOMMENDATIONS

Consumers in Ikageng spend 26% of their income on meat which is an opportunity for meat marketers, traders and outlets to tap into. Following the results of this study the following factors are important to bear in mind when marketing meat to consumers in townships:

- Quality of the meat stood out as the largest contributor towards affecting consumer preferences. The following elements were important to the respondents: expiry dates, leaner cuts, nutritional values on the labels, colour of the meat, fresh odour, good appearance, previous experience of the same meat, brand name and fresh rather than frozen meat. The following were not so important to the respondents: roller stamps for classification of carcasses, country of origin, weight accuracy and gender of the meat.
- Presentation of the meat was the second most important factor affecting consumer preferences. The respondents claimed that bulk presentation of meat, specific cuts, packaging of meat and the attractiveness of the packaging was important to them.
- Customer orientation was the third largest contributor towards affecting consumer preferences. This factor represents businesses being focussed on the customer. The respondents stated the following as important to them: excellent service, excellent advertising, large variety of meat, value for money with bulk purchases and brand trust.

- Culture and religion was the fourth largest contributor towards affecting consumer preferences. Although culture and religion plays an important role in the lives of the respondents it does not affect the buying behaviour of consumer as much as perceived. Events like National Braai day will not necessary increase the volumes of meat consumed but rather affect what cuts of meat are bought.
- Specific choice criteria were the fifth largest contributor towards affecting consumer preferences. This indicates that consumers in townships are sometimes forced into a specific meat choice by health, religion and cultural ceremonies and events like weddings and funerals.
- Visual stimuli was the sixth most important factor affecting consumer preferences. This factor represents elements that visually stimulate the customer to buy certain meat. This includes colour, smell, packaging, branding, labels, expiry dates, fattiness and bone quantity.
- Fat content was seventh on the list. This factor refers to how much fat there is in the meat. There is a global health movement taking place where people shy away from fatty meat due to health issues. The same tendency is also taking place in townships. The vast majority of respondents said they prefer lean meat to fatty meat.
- Experience was the eighth factor and refers to consumers repurchasing certain meat due to past experience. The respondents strongly agreed that they would also repurchase meat if they were satisfied with the past consumption experience of that same meat or brand.
- Post-purchase evaluation was the ninth factor and refers to consumers evaluating meat once they get home. For example to weigh the meat to see if it corresponds with the weight on the label, or to open the packet and smell the meat to check that it is fresh.
- Specific preferences is the last factor and refers to personalised preferences that a consumer might have. The Cronbach alpha value was very low on this factor at 0.401 indicating that this factor might not be reliable to use.

SUMMARY

In this article, the overall focus of the study was to analyse consumer preferences of meat in townships. The article starts with an introduction and background of the study. The problem statement and research objectives was stated, followed by a literature study of consumer preferences, consumer buying behaviour and the perceived factors that affect consumer preferences.

From the farmers to the wholesalers to the retaiI outlets are to constantly review the needs of consumers, whether in townships or in the cities. It seems everybody is in the business of buying fresh, healthy and good meat.

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APPENDIX A: MEASURING CRITERIA

	ITEM	
QUALITY	1)	I always check the expiry date of the meat
	2)	I always buy meat with lots of fat
	3)	I always check the roller stamp that indicates the age of the meat
	4)	Nutritional values on the label is important to me
	5)	I always check the country of origin of the meat
	6)	I weigh the meat at home to make sure the outlet scale is correct
	7)	The colour of the meat I purchase is important to me
	8)	The meat I buy must not have a smell
	9)	I buy meat that appears good
	10)	I buy the same meat that tasted good on previous occasions
	11)	I prefer to know the gender of the meat I buy
	12)	I only buy meat of known brands because I trust their quality
	13)	I prefer to buy fresh meat rather than frozen meat
PRICE	14)	I am prepared to pay more for quality meat
	15)	I buy bulk meat to get value for my money
	16)	I always buy the cheapest meat I can find
	17)	I always look out for a special offer on meat
	18)	I tend to buy processed meat because it is cheaper
SERVICE	19)	I buy meat where I get excellent service
	20)	I buy meat at outlets because of their excellent advertising
	21)	I continually search for outlets that run promotions on their meat
	22)	I purchase my meat in outlets that have the biggest variety of meat
	23)	The place where I buy meat knows me and knows what I buy
	24)	I always phone and place my meat order before I go to the outlet

LOCATION	25)	I buy my meat at the closest outlet
	26)	I would rather travel further to buy at my preferred meat outlet
	27)	Transport influences where I buy meat
	28)	I do not shop around for meat but prefer to buy meat at the same place every time
HEALTH	29)	I prefer fat meat rather than lean meat
	30)	I usually check the nutritional value of the meat
	31)	I do not buy meat with preservatives in
	32)	I am prepared to pay more for organic meat
	33)	I always try and find out if hormones/ growth stimulants were used
	34)	I do not buy meat at a dirty outlet
	35)	Shop and staff hygiene is not that important to me
CULTURE/ RELIGION	36)	My religion/culture influences what meat I buy
	37)	At religious/cultural functions I prefer to eat freshly slaughtered meat
	38)	I buy more meat during religious /cultural ceremonies than usual
	39)	I do not eat pork due to my religious / cultural beliefs
	40)	I don't buy more but consume more meat during religious / cultural events
PRESENTATION	41)	I buy bulk meat because it saves money
	42)	I prefer to by a specific cut of meat
	43)	The packaging of the meat I buy is important to me
	44)	The more attractive the packaging of meat, the more I tend to buy that brand
	45)	I don't consider the packaging when I buy meat

CHAPTER 3

CONCLUSIONS AND RECOMMENDATIONS

3.1 INTRODUCTION

This chapter presents the conclusions and recommendations of the study as well as the scope for further research. The study sought to determine factors affecting consumer preferences of meat in townships. These factors can assist managers to better understand the buying behaviour of meat consumers in townships as well as focus their efforts on what is important to these consumers.

3.2 CONCLUSIONS

3.2.1 Demographic information

The summarised conclusions from the analysis (for detailed analysis see Appendix B) of the demographical profile indicate that the following conclusions could be made:

- In the age, gender and language section the respondents were evenly spread between the different classes.
- The biggest age group was the 41 to 45 year group at 16%.
- Male respondents were slightly more at 51% and,
- The four most spoken languages were Setswana at 26%, Sesotho at 19%, Isizulu at 18% and Isixhoza at 16%.
- All respondents were South Africans.
- 55% of them use taxis as transport mode.
- The largest group under educational level was respondents who achieved Matric at 25%.
- Under marital status 49.2% of the respondents were married and the rest single, divorced or widowed.
- The monthly household income section showed interesting results with the largest group earning R2501 to R5000 at 30%.

- It further shows that 73% of the respondents come out of households where the total monthly income is less than R5000. The average monthly household income of these respondents was calculated at R4,168.73.

3.2.2 Other general information

Regarding conclusions pertaining to generalised meat buying behaviour, it could be concluded that:

- The average household in Ikageng spends about R251.59 per week on meat which amounts to about R1,093.22 per month.
- Relative to the average monthly household income (R4,168.73), this means 26.22% of an average households' monthly income is spent on meat. It is therefore concluded that meat purchases make up one of the largest portions of each households budget.
- The results also indicate that these respondents buy the cheaper cuts of meat in general, maybe also including offal. The average household buys 10.26kg of meat weekly at R251.59, which means the average price of meat purchased is R24.52 per kg.
- The results also indicate that although 66.10% of meat purchases was done by males, the decision of which meat cuts to buy was dominated by females at 52.80%, hence the conclusion that women play an equal role in deciding on what meat cuts to buy in feeding the family.
- On average 4.97 meals a week included meat, making meat a valuable protein source in most of the meals.
- Butcheries remain the favourite channel of distribution (63.40% of meat sales was done through butcheries).
- It can emphatically be concluded from the results that is the most preferred meat bought in Ikageng is chicken (42%), then beef (32%) and that the minority of the meat market consists of mutton (10%), pork (9%) and fish (7%).
- Lastly, it is concluded that other meats such as goat's meat or game is not consumed nor bought by the Ikageng inhabitants at all.

3.2.3 Research methodology

Regarding the research methods and statistical analyses used in this study, the following conclusions can be made:

- The use of a qualified statistician and the data capturing services (such as the North- Statistical Consultation Services of the North-West University) provided a solid basis for the study. It is concluded that without such professional services, data analyses and research would certainly be mined with possible pitfalls. Using such services greatly improves the confidence of the researcher as well as providing a quality product
- The use of a relevant and sound literature review sets the stage of the study as well as providing a solid foundation that successfully contextualises the background information needed for the development and execution of the rest of the study as envisaged in the article. It provides a knowledgeable understanding of the research problem as well as the theoretical background on consumer preferences and perceived factors that influence these preferences. Hence it is concluded that in drafting a research plan, a solid literature basis is invaluable.
- The statistical techniques (as suggested by Naidoo (2011:12) and approved by the NWU Statistical Consultation Services) are sound techniques to use in latent variable determination. It is concluded that future researchers take note of these techniques as it could greatly assist them.
- In support of the results from the KMO values and Cronbach alpha coeffcients, it can be concluded that the sample was adequate and the data are reliable.
- A statistical specialist and a specialised analysis tool (SPSS V23) was used for the study to ensure that no statistical errors exist in the empirical results. The use of an expert at the North-West University also ensured correctness of the analysis. It can therefore be concluded that the whole research process was credible and that limited risk exist for analysis error exists.

3.2.4 Results

From the results can be concluded that:

- The questionnaire used for this study (developed after an in depth literature study) is a useful tool to use to analyse consumer preferences of meat in formal markets. The questionnaire were able to capture 67.71% of the total variance explained, leaving only 22.29% unexplained. Additionally it is concluded that this provides a good fit to the data.
- Regarding the declining variance explained over the factors, it is concluded that Factor 1: Quality is the most important factor. The conclusion extends towards the other factors in their declining order of importance. Hence, quality is the main buying behavioural driver in Ikageng when meat is bought.

3.3 RECOMMENDATIONS

From the conclusions the following recommendations are made:

- Future researchers should seriously consider the use of a professional statistician being that at the Statistical Consultation Services of the North-West University or elsewhere.
- Use a quality statistical programme to analyse the data.
- Employing a proper literature review to form a basis for the identification of variables and their measuring criteria before drafting the questionnaire.
- Ten factors were identified in declining order of importance. It is therefore recommended that these factors and its criteria be closely managed in the marketing of meat to Ikageng consumer. These factors and its most important criteria are:
    - Quality of meat Quality of the meat stood out as the largest contributor towards affecting consumer preferences. The following elements were important to the respondents: expiry dates, leaner cuts, nutritional values on the labels, colour of the meat, fresh odour, good appearance, previous experience of the same meat, brand name and fresh rather than frozen meat.
    - Presentation of the meat was the second most important factor affecting consumer preferences. The respondents claimed that bulk presentation of meat, specific cuts, packaging of meat and the

attractiveness of the packaging was important to them. Management should also take care of these criteria in meat marketing.

- Customer orientation was the third largest contributor towards affecting consumer preferences. This factor represents businesses being focussed on the customer. The respondents stated the following as important to them: excellent service, excellent advertising, large variety of meat, value for money with bulk purchases and brand trust.
- Culture and religion was the fourth largest contributor towards affecting consumer preferences. Although culture and religion plays an important role in the lives of the respondents it does not affect the buying behaviour of consumer as much as perceived. Events like National Braai day will not necessary increase the volumes of meat consumed but rather affect what cuts of meat are bought.
- Specific choice criteria was the fifth largest contributor towards affecting consumer preferences. This indicates that consumers in townships are sometimes forced into a specific meat choice by health, religion and cultural ceremonies and events like weddings and funerals.
- Visual stimuli was the sixth most important factor affecting consumer preferences. This factor represents elements that visually stimulate the customer to buy certain meat. This includes colour, smell, packaging, branding, labels, expiry dates, fattiness and bone quantity.
- Fat content was seventh on the list. This factor refers to how much fat there is in the meat. There is a global health movement taking place where people shy away from fatty meat due to health issues. The same tendency is also taking place in townships. The vast majority of respondents said they prefer lean meat to fatty meat.
- Experience was the eighth factor and refers to consumers repurchasing certain meat due to past experience. The respondents strongly agreed that they would also repurchase meat if they were satisfied with the past consumption experience of that same meat or brand.
- Post-purchase evaluation was the ninth factor and refers to consumers evaluating meat once they get home. For example to weigh the meat to

see if it corresponds with the weight on the label, or to open the packet and smell the meat to check that it is fresh.

- Specific preferences is the last factor and refers to personalised preferences that a consumer might have. The Cronbach alpha value was very low on this factor at 0.401 indicating that this factor might not be reliable to use.

3.4 SUGGESTIONS FOR FURTHER RESEARCH

Future research should focus on the following areas:

- An in-depth analysis of any one of the factors identified that affect consumer preferences to further analyse and study the sub constructs.
- A study with specific national and further international comparative focus that aims to compare factors influencing consumer preferences of meat in townships.
- A study analysing factors affecting consumer preferences of other products and services to gain more insight on this evolving market segment.

This study serves as a springboard for future studies in the informal market so that these consumer can be understood regarding their needs and wants. This will enhance effective marketing through presenting the right marketing mix in this market.

3.5 SUMMARY

This study is an analysis of consumer preferences of meat in townships. The study was presented in a scientific article format. The study consists of an introductory chapter, the article and then a final chapter.

In the first chapter, the overall focus of the study was laid down. The problem statement, research objectives, methodology, population, sample and gathering of the data was explained. The statistical analysis with the various techniques to analyse the data were comprehensively discussed and the criteria pertaining to each technique was set out for this study. The chapter also contributes to a general

understanding of the research need and the research problems. Lastly, the ethical considerations, study layout and limitations of the study was discussed.

In the second chapter the article was presented, the overall focus of the study was to analyse consumer preferences of meat in townships. The article starts with an introduction and background of the study. The problem statement and research objectives was stated, followed by a literature study of consumer preferences, consumer buying behaviour and the perceived factors that affect consumer preferences. Following this, the results of the study was shown and then discussed. The chapter concludes with recommendations to businesses and managers.

The final chapter sums up the study through making conclusions on the demographical and general information of the respondents as well as the research methodology and results. After the conclusions were made this chapter provides specific recommendations to managers and businesses trading in the meat industry in townships. The chapter concludes with suggestions of areas for further research.

In conclusion the study has analysed consumer preferences of meat in Ikageng. Factor analyses provided the top ten factors affecting these consumer preferences and it was recommended to focus on these factors when interacting with consumers in the informal market.

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APPENDIX B: QUESTIONNAIRE

Potchefstroom Business School
Study leader: Prof C A Bisschoff
Student: C L Liebenberg
Tel 083 235 1973
E-Mail: clliebenberg@yahoo.com

Research into consumer preferences of meat in townships

To whom it may concern:

The purpose of the questionnaire is to obtain information with regards to consumer preferences of meat in Ikageng. The aim of the study is to analyse the preferences to see what is important to the consumer. The information gathered from this questionnaire is solely used for a MBA dissertation at the North-West University.

Kindly complete this questionnaire and hand it to the field worker. Any queries can be directed to the email address or contact number above.

Thank you.

Christiaan Liebenberg
Study leader: Prof CA Bisschoff
Professor of Marketing, Potchefstroom Business School

RESEARCH QUESTIONNAIRE TO DETERMINE CONSUMER PREFERENCES OF MEAT

SECTION A - DEMOGRAPHICS

Age Group

18 - 25		36 - 40		51 - 55	
26 - 30		41 - 45		56 - 60	
31 - 35		46 - 50		>60	

Gender

Male		Female	

Income Segment - Monthly Household Income(ZAR)

R0 to R900		R2501 to R5000		R15001 to R20000	
R901 to R1500		R5001 to R10000		R20001 to R35000	
R1501 to R2500		R10001 to R15000		More than R35000	

My home language is

Afrikaans		English		isiXhosa	
isiZulu		Sesotho		Setswana	
Iswati		Ndebele		Tshivenda	
Xitsonga		Other (please name)			

Citizenship

I am a citizen of …… (enter your home country here)

What mode of transport do you mainly use?

Own car ☐ Taxi ☐ Train ☐ Walk ☐

Highest educational level

Primary school	☐	Matric	☐	Technical College	☐	None	☐
High school	☐	Diploma	☐	University degree	☐		

What is your marital status?

Single		Married		Divorced		Widower	

What is your occupation?

House wife/ man	
Chief	
Student	
Manual labour	
White collar	
Pensioner	

SECTION B - GENERAL QUESTIONS

How much does your household spend on meat each week? (ZAR)

R0 to R50		R151 to R200		More than R500	
R51 to R100		R201 to R300			
R101 to R150		R301 to R500			

Who buys the meat in your household?

Husband		Wife		Other relative	
Single male		Single female			

How many people in your household?

1	2	3	4	5	6	7	8	9	10	11	12	More

Who decides what meat cuts to buy?

Husband		Wife		Other relative	
Single male		Single female			

What meat do you buy the most?

Rank from 1 to 5 (1 = Most, 5 = Least)

Beef	
Chicken	
Fish	
Mutton	
Pork	

In your household, how many meals a week includes meat?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	More

I prefer to buy meat from:

Butchery		Spazza		Supermarket	
Directly from farmer		Grocery store			

I consume the most meat during:

The week		Public Holidays		School holidays	
Weekends		Religious ceremonies		Funerals	
Weddings		Cultural ceremonies			

What quantity (kg) of each meat does your household consume per week?

(Choose the closest number of Kg)

	0kg	1kg	2kg	3kg	4kg	5kg	More
Beef							
Chicken							
Fish							
Mutton							
Pork							

SECTION C - FACTORS AFFECTING CONSUMER PREFERENCES

Instructions:
Would you please indicate to what extent you agree with these statements by

using the following 5-point scale, where **1= totally disagree** and **5= totally agree**:

1	2	3	4	**5**
Totally disagree	Disagree Somewhat	Neither agree nor disagree	Agree	**Totally agree**

	ITEM					
QUALITY	1) I always check the expiry date of the meat	1	2	3	4	5
	2) I always buy meat with lots of fat	1	2	3	4	5
	3) I always check the roller stamp that indicates the age of the meat	1	2	3	4	5
	4) Nutritional values on the label is important to me	1	2	3	4	5
	5) I always check the country of origin of the meat	1	2	3	4	5
	6) I weigh the meat at home to make sure the outlet scale is correct	1	2	3	4	5
	7) The colour of the meat I purchase is important to me	1	2	3	4	5
	8) The meat I buy must not have a smell	1	2	3	4	5
	9) I buy meat that appears good	1	2	3	4	5
	10) I buy the same meat that tasted good on previous occasions	1	2	3	4	5
	11) I prefer to know the gender of the meat I buy	1	2	3	4	5
	12) I only buy meat of known brands because I trust their quality	1	2	3	4	5
	13) I prefer to buy fresh meat rather than frozen meat	1	2	3	4	5
PRICE	14) I am prepared to pay more for quality meat	1	2	3	4	5
	15) I buy bulk meat to get value for my money	1	2	3	4	5
	16) I always buy the cheapest meat I can find	1	2	3	4	5
	17) I always look out for a special offer on meat	1	2	3	4	5
	18) I tend to buy processed meat because its cheaper	1	2	3	4	5

SERVICE	19)	I buy meat where I get excellent service	1	2	3	4	5
	20)	I buy meat at outlets because of their excellent advertising	1	2	3	4	5
	21)	I continually search for outlets that run promotions on their meat	1	2	3	4	5
	22)	I purchase my meat in outlets that have the biggest variety of meat	1	2	3	4	5
	23)	The place where I buy meat knows me and knows what I buy	1	2	3	4	5
	24)	I always phone and place my meat order before I go to the outlet	1	2	3	4	5
LOCATION	25)	I buy my meat at the closest outlet	1	2	3	4	5
	26)	I would rather travel further to buy at my preferred meat outlet	1	2	3	4	5
	27)	Transport influences where I buy meat	1	2	3	4	5
	28)	I do not shop around for meat but prefer to buy meat at the same place every time	1	2	3	4	5
HEALTH	29)	I prefer fat meat rather than lean meat	1	2	3	4	5
	30)	I usually check the nutritional value of the meat	1	2	3	4	5
	31)	I do not buy meat with preservatives in	1	2	3	4	5
	32)	I am prepared to pay more for organic meat	1	2	3	4	5
	33)	I always try and find out if hormones/ growth stimulants were used	1	2	3	4	5
	34)	I do not buy meat at a dirty outlet	1	2	3	4	5
	35)	Shop and staff hygiene is not that important to me	1	2	3	4	5
CULTURE/ RELIGION	36)	My religion/culture influences what meat I buy	1	2	3	4	5
	37)	At religious/cultural functions I prefer to eat freshly slaughtered meat	1	2	3	4	5
	38)	I buy more meat during religious /cultural ceremonies than usual	1	2	3	4	5
	39)	I do not eat pork due to my religious / cultural beliefs	1	2	3	4	5
	40)	I don't buy more but consume more meat during religious / cultural events	1	2	3	4	5
PRESENTATION	41)	I buy bulk meat because it saves money	1	2	3	4	5
	42)	I prefer to by a specific cut of meat	1	2	3	4	5
	43)	The packaging of the meat I buy is important to me	1	2	3	4	5
	44)	The more attractive the packaging of meat, the more I tend to buy that brand	1	2	3	4	5
	45)	I don't consider the packaging when I buy meat	1	2	3	4	5

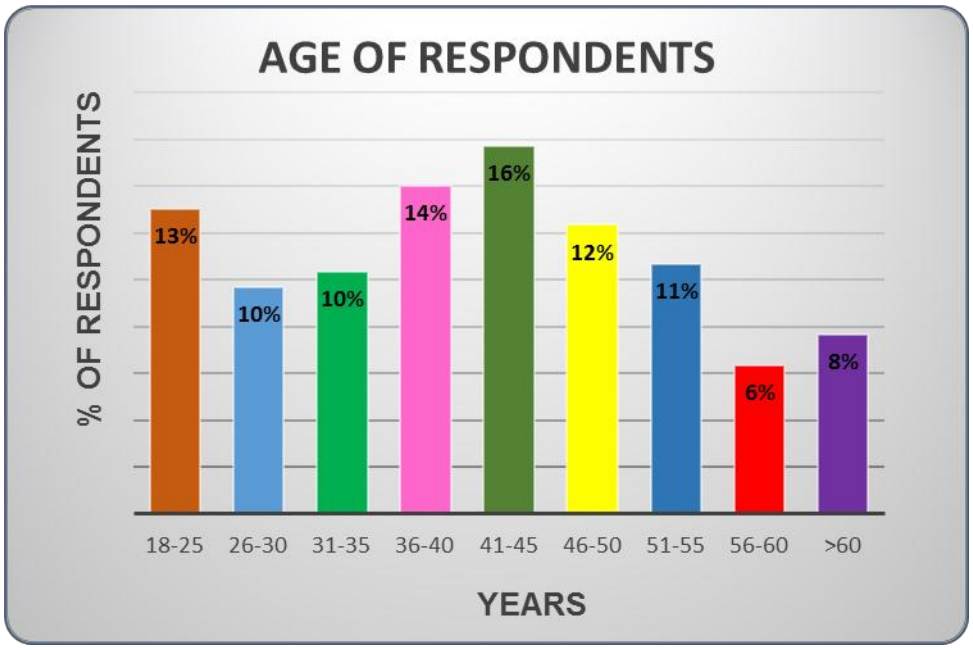
THANK YOU FOR YOUR PARTICIPATION

APPENDIX C: DETAILED DEMOGRAPHIC RESULTS

Age

The respondents were divided rather equally between the different age categories. Figure 1 indicates the largest age group was the 41 to 45 year olds representing 16% of the respondents.

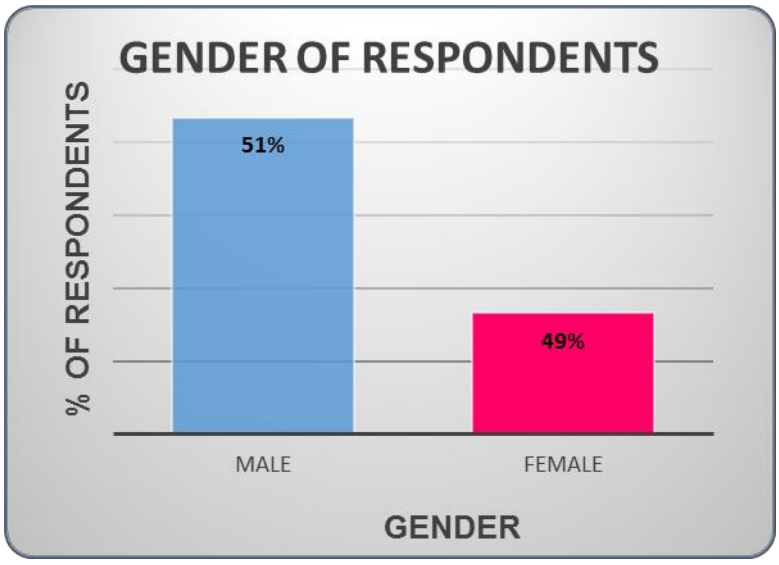
Figure 1: Age



Gender

The statistics indicate that Ikageng consists of 51% women and 49% men. Figure 2 indicates that the respondents in this study represented above statistic with males comprising 51% and females 49%.

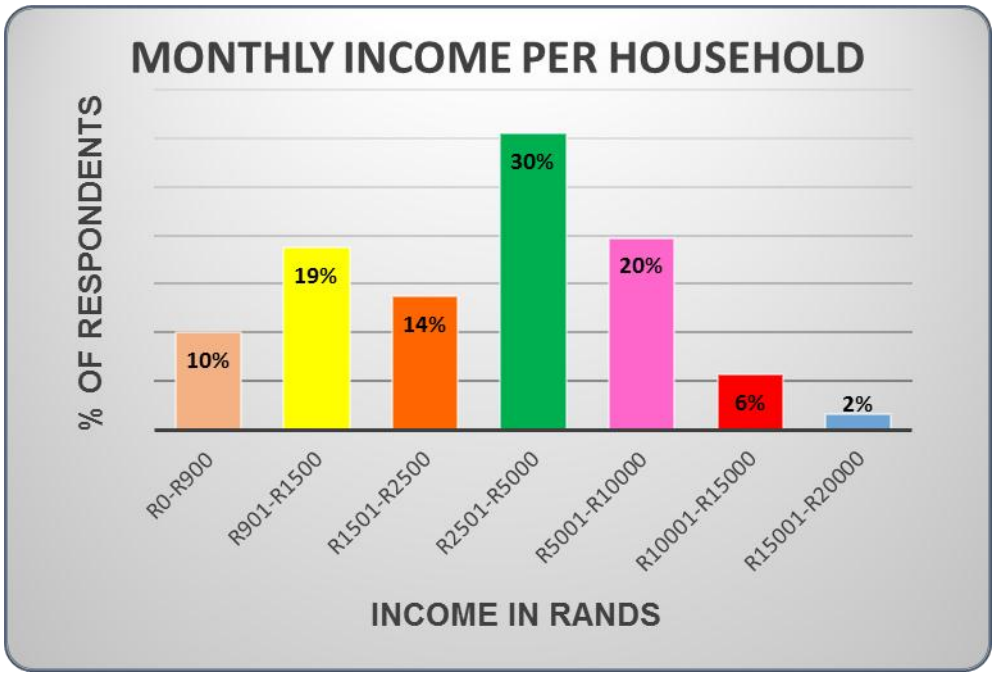
Figure 2: Gender



Monthly household income

Figure 3.3 indicates that most of the households in Ikageng fall in the lower income bracket. 73% of the households earn less than R5000 per month and 43% earn less than R2500 per month.

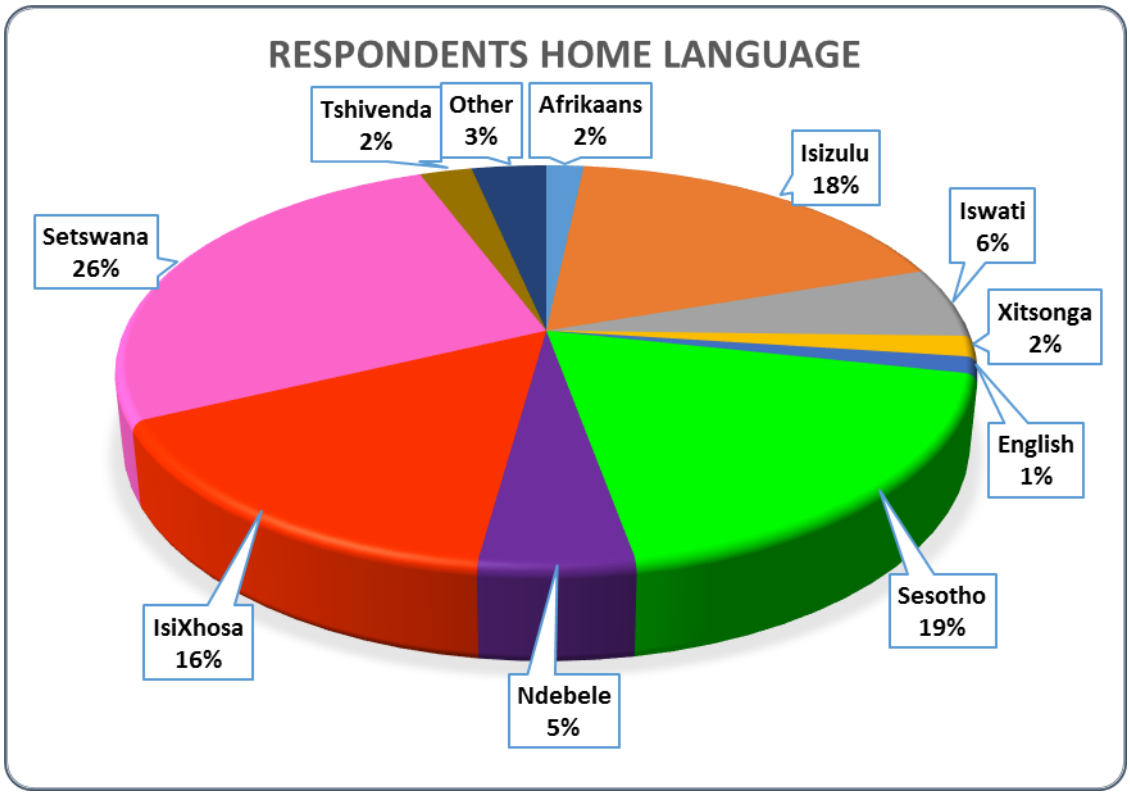
Figure 3: Monthly income per household



Language

Figure 34 displays all the languages spoken by the respondents. The four most spoken languages were Setswana at 26%, Sesotho at 19%, Isizulu at 18% and Isixhoza at 16%.

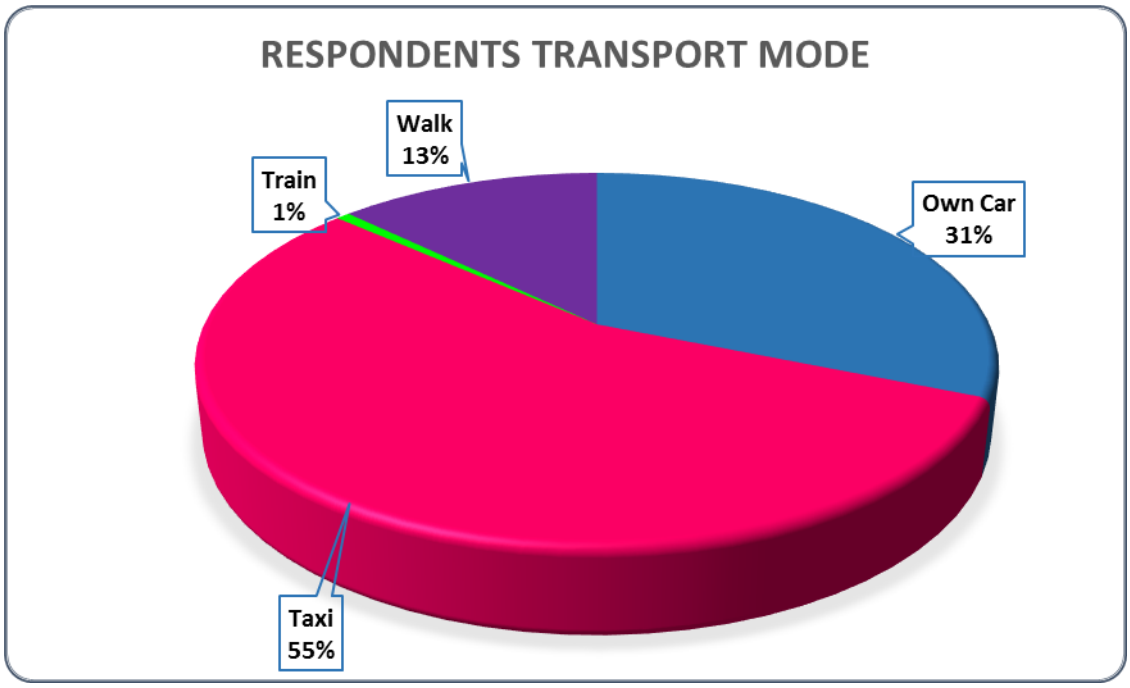
Figure 4: Language



Transport mode

The pie chart in Figure 5 displays the different transport modes. Most of the respondents (55%) make use of taxis as their main transport method and 31% have their own vehicles.

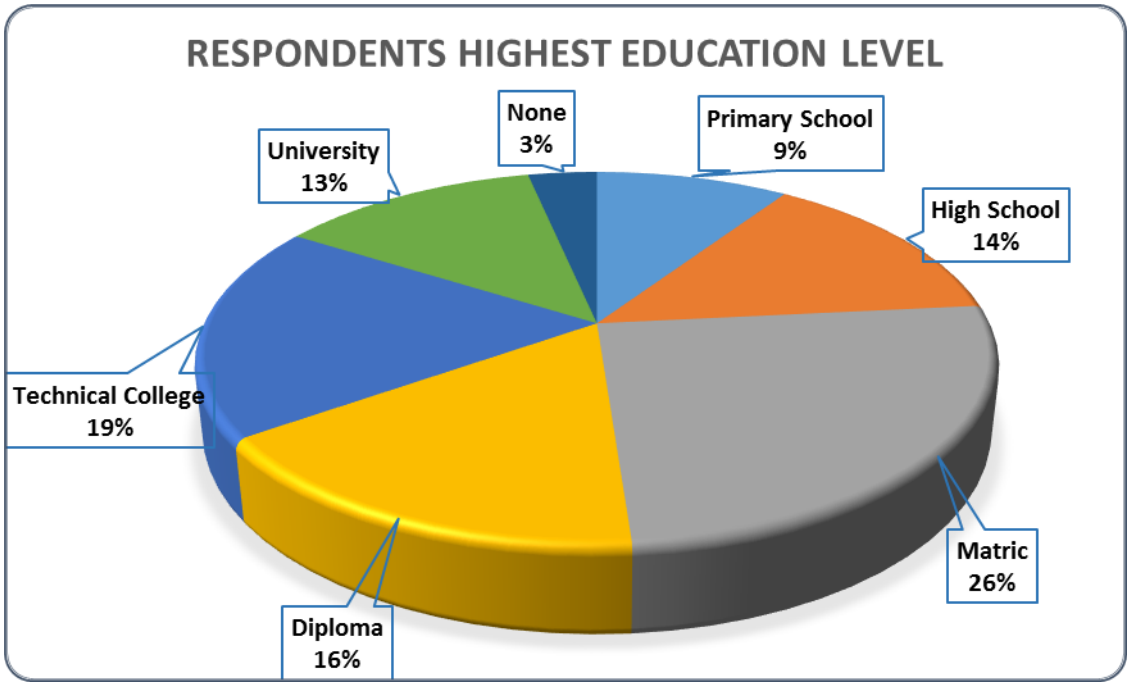
Figure 5: Transport mode



Level of education

The level of education was evenly spread between the different categories. Figure 3.6 shows that 52% of the respondents reached an educational level of Matric or below, 16% have diplomas, 19% have been to Technical College and 13% have university degrees.

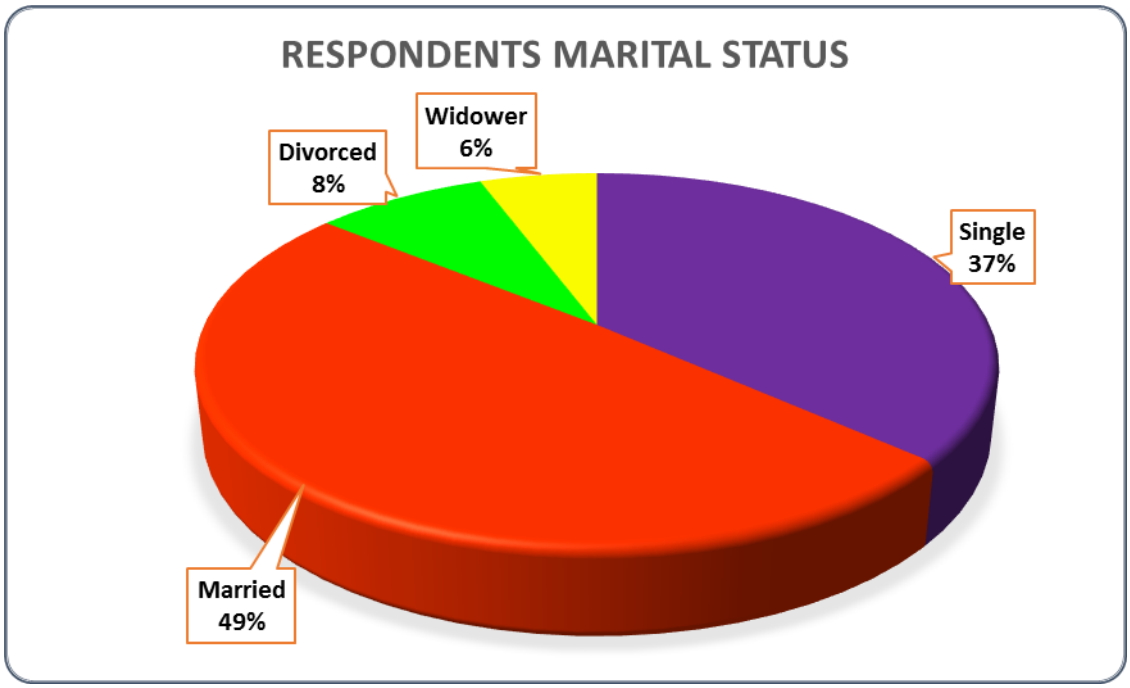
Figure 6: Highest level of education



Marital status

Figure 7 indicates that 49% of the respondents are married, 37% single, 8% divorced and 6% widowed.

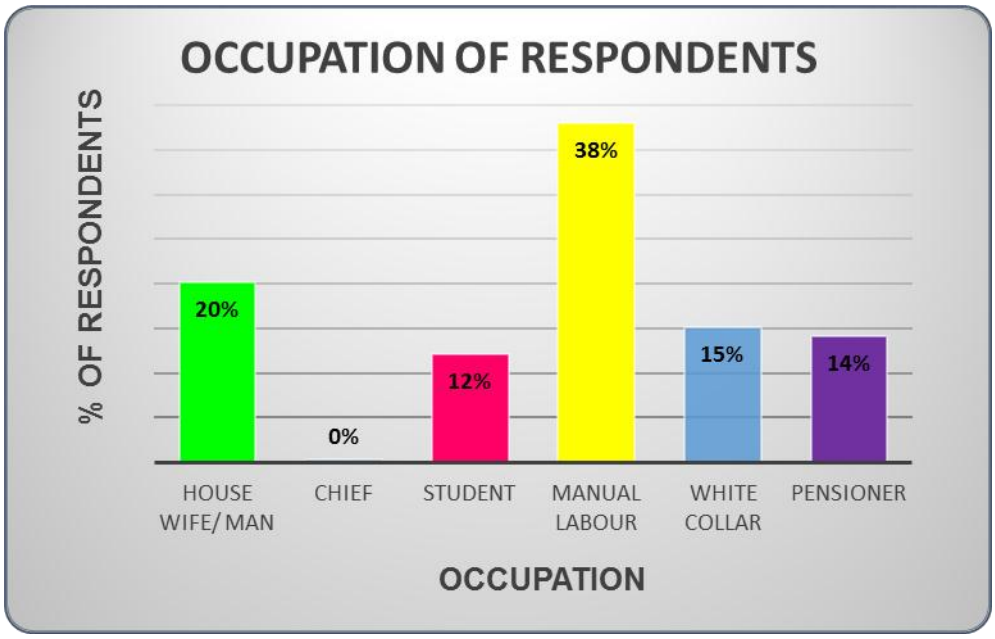
Figure 7: Marital status



Occupation

The largest group of respondents (38%) work as manual labourers while only 15% work white collar jobs.

Figure 8: Occupation



APPENDIX D: LANGUAGE EDITOR'S LETTER

Dynamic Language & Translation Specialists

Antoinette Bisschoff
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Tel: 018 293 3046
Cell: 082 878 5183
antoinettebisschoff@mweb.co.za
CC No: 1995/017794/23

Sunday, 16 October 2016

To whom it may concern,

Re: Letter of confirmation of language editing

The dissertation **An analysis of consumer preferences of meat in townships** by **Christiaan Liebenberg** (11152893) was language, technically and typographically edited. The citations, sources and referencing technique applied was also checked to comply with NWU university guidelines. Final corrections as suggested remain the responsibility of the student.

Antoinette Bisschoff

Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)

Precision ... to the last letter