

Consumer perceptions, preferences, and their purchase intentions for organically grown products in Shelly Beach Shopping centre, Port Shepstone

By

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DEDICATION

This dissertation is dedicated, firstly, to my mother Ms N.A. Wekeza, who has been very supportive throughout my studies. Secondly, I would like to dedicate this dissertation to the rest of my family members and to my lady for the support and encouragement they gave me. More importantly, this work is dedicated to my son Iviwe for being a reason I wake up every night and push myself to complete this work.

ORIGINALITY DECLARATION

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I acknowledge that I have read and understood the University's policies and rules applicable to postgraduate research, and I certify that I have, to the best of my knowledge and belief, complied with their requirements.

In particular, I confirm that I obtained an ethical clearance certificate for my research (Certificate Number UZREC 171110-030 PGM 2017/448) and that I have complied with the conditions set out in that certificate.

I further certify that this study is original, and that the material has not been published elsewhere, or submitted, either in whole or in part, for a degree at this or any other university.

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Date:

May 2018

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PUBLICATION/S IN PREPARATIONS

The following manuscripts emanating from the study and they are to be submitted for publication consideration with accredited journals. The anticipated manuscript titles are:

- (i) Consumer perceptions and preferences towards the purchase of organically grown products in Shelly Beach shopping centre, Port Shepstone.
- (ii) Factors influencing consumer purchase behaviour for organically grown products in Shelly Beach shopping centre, Port Shepstone.

ABSTRACT

In the last few years, the market of organically grown products has continued to grow. This is due to the continued increase of consumers' concerns regarding the environmental, food safety and health issues, especially for food products. These issues have led to an increase in demand which outstrips the supply, which threatens the organic industry. The study aimed to analyse consumer perceptions, preferences and factors influencing the purchase of organically grown products in the Shelly Beach Shopping centre in Port Shepstone under the Ray Nkonyeni Local Municipality of the KwaZulu-Natal Province. The study was quantitative and employed a descriptive cross-sectional design. A systematic random sampling method was employed. The study comprised of 150 organically grown product consumers. Data were collected using structured questionnaires. Data was analysed using the Statistical Package for Social Sciences (SPSS) version 25 and STATA 14 software. Descriptive analysis of data was applied in the study to describe consumers' characteristics, perceptions and preferences. A multiple regression analysis was used to test for the factors influencing the purchase intentions of organically grown products. The study suggested that women (about 63%) purchased organically grown products more than men. The results revealed that all consumers had at least 12 schooling years (matric education). Most (about 53%) of the interviewed consumers were not married (single; divorced or widowed). A greater proportion (about 45%) of the interviewed consumers that purchased organically grown products had family size which was about less or equal to 5 members and mostly (about 73%) of respondents were full-time employed. With regard to consumer perceptions towards organically grown products, results revealed that consumers that were environmentally conscious, concerned about food safety and healthiness had a positive attitude towards the purchase of organically grown products. Results from the multiple regression model revealed that factors such as; ethnicity; household size; employment status; household income and perceptions that organically grown products have a better smell and fresh were found to have a positive and significant influence on the purchase intentions in the study area while age, education, consumer perceptions that organically grown products have a good taste and of high quality and difficulty to access in the market were found to have a negative and significant influence on the purchase intentions. Consumer awareness and education programmes must be targeted at youth to inform them about organically grown products. Government funding should assist farmers in solving the "difficulty to access" issue of organically grown products.

Key words: Multiple regression model, organically grown products, Perceptions, Preferences, Purchase intentions, Shelly Beach Shopping centre.

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LIST OF ACRONYMS

FAO	Food and Agricultural Organization of the United Nations
IDP	Integrated Development Planning
IFOAM	International Federation of Organic Agriculture Movements
ITC	International Trade Centre
NSAC	National Sustainable Agriculture Coalition
OCA	Organic Consumer Association
OTA	Organic Trade Association
STOA	Science and Technology Options Assessment
STATS SA	Statistics South Africa
USDA	United States Department of Agriculture
VIF	Variance Inflation Factors

CHAPTER ONE – INTRODUCTION

1.1 Introduction

With the growth in the organically grown products industry and an increase in consumer awareness and interests to purchase organically grown products, many researchers have shown interest in this field and there have been much growth in studies on organically grown products industry around the world (Macaskill, 2016; Mhlophe, 2015; Sivathanu, 2015). In the last two decades, studies on the factors determining the purchase of organically grown products have been growing. However, many issues have been left unresolved, therefore, this study aims to unpack some of these issues, such as, the benefits derived from organically grown product consumption. Currently, consumers have shown growing interests in organically grown products due to concerns of how conventionally grown products are produced and dissatisfaction of the high risks associated with conventionally grown products consumption (Aschemann-Witzel & Zielke, 2017; Bryła, 2016; Eide & Toft, 2013; Lee & Hwang, 2016; Mhlophe, 2015; Sivathanu, 2015). As a result, consumers' demand for organically grown products have continued to grow (Hwang, 2016; Janssen & Hamm, 2012; Lee & Hwang, 2016; Organic Trade Association (OTA), 2013).

The industry of organically grown products in South Africa is growing, which is a newfound aspect of the recent shifts in the food demand in the whole country (De Villiers, 2016; Mditshwa *et al.*, 2017; Mhlophe, 2015). This rapidly growing organically grown product market has set off many researchers to compare several features of organically and conventionally grown products (De Villiers, 2016; Mditshwa *et al.*, 2017). Consumers' demand and preferences for organically grown products have an influence on the agricultural production techniques due to the unpremeditated concerns over conventional products (Bazzani *et al.*, 2017; Hilverda *et al.*, 2017; Miranda-de la Lama *et al.*, 2017; Prada *et al.*, 2017). However, the awareness about harmful effects of chemical residues in conventionally grown products is increasing among consumers. Also, the drift towards the purchase of organically grown products is growing among consumers (Basha *et al.*, 2015; Hasimu *et al.*, 2017; Mditshwa *et al.*, 2017; Mhlophe, 2015; Scalco *et al.*, 2017; Yazdanpanah & Forouzani, 2015).

Understanding consumers' demand for organically grown products in South Africa is increasingly becoming important since consumer attitudes and preferences intensely influence the direction of food retailers' strategies (De Villiers, 2016; Engel, 2009; Mhlophe, 2015). This growing trend is fuelled by consumers' interest for safe alternatives, especially, organically grown products (Olson, 2017; Pedersen *et al.*, 2017). Organically

grown products these days are perceived as healthy by most consumers since these are made up of natural elements and mostly preferred compared to conventionally grown products. Hence, there has been a belief that organically grown products are substantively safer and healthier than conventionally grown products, and there are also numerous consumers who are willing to pay large price premiums for them (Pomsanam *et al.*, 2014; Ragavan & Mageh, 2013). In addition, organically grown products are produced without the usage of fertilizers, artificial chemicals, and pesticides (Janssen & Hamm, 2012; Macaskill, 2016; Sivathanu, 2015).

1.2 Background

The organic shift in agriculture originated in the European nations in the 1840's and then later progressed to the United States of America (USA), Japan, Australia and to developing nations (Engel, 2009; Mhlophe, 2015). This development began as important innovators and discoverers founded an organic programme in reaction to the risky impacts of industrialised husbandry and requested to go back to the natural order of production (Mhlophe, 2015). Encouragement of organically produced production and their benefits were noticed from the soil and people's health who implemented traditional farming techniques which were witnessed by the top pioneers which were from Europe and USA during their tours (Engel, 2009). The change to organic agriculture was grounded on a merger of efforts from pioneer researchers, farmers, and organic organisations (Kristiansen *et al.*, 2006). The progress of the organic drive into the productivity currently shows that a number of developments have jumped up, changing the aspect of the sector (Mhlophe, 2015).

Organically grown products are described as produce of a farming technique which avoids the usage of fertilizers and pesticides. The approaches used in the farming technique spread over the modern understanding of genetically modified production. Purchases of organically grown products can be established as an action encouraged by beliefs about health, good taste and as well as beliefs about the positive influence upon the environment (Shafie & Rennie, 2012). The study by Kisaka-Lwayo and Obi (2012) shows that organic farming is one of the few justifiable approaches in agriculture since it gives an understanding in the direction of a paradigm shift in foodstuff and nutritious security. It is further indicated by the studies of Kisaka-Lwayo and Obi (2012); Kristiansen *et al.* (2006); Macaskill (2016) that organic agriculture gives emerging nations a state of a wide-ranging economic, environmentally friendly, social and cultural benefits.

Consumers have come to be more aware of organically grown products and are slowly making a change from conventionally grown products to organically grown products for countless motives (Azzurra & Paola, 2009).

The public's increasing awareness of environmental issues since the 1970's have advanced to an increasing need for ecologically friendly outcomes (Loureiro *et al.*, 2001). Interest in organically grown products is increasing due to fears about conventional farming techniques, food safety, human health, and environmental fears (Mhlophe, 2015). Such concerns and consumer behaviour have led to the growth of organic shoppers (Bonti-Ankomah & Yiridoe, 2006). The growth of organically grown products experienced much growth during the late 1980's because of interest for safe and healthy food by consumers. Potential food scares and awareness of environmental issues over the period has led to the growth of organically grown products market (Aertsens *et al.*, 2009). Food today is not only intended to satisfy hunger and provide nutrients for consumers but to prevent against nutrient-related diseases as well as improving the physical well-being of consumers (Azzurra & Paola, 2009). Organic agriculture is slowly shifting into the mainstream economy and a lot of farmers and grocery retailers are increasingly producing organically grown products for their business.

According to Barrow (2006), the Organic Agricultural Association of South Africa was recognised in the early 1990's, which at the same time with the Bio-Dynamic Agricultural Association and the South African and Zimbabwean Permaculture activities, existed as the early voices for environmentally pleasant agriculture based on organic and associated principles. The South African organically grown products industry is growing domestically and is creating a shift in food demand in the country (Petje, 2013). The consumer tendency towards organically grown products is evident in South Africa by the progression of the retail organic market in the previous 10 years predominantly with two South African retail outlets Woolworths and Pick n' Pay (Thom & Conradie, 2012). The increase in organic agriculture has been paralleled and supported by the society's growing consciousness of health and everyday life concerns which are the mainstream and no longer considered uncommon (Barrow, 2006).

In the present day some consumers have adequate knowledge on health and nutrient, they demand more answers and express more fears on food quality and safety than in the previous years. Health risks related to the use of pesticides has made food safety a precedence issue (Hughner *et al.*, 2007). Some consumers prefer organically grown than inorganically grown products. The main reason some consumers choose to consume organically grown products is the thought that they are consuming little or no pesticide residue left on a product, their drive is to support an industry that is gentle and has less negative impact on the environment (Klöckner, 2012; Ragavan & Mageh, 2013). The interest of organic agriculture has led to several

reports comparing organically grown and inorganic products (Bonti-Ankomah & Yiridoe, 2006). Organically grown products have recently been in the news because of much debate over the development of the national organically grown products standards (Albersmeier *et al.*, 2009; Engel, 2009; Mhlophe, 2015). However, the accessibility of organically grown products is limited in South African supermarkets and some consumers report unavailability despite high prices as the major problem in purchasing organically grown products (Thom & Conradie, 2012).

1.3 Problem statement

Many studies are of the view that the accessibility of organically grown products is a major issue, because there are not sufficient producers and the few who are not consistent in their production which results in low accessibility of organically grown products (International Federation of Organic Agriculture Movements (IFOAM), 2013). However, the demand for organically grown products is rising faster than domestic supply (Organic Consumer Association (OCA), 2017). In South Africa, the problem is that the demand for organically grown products is outstripping the supply and there is a limited perceived availability of organically grown products (Kelly & Metelerkamp, 2015; Mhlophe, 2015). Studies showing what precisely drive the relative increase in the demand for the organically grown products compared to supply are not available if not limited. In addition, the organically grown products development is largely demand-directed, which entails that consumers may meet or have to deal with availability issues, which frequently hampers choice of such products due to the lack of supply (Hockerts & Wüstenhagen, 2010). The perceived availability implies the affluence or difficulty to acquire a particular product (Ahmad & Juhdi, 2008).

At hand, there is little knowledge on South African consumers' concerns, opinions and attitudes towards organically grown products and the purchase driving forces (Engel, 2009; Olivová, 2011; Prinsloo *et al.*, 2012). Studies have been conducted in South Africa on consumers' purchase intentions for organically grown products but there is still a lack of understanding on consumer perceptions and their purchase intentions (Engel, 2009; Mhlophe, 2015). The manner in which consumers make choices in purchasing food are different and very complex. Hence, consumers may possibly be worried about environmental issues, the circumstances cannot be certain that consumer behaviour has improved about organically grown products (Eide & Toft, 2013). With regard to environmental concerns, the relationship regarding consumers' attitude and behaviour is not surely straightforward predominantly in an instance where the products point out a conflict between environmental safety and product gains. Since some consumers may still be happy with conventional food products, and such consumers may have not derived any benefits from organically grown

products, which threatens the organically grown products market and the available literature lacks strong evidence to justify claims that organically grown products are better than conventional products (Bonti-Ankomah & Yiridoe, 2006).

1.4 Aim and objectives of the study

The aim of the study was to understand consumer perceptions, preferences and factors influencing the purchase of organically grown products in the Shelly Beach shopping centre in Port Shepstone under the Ray Nkonyeni Local Municipality of KwaZulu-Natal Province.

The specific objectives were:

- i. To investigate consumer perceptions and preferences towards organically grown products in Shelly Beach shopping centre in Port Shepstone.
- ii. To identify and assess factors influencing the purchase of organically grown products in Shelly Beach shopping centre in Port Shepstone.

1.5 Research questions

The study formulated the following research questions in order to achieve the stated objectives:

- i. What are consumer perceptions and preferences towards organically grown products in Shelly Beach shopping centre of Port Shepstone?
- ii. What factors influence the purchase of organically grown products by consumers in Shelly Beach shopping centre in Port Shepstone?

1.6 Justification of the study

The growing public fear on food safety issues such as the application of fertilizers, pesticide deposits, growth hormones, genetically modified organisms (GMOs), and rising awareness of environmentally friendly quality concerns have steered to a mounting need for environmentally friendly products (Roitner-Schobesberger *et al.*, 2008). Organically grown products are promptly emerging as an essential food industry in the world with developing countries not being an exception. Organic farming and its products provide various benefits to farmers, consumers and other stakeholders (Owusu, 2009). However, this study mainly focuses on the consumers' perceptions and preferences towards organically grown products and to identify the factors that influence the purchase of organically grown products in the Shelly Beach shopping centre in Port Shepstone under the Ray Nkonyeni Local Municipality. The study generates the knowledge about organically grown products, and to back up that consumers can make cognisant, naturally and socially accountable choices on

food, the most beneficial product, and those that match up most to their standard of living objectives, as a result forming up trust and assurance.

The study also contributes to the existing literature and at the same time provide consumers and researchers with knowledge about the importance of organically grown products as perceived by the consumers. Furthermore, information generated from this study is not only important to consumers alone but also to food retailers and organic farmers. According to Nunez *et al.* (2014), many stakeholders, such as salespersons have a continued interest in knowing why and in what way do consumers form their intentions to purchase organically grown products.

1.7 Organisation of the dissertation

The research report consists of the following chapters.

Chapter 2: Literature review

The chapter presents literature review with a particular focus on the consumer perceptions, preferences, knowledge and awareness of organically grown products, conducted by different researchers within the country and globally. The literature points consumer perceptions and preferences and also their purchase intentions towards organically grown products.

Chapter 3: Theoretical framework

Theoretical framework is the structure that can hold or support a theory of a research study. This chapter outlines theory/theories underpinning this study on attitudes of consumers towards organically grown products and as well as reasons behind consumers' purchasing habits.

Chapter 4: Research methodology

This chapter presents the systematic approaches employed to collect and analyse relevant data for this study. Such approaches include a description of the study area where the research was done, the research approach and design for the study (sampling techniques and data collection tools that were used and the instruments of the data analysis).

Chapter 5: Descriptive results and discussion

The chapter presents descriptive results, interpretations and discussion of the study.

Chapter 6: Empirical results and discussion

The chapter presents empirical results, interpretations and discussion of the study.

Chapter 7: Summary, Conclusion and recommendations

The chapter presents the summary, conclusions, and draws recommendations based on the findings. Further suggestions for future studies are also presented herein.

2 CHAPTER TWO – LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of previous studies and knowledge about organically grown products. It introduces the context for the study that comprises the focus of the research. The essence of a literature review is to survey prior studies on knowledge that support a particular research. This chapter includes a review of literature on the areas of consumer trust and brand communication ideas within the scope of organically grown products. The chapter initially introduces the topic of organically grown products and organic farming and provide an overview of the organic market in South Africa. An overview of the global demand for and supply of organically grown products is given with emphasis on the consumer characteristics and description of major producers. The issue of consumer purchasing behaviour is also discussed.

2.2 Organically grown products and organic farming

According to Suh (2009) an organically grown product is the harvest from organic agricultural methods or natural farming practices. The term *organic* is mostly used to refer to different products including fruit and vegetables, animal and dairy products, as well as new organic choices that are offered in today's ever-competitive open market (Mhlophe, 2015). Organic agriculture is a farm production system that maintains the shape of soils, ecological unit and people (Kristiansen *et al.*, 2006). It depends on biological practices, biodiversity, and sequences modified to indigenous conditions, rather than the practice of inputs with hostile consequences (FAO, 1999). Organic agriculture links tradition, modernisation, and science to help the public environment and put forward fair interactions and a good value of life for all affected (Macaskill, 2016).

2.2.1 *Organically grown product market in South Africa*

The organically grown product market is developing in the South African society, and there are numerous brands growing and promoting the organically grown products consumption (Barrow, 2006). According to De Villiers (2016) there are numerous retail and health outlets, as well as farmers' market that are shifting towards the organically grown product sector and developing their ranges to meet the ever-growing consumer demands. Globally, as well as locally, the organically grown product trend continues to grow raising awareness to different groups which are becoming more conscious of the role they play in relation to environmental issues (De Villiers, 2016; Engel, 2009; Mhlophe, 2015). In addition, it was found that the awareness towards a healthy lifestyle by South African consumers have been increasing along the years (De Villiers, 2016; Mhlophe, 2015). In addition to healthier lifestyle, South African consumers want more

understanding concerning the origin of the products they consume and how they were produced (Durham, 2012; Engel, 2009).

The lack of knowledge and low acceptance of price premiums for organically grown products are signs of the shortage of studies on the subject at hand (Klöckner, 2012; Olivová, 2011; Pomsanam *et al.*, 2014). In spite of this unfortunate situation, the organically grown product sector has a staggering growth predictions in the local market, furthermore it continues to provide proof of the current shifts in the economy which might touch the global consumer trends (De Villiers, 2016; Engel, 2009; Mhlophe, 2015). Furthermore, many people are growing a consciousness towards natural farming and the positive economic, environmental and societal benefits that South Africa can have in the near future (Durham, 2012). Hence, there is a growing demand for organically grown and natural products in the market.

2.3 Consumer awareness and knowledge of organically grown products

Consumer awareness and knowledge refers to products physical appearance consideration and acknowledgement by consumers (Muhummad *et al.*, 2016). Organically grown products are controlled by the complexity of information associated with the features of the product and the influence that the production has on the environment (Żakowska-Biemans, 2011). Knowledge on organically grown products rests mostly on the consumers' healthiness awareness showing that a consumer who keeps an eye on a healthy routine is most likely to be informed about organically grown products (Petje, 2013). Awareness around negative externalities caused by conventional agriculture is gaining a momentum all over the world, consumers turn to alternative choices, that is to say organically grown products (Muhummad *et al.*, 2016). However, consumers' purchase usually depends on knowledge and attitudes towards that specific product. Those consumers with a high level of product knowledge are more enthusiastic to purchase organically grown products (Petje, 2013).

Individual accountabilities involve making well-versed consumer choices (Mhlophe, 2015). Consumer choices requires knowledgeable decisions and awareness on alternative products (Basha *et al.*, 2015; McCluskey, 2015; Mohamed *et al.*, 2012). Knowledge and awareness, directly and indirectly influences consumer attitudes of organically grown products and their willingness to pay premium prices (Williams, 2013; Yadav, 2016). Since organically grown products are considered as credible goods, many consumers may be confused whether the products were produced organically or conventionally, unless they have information about them (Aschemann-Witzel & Zielke, 2017; Irene Goetzke & Spiller, 2014; Petje, 2013; Sivathanu, 2015).

Therefore, awareness and knowledge about organically grown products is very crucial on consumer purchasing decisions (Eide & Toft, 2013; Olivová, 2011; Shafie & Rennie, 2012; Yadav, 2016). When consumers find it difficult to clearly distinguish among two similar products, a premium price on the organically grown product will confuse consumers, hence, affect the consumer's purchasing decision favoring the cheaper alternative (Eide & Toft, 2013; Hasimu *et al.*, 2017; Hoppe *et al.*, 2013; Hwang, 2016; Thom & Conradie, 2012).

Awareness and knowledge of organically grown products has a direct special effect towards their purchase. More awareness and knowledge of organically grown products has a constructive impact on the attitude towards organically grown products purchase (Bonti-Ankomah & Yiridoe, 2006). An evaluation of certain studies on the awareness and knowledge of consumers on organically grown products bring to mind that though there is an overall consumer awareness all over the world, consumers still have fickle analyses about what really is '*organic*' (Petje, 2013; Somasundram *et al.*, 2016; Wee *et al.*, 2014).

2.4 Consumer perceptions and preferences on organically grown products

Perceptions might happen to be true and most of the times not, nonetheless people always believe on their perceptions and think what they assume is the absolute truth (Wee *et al.*, 2014). By judgement consumers' attitudes are motivated by their feelings, which may be positive and/or negative towards organically or conventionally grown products (Bonti-Ankomah & Yiridoe, 2006). The perception and understanding regarding organically grown products and its production is mainly based on not making use of synthetic fertilisers and pesticides (Somasundram *et al.*, 2016). On the other hand, consumers' perceptions towards organically grown products may perhaps be associated with the level of organic market expansion in a particular location. Development in the attractiveness of organically grown products may well be interrelated by a great positive perception of organics and more purposes to purchase them (Grzelak & Maciejczak, 2011).

Consumers trust their feelings which are influenced by what they have experienced which change personal relevance, status and interests on a product (Shafie & Rennie, 2012). Concerns for a healthy environment and perception of good taste involves the main aims as to why consumers purchase organically grown products (Aertsens *et al.*, 2009). According to Grzelak and Maciejczak (2011) consumers' views of organically grown products and the class of organically grown products remain positive and they have good emotional state about organically grown products. Furthermore, consumers normally feel that their private benefits are

higher than any public benefits of organic farming. Dickieson *et al.* (2009) state that consumer perceptions on organically grown products' value is the utmost important influencing factor on their purchase behaviour.

2.4.1 Health concerns

Nowadays life is becoming extremely competitive and demanding (Aschemann-Witzel & Zielke, 2017; Basha *et al.*, 2015; Yadav, 2016). People have come to be more health conscious since they are very much exposed to many diseases (Mhlophe, 2015). Many consumers are much more concerned about their health and the choice of products they consume to stay healthy. Concerns for health have more influence on consumer attitude towards organically grown products (Basha *et al.*, 2015; Mohamed *et al.*, 2012). The consumers' attitude towards organically grown products and willingness to pay price premiums is directly linked to health issues (Mohamed *et al.*, 2012). Health conscious lifestyle is perceived to be the leading motivating aspect of the purchase of organically grown products (McCluskey, 2015). People who frequently purchase organically grown products are likely to be driven by both health and environmental concerns, while those who seldom purchase are normally driven by only health concerns (Williams, 2013). Hence, health concerns certainly influence consumer's attitude towards organically grown products. Similarly, health concerns directly influence people's intentions to consume organically grown products (Yadav, 2016).

Health is increasingly becoming a significant personal and social value. With people becoming old, concerns about health are growing daily (Mohamed *et al.*, 2012; Yadav, 2016). Being health concerned among people indicates the concept of being self and family concerned, therefore, it can be seen as being self-centred and health conscious in general (Irene Goetzke & Spiller, 2014). Compared to conventionally grown products, the organically grown products are considered to be healthier and to have a high nutritional value (Basha *et al.*, 2015; Mditshwa *et al.*, 2017), since the production of organically grown products eliminates the use of harmful chemical fertilizers (Yadav, 2016). However, related to the growing health concerns, consumer preferences towards healthy products are increasing. Working against these health concerns is the idea that the manner in which older people purchase their products is changing (McCluskey, 2015). Furthermore, health concerns associated to conventionally grown products have the utmost importance in encouraging consumers to purchase organically grown products (Petje, 2013; Sivathanu, 2015) and for the fact that organically grown products are free from chemicals that also play a vital role to potential consumers (Mhlophe, 2015).

There is an overall perception that products from conventional agricultural practices have long-term healthy repercussions when compared to organically grown products (Bonti-Ankomah & Yiridoe, 2006). In recent

years, there has been a growing number of health-conscious consumers who are well knowledgeable about organically grown products, this has directed to an escalation in demand for healthier, safer and environmentally friendly food (Albersmeier *et al.*, 2009). There are consumers who are more health conscious on the effects of chemical remains and additives (Shafie & Rennie, 2012). The study of Science and Technology Options Assessment (STOA) (2016) and Sivathanu (2015), revealed that consumers purchase organically grown products for the reason that they link this kind of food by means of a healthful and maintainable standard of living. In addition, some consumers are even prepared to spend more for organically grown products with added ethical qualities, such as, avoiding the use of fertilisers and pesticides. Consumers even decide on the food that connects to values, such as environmental well-being and animal benefit, and safety concerns (Mhlophe, 2015; Olivová, 2011).

Consumers tend to purchase organically grown products for multiple reasons, which involves sensory and non-sensory features of the products produced organically (Mhlophe, 2015), however, several studies have revealed that food safety in relation to human health concerns is considered the main influencing factor in the organically grown product purchase (Sivathanu, 2015). Healthiness, without chemical additives and residues and improved nutritious value, is considered the most significant aspect for the purchase of organically grown products (Irene Goetzke & Spiller, 2014). Production practices of organically grown products which result with less pesticide residues are therefore the main reason to be considered by consumers to gain health benefits (Williams, 2013). Besides physical movements, sufficient nourishment is a vital feature in influencing an individual's health status (McCluskey, 2015). Consequently, consumers are starting to know that their food selections may possibly have consequences for their health and wellbeing and are therefore shifting their attention to the health benefits of products to keep up with a healthy lifestyle (Williams, 2013). Hence, the organically grown products sector deals with this matter by offering products which will positively influence the public's health (Irene Goetzke & Spiller, 2014).

Attention in organically grown products has been increasing due to modern studies that question whether pesticide residue standards are suitable for children with lower body weight, hasty metabolism and different dietary habits than adults (Pomsanam *et al.*, 2014). Pesticide remains in ready baby food have led to more attention to the production of organic fruits and vegetables (Young *et al.*, 2010). Organically grown products provide consumers with a wide variety of features which add to a healthier diet (Petje, 2013). Biological standards that imitate the individual's concern, such as animal welfare increases organically grown products

purchase (Van Doorn & Verhoef, 2015). Consumers who are more concerned about their health purchase organically grown products since they are made in a more natural approach with fewer chemicals and may, for example, recognise greater health advantages (Guilabert & Wood, 2012).

2.4.2 Food safety

Concerns about food safety has remained as one of the most important reasons for the purchase of organically grown products (Mdutshwa *et al.*, 2017; Prada *et al.*, 2017). The food fears such as foot and mouth, salmonella, epidemics have added to the ever-increasing concerns about the conventionally grown products and their production methods (Bazzani *et al.*, 2017; Hilverda *et al.*, 2017; Miranda-de la Lama *et al.*, 2017). Food safety is a pervasive concern for a large segment of consumers (Hasimu *et al.*, 2017). Food safety is a concern, but most consumers desire to understand and be aware of how organically grown products and processing are done in order to be able to differentiate organically grown products from other products (Petje, 2013). Concerns have also risen around the matters of what remains in food from insect repellents, fertilisers, or whichever other types of synthetic additives (Michaelidou & Hassan, 2008; Mukul *et al.*, 2013). According to Hwang (2016) past research has constantly discovered that many consumers who are worried about the safety of conventional foods view organically grown products positively. The study of (Petje, 2013) showed that concerns about food safety have increased with consumers being more alert of health vulnerabilities linked with processed foods as well as conventional agricultural production. Now consumers seek more answers and express more concerns on the quality of food safety (McEwan *et al.*, 2015).

Notable studies have revealed that many consumers regard the farming methods of organically grown products to be risk-free than that those of conventionally grown products (McCluskey, 2015; Mhlophe, 2015; Yadav, 2016). Notably, several studies do not clearly describe the 'food safety' concept (Basha *et al.*, 2015; De Villiers, 2016; Doering, 2015; Eide & Toft, 2013; Hasimu *et al.*, 2017; Irene Goetzke & Spiller, 2014; Petje, 2013; Pomsanam *et al.*, 2014), hence, not allowing the consumers to draw their own conclusions and interpretations (McFadden & Huffman, 2017; Watrous, 2016). On the other hand, consumers' preference for certain products is built on attributes towards other accessible alternatives. When consumers are asked to specify their preference concerning organically grown products versus conventionally grown products, such responses characteristically compare their outlooks towards the techniques of producing and product features before indicating their preference (Bonti-Ankomah & Yiridoe, 2006). Besides healthiness, food safety and eco-friendly concerns are other factors like nutritional value, sense of taste, freshness and appearance that influence consumer preferences thus purchase of food products (Petje, 2013).

2.5 The organically grown products purchasing behaviour of consumers

According to Hoppe *et al.* (2013) consumers' behaviour is well thought-out to be a vital issue in more than a few subjects of study like marketing, management, psychology and economics. A lot of people purchase a product for its importance and not for what it is perceived to do. A produce, like food, means more to the consumer than its physical meaning (Solomon, 2002). According to Gracia Royo and Magistris (2007) organic farming was created to achieve an objective to yield health-giving and quality foodstuffs without the use of artificial chemical products. As a result, organic farming not naturally conserves the environment but it additionally increases health of the world at large, giving important benefits simultaneously to the economy and the social consistency of rural areas.

The way consumers make selections in purchasing food is different and very complex. Though consumers might be worried about environmental issues, the situation cannot be concluded that consumer behaviour has changed about organically grown products (Eide & Toft, 2013). With respect to environmental concerns, the relationship concerning consumer attitude and behaviour is not certainly straightforward mainly in an instance where the products signify a conflict between environmental safety and product gains (Żakowska-Biemans, 2011). Organically grown products consumers' purchase behaviour is affected by the intention to buy and knowledge about the product (Petje, 2013). The study of Thom and Conradie (2012) shows that when consumers were questioned about their attitudes towards purchasing organically grown products, almost half of them revealed that they purchase organically grown products when it is accessible but purchase conventional products as the substitute products if they are unavailable. Food retailers have been there to give a quick value approval when advertising these products to influence the consumer behaviour (Albersmeier *et al.*, 2009). Nevertheless, high prices, unattractive look, and lack of accessibility are some reasons which inhibit consumers from purchasing organically grown products (Aertsens *et al.*, 2009).

2.6 Cost of organically grown products

The cost of organically grown products generally involves two subjects, namely, the price and consumer and certification trust.

2.6.1 Price

Price is undeniably one of the most distinguished pointers in the open market (Mhlophe, 2015). Hence, high prices increase the perceptions of monetary costs and therefore, negatively affects product costings and purchase intentions (Lee & Hwang, 2016; Lee & Yun, 2015). The high prices generate less repeated purchases of organically grown products than low priced products, but it generates extra overall purchases

of organically grown products (Marian *et al.*, 2014). To most consumers, price signifies the totality of all monetary expenditure that should be foregone in order to be involved in a specific transaction (Mhlophe, 2015). Consumers with low income levels are more frequently influenced by prices and quality guarantees while more wealthy consumers are strongly driven by the safety and healthiness of the product (Bryła, 2016). Price characterises the total monetary value that an individual has to sacrifice. Hence, high prices negatively affect purchase probabilities (Lee & Yun, 2015). There is evidence support the idea that many consumers have a habit to use product prices as a symbol to show high levels of quality. Therefore, higher product prices have a positive influence on the purchase of organically grown products (Lee & Yun, 2015; Mhlophe, 2015).

Regardless of the positive connection between the price and quality supported by the cited studies (Bryła, 2016; Lee & Hwang, 2016; Lee & Yun, 2015; Marian *et al.*, 2014; Mhlophe, 2015; Thøgersen *et al.*, 2016), the higher price of organic foods has been a major barrier to consumers' purchase (Nuttavuthisit & Thøgersen, 2015; Olson, 2017; Rana & Paul, 2017; Scalco *et al.*, 2017). Though it is not clear whether consumers identify that high prices of organically grown products shows high quality and lower value, it is believed that the perceived price positively influence the perceived quality of organically grown products and negatively influences the perceived value (Lee & Hwang, 2016). The findings support the view that price-level opinions generate negative effects on the purchase intentions at the same time as having an indirect positive influence on the purchase intentions while using perceptions on product quality (Lee & Hwang, 2016; Lee & Yun, 2015; Marian *et al.*, 2014; Mhlophe, 2015). Therefore, it is expected that consumers perceive the cost of organically grown products to be high, hence, they will have negative attitude towards the purchase of organically grown products (Bryła, 2016; Mhlophe, 2015; Thøgersen *et al.*, 2016). Additionally, it is evident that price perceptions are directly linked to both efficient and hedonic components of attitudes since price is believed to be a foundation of both efficient and hedonic standards (Lee & Yun, 2015; Thøgersen *et al.*, 2016).

2.6.2 Consumer and certification trust and brand communication

International Trade Centre (2010) and Mhlophe (2015) stated that the certification of organically grown products in South Africa began with fruit and vegetables, herbs and spices and also rooibos tea. Over a decade ago, only 35 farmsteads were registered to produce organically grown products in the whole of South Africa, however, over the years the number of registered farms increased sharply to 150 (Mhlophe, 2015). Hence, this has increased to involve a considerably wider choice of products such as organically produced wines, dairy products, as well as olive oil (Nabil & Imed, 2010). However, there are 100 approximated non-

certified farmers who still produce organically grown products which they informally market their produce through farm markets (Kisaka-Lwayo & Obi, 2014). According to Kisaka-Lwayo and Obi (2014) and Mhlophe (2015) organically grown product certification is addressed on specified standards and values that are used to form a meaning and give certainty on what the claims of organically grown product ultimately entails. The principles of organic farming in South Africa are still being substantiated, however, these are still in the growing phase.

In the study of De Villiers (2016) consumers' trust is defined "as the consumer's self-confident principles that they can trust on the seller to deliver guaranteed services". One of the most evident barriers to purchasing organically grown products is the lack of trust on the product. Insecurities, lack of information and knowledge and also lack of trust exist globally concerning the labelling of organically grown products and the certification processes (Thøgersen & Zhou, 2012). In addition, the perceptiveness following the lack of trust in organically grown product is the low levels of transparency that different brands show (De Villiers, 2016). Also, due to the low levels of transparency, many consumers have lost faith on the techniques related to organically grown product production, hence, it is believed that organically grown products are untrustworthy (De Villiers, 2016; Kriege-Steffen *et al.*, 2010; Thøgersen & Zhou, 2012). Many concerns have been raised due to the lack of transparency and communication, as well as lack of information not being provided by suppliers of organically grown products (Kriege-Steffen *et al.*, 2010).

According to De Villiers (2016) consumers of organically grown products experience an intensified sense of self-confidence when purchasing products from specialty stores, if not directly from the organic farmer, where they can experience the competency, honesty and compassion of the sellers. The study of Kriege-Steffen *et al.* (2010) discovered different factors that influence consumer trust towards organically grown products. One of which, consumers center their trust on the fundamental values of the organically grown product industry that link to environmental and health concerns. Furthermore, they rely on the efficiency, reliability and competency of organically grown brands. On the subject of brands, the nature to trust is centered on how a consumer understands the brand, what has been communicated about it, how this very brand has been discussed and marketed (Crosswaite, 2015). In addition, consumer trust is also influenced by the level of confidence that they show towards the progressions involved in the supply of organically grown product. The study Nabil and Imed (2010) assert that individual trust is a theory that fuses two scopes within an individual, their trusting purpose and trusting credence.

2.7 Demand and supply for organically grown products

According to Hayes (2016), the number of consumers that decide on purchasing organically grown products in excess of their conventional foods are promptly increasing for numerous reasons. A few of the consumers are worried about the environmental influences linked with conventional approaches of agricultural production, despite the fact that others fear that there may perhaps be health repercussions linked to pesticide use and genetically modified organisms (Klößner, 2012; Ragavan & Mageh, 2013). Also, certain consumers select organically grown products for the reason that they have faith in it to be the healthiest alternative. Whatever the reason might be, the consumer demand for organically grown products has been rising by doubling figures each year since the 1990s (Mhlophe, 2015). According to Kisaka-Lwayo and Obi (2014) and Archive (2017) since people have discovered more information about the harmful effects of compound fertilizers, growth hormones and pesticides, consumer perceptions, and preferences for safer, organically grown products have increased. Zepeda and Li (2007) and Yao and Kaval (2011) assert that the purchasing principles influencing organically grown products is the limited accessibility of organically grown products, and if customers should waste more time and energy trying to locate organically grown products, that will affect negatively their willingness to purchase organically grown products.

Organically grown products are mostly more luxurious than intensively-farmed food. According to FAO (2011) organically grown products are more expensive due to the fact that supply is very limited compared to demand. Also, the production expenses for organically grown products are naturally greater because of more labour efforts per unit of yield (Eloff, 2014; FAO, 2011). Organic farmers are facing a very difficult situation which is keeping up with the pace of the ever-growing demand for organically grown products mostly owed to the higher costs linked with organic farming (Chikazunga, 2012; Doering, 2015; Forbes, 2016; National Sustainable Agriculture Coalition (NSAC), 2016). The domain that farmers and agro-processors function in is quickly shifting, and consumers want healthier products, distinguished by ecological production, traceability and product honesty (Hartigh, 2015). Muhammad *et al.* (2016) stated that even though there is a significant increase in the demand for organically grown products all over the world, organically grown products are yet deemed specialty goods in the food market and occupy a small share, and there is a general low market responsiveness on organically grown products. The unconstrained progression of the organic market has been restricted by the supply chain challenges, as the agricultural production cannot seem to meet the ever-growing demand for organically grown products (Hayes, 2016).

According to Kisaka-Lwayo and Obi (2014) and Forbes (2016) the high demand without sufficient supply is the real reason which leads to the increase in the prices of these organically grown products. Even though the demand for organically grown products is growing, the supply of local organically grown products is not able to keep up with the greater than before demand. Adding to the unpredictable accessibility, the variation of home-grown organically grown products is also restricted (National Sustainable Agriculture Coalition (NSAC), 2016; Somasundram *et al.*, 2016). The technological modernisations and economies of scale must decrease costs of production, processing, distribution and marketing for organically grown products as the need for organically grown products is increasing (FAO, 2011). There are so many challenges facing the organic industry and deciding to go organic is not exactly cheap or stress-free for food and beverage producers, but the size of the reward might be worth it (Brodie, 2014; Watrous, 2016).

2.8 Factors influencing consumer purchase of organically grown products

There are many factors that influence consumers' decisions to purchase organically grown products. These decisions might be environmental concerns, better smell, good taste, and nutritional value, healthiness of organically grown products, and safety of organically grown products and the appealing nature of the organically grown products.

2.8.1 Environmental concerns

Environmental concern is one of the key motivational factors towards the purchase of any product together with organically grown products (Basha *et al.*, 2015). Quite a few studies have revealed that the production of organically grown products causes less damage to the environment compared to conventional production (Bryła, 2016; Lee & Hwang, 2016; Lee & Yun, 2015; Mditshwa *et al.*, 2017; Mhlophe, 2015). Hence, consumers are slowly becoming environmental sensitive and prepared to play a part in protection of the environment by any means (Nuttavuthisit & Thøgersen, 2015; Prada *et al.*, 2017). The main reason for the increasing demand for organically grown products is environmental consciousness (Lee & Yun, 2015; Ling, 2013). Hence, many consumers are beginning to be more aware of the environmental, social, and economic impacts their purchase choices may lead to (Chang & Chang, 2017). Being environmentally aware is very strongly associated with the consumption of organically grown products, hence, consumers' attitudes, in relation to their purchase behavior, are strongly influenced by the environmental issues (Lee & Hwang, 2016).

Currently, organic production has considerably changed, due to the rise in consumers' environmental concerns (Mhlophe, 2015). Consumers' ecological concerns have forced marketers to join the environment problem in their decision making (Werner & Alvensleben, 2011). Environmental concerns are linked with an

increasing consumers' interest in organically grown products and have consequently led to a commercial awareness in organic marketing. Moreover, consumers' willingness to pay for organically grown products has also led to the overview of important variations in the food market (Ragavan & Mageh, 2013). The study of Lee and Yun (2015) established that organically grown products are regarded as being more environmentally friendly compared to conventionally grown products. Thøgersen *et al.* (2016) and Bryła (2016) indicated that organically grown products are perceived to be good for both humans and animals since hormones, and other chemical residues are not given to them. Hence, it was revealed that concerns for the environment leads to positive consumer attitudes (Lee & Yun, 2015; Mditshwa *et al.*, 2017).

2.8.2 Organically grown products have better taste and smell

Organically grown products, for example, apples are typically preferred over conventional apples. This outcome has been duplicated in closely organised evaluations, which increases consumer confidence that organically grown products truly taste better than conventional products (Mditshwa *et al.*, 2017). Furthermore, various studies have stated that organically grown products are stored better and have prolonged shelf-life than conventional products (Canavari *et al.*, 2009). According to Seljåsen *et al.* (2013), organically grown products taste better and have good scent which is natural. Grown raw carrots and cabbages are some examples that organically grown products are way superior as compared to conventionally grown products (Mukul *et al.*, 2013).

Several studies revealed that 'taste' is one of the most crucial factor in the purchase of organically grown products (Bryła, 2016; Marian *et al.*, 2014; Mditshwa *et al.*, 2017; Thøgersen *et al.*, 2016). The studies of Olson (2017); Rana and Paul (2017); Scalco *et al.* (2017) suggest that since organically grown products are strongly associated with high prices, many consumers perceive organically grown products to be of higher quality compared to conventionally grown products, hence, that enlightens their perceptions of/towards taste. More convincingly, the study of Shafie and Rennie (2012) revealed a sequence of blind taste-tests comparing organically grown and non-organically grown orange juice. Their study posited that organically produced orange juice was considered to have a better taste as compared to conventionally produced orange juice. However, the global claim that organically grown products taste better is not applicable to all organically grown products (Dumea, 2013; Mukul *et al.*, 2013). Even so, many consumers of organically grown products still perceive taste benefits compared to conventional products (Mditshwa *et al.*, 2017).

2.8.3 *Organically grown products are more appealing in nature*

According to Mukul *et al.* (2013) the appeal of organically grown products has significance progressive link with the remains which are helpful for improving the environment. Since its remains is helpful for improving the environment, the appeal for organic produce is increasing. According to Dumea (2013), Petrescu and Petrescu-Mag (2015) the increased consumer demand and organically grown products' appeal are compelling more retail outlets to add organically grown products to their assortment.

2.9 Willingness to pay for organically grown products by consumers

The willingness to pay for specific products that are produced under certain techniques that provide positive externalities to the society, such as organically grown produce which should be interconnected with a premium that people are prepared to spend for better-quality welfare measures (Williams, 2013). The key influence in the increasing production is the willingness of consumers to spend for organically grown products (Żakowska-Biemans, 2011). The willingness of consumers to spend for organically grown products is heavily reliant on the ability to pay for the produce, not all consumers have that ability though (Bonti-Ankomah & Yiridoe, 2006). Consumers choose organically grown products because of health concerns, the environmental concerns, and then they express their willingness to pay the price premiums recognised in the market (National Sustainable Agriculture Coalition (NSAC), 2016; USDA, 2016). Concerns of the environment, combined with a growing consumers' interest in organically grown products has consequently led to a commercial interest in organic marketing. Furthermore, consumers' willingness to pay for organically grown products has as well headed to the introduction of crucial changes in the food market (Ragavan & Mageh, 2013).

Consumers' willingness to pay a premium price for organically grown products is very significant when they govern the profitability of the organic farm and financial sustainability. The presence of a product and the level of knowledge, consumers have played a major role in consumers' preparedness to spend on organically grown products (Petje, 2013). Evidence concerning the possible health benefits of antioxidants has had an encouraging and important influence on consumers' willingness to pay for organically grown products. The influence of evidence recommends that advertising of antioxidants and biologically developed foodstuffs with antioxidants via mass media and more networks will advance their approval by offering unacquainted consumers with elementary facts of efficient food (McCluskey, 2015; National Sustainable Agriculture Coalition (NSAC), 2016). Grocery retailers such as Pick n' Pay and Woolworths may well draw attention to other significant advantages of organically grown products to individuals willing to pay higher prices. For

example, grocery stores can encourage organically grown products by means of presenting in what way organically grown products provides the ecological protection and animal welfare to those customers that would show willingness to pay the price premiums of organically grown products for the reason that they are worried about the environment and animal welfare (Lee & Yun, 2015).

Factors such as income, knowledge and socio-demographic factors are what influences the consumers' willingness to pay for organically grown products and income alone influences the likelihood of buying the organically grown products (Petje, 2013). Furthermore, gender, education level, and age all have a significant effect on the willingness to purchase a price premium for organic produce and women tend to be more in the cards than men to pay a premium, particularly if there are children within the household (Williams, 2013). Woolworth's price premium study for organically grown products recommends that South African consumers' readiness to pay for organically grown products is of importance. This undoubtedly shows that consumers are prepared to purchase organically grown products even if the costs are higher (Thom & Conradie, 2012). The increase of organically grown products consumption suggest that consumers are willing to pay higher costs, not only because they have money but also for the benefits and healthiness associated with organically grown products (Żakowska-Biemans, 2011).

2.10 Chapter summary

The literature reviewed on this chapter explored the various perceptions, preferences and factors that influence purchase intentions of consumers that purchase organically grown products. The present status of organic farming globally is growing in demand, however, the concept of organic farming in a South African context is fairly new. As South African consumers are becoming more health conscious the demand for organically grown products is increasing. However, there's still a lack of knowledge, and low acceptance of price premiums for organically grown products. The consumers' perceptions and preferences on organically grown products include health concerns and food safety. The cost of organically grown products generally involves two subjects, namely, the price of organically grown products and consumer and certification trust. Organic farmers are facing a very difficult situation which is keeping up with the pace of the ever-growing demand for organically grown products mostly owed to the higher costs linked with organic farming.

The chapter delved richly on the various factors influencing consumers' purchase of organically grown products which include environmental concerns, organically grown products appeal to nature, taste and smell. Factors such as income, knowledge and socio-demographic factors are also some aspects that

influences the consumers' willingness to pay for organically grown products and income alone influences the likelihood of purchasing the organically grown products. There is, however, still a greater need for understanding consumer purchase intentions regarding organically grown products with ongoing academic research regarding the reliability of data concerning the purchase intentions of consumers purchasing organically grown products. The following chapter explores the theoretical framework in which the study is underpinned.

3 CHAPTER THREE – THEORETICAL FRAMEWORK

3.1 Introduction

This chapter presents aspects of a theoretical framework of the study. In general, a theoretical framework is the structure that hold and support theory of a research study. The term “theoretical framework” consists of two words, which is “theory” and “framework”. This chapter therefore starts with theories that are related to consumers behaviour and subsequently provides a framework (set of ideas used to form decisions and judgements) for the study. For this study, theories underpinning the perceptions and/or attitudes of consumers in general are discussed in order to better understand the perceptions and factors influencing the purchase of organically grown products. Overall, the theoretical framework helps a researcher to design the research questions and is also useful for organising and interpreting the findings of the study. Generally, people’s perception on a particular subject or something differ, in this case, the consumer perceptions on the purchase of organically grown products. Knowing how consumers are influenced by their perception, environment, and their information-processing abilities of a product can be useful to understand the consumer decision and/or behaviour towards the purchase of a particular product. A few selected theories of consumer behaviour are discussed in this chapter.

3.2 Theories of consumer behaviour

The conception of consumer is one of the important concepts in economics since the consumer is the fundamental market partaker sideways with the producer (East *et al.*, 2016). Consumers’ behaviour is generally an attribute of human behaviour, and accordingly, a topic being studied by several social sciences which include: economics, sociology, psychology, anthropology or management around the world (Pearce, 2013; Solomon *et al.*, 2012). Additionally, consumers’ behaviour may possibly be generally described as a collection of actions intended to meet consumption needs of individuals with different personalities (Foxall, 2014). The theories of consumer behaviour discussed in this study include: Economic Man Approach, Behaviouristic Approach, Psychodynamic Approach, Rising Income Theory, and Cognitive Approach.

3.2.1 *Economic man approach*

The economic man approach to consumers’ behaviour suggests that consumers must be able to distinguish between choices accessible to them when purchasing foodstuffs, they want to consume (Frank, 2014). Consumers have to rank the available choices according to their level of importance and take the best possible decision to fulfil their needs and wants (Schiffman & Kanuk, 2007). According to Becker (2013); Zinkhan (1992), the economic man theory to consumer behaviour is made up of five processes in which

consumers goes through “process which involves problem or need recognition, information search, evaluation of alternatives, purchase decision and post purchase behaviour”. Nevertheless, the study of Bray (2008) established that these phases are no longer adequate in shaping consumer behaviour since consumers purchase products without giving it much thought. According to the study of Kahneman and Tversky (2013) suggested that consumers are more interested with their personal satisfaction.

3.2.2 Behaviouristic approach

It was through the work of John Watson who first conceptualised this theory which later formed the basis of this approach in which he found that behaviour could be learned through external events (Anand, 2017; Biddulph & Carr, 2017). This approach states that behaviour is everything that a person does or displays through being in contact with external events (Neenan, 2017). The theory also establishes links to human behaviour such as the classical approach initially established by John Watson, radical behaviourism and cognitive behaviourism (Neenan, 2017). Radical behaviourism was conceptualised by Skinner (1938), took into account feelings, state of mind and introspection when it comes to consumer behaviour. The study of Frank (2015) discovered that there are perceptive traits or events that occur from being exposed to environmental factors which influence consumer behaviour.

3.2.3 Psychodynamic approach

Consumer behaviour in this regard as discussed by Oseyomon and Ibadin (2016), asserted that the behaviour is subject to biological influences through instinctive forces or drives which act on the thought processes of the consumer. Psychodynamic approach is fundamentally centred on the work of Sigmund Freud and this approach deems behaviour to be the outcomes of ‘instinctive forces’ (Gerrig *et al.*, 2015).

3.2.4 Rising income theory

The rising income theory was given the current profile by Ernst Engel. This theory outlines that consumer spending habits changes with a change in income (Piketty, 2015). Therefore, as the income increases, spending on most items are more likely to increase. However, this increase does not follow the same trend (Palley, 2010). According to Jokela *et al.* (2017), as income rises, proportion paid on food tends to drop, and proportion spent on furniture and housing mostly stays constant. However, the percentage of income used up on luxuries and savings tends to increase.

3.2.5 Cognitive approach

The cognitive approach is one of the most complex theories in understanding consumer behaviour of which Miremadi and Eghlimi (2016), define the cognitive approach as the actions or traits observed concerning consumer behaviour. The environment in which consumers live in and their social experiences influence the

internal decision making process by the consumer (Lee & Yun, 2015). The study of categorises and explains four key strengths of cognitivism as means of explaining consumer behaviour. This theory describes purchasing activities as problem solving in nature. According to this theory, the consumer solves problem (arrives at purchasing decision) through collecting information, processing those, and taking the decision guided by that information processing (Zalega, 2014). Additionally, the stimulation of what is wanted is conditioned by a consumer's knowledge, perception, beliefs, and attitudes (Bray, 2008; Sharma, 2014). The cognitive theory is the theory guiding the current study, since it is focuses more on consumer's knowledge, perceptions and attitudes in arriving at consumers' purchasing decisions.

3.2.5.1 Models of consumer behaviour

Two proposed structures of cognitive consumer behaviour of which Kassarian (1982), provides an analytical model follow the five purchasing steps undertaken by a consumer in making a purchasing decision. The second model is proposed by Bray (2008), this model looks into perspectives model and provides a guideline to organise how consumer behaviour is structured. Further to that the perspectives model is divided into two which Fishbein and Ajzen (1977), discusses the theory of reasoned action and the second perspective model discussed by (Ajzen, 1985) being the theory of planned behaviour.

3.2.5.1 Analytical cognitive model: The theory of consumer behaviour

Howard first developed this model in 1963, which was the consumer decision model and later on Howard 1974 named it as the theory of buyer behaviour (Bray, 2008). The study of Foxall (1990) stated that this model "provides a sophisticated integration of the various social, psychological and marketing influences on consumer choices into coherent".

3.2.5.2 Consumer decision model

Figure 3.1 shows a consumer decision model which is guided by a cognitive theory to consumer behaviour.

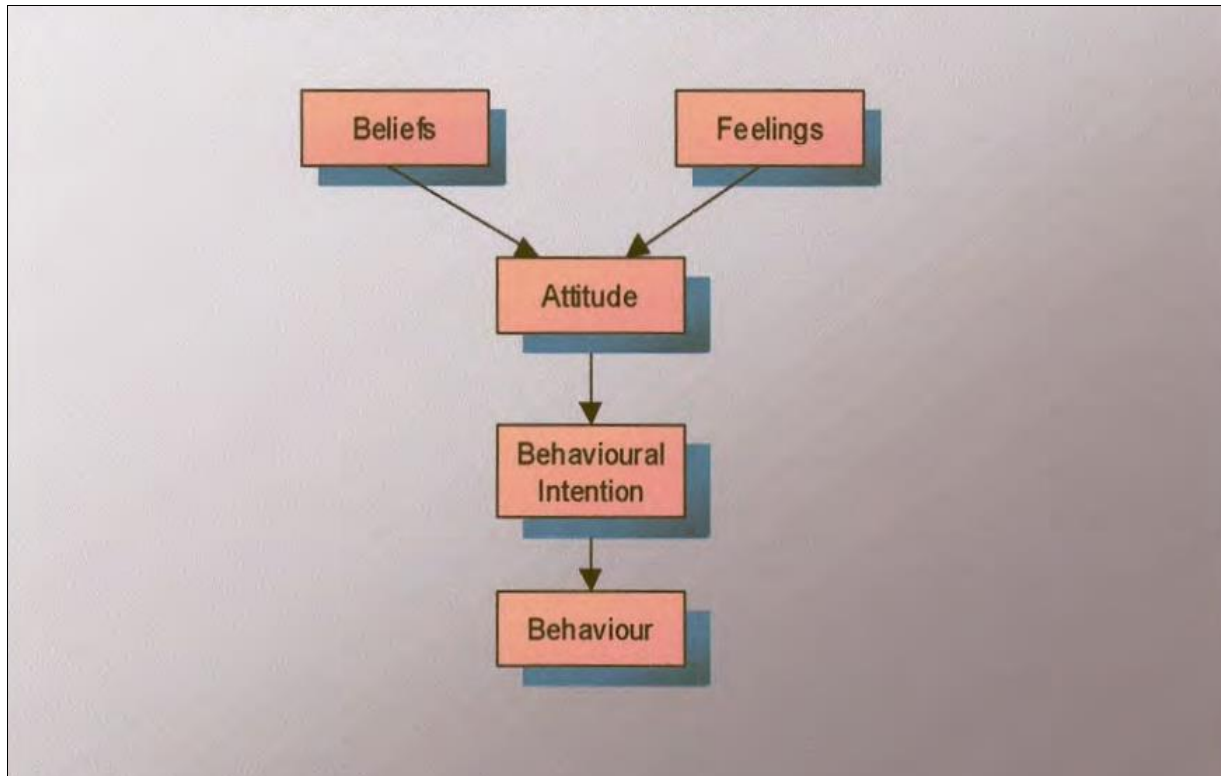


Figure 3.1: Consumer decision model

Source: Milner and Rosenstreich (2013)

3.3 Author's conceptual framework on the perceptions and factors that influence the purchase of organically grown products

Based on the cognitive approach and other theories related to the consumer behaviour already discussed as well as the reviewed literature, the author formulated the following conceptual framework on the perceptions and factors that influence the purchase of organically grown products (Figure 3.2). There are numerous factors that may influence the consumer decisions to purchase organically grown products. Consumer perceptions for example on environmental friendliness, food safety, better smell, nutritional value, availability of the product, healthiness and better taste are perceived to influence consumers' purchasing behaviour towards organically grown products. Demographic characteristics such as age, gender, family size, education, household income and also the cost of the product (price) and product certification trust also were conceptualised to influence consumer behaviour towards the purchase of organically grown products.

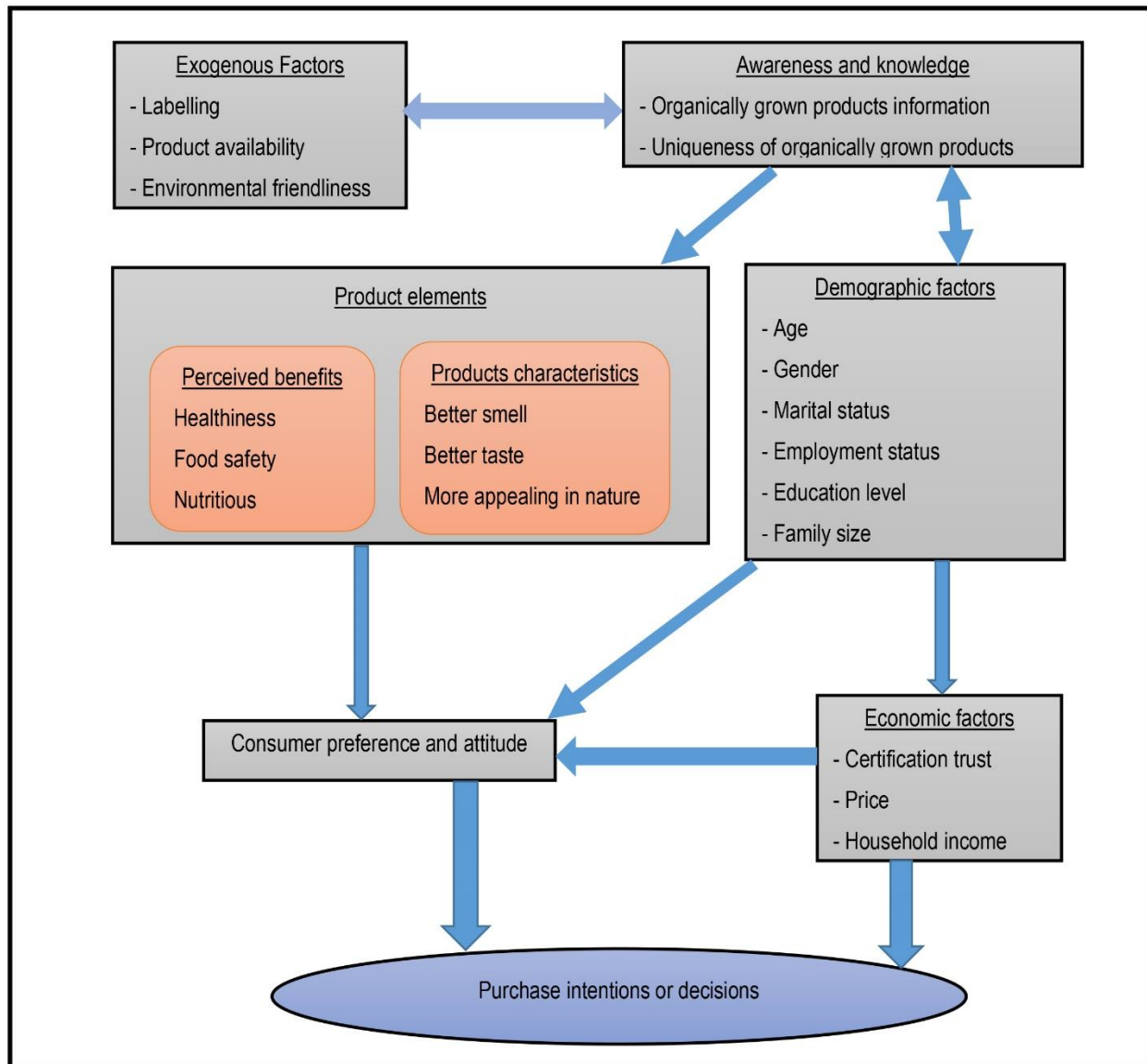


Figure 3.2: Author's conceptual framework on the perceptions and factors that influence the purchase of organically grown products

Source: Author (2017)

3.4 Chapter summary

This chapter presented a description of the theoretical framework guiding the study. It has outlined and explained different theories of consumers' behaviour in relation to their purchase intentions. Theories discussed in this chapter include: Economic Man approach to consumer behaviour, Behaviouristic approach, Psychodynamic approach, Rising Income theory, and the Cognitive approach. The cognitive approach was the chosen theory to guide the study, since it mainly analyses consumers' behaviours based on perceptions,

attitudes and intentions to purchase. The next chapter presents and describes the research methodology applied to the study.

4 CHAPTER FOUR – RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents and describes the methodology used in the study. The chapter describes the selection of the study area and further explains the research approach adopted by the study. The chapter also presents the research design which includes the sample design (study population and as well as the sample size), data collection and the conceptual framework. The chapter further explains independent variables used in the econometric model adopted in the study. Additionally, a section on how research ethical considerations were handled is also provided.

4.2 Selection and description of the study area

This study was conducted in the Shelly Beach shopping centre in Port Shepstone. Port Shepstone is found on the lower south coast of KwaZulu-Natal Province under Ray Nkonyeni Local Municipality, which falls under Ugu District Municipality, in South Africa (KZNONLINE, 2016). The study area was selected using a multistage sampling, a procedure in which out of the 9 provinces in South Africa, the KwaZulu-Natal province was randomly selected and out of 10 districts of the KwaZulu-Natal Province, the Ugu District Municipality was also randomly selected and the town Port Shepstone and the Shelly Beach Shopping centre were purposefully selected. Ray Nkonyeni Local Municipality (formerly Hibiscus Coast Local Municipality) has its administrative base in Port Shepstone and covers an area of just about 90km of coast consisting of 21 beaches, and spreads 30km inland, covering a huge, country side area in the leadership of six tribal establishments (South Coast Directory, 2016).

Port Shepstone is located at the opening of the main river on the south coast of KwaZulu-Natal, South Africa, the UMzimkhulu River, which is 120 kilometres south of Durban, and it is the administrative, informative and moneymaking centre for southern Natal (KZNONLINE, 2016). This area was selected mainly because it is the most focused economic centre and the upmarket type of place in the Ugu District Municipality in the KwaZulu-Natal Province. Many people here live a modern lifestyle, as such, their economic class are likely to be aware of and thus be consumers of organically grown products. Figure 3.1 is a map showing the location of study area (Shelly Beach Shopping Centre) in Port Shepstone under the Ray Nkonyeni local Municipality in relation to KZN Province in South Africa.

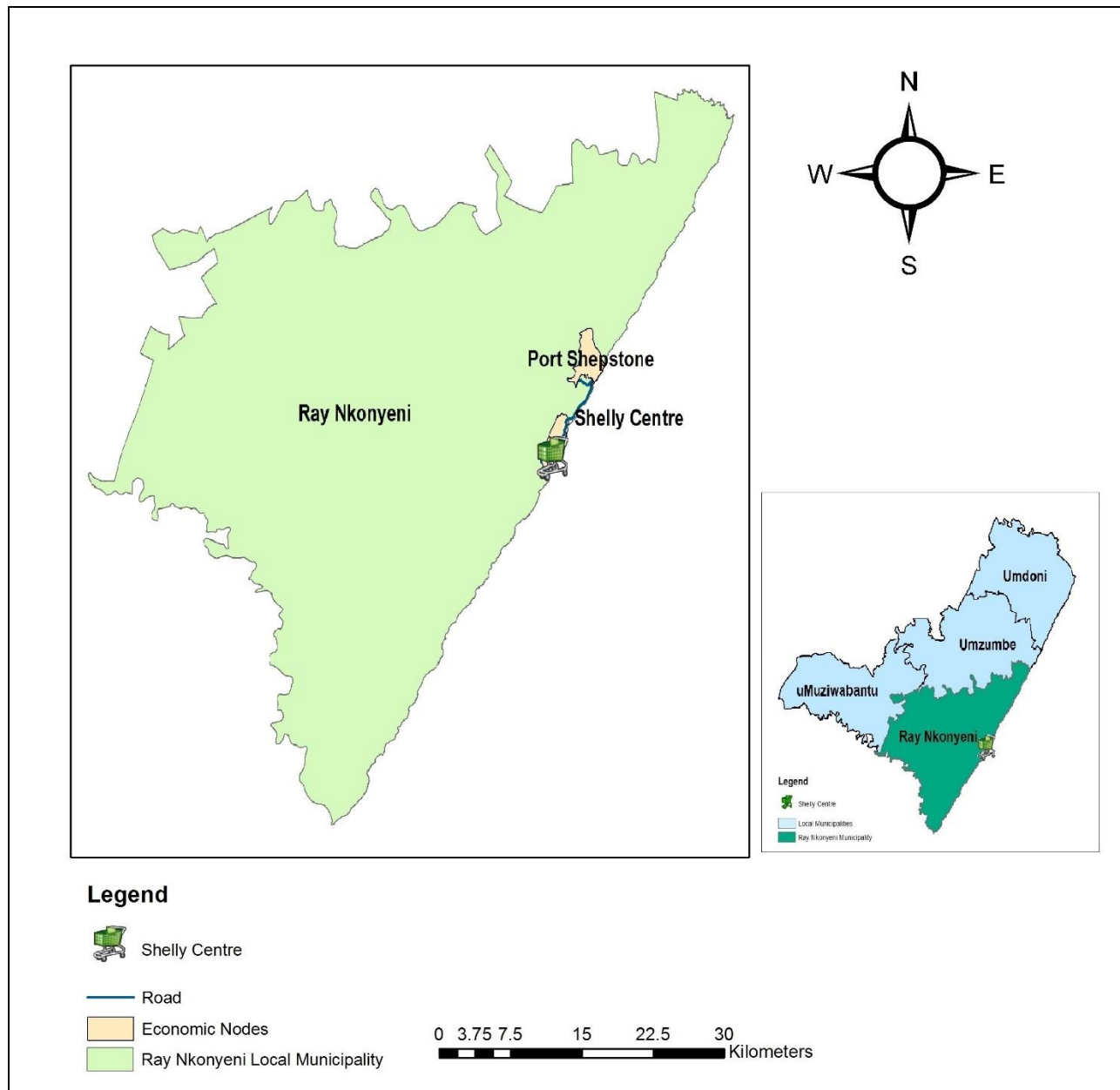


Figure 4.1: Map showing the location of the study area

Source: Ndovela (2018)

4.2.1 Demographics

The total population of Ugu District is 753 336, while the Ray Nkonyeni Municipality alone in 2016 had an approximated population of 348 533 people. These figures, if contrasted to the 2001 and 1996 statistics, it is clear that the residents have been increasing significantly (Integrated Development Planning (IDP), 2016). Between 1996 and 2011 the citizens have increased by 63 189 people, between 1996 and 2001 the

population have grown by 25 223 people and between 2001 and 2011 there has been a growth of 37 966 people (Census, 2011).

In Port Shepstone, it is clear that Blacks are the dominant race group, representing 82 percent of the total population. The white population follows comprising of about 11 percent of the population, the Indians and coloured population accounts for 7 percent of the population (IDP, 2016). The Ray Nkonyeni Local Municipality has the largest population among the four Local Municipalities under the Ugu District which makes consumers of organically grown products under Ray Nkonyeni Local municipality are more likely to be the purchasers of organically grown products and since the upmarket area is only found there.

4.2.2 Employment levels

The Ray Nkonyeni Local Municipality is the second leading native tourism market after Durban, with about 2.2 million visitors yearly (Aylward, 2016). The cities along the coast remain popular holiday resorts that give a wide-ranging sports services and show business activities (such as golf-course and casino and boutique hotels).

Though, the rural areas that currently form part of the municipality are moderately underdeveloped, the municipality is showing a great deal of improvement and continues to attract tourists around the globe. A good deal of property growth is currently in progress with the authenticating of new shopping developments and residential improvements. The unemployment rate in the Ray Nkonyeni Municipality is 28 percent, whereas youth unemployment rate is 37.3 percent (IDP, 2016). Approximately 51.32 percent of the economically active populations in Port Shepstone are employed in some form of economic activities such as construction, agriculture and wholesale. The local municipality is faced with a high number of unemployment (especially the youth) which is more likely to negatively affect the purchase of organically grown products since there is a premium price attached to them and this may imply that many people may not be able to afford them.

4.2.3 Education level

About 21 percent of the population in the Ray Nkonyeni Local Municipality have received formal basic education and possess a matriculation certificate (IDP, 2016). Approximately 29 percent of the population are believed to have received education up to grade 8 and 11 levels (IDP, 2016). The remaining population have received grade 0 (4.6%) and primary (25.8%) education respectively. Only about 6.2 percent of the population attained higher education, which is the highest compared to other local municipalities under Ugu

District. Generally, the education level in the Ray Nkonyeni Local Municipality is low, and that is likely to affect the awareness and knowledge about organically grown products among consumers.

4.2.4 *Economic activities*

The Ray Nkonyeni Local Municipality greatly relies on tourism, agriculture, manufacturing and mining activities to be able to create occupation for the residents. The town is involved in footwear, textiles, luggage and clothing sectors (IDP, 2016). The land area in Ray Nkonyeni Municipality is mostly characterised by urbanised coastal strip, commercial farming which is stretching in land and isolated rural neighbourhoods where there is little subsistence farming taking place (IDP, 2016). However, most land furthest inland has commercial agricultural potential.

4.2.5 *Agriculture potential*

The Ray Nkonyeni Local Municipality is mostly categorised by decent potential agricultural land which needs to be preserved for the production of food (IDP, 2016). There are variegated agricultural practices within the municipality. Commercial farming is largely dominated by sugar cane and banana productions throughout the coastline. Sugarcane and bananas are mostly grown on a large-scale whereas livestock, macadamia nuts and vegetable are grown in a small-scale (IDP, 2016). Integrated Development Planning (IDP) (2016) states that subsistence agriculture (maize, *amadumbe*, beans and sweet potatoes) is largely practiced in the remote areas by people for their own consumption. Additionally, there are small-scale farmers that are involved in the sugarcane farming, which is practiced mainly by emerging Black farmers.

4.3 Research Design

A research design is the preparation of environments for the collection of data in a method that constitutes the blueprint for the measurement, and analysis of data (Bryman & Bell, 2015; Zikmund *et al.*, 2013). In other words, it is the theoretical structure in which research is organised, it set up a plan for the collection, quantifying and analysis of data (Kothari, 2004). The research design that this study followed is a cross-sectional design because it generally uses a survey method to collect data, and it is comparatively cheap and consumes less time to conduct. According to Labaree (2009), the cross-sectional research design focuses on finding correlations between variables at a single point in time. Cross-sectional design studies can use data from a huge number of disciplines and, contrasting observational studies, is not geographically duty-bound and offer a solid 'snapshot' of the result and the features linked with it, at a given point in time. It also focuses on analysing and drawing conclusions from existing differences between people, subjects, or phenomena. Figure 4.2 is a diagrammatic illustration of the research methodology and research design of the study.

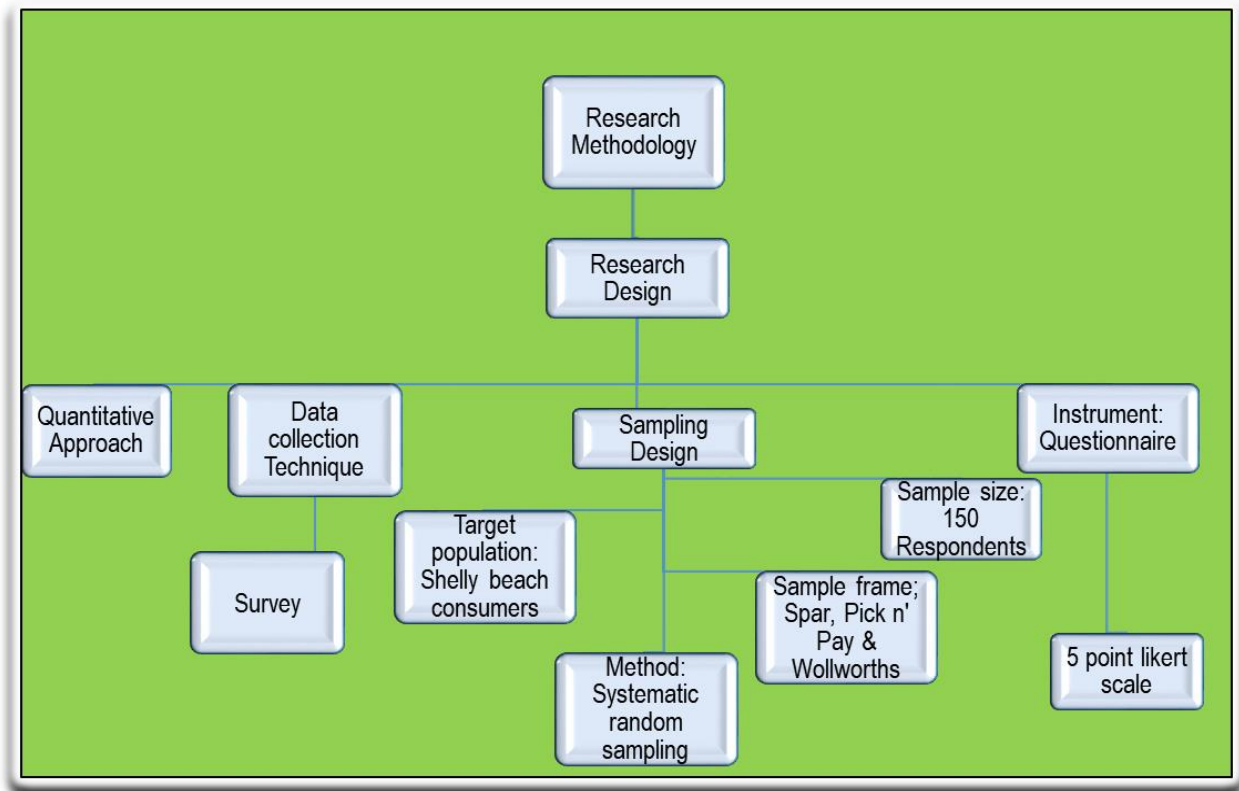


Figure 4.2: Diagrammatical representation of the methodology of the study

Source: Author (2017)

4.3.1 Quantitative research approach

This study adopted a quantitative research approach since it is more reliable and unbiased and can be used in response to normal questions of variables (Vosloo, 2014). A quantitative research approach is a research methodology which deals with figures and everything that is quantifiable in a coherent system of study of facts and their interactions. This method can be used to answer questions on relationships in quantifiable variables with the purpose to clarify, forecast and guide some phenomena (Connaway & Powell, 2010; Williams, 2011). According to Aluko (2006), a quantitative method provides flexibility in data handling, as well as with respects to statistical studies, comparative studies, and reiterating of data collection, it confirms the stability of instruments to be used. Although quantitative research technique has its own disadvantages, it is selected based on its strengths, links well to the study intentions and is considered the best substitute in explaining the research problem.

According to Mhlophe (2015), a quantitative research approach was considered suitable for the study since it uses a survey to draw in behavioural indications in social prodigies. Creswell (2008) stated that several

angles of arguments, between quantitative and qualitative approaches provide different pictures but a quantitative research approach can use statistics to generalize a finding. The use of quantitative method offers a more prosperous platform to analyse data, which looks at relationships among variables and can establish grounds and result in an exceedingly monitored situation (Aluko, 2006). The collected data embodied quantitative data that is expressed as a number or quantified. Using a quantitative data improved an evaluation since the method reduces and reforms an intricate problem to a limited number of variables. The use of quantitative data tests hypotheses and assumes that the sample is representative of the population.

4.3.2 Study population

There are three key parts of a research population, viz. the total population, the target population and the sample population (De Villiers, 2016). The population for the research refers to all the elements that met the certain criterion for inclusion in each universe (Chinomona, 2012). The research further included all the people who had certain attributes that are of interest to the researcher which were required to draw reasonable conclusions. The research maintained a focus on the consumers of organically grown products in the Shelly Beach shopping centre in Port Shepstone, with a particular focus on the consumers of organically grown fresh produce such as fruits and vegetables. The fresh produce of fruits and vegetables has been taking the leading role globally since the beginning of organic agriculture years ago and currently they are still the largest forms of organically grown products (Chen & Saghaian, 2016). According to Greene (2013), the fresh produce of fruits and vegetables accounted for 43 and 15 percent of organic sales respectively in 2012 around the world. In addition, fruits and vegetables have long been regarded as the “gateway” products in the organic sector (Dettmann & Dimitri, 2009).

The total population of this study was all the organically grown product consumers in Shelly Beach shopping centre. The target population were the fruits and vegetable consumers who shop in the organically grown products retail outlets such as, *Pick n’ Pay*, *Spar* and *Woolworths* in Shelly Beach shopping centre in Port Shepstone. Hence, the condition for a respondent to have met the requirements to be included in the study was that the individual was found in any of the top three organically grown products retail outlets in the study area (*Pick n’ Pay*, *Spar* and *Woolworths*) during the time of the data collection.

4.3.3 Sample size and procedure

According to Du Plooy (2009), it is of importance to deal with a more adequate sample size to gather precise data about a group. Larger samples are more expressive whereas smaller samples decrease the level of

accuracy yet moderately accessible and cheap (Pawlowsky-Glahn & Buccianti, 2011). Consumers who were shopping at these selected stores (Pick 'n Pay, Spar and Woolworths) were chosen as respondents for the study. A sample size of 150 respondents (50 from each store) were interviewed. This sample size was deemed to be large enough to make statistical analysis and as well as small enough to be manageable.

A research problem and objectives or questions were used to control the sampling method (Fricker, 2011). Therefore, the sampling method that was used in this study was the probability sampling, systematic random sampling. The probability systematic random sampling method was employed and it is known as a sample method in which sample members from a larger population are selected according to a random starting point and a fixed period interval (Fricker, 2011). Systematic random sampling was employed where the targeted sample was systematically picked (every 5th consumer as done by Rahman and Noor (2016)) to be included in the study who purchase organically grown products (fresh produce of fruits and vegetables). This method of sampling was selected because it provides each element in the general public an equal chance of being selected.

4.4 Data collection

Questionnaires were used to collect data. The prepared questionnaires were given to each respondent found inside one of the “Big three” organic retail outlets and within the fruits and vegetables (organic products section). Prior to data collection, the researcher sought permission from the management of the retail stores in question to collect data and each questionnaire were then answered on site with the help of the researcher and filled by hand. The questionnaires were also translated to the most spoken language in the study area, which isiZulu.

Data collection was done by the researcher with the help of five trained field assistants. Structured questionnaires were used to acquire information on consumer perceptions, preference and demand for organically grown products and the reason behind each purchase of the organically grown product/s. The reason for using a structured questionnaire was that it contains questions of a closed-ended form and it helped the researcher to gather primary data, and the structured questionnaire was simple to understand.

Data was collected for 5 days after the pay dates; that is the 15th (15th - 20th) of the month since many government professionals (nurses and teachers) are paid during these times and also on the 25th - 30th) which is the end of each month (usually pay dates for other workers). Data was collected in the months of

November/December 2017 and January 2018, during working hours (08h00-17h00), because that is the busiest period of each month and the interviews on average lasted up to 30 minutes, and a questionnaire and pen were provided to the respondents save for the answers. Face-to-face interviews were conducted to give the respondent clarity on how to answer some questions if necessary.

4.5 Data analysis

Following data collection, raw data were captured and coded in the form of spread sheet in Microsoft Excel and exported to Statistical Package for the Social Science (SPSS) version 25 and STATA 14 software. For the first objective; (i) to investigate consumer perceptions and preferences towards organically grown products in Shelly Beach Shopping centre in Port Shepstone, descriptive statistics/ analysis was used in the form of a Likert scale measure. To achieve the second objective; (ii) to identify and assess factors influencing the purchase of organically grown products in Shelly Beach Shopping centre in Port Shepstone, a multiple regression model was employed.

4.5.1 Likert scale measure

A Likert scale is a psychometric reaction measure which is mainly used in surveys to find respondent's preferences or level of agreement with a report or set of reports (Vagias, 2006). Likert scales are not a comparative measuring method and only have one dimension (rate a single characteristic). Participants were questioned to specify their degree of consent through a certain statement by means of an ordinal scale (Losby & Wetmore, 2012). According Ameilia (2014) a Likert scale is used to measure attitudes, views and perceptions as well as satisfaction of a person or a group of people about a problem. This research used a 5-point scale (with 1 = Strongly disagree; 2 = Disagree; 3 = Neutral (indifferent); 4 = Agree; 5 = Strongly agree) type of responses. The questions on the Likert scale measure were subjected to a reliability testing (Cronbach Alpha) to ensure internal consistency in answering the questions. A Cronbach Alpha value of more than 0.70 and close to 1 is usually deemed to be a reliable score (acceptable) in many social science research.

The mean and standard deviation statistics were also used to analyse the data from the questionnaire. The score of consumer's response were calculated with every single question on the questionnaire which looks for the mean, percentage and standard deviation using the following formulae (equation 1):

Percentage formula: -

$$\%CR = \frac{\sum CR}{CR \text{ Maximum}} \times 100 \quad (1)$$

Where: -

$\sum CR$: is the total of consumer response score/ choice of attitudes, views or perceptions

CR maximum: Total number of respondents.

This formula was used for the demographic characteristics of respondents of the study, such as marital status, age of respondents and gender among other variables.

Mean formula (equation 2): -

$$x = \frac{f_1x_1 + f_2x_2 + \dots + f_kx_k}{n} = x = \frac{1}{n} \sum_{i=1}^n fix_i \quad (2)$$

Where: -

x : is the mean

n : Best score choice

f_i : is the frequency of the class

X_1, \dots, X_n : a are observation in the data set

Standard deviation (equation 3): -

$$SD^2 = \frac{((C_1 - x)^2 + (C_2 - x)^2 + (C_3 - x)^2 + \dots + (C_n - x)^2)}{N - 1} \quad (3)$$

Where: -

x : is the mean

SD: is the standard deviation

$C_1, C_2, C_3, \dots, C_n$: represent the choice chosen on the 5-point scale

$N-1$: Is the number of the data set minus 1 (Number less than the set).

4.5.2 Multiple regression modelling

Multiple regression modelling is a statistical instrument which allows a researcher to study how multiple independent variables are linked to a dependent variable (Menard, 2002; Mendenhall *et al.*, 2003). The dependent variable for the study is the consumer purchase intention for organically grown product/s. This study adopted the multiple regression modelling from similar studies such as Mukul *et al.* (2013) and Sivathanu (2015) which assessed the determinants explaining the perceptions and preferences among consumers to purchase organically grown products. The multiple regression is a many-to-one modelling and also an expansion of the simple linear regression model, where two or more independent variables are used to predict the variance in one dependent variable (Higgins, 2005).

The multiple regression model is expressed as follows (equation 4):

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p + \varepsilon \quad (4)$$

Where: -

$\beta_0; +\beta_1 X_1 + \beta_2 X_2 \dots + \beta_p X_p$: are the linear parameters to be estimated.

ε : is the error term.

Then the estimated equation can be specified as follows (equation 5):

$$\hat{Y} = b_0 + b_1 X_1 + b_2 X_2 + \dots + b_p X_p \quad (5)$$

Where:

\hat{Y} : is the predicted value of the dependent variable

$b_0, b_1, b_2 \dots b_p$: are the estimates of $\beta_0 + \beta_1 + \beta_2 \dots + \beta_p$

In the multiple regression model, each coefficient is interpreted as the estimated change in y corresponding to a one unit change in the dependent variable, when all other variables are held constant (Barham *et al.*, 2014).

4.5.2.1 The goodness-of-fit of the model

The goodness-of-fit of the model was performed using the R^2 , adjusted R^2 and F-test statistics. There are numerous ways to calculate an R^2 for multiple regression (Nakagawa & Schielzeth, 2013). The relationship between the consumer's perceptions and other factors influencing their purchasing attitudes was determined using a multiple regression modelling and each independent variable is presented through the partial regression coefficient. According to Khine *et al.* (2013) the goodness-of-fit measures the comparative quantity of the experiential covariance and variances. Other goodness of fit statistic performed included the Variance inflation factor tests.

4.5.2.2 Variance inflation factor (VIF)

Variance inflation factors (VIF) measures how considerable the variance of the predictable regression coefficients is inflated related to when the predictor variables are not linearly linked. VIF is used to explain how much multicollinearity exists in a regression analysis (Lin *et al.*, 2011). Multicollinearity is a condition in which numerous independent variables in a multiple regression model are closely correlated to one another (Yu *et al.*, 2015).. The VIF scores were computed in this study to inspect the level of multicollinearity between the independent variables. A VIF of 1 indicates that there is no correlation among the k^{th} predictor and the

other predictor variables, and therefore the variance of b_k is not inflated at all. The general rule of thumb is that VIFs greater than 4 warrant further analysis, whereas VIFs above 10 indicate serious multicollinearity.

4.5.2.3 Independent explanatory variables and their expected outcome

The selection of the independent variables likely to influence consumer purchase intentions of organically grown products relies on previous literature studies. Table 4.1 is a brief description of the independent variables and their hypothesised effect on the dependent variable.

Table 4.1: Explanatory variables, description and the expected outcome

Independent/explanatory variable	Variable description	Measurement type	Expected outcome (+/-)
Age	Age groups of the respondent in years (0 = <20; 1 = 21 – 24; 2 = 25 – 29; 3 = 30 – 34; 4 = 35 – 49; 5 = 50 – 60; 6 = 60+)	Categorical	+/-
Gender	Gender of the respondent (1 = male; 0 = female)	Categorical (Dummy)	+/-
Education	The level of education of the respondent (number of schooling years)	Continuous	+
Marital status	Marital status of the respondent (0 = Married; 1 = Single, Divorced or Widowed)	Categorical	+/-
Ethnicity	Ethnicity of the respondent (0 = African; 1 = Coloured; 2 = White; 3 = Asian)	Categorical	+/-
Household size	Actual respondent's family size (0 = Less or equal to 5; 1 = 6 – 10; 2 = 11 – 15; 3 = > 15)	Categorical	+/-
Income	Household monthly income (0 = Less than ZAR 10 000; 1 = ZAR 11 000 – ZAR 20 000 ¹ ; 2 = ZAR 21 000 – ZAR 30 000; 3 = ZAR 31 000 – ZAR 40 000; 4 = ZAR 40 000 – ZAR 50 000; 5 = More than ZARR 50 000)	Categorical	+
Employment status	Employment status (0 = Unemployed; 1 = Full-time employed; 2 = Part-time employed; 3 = Retired)	Categorical	+
Organically grown products are highly priced	Organically grown products are expensive compared to other products (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	-
Organically grown products are environmentally friendly	Organically grown products remains are beneficial for enriching the environment (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	+

¹ ZAR: South African Currency (Rand)

Organically grown products are safe	Organically grown products are safe compared to other products (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	+
Organically grown products have a better smell	Organically grown products have a better smell than other conventional food (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	+
Organically grown products are difficult to find on the market	Organically grown products are difficult to access in the market (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	-
Organically grown products are healthy	Organically grown products are healthier compared to other conventional products (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	+
Organically grown products have good taste and of high quality	Organically grown products have better taste and of high quality than other conventional products (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree)	Continuous	+

(+/-) indicates positive or negative relation with the dependent variable

Source: Author (2017)

4.5.2.3.1 Age

Age groups were different and were assumed to show different purchase intentions towards organically grown products. A 21 year old organic consumer is believed to react in a different way as compared to a 60 year old consumer (Mhlophe, 2015). However, different consumers might respond differently even if they are within the same age group. Additionally, the study of Nabil and Imed (2010) indicated that some young consumers are more concerned about the labelled products whereas other young consumers are not. Madahi and Sukati (2012) revealed that young consumers were not worried about prices of organically grown products and were expected to have a positive attitude towards their purchase. However, studies of Wee *et al.* (2014) and Sivathanu (2015) suggested that older individuals are more likely to purchase organically grown products compared to younger individuals as they seem not to know if they have purchased organically grown products. Therefore, this variable was expected to have either a positive and/or a negative correlation with the purchase of organically grown products

4.5.2.3.2 Gender

Many researchers have stated that women have positive attitudes towards the purchase decisions of organically grown products as compared to men (Madahi & Sukati, 2012; Mhlophe, 2015). The influence of

gender mostly relies on reasons, such as that women are more likely to be anxious about products that are strongly connected to their quality lifestyles. This feature is believed to be more significant for women in contrast to men (Haque *et al.*, 2009; Mokhlis, 2009). The study of Madahi and Sukati (2012) discovered that the influence of gender (especially, being females) has a positive influence towards the purchase of organically grown products. Furthermore, Akhter (2003) revealed that many men are more risk takers compared to women and they mostly depend on themselves when making purchase decisions. In this study, gender was measured as a dummy variable (male was coded with 1 and female coded with 0). Gender was hypothesised to have either a negative or positive influence on the purchase decisions for organically grown products since there are mixed feelings on its influence.

4.5.2.3.3 Level of education

The level of education in this study was represented by the consumer's number of schooling years. Education was hypothesised to have a positive influence on the purchase of organically grown products. The consumers' level of education is one of the factors that can shape the purchase decisions/intentions between consumers. Consumers with higher education levels are expected to be more interested in purchasing organically grown products compared to those with less or no education (Dettmann & Dimitri, 2009). Similarly, the study of Yin *et al.* (2010) revealed that the purchase intentions for organically grown products food is marginally influenced by the educational levels of consumers.

4.5.2.3.4 Marital Status

Marital status was measured categorically as a dummy variable (being single, divorced & widowed coded with 1 and married was coded with 0). Marital status was hypothesised to have either a positive and/or a negative influence on the purchase of organically grown products. Marital status is a demographic variable which can be used in explaining consumer purchase intentions for organically grown products. The study of Mhlophe (2015) posited that single or divorced or widowed consumers are more likely to purchase organically grown products in contrast to married consumers whom are less likely to purchase organically grown products. It is much cheaper for single consumers to purchase organically grown products as they purchase less compared to married consumers.

4.5.2.3.5 Ethnicity

An ethnic group analysis was another applicable demographic variable to consider in the current study. Ethnicity was measured categorically (being of African origin coded with 0, Coloured was coded with 1, White was coded with 2 and Asian was coded with 3). Ethnicity was hypothesised to have either a positive influence

and/or a negative influence on the purchase of organically grown products. Ethnic groups have a tendency to act in a different ways when they are forming their purchase intentions (Mhlophe, 2015).

4.5.2.3.6 Household family size

The size of respondent's household family in this study was measured categorically (respondents with household size that is less or equal to 5 was coded with 0; households with 6-10 members was coded with 1; households with 11-15 members was coded with 2 and those households with more than 15 members was coded with 3). Many families with a large number of children are more persuaded to purchase organically grown products since they are more concerned about their health and are not price sensitive (Madahi & Sukati, 2012). Consequently, consumers who were concerned about the health and safety of their children are likely to develop a positive purchase intention towards organically grown products. Differing, is the study of Mhlophe (2015) which revealed that respondents with low household family size are more likely to purchase organically grown products since they are expensive, therefore it cheaper when the family size is smaller compared to larger family size. Therefore, this variable was expected to have either a positive and/or a negative correlation with the purchase of organically grown products

4.5.2.3.7 Household Income level

Disposable income is another factor that is considered crucial in influencing purchase intentions of organically grown products (Mhlophe, 2015). Household monthly income was measured categorically (with those households earning less than R 10 000 per month coded with 0; households earning between R 11 000 - R20 000 per month coded with 1; households earning between R 21 000 - R 30 000 per month coded with 2; households earning between R 31 000 - R 40 000 per month coded with 3; households earning between R 41 000 - R 50 000 per month coded with 4 and those households earning more than R 50 000 per month was coded with 5 as done by (Mhlophe, 2015). Dettmann and Dimitri (2009) stated that the purchase intention for organically grown products is likely to increase when consumers' income increases. Households with higher income levels are likely to have positive purchase intentions for organically grown products since they afford to pay for them (Mhlophe, 2015). Additionally, Dettmann and Dimitri (2009) revealed that consumers with high income levels are expected to include organically grown products in their purchases. However, consumers with low income levels but educated are also likely to purchase organically grown products (Mhlophe, 2015).

4.5.2.3.8 Employment status

Associated with income levels is the employment status. Employment status was measured as a categorical variable (being unemployed was coded with 0; full-time employment was coded with 1; part-time employment

was coded with 2 and being retired was coded with 3). Employment status was hypothesised to have a positive influence on the purchase of organically grown products. Consumers that are part-time or full-time employed are likely to afford organically grown products and therefore, are likely to develop positive purchase intentions towards such products (Madahi & Sukati, 2012).

4.5.2.3.9 Perception on the price of organically grown products

Price is one of the most significant indicators in the market (Mhlophe, 2015). Therefore, the high prices result to less repeated purchase of organically grown products compared to low priced products (Lee & Yun, 2015; Marian *et al.*, 2014). Consumers were asked about their perceptions towards the price of organically grown products. This variable was measured using a 5-point Likert scale. Responses to the statement “*Organically grown products are expensive compared to other products*” were coded with 1 if consumer strongly disagreed; 2 if disagreed, 3 if neutral; 4 if agreed; and 5 if strongly agreed. The price was therefore hypothesised to have a negative influence on the purchase of organically grown products.

4.5.2.3.10 Product certification trust

Consumers’ trust is defined “as the consumer’s self-confident principles that they can trust on the seller to deliver guaranteed services” (De Villiers, 2016). Organically grown product certification is regulated on quantified standards and values that are expended to form a meaning and give certainty on what the claims of organically grown product conclusively entails (Kisaka-Lwayo & Obi, 2014; Mhlophe, 2015). This variable was measured using a 5-point Likert scale measure. The responses to the statement “*Organically grown products are trusted based on their certification/ labelling*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed, and 5 if strongly agreed. Consumer trust is guided by the level of confidence that the consumer shows towards the advancements involved in the supply of organically grown product. The product certification trust was hypothesised to have a positive influence on the purchase of organically grown products.

4.5.2.3.11 Perception on environmental friendliness

Environmental friendless is one of the main motivating factors towards the purchase of many products collective with organically grown products (Basha *et al.*, 2015). This variable was measured using a 5-point Likert scale. The responses to the statement “*Organically grown products remains are beneficial for enriching the environment*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed and 5 if strongly agreed. The perception on environmental friendliness was hypothesised to have a positive influence on the purchase of organically grown products. Environmental awareness is intensely related to

the consumption of organically grown products, therefore, consumer attitudes, in relation to their purchase behavior, are strongly influenced by the environmental issues (Lee & Hwang, 2016).

4.5.2.3.12 Perception on food safety

Food safety is a general fear for a large part of consumers (Hasimu *et al.*, 2017). The fears of food such as foot and mouth, salmonella to name a few, have added to the ever-increasing concerns about the conventionally grown products and their production methods which motivate consumers to purchase organically grown products (Bazzani *et al.*, 2017; Hilverda *et al.*, 2017). The food safety variable was measured using a 5-point Likert scale. The responses to the statement “*Organically grown products are safe compared to other products*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral 4 if agreed and 5 if strongly agreed. Perception on food safety was hypothesised to have a positive influence on the purchase of organically grown products.

4.5.2.3.13 Perception of better product smell

The study of Seljåsen *et al.* (2013) state that organically grown products taste better and have good scent which is more natural. This variable was measured using a 5-point Likert scale. The responses to the statement “*Organically grown products have a better smell than other conventional food*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed and 5 if strongly agreed. The perception of a better smell was hypothesised to have a positive influence on the purchase of organically grown products.

4.5.2.3.14 Difficult to access the product on the market

The reason behind the high prices of organically grown products is the high demand with low supply (Forbes, 2016; Kisaka-Lwayo & Obi, 2014). However, the demand of organically grown products continues to grow (Somasundram *et al.*, 2016). This variable was measured using a 5-point Likert scale. The responses to the statement “*Organically grown products are difficult to access in the market*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed and 5 if strongly agreed. The difficulty to access the product in the market was hypothesised to have a negative influence on the purchase of organically grown products.

4.5.2.3.15 Perception on healthiness

Health is gradually becoming an important personal and social value (Eide & Toft, 2013). Consumers' attitude towards organically grown products is directly linked to health issues (Mohamed *et al.*, 2012). This variable was measured using a 5-point Likert scale. The responses to the statement “*Organically grown products are healthier compared to other conventional products*” were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed; and 5 if strongly agreed. The perception on the healthiness of organically

grown products was hypothesised to have a positive influence on the purchase of organically grown products. Organically grown products are considered to be healthier and have high nutritional value (Basha *et al.*, 2015; Mditshwa *et al.*, 2017).

4.5.2.3.16 Perception on better taste and quality

Studies of Bryła (2016); Marian *et al.* (2014); Mditshwa *et al.* (2017) revealed that 'taste' is one of the most fundamental factors in the purchase of organically grown product purchase. This variable was measured using a 5-point Likert scale. The responses to the statement "*Organically grown products have better taste than other conventional products*" were coded with 1 if consumer strongly disagreed; 2 if disagreed; 3 if neutral; 4 if agreed and 5 if strongly agreed. The perception on better taste and smell was hypothesised to have a positive influence on the purchase of organically grown products. Organically grown products are strongly connected to high prices, many consumers recognised organically grown products to be of higher quality, which clarifies their perceptions of/towards taste (Olson, 2017; Rana & Paul, 2017).

4.6 Limitations of the study

The study was mainly focused on the Shelly Beach shopping centre in Port Shepstone; therefore, the results of this study do not signify the aggregate status of organically grown product consumers in the greater Port Shepstone. The focus of this study was only on consumers' purchase intentions of fresh produce (that is fruits and vegetables) of organically grown products and excluded other organically grown products. Again, the study was limited to mostly the urban and educated population since it focused on the Shelly Beach Shopping centre of Port Shepstone.

4.7 Ethical considerations

The study met the ethics obligatory in terms of research and safety as stated in the university's Policies and Procedures on Research Ethics documents. There are numerous reasons as to why it is important to apply ethical considerations in research. The respect of dignity of participants in any research is important. Respect of dignity concentrates on the moral rights of people such as the right to privacy, self-esteem, personal liberty and basic human rights.

Research ethics support the aims of the research, like truth, knowledge and prevention of error. For example, preventions against falsifying or misrepresenting research data enhances the truth and avoid error. In this study, the researcher considered the following ethical issues:

4.7.1 Informed consent

According to Kloppe (2008) ethical consideration is the protection of the respondent's rights, getting informed consent and the institutional evaluation process of the ethical consent. Respondents were made to sign an informed consent form (see Appendix two) before they took part in the research. This means that they knew exactly what the investigator asked them to do, and the likely risks, prior to agreeing to take part in the study.

4.7.2 Privacy and confidentiality

Privacy and confidentiality of participants are central to ethical research practice in public research. According to Yin (2013), confidentiality is all about the protection of all the gathered data. Therefore, the researcher considered the principle of confidentiality to guarantee the privacy of the respondents.

The researcher ensured that each respondent remained anonymous throughout the study by simply assigning codes to their biodata. It was made clear to the respondents that they are free to decide what information they wish to share with the researcher. Respondents were guaranteed that the information they provided would remain confidential. There was no request for any classifying information from respondents that was likely to reveal their identity, for example, no names were requested.

4.7.3 Honesty

The researcher strived for honesty and not to change data and observations. Therefore, the researcher tried by all means to avoid fabrication, falsification, or misrepresentation of data. The researcher also acknowledged the ideas, designs and writings that are not original.

4.7.4 Carefulness

The researcher avoided inconsiderate errors and negligence and kept good records of research activities, such as data collection and data analysis. Therefore, the researcher was so assiduous with great precision for the purpose of achieving positive results.

4.7.5 Objectivity

Objectivity is a major goal of research ethics. According to Creswell (2013) objectivity in a quantitative research is intended to guarantee causality, reliability and generalizability. Therefore, the researcher avoided being biased during data collection, data analysis, data interpretation and other aspects of research where objectivity was required. In this study the researcher ensured that the research did not contain any false or misleading data by being object and truthful to the data gathered. Random sampling is one measure of being objective in research (Brannen, 2017).

4.7.6 Recognition of authorities in the study areas

It is important to recognise and respect the local authorities within the study area, since they have to grant permission to conduct research. The researcher sought permission from the Shelly Beach Shopping centre management to conduct research on their premises and additionally the researcher submitted a letter seeking permission to conduct research to the management of the retail outlets selling organically grown products (Pick n' Pay, Spar and Woolworths).

4.8 Chapter Summary

The chapter provided a description of the research methodology, including the research design, encompassing sampling methods used, data collection, and the explanation what and how data was gathered and also the analytical methods that were employed. The study was conducted in Ray Nkonyeni Local Municipality in the Ugu District Municipality of KwaZulu-Natal Province in South Africa. The study was quantitative in nature and it allowed the researcher to investigate consumer perceptions and preference towards organically grown products and also the factors that influence the purchase decisions/intentions of organically grown products. A probability systematic random sampling method was used to obtain data from 150 organically grown product consumers (of fruits and vegetables). The chapter also described and stressed some of the explanatory variables that were considered in the multiple regression model as guided by literature. Additionally, this chapter highlights the ethical issues that were considered in the development of this study which includes informed consent, confidentiality measures taken, privacy and anonymity, honesty, objectivity, noticing authorities in the study areas. The following chapter presents and discusses the descriptive results of the study.

5 CHAPTER FIVE – DESCRIPTIVE RESULTS AND DISCUSSION

5.1 Introduction

This chapter presents the results and discussion of the descriptive analysis. Descriptive statistics/analysis (means, standard deviation and percentages) is presented in the form of tables and pie charts. Descriptive statistics is mostly relevant mainly for demographic data and general information. The process of data analysis systematically applies statistical and rational techniques in describing, illustrating, summarising and evaluating data (Jandagh & Matin, 2010). Furthermore, the data analysis process is mostly about applying reasoning to figure out and interpret the collected data (Zikmund *et al.*, 2013). The data presented in this chapter were collected from 150 organically grown product consumers of fruits and vegetables in Ray Nkonyeni Local Municipality under the Ugu District Municipality in Southern KwaZulu-Natal Province of South Africa. The first section starts with the description of the demographic characteristics of the respondents that were included in the study. The demographic characteristics presented in this chapter include age distribution, gender, educational levels and other demographic characteristics of respondents. The descriptive analysis in this chapter also presents the Likert-type of responses which fall within the ordinal scale measurements. Likert scales shows the methodical field of response classifications where in this study, the order starts from strongly disagree to strongly agree.

5.2 Demographic characteristics of respondents

The demographic characteristics of this study that is presented in this section include factors such as age, gender, highest education level, marital status, ethnicity, family size, employment status and household income of the respondents.

5.2.1 *Age distribution of respondents*

Different age groups are anticipated to reveal different purchase intentions/decisions towards organically grown products (Slamet *et al.*, 2016). Figure 5.1 shows the age of the respondents in Shelly Beach Shopping centre.

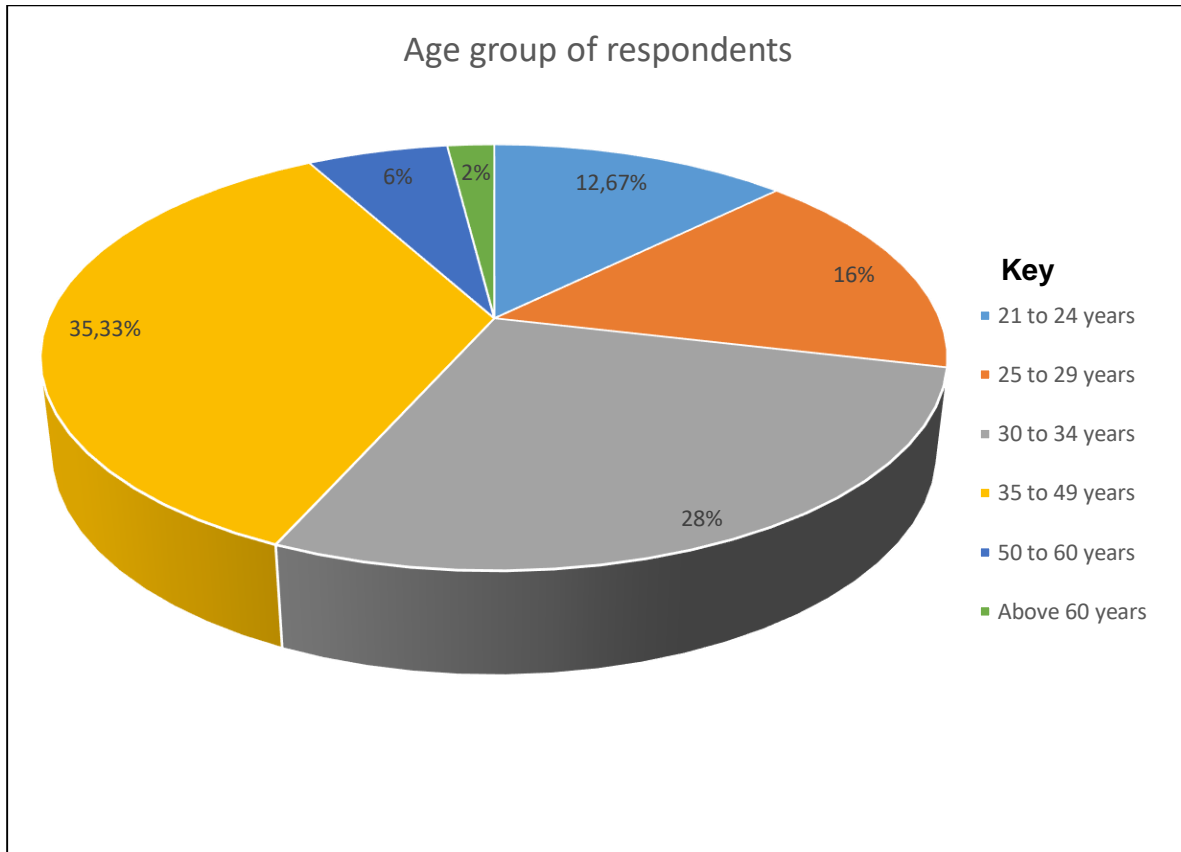


Figure 5.1: Age distribution of respondents in Shelly Beach Shopping centre

Source: Survey Data (2017/18)

A greater proportion (35.33%) of this study's respondents were in the age group between 35 and 49 years whereas the rest were between the age group of 21 and 24 years and/or above the age of 49 years. The consumers that were between the age range 21-24 years and 25-29 years purchased 12.67 and 16 percent of organically grown products respectively. As the consumers age (get older) between the age range of 50 and 60 years and those over 60 years purchase less organically grown products compared to other age groups as shown by 6 and 2 percent respectively of those who purchase organically grown products at that stage of life. The results in this study showed that the highest percentage of consumers who purchased organically grown products were in the age groups of between 35 and 49 years suggest that the purchase of organically grown products were mostly the economically active members. However, at a certain age, above the age of 49 years, they tend to be less interested on organically grown products. This might be caused by the lack of information since organically grown products are a fairly new concept, it is not something that older people were accustomed to. Additionally, most old people are approaching their retirement years, so

they are conscious about money they spend on expensive products. The findings of this study are in line with those of Engel (2009); Mhlophe (2015) that many people ordinarily become active consumers of organically grown products between the ages of 26 and 35 years, which happens after obtaining their respective qualifications and having secured a job, which suggests that they might have become aware of and also able to afford organically grown products. However, contrast to this, are the findings of Durmaz (2014) stating that as the consumer grows old it also increases his/her purchase intentions of the organically grown products since at that age the consumer is perceived to be more settled and established in life and most importantly the consumer may be more concerned about what they consume and of course their health and lifestyles (Van Doorn & Verhoef, 2011).

5.2.2 Gender distribution of respondents

Gender was considered as one of the important demographic factors since gender can influence the attitude of consumers towards the purchase of organically grown products (Leong & Ng, 2014). Table 5.1 shows the gender distribution of the respondents in in Shelly Beach Shopping centre.

Table 5.1: Gender distribution of the consumers of organically grown products in Shelly Beach Shopping centre

Gender	Frequency	Percentage (%)
Male	56	37.3
Female	94	62.7
Total	150	100

Source: Survey Data (2017/18)

Studies by Madahi and Sukati (2012); Mhlophe (2015) revealed that women have a positive attitude and purchase decisions towards organically grown products as compared to men. Therefore, the gender influence is mostly dependent on reasons such as that women are more likely to be concerned about products that are strongly connected to their quality lifestyles. The results on Table 5.1 show that more women (62.7%) purchased organically grown products compared to men (37.3%) in Shelly Beach Shopping centre. The study of Mhlophe (2015) corroborated that men and women differ in their perspectives, motives and behaviour when considering products. The results of this study show that women purchase organically grown products more than men, this could be because women are more concerned about their health and want to live a quality lifestyle (Madahi & Sukati, 2012).

Women are considered to be more selective and more likely to develop a positive purchase intentions for products that satisfy their needs, while men, contrariwise, enter retail outlets and purchase what they need at that time, and get out quickly without looking at product benefits and qualities (Lewis, 2013). Therefore, the desire to live a healthy lifestyle is believed to be more significant for women in contrast to men (Haque *et al.*, 2009; Mokhlis, 2009). Moreover, the study of Madahi and Sukati (2012) discovered that the influence of gender (especially, women) have a positive attitude towards the purchase of organically grown products. On the other hand, Lewis (2013) asserted that men are eager to pay slightly higher prices for products than women. It is therefore vital for retail managers and marketers to look at these peculiarities of gender.

5.2.3 Education levels of respondents

The consumers' education levels has been one of many features which influences the purchase intentions and/or decisions among consumers (Mhlophe, 2015). Table 5.2 shows the highest education levels of respondents in Shelly Beach Shopping centre.

Table 5.2: Level of education in Shelly Beach Shopping centre

The level of education of the respondent (number of schooling years)						
Minimum	Maximum	Mean	Mode	Std. Deviation	Variance	N
12	22	14.99	16	2.356	5.550	150

Source: Survey Data (2017/18)

The mean years of schooling by the interviewed respondents was 15 years of schooling (minimum) suggesting that the average level of education by the respondents was a junior undergraduate degree. Again, the results in this study show that the respondents who participated in the study have at least 12 years schooling history, which suggests that the respondents were fairly educated (had attained at-least a matric). A number of respondents had 16 years of schooling (mode), which suggests that they may have and/or attained their honours degrees. The results further showed that some respondents had attained postgraduate studies with 22 years of schooling (maximum). These results generally suggested that the interviewed consumers of organically grown products in Shelly Beach shopping centre were educated.

The study of Dettmann and Dimitri (2009) indicated that consumers with higher education levels are predicted to purchase organically grown products more compared to consumers with less or no education. This suggested that these consumers are likely to have a positive perception/attitude towards the purchase of organically grown products.

5.2.4 Marital status of respondents

Marital status is one of many demographic characteristics that was used in clarifying the intentions to purchase organically grown products among consumers (Durmaz, 2014). Table 5.3 shows the marital status of the respondents in Shelly Beach Shopping centre.

Table 5.3: Marital status of respondents in Shelly Beach Shopping centre

Marital status	Frequency	Percentage (%)
Married	70	46.7
single, Divorced or Widowed	80	53.3
Total	150	100.0

Source: Survey Data (2017/18)

The results showed that the majority (53.3%) of the interviewed consumers of organically grown products in Shelly Beach Shopping centre were single or divorced or widowed at the time of the study. On the other hand, the remaining 46.7 percent of the consumers who purchase organically grown products were married. This is in line with the study of Mhlophe (2015) which revealed that a greater proportion of the single or divorced or widowed consumers purchase organically grown products compared to those whom are married.

The study by Girei and Giroh (2012) stated that the individual's attitude or behaviour changes depending on their marital status. The results revealed that consumers that were single or divorced or widowed purchased organically grown products more often compared to the married consumers. This might be due to the fact that married consumers have many family members to feed and they may focus on food items that they may afford (purchase conventionally grown products) rather than purchasing organically grown products given the premium prices attached to organically grown products. This is supported by the studies of Hawk (2011); Joifin (2017) that revealed that single consumers spend conspicuously more as compared to married consumers do on food, housing and education.

5.2.5 Ethnic group of respondents

An analysis of ethnic group was one of the relevant demographic factors that was considered in this study. Different ethnic groups have a habit to react in a different manner when they are developing their purchase intentions for organically grown products (Mhlophe, 2015). Figure 5.3 shows the ethnic group of the interviewed respondents in Shelly Beach Shopping centre.

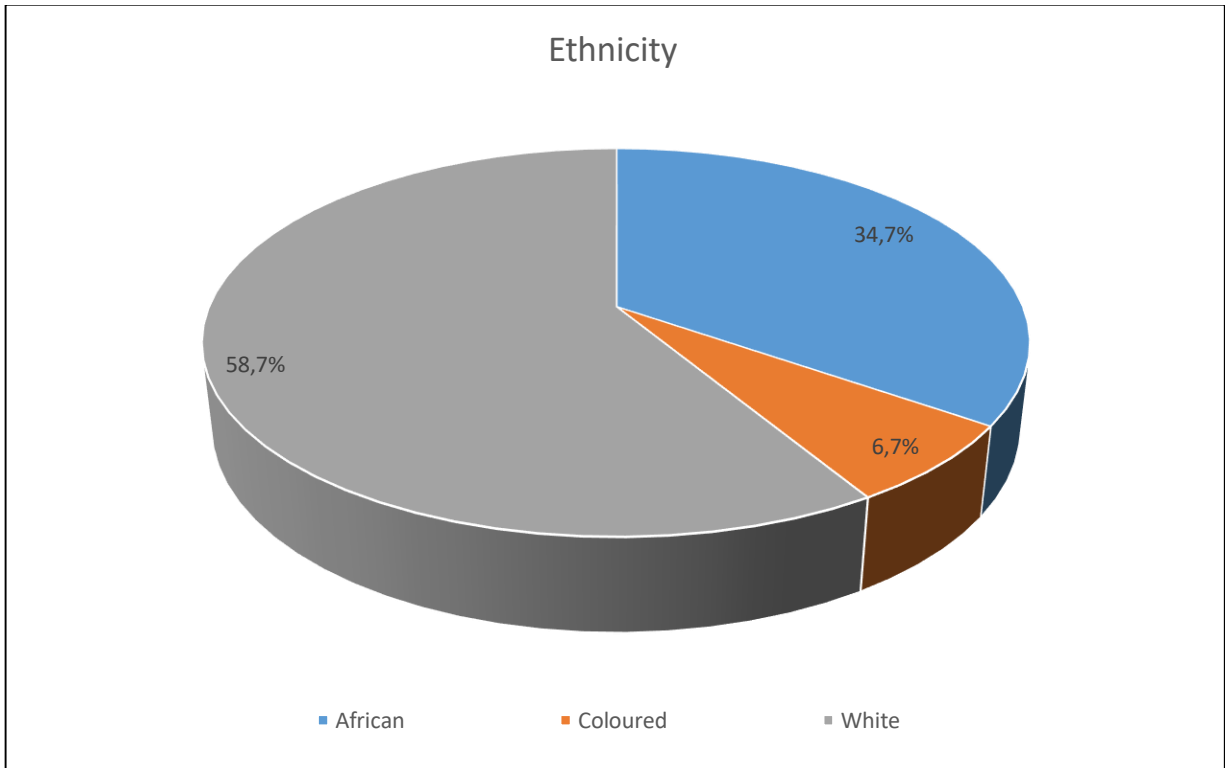


Figure 5.2: Ethnic group of respondents in Shelly Beach Shopping centre

Source: Survey Data (2017/18)

Ethnicity is defined as a self-identified relationship which is typically based on characteristics of individual's family heritage, language, culture, or nationality (Wakefield & Hudley, 2007). Therefore, to embrace the identity of ethnicity is to reveal commitment through attitudes and behaviours towards the group membership of an ethnic group (Dam, 2016; Helms, 2007). The majority (58.7%) of the interviewed consumers of organically grown products in Shelly Beach Shopping Centre were of White origin, Africans and Coloureds accounted for 34.7 and 6.7 percent respectively. This is to be expected that white consumers would dominate the organically grown product market since their income levels are much higher in South Africa compared other races (Stats SA, 2017) and that enables them to be able to purchase organically grown products regardless of the price premium attached to it (Webster *et al.*, 2017). Again, many people residing in and or

around the Shelly Beach Shopping centre are of White origin (Stats SA, 2012). The results of this study are therefore not surprising for the organically grown product market to be dominated by the White ethnic group.

5.2.6 Household size

According to the study of Madahi and Sukati (2012) families with large family members are more likely to purchase organically grown products over conventionally grown products. Table 5.4 shows the family size of the respondents in Shelly Beach Shopping centre.

Table 5.4: Household size of the interviewed organically grown products consumers in Shelly Beach Shopping centre

Household size	Frequency	Percentage (%)
Less or equal to 5	68	45.3
6-10	64	42.7
11-15	18	12.0
Total	150	100.0

Source: Survey Data (2017/18)

Table 5.4 shows that a greater proportion (45.3%) of the interviewed consumers that purchase organically grown products in the Shelly Beach Shopping centre have a family size which is about less or equal to 5 members. Consumers with family size that ranges from 6-10 members accounted for 42.7 percent of the sample. The minority (12%) of the interviewed consumers had a family size of between 11 and 15 members. The results of this study suggested that the smaller the family size the more the consumers will purchase organically grown products, which means that the larger the family size, the lesser the purchase intentions towards organically grown products. This is in line with the studies of Mhlophe (2015); Slamet *et al.* (2016) which revealed that consumers with smaller household family size were more willing to purchase organically grown products than those households with larger family size. This could be due to that it may be cheaper to purchase organically grown products for a smaller family size compared to a larger family size given that organically grown products are expensive (Slamet *et al.*, 2016; Stolz *et al.*, 2011).

5.2.7 Household income of respondents

Income levels of the respondents was considered since it reveals the actual purchasing power of consumers (Mhlophe, 2015; Wongprawmas & Canavari, 2017). Figure 5.3 shows the level of income of the respondents in Shelly Beach Shopping centre.

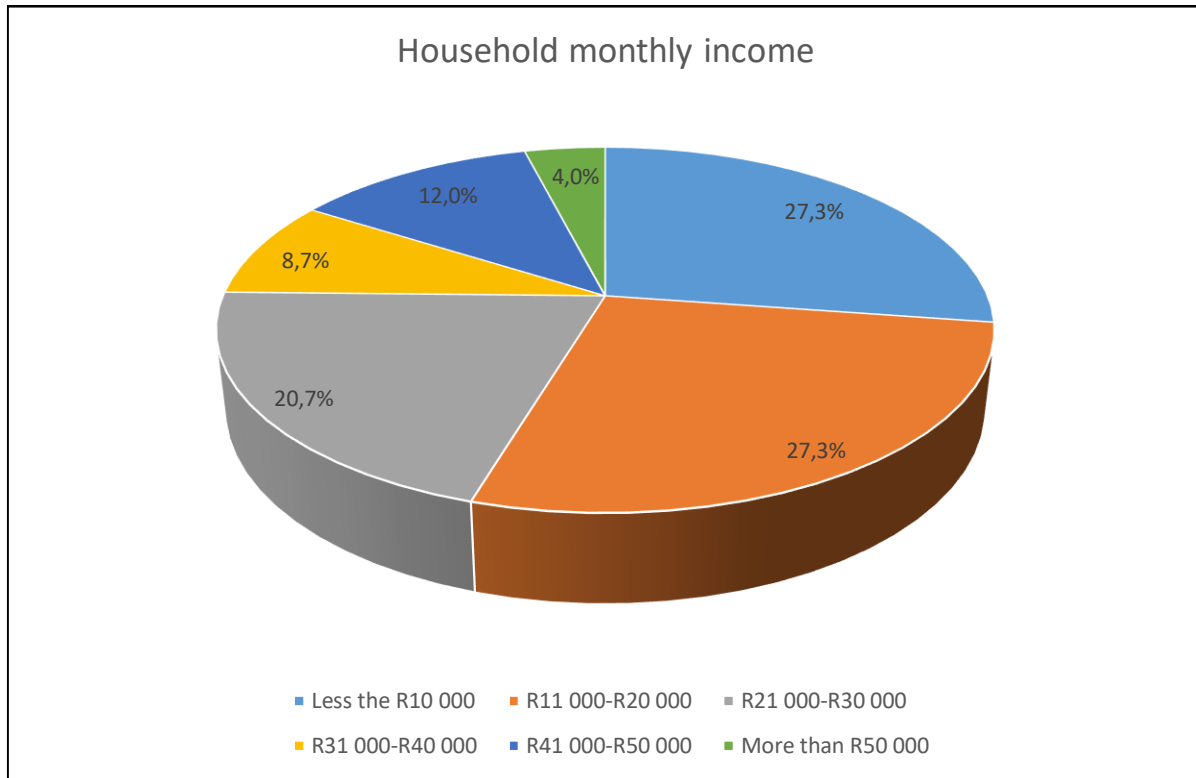


Figure 5.3: Respondents' household monthly income in Shelly Beach Shopping centre

Source: Survey Data (2017/18)

The household monthly income positively influences consumers' decisions to purchase organically grown products instead of conventionally grown products (Mhlophe, 2015; Slamet *et al.*, 2016). Therefore, the purchase intention for organically grown products is likely to increase as consumers' income level increases (Dettmann & Dimitri, 2009; Gracia Royo & Magistris, 2007; Ngo Minh *et al.*, 2013). A larger proportion (27.33%) of the interviewed consumers' households in Shelly Beach Shopping centre indicated that they had income levels of between less than ZAR10 000 and ZAR11 000 - ZAR20 000² respectively. Consumers with household monthly income which ranged between ZAR21 000 - ZAR30 000 accounted for 20.67 percent and those with income level of ZAR31 000 - ZAR40 000 per month accounted for 8.67 percent. Consumers who purchase organically grown products with household monthly income ranging between ZAR41 000 - ZAR50 000 accounted for 12 percent of the sample. Only a minority (4%) earned more than R50 000 per month. The results suggested that the consumers have fairly good monthly household incomes which enables them to purchase organically grown products regardless of the price premium attached to it. This, however, is

² ZAR – South African currency (Rand)

confirmed by the study of (Mhlophe, 2015) revealed that consumers with low income levels but well informed and educated are also likely to purchase organically grown products..

5.2.8 Employment status of respondents

Employment is where an individual is having a paid work in order to afford quality products. Employment status is positively associated with income levels (Daly, 2011). Consumers that are either full-time or part-time employed are more likely to afford and purchase organically grown products and therefore, are expected to form positive intentions towards purchasing organically grown products (Madahi & Sukati, 2012). Table 5.5 shows the employment status of the respondents in Shelly Beach Shopping centre.

Table 5.5: Employment status of the interviewed organically grown products consumers in Shelly Beach Shopping centre

Employment status	Frequency	Percent
Unemployed	17	11.3
Full-time	109	72.7
Part-time	24	16.0
Total	150	100.0

Source: Survey Data (2017/18)

The results show that the majority (72.7%) of the interviewed consumers in Shelly Beach Shopping centre were full time employed. Part-time and unemployed respondents accounted for 16 and 11.3 percent respectively. This may imply that the majority of these consumers have a stable income and are able to worry themselves with the quality of food/products they eat in addition to the ability to be food secure. This is in line with the study of Basha *et al.* (2015) which stated that people that are full-time employed are able to afford products of high quality compared to unemployed people. Hence, they may be able to afford products such as organically grown products which come with a price premium.

5.3 Information on the purchase of organically grown products by consumers of Shelly Beach Shopping centre

This section presents results on information and knowledge of organically grown products with regard to consumers in Shelly Beach Shopping centre. Consumers with a high level of product information and knowledge are more likely to purchase organically grown products (Petje, 2013).

5.3.1 Knowledge by consumers about organically grown products

Knowledge about organically grown products is very crucial on consumer purchasing decisions (Eide & Toft, 2013; Olivová, 2011; Shafie & Rennie, 2012; Yadav, 2016). Respondents were asked to indicate if they had any knowledge about organically grown products. Table 5.6 shows whether or not consumers in Shelly Beach Shopping centre had any knowledge about organically grown products.

Table 5.6: Whether consumers in Shelly Beach Shopping centre had any knowledge about organically grown products

Do you have any knowledge about organically grown products?		
	Frequency	Percentage (%)
No	6	4.0
Yes	144	96.0
Total	150	100.0

Source: Survey Data (2017/18)

The results show that the majority (96%) of the interviewed consumers had knowledge about organically grown products, whereas about 4 percent of the interviewed consumers had no knowledge about organically grown products. The results showed that most consumers of organically grown products in Shelly Beach Shopping centre have knowledge about organically grown products, this may be due to the fact that consumers that participated in the study were fairly educated with at least 12 schooling years (had attained at least matric), which suggest that the interviewed consumers have basic knowledge about certain products they consume. This is in line with the study of Mhlophe (2015) which revealed that relevance of basic education is important in acquiring information and therefore equally important in shaping positive purchase intentions of consumers.

5.3.2 Meaning of organically grown products as perceived by consumers in Shelly Beach Shopping centre

The basic definition of organically grown product is a product that is grown with fewer chemicals and harmful fertilizers (Mhlophe, 2015; Suh, 2009). People may have different opinions about organically grown products since they are perceived to have many different attributes. Respondents were asked to indicate what in their understanding or view organically grown products meant to them. Table 5.7 shows different views and or meaning for organically grown products as perceived by consumers in Shelly Beach Shopping centre.

Table 5.7: Meaning of organically grown products as perceived by consumers in Shelly Beach Shopping centre

Organically grown products are not genetically modified organisms					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	12	8.0	8.0		
Disagree (2)	-	-	8.0		
Neutral (3)	13	8.7	16.7		
Agree (4)	59	39.3	56.0		
Strongly agree (5)	66	44.0	100.0		
Total	150	100.0		4.11	1.114
Organically grown products are produced without the use of technology					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	18	12.0	12.0		
Disagree (2)	12	8.0	20.0		
Neutral (3)	24	16.0	36.0		
Agree (4)	47	31.3	67.3		
Strongly agree (5)	49	32.7	100.0		
Total	150	100.0		3.65	1.332
Organically grown products are naturally grown food/s					
Degree of agreement/disagreement	Frequency	Percent	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	12	8.0	8.0		
Disagree (2)	-	-	8.0		
Neutral (3)	19	12.7	20.7		
Agree (4)	65	43.3	64.0		
Strongly agree (5)	54	36.0	100.0		
Total	150	100.0		3.99	1.102

Source: Survey Data (2017/18)

5.3.2.1 Organically grown products are not genetically modified organisms

The results show that a greater proportion (about 83%) (that is those who agreed (39.3%) and strongly agreed (44%)) of the interviewed consumers of organically grown products in Shelly Beach shopping centre are of the view that organically grown products are not genetically modified organisms (meaning they are not modified to be immune to certain environmental conditions). About 9 percent of the interviewed consumers in Shelly Beach Shopping centre were neutral (not sure) whether or not that organically grown products are genetically modified organisms and about 8 percent of interviewed consumers were of the view that

organically grown products are genetically modified. The results have a mean score of 4.11 (which is close to 4 (that is agree)), suggesting that overall, consumers of Shelly Beach Shopping centre were of the view that organically grown products are not genetically modified organisms. Studies of Bazzani *et al.* (2017); Hilverda *et al.* (2017) and Miranda-de la Lama *et al.* (2017) indicated that the use of genetic engineering is prohibited in the organically grown products regulation, hence, consumers purchase organically grown products with confidence since they believe and/or know that organically grown products are not genetically modified.

5.3.2.2 Organically grown products are produced without the use of technology

The results show that the majority (about 64%) (that is those who agreed (about 31%) and strongly agreed (about 32%)) of the interviewed consumers in Shelly Beach shopping centre were convinced that organically grown products are grown without the use of technology. Only about 20 percent (that is those who disagreed (8%) and strongly disagreed (12%)) of the interviewed consumers in Shelly Beach shopping centre were of the view that organically grown products are grown with the use of technology. About 16 percent of the interviewed consumers in Shelly Beach shopping centre were neutral (not sure) whether or not organically grown products were produced by the use of technology. The study of Durham (2012) revealed that many people are increasingly becoming worried about the use of technology in food production which resultantly damages the environment during production. Nonetheless, the result of this study had a mean score of 3.65 (which is between 3 (neutral) and leaning to 4 (that is agree)), suggesting that consumers of Shelly Beach shopping centre are either neutral or agree that organically grown products are produced without the use of technology. According to Williams (2013) the production of organically grown products results in less of pesticide residues in food products and uses no technology which may have negative externalities.

5.3.2.3 Organically grown products are naturally grown food/s

Based on the results of the study, the majority (about 79%) (that is those who agreed (about 43%) and strongly agreed (about 36%)) of the interviewed consumers in Shelly Beach shopping centre believed that organically grown products are naturally grown food/s. About 13 percent of the interviewed consumers were neutral (not sure) whether organically grown products were naturally grown food/s. A minor proportion (8%) of the interviewed consumers in Shelly Beach shopping centre firmly believed (strongly agreed) that organically grown products are not naturally grown food/s. Studies of Kristiansen *et al.* (2006) and Suh (2009) revealed that organic agricultural methods are of natural form and limit the use of harmful chemicals and inorganic fertilizers in their production. Further, the results have a mean score of 3.99 (which is equal to 4 (that is agree)), suggesting that overall, consumers of organically grown products in Shelly Beach shopping

centre concur with the idea that organically grown products are naturally grown food/s. This is confirmed by the study of Macaskill (2016) which indicated that the production of organically grown products combines traditional and modern methods in order to conserve the public environment while using it to good use.

5.3.3 Frequency of purchasing organically grown products (food)

Consumers differ in their organically grown products purchasing frequencies since organically grown products have different values to different consumers (Pearson *et al.*, 2011). The frequency of purchase for organically grown products differs from consumer to consumer, some consumers may purchase organically grown products daily, once a week, once every two weeks and/or once a month. Consumers of organically grown products in Shelly Beach Shopping centre were asked to indicate the frequency in which they purchased organically grown products (food). Table 5.8 shows the frequency of purchase of organically grown products by consumers in Shelly Beach Shopping centre.

Table 5.8: Frequency of purchasing organically grown products (food) by consumers in Shelly Beach Shopping centre

How often do you purchase organically grown products?		
Frequency of purchasing organically grown products	Frequency	Percentage (%)
Daily	12	8.0
Once a week	36	24.0
Once every two weeks	62	41.3
Once a month	40	26.7
Total	150	100.0

Source: Survey Data (2017/18)

The results show that a greater proportion (about 41%) of the interviewed consumers in Shelly Beach Shopping centre purchase organically grown products once every two weeks (a fortnight), followed by those who purchase once a month who accounted for about 27 percent. About 24 and 12 percent of the interviewed consumers in Shelly Beach Shopping centre purchase organically grown products once a week and daily respectively. This result was expected given that organically grown products are expensive and the general assumption is that consumers purchase organically grown products when they have money (when they get paid). The purchase frequency is positively linked to household income levels and earning date (Pearson *et al.*, 2013). A greater proportion of people in South Africa get paid fortnightly and monthly as evident in the purchase frequency of organically grown products by larger proportions of consumers in Shelly Beach Shopping centre. Additionally, organically grown products are mostly purchased by households with high

income levels (Ngo Minh *et al.*, 2013), since they are readily able to absorb the higher price of organically grown products.

5.3.4 Preferred organically grown product retail outlet by consumers of Shelly Beach Shopping centre

In South Africa, there is quite a number of certified retail outlets that are selling organically grown products (Tung, 2016). Consumers have different preferences on which retail outlet they wish to purchase organically grown products. Respondents were asked to indicate their preferred organically grown product retail outlet. Table 5.9 shows the most preferred organically grown product retail outlets by consumers in Shelly Beach Shopping centre.

Table 5.9: Most preferred organically grown product retail outlet by consumers of Shelly Beach Shopping centre

Which amongst the following is your most preferred organically grown products retail outlet?		
Preferred retail outlet	Frequency	Percentage (%)
Woolworths	50	33.3
Shoprite/ Checkers	15	10.0
Pick 'n' Pay	50	33.3
Spar	35	23.3
Total	150	100.0

Source: Survey Data (2017/18)

The results showed that Pick n' Pay and Woolworths are the most preferred retail outlets for organically grown products as indicated by about 33 percent of the interviewed consumers in Shelly Beach Shopping centre for each outlet. According to Barrete (2012) Pick n' Pay and Woolworths have the biggest organically grown products share among the biggest retail outlets in South Africa, that is why many consumers prefer them over other retail outlets. About 23 percent of the interviewed consumers in Shelly Beach Shopping centre chose Spar as their preferred retail outlet for organically grown products. The remaining 10 percent of the interviewed consumers in Shelly Beach Shopping centre chose Shoprite/ Checkers as their preferred retail outlet for organically grown products. The four retail outlets for organically grown products indicated by consumers in Shelly Beach Shopping centre are the only certified retail outlets within the study area. According to Tung (2016) organically grown products are only available at Hyperama, Shoprite/ Checkers, Pick 'n' Pay and Woolworths.

5.3.5 *The importance of buying organically grown products as perceived by consumers of Shelly Beach Shopping centre*

It is important to purchase organically grown products as they are often associated with less synthetic fertilizers and pesticides (McCluskey, 2015; Mhlophe, 2015). Respondents were asked to rank the importance of buying organically grown products. Table 5.10 shows the importance of buying organically grown products as perceived by consumers of Shelly Beach Shopping centre.

Table 5.10: *The importance of buying organically grown products as perceived by consumers of Shelly Beach Shopping centre*

The buying of organically grown products is extremely important to me					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	-	-	-		
Neutral (3)	6	4.0	4.0		
Agree (4)	53	35.3	39.3		
Strongly agree (5)	91	60.7	100.0		
Total	150	100.0		4.57	0.572

Source: Survey Data (2017/18)

5.3.5.1 *Whether the buying of organically grown products was extremely important to consumers of Shelly Beach Shopping centre*

The results show that the majority (96%) (those that agreed (about 35%) and strongly agreed (about 31%)) of the interviewed consumers in Shelly Beach Shopping centre were of the view that the buying of organically grown products was extremely important to them. Only about 4 percent of the interviewed consumers in Shelly Beach Shopping centre were neutral (not sure) whether it is important or not to purchase organically grown products. The result has a mean score of 4.57 close to 5 (that is strongly agree), which suggested that overall, the interviewed consumers in Shelly Beach Shopping centre are of the view that purchasing organically grown products is extremely important, since organically grown products are mostly perceived to be healthy, environmentally friendly and safe. Studies of Lee and Yun (2015); Mohamed *et al.* (2012) and Mditshwa *et al.* (2017) indicated that organically grown products were widely perceived to be environmentally friendly, healthy and safe by consumers.

5.3.6 Whether consumers of Shelly Beach Shopping centre felt that they were contributing positively to the environment when they purchased organically grown products

According to Basha *et al.* (2015); Bryła (2016) and Chang and Chang (2017) being environmentally concerned is one of the main motivating factors towards the purchase of organically grown products among consumers. Increasing consumer concerns about the environment have actually increased the purchase of organically grown products (Lee & Yun, 2015; Mhlophe, 2015). Respondents were asked to indicate whether they felt that by purchasing organically grown products, they would be contributing positively to the environment. Table 5.11 shows how consumers of Shelly Beach Shopping centre felt with regard to the buying of organically grown products and positive contribution to the environment.

Table 5.11: Whether consumers of Shelly Beach Shopping centre felt that they were contributing positively to the environment when they purchased organically grown products

Do you somehow feel that you are contributing positively to the environment when you purchase organically grown products?					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	6	4.0	4.0		
Neutral (3)	18	12.0	16.0		
Agree(4)	96	64.0	80.0		
Strongly agree (5)	30	20.0	100.0		
Total	150	100.0		4.00	0.695

Source: Survey Data (2017/18)

The majority (84%) (that is those that agreed (64%) and strongly agreed (20%)) of the interviewed consumers in Shelly Beach Shopping centre felt that they are contributing positively to the environment when they purchase organically grown products. About (12%) of the interviewed consumers were neutral (not sure) whether or not they are contributing positively to the environment when they purchase organically grown products and a minority (4%) disagreed that the buying of organically grown products would contribute positively to the environment. Studies of Nuttavuthisit and Thøgersen (2015) and Prada *et al.* (2017) have revealed that consumers have become environmentally sensitive and they will protect the environment by any means, hence, they will purchase organically grown products. Again, the results have a mean score of 4 (that is agree), suggesting that overall consumers of Shelly Beach Shopping centre felt that they were

contributing positively to the environment when they purchased organically grown products. This is confirmed by studies of Lee and Yun (2015) and Mditshwa *et al.* (2017) when they revealed that many consumers opt for organically grown products over conventionally grown products since the production of organically grown products have positive external contribution (that is to the environment).

5.3.7 *Whether the consumers of Shelly Beach Shopping centre felt any change in their health after consuming organically grown products*

Living a healthy lifestyle is one of the key motivational aspects in the purchase and consumption of organically grown products (Basha *et al.*, 2015; McCluskey, 2015). Respondents were asked to indicate as to whether they felt any change in their health after consuming organically grown products. Table 5.12 show whether the consumers of Shelly Beach Shopping centre have felt any health change after consuming organically grown products.

Table 5.12: Whether consumers of Shelly Beach Shopping centre have felt any health change after consuming organically grown products

Has there been any change in your health after consuming Organically grown products?		
Response	Frequency	Percentage (%)
No	12	8.0
Yes	138	92.0
Total	150	100.0

Survey Data (2017/18)

The majority (92%) of the interviewed consumers in Shelly Beach Shopping Centre affirmative that there has been an improvement in their health after consuming organically grown products. Only a minority (8%) of the interviewed consumers in Shelly Beach Shopping centre felt that there was no change in their health after consuming organically grown products. Generally, these results would suggest that consumers of Shelly Beach Shopping centre felt that their health improved after consuming organically grown products. This, therefore, may substantiate the notion that that organically grown products are healthy. This is in line with studies of Sivathanu (2015); Yadav (2016) and Mditshwa *et al.* (2017) which postulated that organically grown products are healthier and safe compared to conventionally grown products.

5.4 Consumer perceptions and preferences towards the purchase of organically grown products

This section presents results on consumer perceptions and preferences towards the purchase of organically grown products. The first section presents the Cronbach's Alpha analysis and subsequently the descriptive analysis of the Likert scale type of responses on the consumer perceptions and preferences towards the purchase of organically grown products.

5.4.1 Cronbach's Alpha reliability analysis

The measure of internal consistency of a questionnaire is important since it helps to find how closely related a set of items are as a group. Table 5.13 shows the Cronbach's Alpha statistics.

Table 5.13 Cronbach's Alpha statistics (reliability analysis)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.669	0.678	28

Source: Computed from SPSS - Survey Data (2017/18)

Internal consistency describes the degree to which all items in an investigation will measure a comparable variable and will therefore be linked to the affinity of the rest of the items in that investigation (Tavakol & Dennick, 2011). According to Mhlophe (2015) Cronbach's alpha is a reliability measure which assesses the probability that the utilised measurement method for the paradigm will provide the unchanged interpretation of a precise phenomenon when the measurement is being repeated. The questionnaire Cronbach's alpha statistic value of this study is 0.669, which suggests that the items have an acceptable internal consistency. The study of Byrne (2013) stated that a Cronbach alpha value of more than 0.70 and close to 1 is usually deemed to be a reliable score (acceptable). Although, the Cronbach's alpha value of this study is below 0.70 (0.669), there are provisions that this value is also acceptable. The study of Hair (2007) suggested that lower values in a study are also deemed acceptable.

5.4.2 Descriptive analysis for Likert scale response on consumer perceptions and preferences towards the purchase of organically grown products

The study of Losby and Wetmore (2012) recommended that the use of descriptive statistics to measure variability one needs to do ordinal measurement scale that contains a median, mean and/or mode to measure central tendency collectively with frequencies. According to Boone and Boone (2012) a Likert-type of response fall within the measurements of ordinal scale. Additionally, Likert scales shows an orderly range of

response categorisations, such as, a pattern or order which in this study ranged from strongly disagree to strongly agree (Ameilia, 2014). The study of Losby and Wetmore (2012) also reveal Likert scales produce a balanced number of both positive and negative response options and a numeric value that can be assigned to each category.

5.4.2.1 Identifying and differentiating organically grown products from non-organically grown products

Knowledge about organically grown products has a major influence towards the shaping and development of consumer's purchase decisions (Somasundram *et al.*, 2016; Wee *et al.*, 2014). Table 5.14 shows the results on the degree of whether the interviewed consumers were able to identify or differentiate organically grown products from non-organically grown products.

Table 5.14: Whether the interviewed consumer were able to identify or differentiate organically grown products from non-organically grown products in Shelly Beach Shopping centre

Are you able to identify or differentiate organically grown products from non-organically grown products?					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative percentage (%)	Mean	Standard deviation
Strongly disagree (1)	6	4.0	4.0		
Disagree (2)	-	-	4.0		
Neutral (3)	42	28.0	32.0		
Agree (4)	78	52.0	84.0		
Strongly agree (5)	24	16.0	100.0		
Total	150	100.0		3.76	0.865

Source: Survey Data (2017/18)

The results in Table 5.14 show that a majority (52%) of the interviewed consumers agreed that they were able (but not so confident) to differentiate organically grown products from conventionally grown products. However, there were some (16%) of the interviewed consumers who strongly agreed (were confident) that they are able to differentiate between organically grown products from conventionally grown products. Those consumers who were not certain whether or not they were able to differentiate between organically grown products from conventional products accounted for 28 percent of the sample. Only a minor (6%) proportion of the interviewed consumers strongly disagreed (were confident) that they were unable to differentiate between both the compared products.

The results from Table 5.14 on whether or not consumers were able to differentiate between organically grown products from conventionally grown products is fairly normally mixed, with a mean score of 3.76 which is orbiting around the Centre ranking score; 3 (that is being neutral), but however, leaning to the agreement/disagreement score of 4 (that is agree). Therefore, overall the results of this study suggest that the interviewed consumers of organically grown products in Shelly Beach Shopping Centre were able to differentiate between the two compared products and they reveal that these consumers were aware and have knowledge about organically grown products. This is evident by the level of education of the interviewed consumers (see section 5.2.3). This is also in agreement with studies of Basha *et al.* (2015); Muhammad *et al.* (2016); Petje (2013); Żakowska-Biemans (2011) that consumers' purchase of organically grown products rely on their awareness and knowledge of being able to differentiate such products from other products. Knowledge and awareness are a significant part of purchase intentions as consumers rely on them when they are developing their purchase decisions (Aschemann-Witzel & Zielke, 2017; Sivathanu, 2015; Yadav, 2016).

5.4.2.2 Means or ways of identifying organically grown products by Shelly Beach Shopping centre

Studies of Dangour *et al.* (2009); Misner and Armstrong Florian (2013); Smith-Spangler *et al.* (2012) have shown that there is no significant difference between organically grown and conventionally grown products in terms of physical appearance. Table 5.15 shows how consumers in Shelly Beach shopping centre were able to identify organically grown products (either by physical appearance or by an accreditation sticker).

5.4.2.2.1 Physical appearance as a way of identifying organically grown products

The results showed that about 39.3 percent of the interviewed consumers in Shelly Beach Shopping centre agreed that they were able to identify organically grown products through the physical appearance of the product, about 32 percent were neutral (not sure/uncertain) whether or not they were able to identify organically grown products through their physical appearance. The remaining 28.7 percent of the interviewed consumers reported that they were not able to identify organically grown products though their physical appearance, suggesting that these consumers are unable to differentiate organically grown products from

Table 5.15: The way in which the interviewed consumers identified organically grown products in Shelly Beach Shopping centre

Physical appearance					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative percentage (%)	Mean	Standard deviation
Strongly disagree (1)	24	16.0	16.0		
Disagree (2)	19	12.7	28.7		
Neutral (3)	48	32.0	60.7		
Agree (4)	59	39.3	100.0		
Strongly agree (5)	-	-			
Total	150	100.0		2.95	1.079
Accreditation sticker					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	-	-	-		
Neutral (3)	11	7.3	7.3		
Agree (4)	79	52.7	60.0		
Strongly agree (5)	60	40.0	100.0		
Total	150	100.0		4.33	0.608

Source: Survey Data (2017/18)

conventionally grown products unless there are tags/stickers on the products. Table 5.15 results show a mean agreement/disagreement score of 2.95 (close to 3 (that is neutral), on whether or not consumers were able to identify organically grown products (in terms of physical appearance) which suggests that overall these consumers were uncertain of whether or not they were able to identify organically grown products from competing products. This finding is confirmed by the studies of Grzybowska-Brzezinska *et al.* (2017); Pearson *et al.* (2011) which stated that a majority of consumers are unable to recognise organically grown products with a naked eye, but, they are able to identify them with tags (stickers). This, therefore, implies that many consumers need tags in order to recognise organically grown products (Drexler *et al.*, 2017).

5.4.2.2.2 Accreditation stickers as a way of identifying organically grown products

In South Africa the accreditation of organically grown products started with the certification of fruits and vegetables and also herbs and spices to name a few (International Trade Centre, 2010; Mhlophe, 2015). Studies of De Villiers (2016); Kisaka-Lwayo and Obi (2014) revealed that the certification of organically grown products through accredited stickers is ordinarily focussed on specific standards and values which are mostly used to create a meaning and give assurance about organically grown products. However, organic farming is still in the growing phase in South Africa and in most cases consumers purchase organically grown

products that have accredited labels (Crosswaite, 2015). The results showed that a majority (52.7%) and a significant proportion (40%) of the interviewed consumers in Shelly Beach Shopping centre agreed and strongly agreed that they distinguished organically grown products from other products only when they have accredited labels. The remaining 7.3 percent of the interviewed consumers in Shelly Beach Shopping centre were neutral (not sure) and indicated that they were not convinced by the labels since it is also possible for retailers to put labels on competing products and claim that they are organically grown products just to increase the price of the product. Overall, the identification of organically grown products by accreditation stickers has a mean agreement/disagreement score of 4.33 (that is close to 4 but above 4 – leaning to strongly agree (5)), and this suggests that consumers are confident to purchase organically grown products when they have accredited labels. Studies of Bauer *et al.* (2013); Curtisa *et al.* (2014) have revealed that consumers mostly purchase organically grown products when they see accredited labels and/or those sold in accredited retail outlets.

5.4.2.3 The reason consumers purchase organically grown products

This section presents results on the reason as to why consumers prefer to purchase organically grown products over conventional products. Consumers' preferences presented here include issues on health concerns, taste and quality, environmental concerns, price and healthiness of organically grown products. Table 5.16 shows the reasons considered by consumers to purchase organically grown products.

Table 5.16: Issues considered by consumers leading to the purchase organically grown products

Organically grown products are healthy					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	6	4.0	4.0		
Disagree (2)	-	-	4.0		
Neutral (3)	-	-	4.0		
Agree (4)	72	48.0	52.0		
Strongly agree (5)	72	48.0	100.0		
Total	150	100.0		4.36	.846
Organically grown products have a good taste and of high quality					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	6	4.0	4.0		
Disagree (2)	-	-	4.0		
Neutral (3)	12	8.0	12.0		

Agree (4)	114	76.0	88.0		
Strongly agree (5)	18	12.0	100.0		
Total	150	100.0		3.92	0.747
Organically grown products are environmentally friendly					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	6	4.0	4.0		
Disagree (2)	-	-	4.0		
Neutral (3)	6	4.0	8.0		
Agree (4)	113	75.3	83.3		
Strongly agree (5)	25	16.7	100.0		
Total	150	100.0		4.01	0.755
Organically grown products are highly priced					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	18	12.0	12.0		
Disagree (2)	43	28.7	40.7		
Neutral (3)	59	39.3	80.0		
Agree (4)	18	12.0	92.0		
Strongly agree (5)	12	8.0	100.0		
Total	150	100.0		2.75	1.074
Organically grown products are more appealing in nature					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	31	20.7	20.7		
Neutral (3)	59	39.3	60.0		
Agree (4)	48	32.0	92.0		
Strongly agree (5)	12	8.0	100.0		
Total	150	100.0		3.27	0.882
Organically grown products are safe					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	6	4.0	4.0		
Neutral (3)	-	-	4.0		
Agree (4)	65	43.3	47.3		
Strongly agree (5)	79	52.7	100.0		

Total	150	100.0		4.45	0.700
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Source: Survey Data (2017/18)

5.4.2.3.1 *Health concerns*

Nowadays, consumers are more concerned about their health and have decided to direct their attention to organically grown products, since it is largely associated with being healthy (Basha *et al.*, 2015; Irene Goetzke & Spiller, 2014; Mohamed *et al.*, 2012; Williams, 2013; Yadav, 2016). Most (96%) of the interviewed consumers in Shelly Beach Shopping centre were entirely convinced that organically grown products are healthy, this is shown by the results in which those who agreed and strongly agreed accounted for 48% respectively. A smaller (4%) proportion of the interviewed consumers were not entirely convinced that organically grown products are as safe as they are perceived to be. The study of McCluskey (2015) revealed that a health conscious lifestyle is believed to be one of the motivating factors in the purchase of organically grown products. These results have a mean agreement/disagreement score of 4.36 (that is close to 4 (agree) but leaning to strongly agree (5)), which suggests that the main reason most consumers purchase organically grown products is due to the fact that organically grown products are perceived to be healthy. Studies of Basha *et al.* (2015); Mditshwa *et al.* (2017) confirm that organically grown products are healthier and have high nutritional value as compared to conventionally grown products, as its production methods eradicates the use of harmful substances (Yadav, 2016), therefore, consumers would purchase organically grown products as they perceive them to be healthier. This is also supported by Guilabert and Wood (2012); Pomsanam *et al.* (2014) that consumers who are more concerned about their lives and health purchase organically grown products.

5.4.2.3.2 *Good taste and high quality*

Studies of Bryła (2016); Marian *et al.* (2014); Mditshwa *et al.* (2017); Thøgersen *et al.* (2016) revealed that taste is one of the many essential factors that influences the purchase of organically grown products. Many consumers perceive the purchase of organically grown products to have taste benefits compared to conventionally grown products (Mditshwa *et al.*, 2017). The majority (88%) of the interviewed consumers in Shelly Beach shopping centre (whereby 76 percent agreed and 12 percent strongly agreed) believed that organically grown products are high quality products and have a much better taste when compared to conventionally grown products. Consumers that were neutral (not sure) as of whether or not that organically grown products have a much better taste and are of high quality accounted for 8 percent. Consumers that

strongly disagreed (those that were not entirely convinced) that organically grown products are of high quality and have a much better taste accounted for 4 percent of the sample.

The mean agreement/disagreement score results of 3.92 (which is close to 4 – leaning to agree (4)), suggest that consumers prefer organically grown products over conventionally grown products, since they are perceived to be of high quality and to have a much better taste. The studies of Olson (2017); Rana and Paul (2017); Scalco *et al.* (2017) attested to the notion that organically grown products are associated with high prices, and therefore, consumers believed that organically grown products are of high quality compared to conventionally grown products. Contrary to the results of the study are studies of Dumea (2013); Mukul *et al.* (2013) who asserted that the global claim of “better taste” is not justifiable to all organically grown products. However, many people still consider organically grown products as having a better taste and to be of high quality over conventionally grown products (Mditshwa *et al.*, 2017).

5.4.2.3.3 Environmental concerns

There are several factors influencing the consumer purchasing decisions towards organically grown products and being environmentally concerned is one of them. Studies of Lee and Yun (2015); Ling (2013) asserted that one of the main reasons many consumers opt for organically grown products is being environmentally conscious, hence, an increase in the organically grown products demand. Also, for the current study, the results show that consumers still consider their purchase of organically grown products as being environmentally conscious as revealed by the majority (92%) of the interviewed consumers in Shelly Beach Shopping centre (that is those who agreed (75.3%) and strongly agreed (16.7%)). Consumers who were neutral (uncertain) and strongly disagreed to the notion that purchasing and consuming of organically grown products is being environmentally conscious accounted for 4 percent each. The study of Chang and Chang (2017) revealed that many consumers have taken an initiative to protect the environment, and therefore, are purchasing and consuming organically grown products.

The mean agreement/disagreement score of 4.01 (which is close to 4 – leaning to agree (4)) suggest that being environmentally concerned is a factor as to why consumers purchase organically grown products over conventionally grown products. Bryla (2016); Lee and Hwang (2016); Lee and Yun (2015); Mditshwa *et al.* (2017); Mhlophe (2015) asserted that organically grown products production causes less harm to the environment as compared to conventional production. Being environmentally conscious is one of the leading factors which influences consumers to purchase organically grown products (Basha *et al.*, 2015), which

increases the consumption of organically grown products and consumer attitudes are changed as far as consumer purchasing behaviour is concerned (Lee & Hwang, 2016).

5.4.2.3.4 Organically grown products are of high price

In an open market, one of the important indicators is the price of the product (Mhlophe, 2015), which negatively influences the quality guarantees of organically grown products to consumers with low income levels (Bryła, 2016). Therefore, the higher the price the lesser the purchase of organically grown products (Lee & Yun, 2015; Marian *et al.*, 2014). The findings of the present study showed that a greater proportion (40.7%) of the interviewed consumers in Shelly Beach Shopping centre believed that organically grown products were not expensive (that is those consumers that disagreed (28.7%) and strongly disagreed (12%)). Another fairly greater (39.3%) proportion of the interviewed consumers in Shelly Beach Shopping centre were neutral when asked whether organically grown products were expensive. Consumers who believed that organically grown products were purchased with a high price accounted for 20 percent (that is those who agreed (12%) and strongly agreed (8%)). Overall results showed that regardless of the high price that may be associated with organically grown products, consumers in Shelly Beach shopping centre did not perceive the organically grown products to be expensive. This could be because a greater proportion of the interviewed consumers in Shelly Beach Shopping centre had fairly good monthly household incomes (*see section 5.2.7*). In line with the results of current study are Lee and Yun (2015); Mhlophe (2015) studies which postulated that that the high product prices positively influences the purchase of organically grown products.

Overall, a mean agreement/disagreement score of 2.75 (that is disagree (2) but leaning to neutral (3)), further suggests that consumers of Shelly Beach Shopping centre were convinced that organically grown products are not expensive. The study of Lee and Hwang (2016) revealed that consumers associate the high prices of organically grown products with high product quality. Various studies have postulated that there is a positive connection between the price of organically grown products and their quality (Bryła, 2016; Lee & Hwang, 2016; Lee & Yun, 2015; Marian *et al.*, 2014; Mhlophe, 2015; Thøgersen *et al.*, 2016). Contrary to that, other studies for example Nuttavuthisit and Thøgersen (2015); Olson (2017); Rana and Paul (2017); Scalco *et al.* (2017) claim that the high prices of organically grown products have a negative influence on consumers' purchase intentions.

5.4.2.3.5 Organically grown products are more appealing in nature

The appealing nature of organically grown products has been one of the most important features in attracting consumers' eyes into purchasing organically grown products (Mukul *et al.*, 2013). About 39.3 percent of the

interviewed consumers in the Shelly Beach Shopping centre were neutral when asked about their reason to purchase organically grown products (in terms of the products' appeal to nature). About 40 percent (that is those that agreed and strongly agreed accounted for 32 and 8 percent respectively). Consumers who disagreed (were not convinced) that the appealing nature of organically grown products is what attracted them to make a purchase decision accounted for 20.7 percent. The results have a mean agreement/disagreement score of 3.27 (close to 3 - neutral but leaning to agree (4)), which suggests that some consumers purchase organically grown products based on their perceived product appeal to nature, which is therefore, what interest consumers to organically grown products. Some studies have claimed that organically grown products are not different to conventionally grown products in terms of their appeal to nature and physical appearance (Dangour *et al.*, 2009; Misner & Armstrong Florian, 2013; Smith-Spangler *et al.*, 2012). However, studies of Dumea (2013); Petrescu and Petrescu-Mag (2015) revealed that the increased demand of organically grown products is due to the appealing nature of organically grown products, which encourages some retail outlets to add organically grown products to their shelves.

5.4.2.3.6 Organically grown products are safe

Mditshwa *et al.* (2017); Prada *et al.* (2017) stated that one of the most important reasons for the purchase of organically grown products by consumers are concerns about food safety. Consumers who strongly agreed (were confident) that organically grown products are safe accounted for 52.7 percent of the sample and those who agreed (believed but not so confident) accounted for 43.3 percent. Consumers who disagreed with the claims of McEwan *et al.* (2015); Petje (2013) which stated that organically grown products are safe compared to conventionally grown products accounted for 4 percent of the sample. The mean agreement/disagreement score of 4.45 (close to 4 (agree) but leaning to strongly agree (5)), suggest that most consumers in Shelly Beach Shopping Centre are of the view that organically grown products are safe, and that is the reason why they purchase organically grown products. Many studies for example De Villiers (2016); Doering (2015); Eide and Toft (2013); Hasimu *et al.* (2017); Irene Goetzke and Spiller (2014) have not clearly explained the organically grown products "food safety" theory. This, therefore, makes it difficult to make conclusive decisions by consumers about organically grown products being safe when compared to other products (McFadden & Huffman, 2017; Watrous, 2016). However, studies of Bazzani *et al.* (2017); Hilverda *et al.* (2017); Mditshwa *et al.* (2017); Miranda-de la Lama *et al.* (2017) have taken a stand that organically grown products are safer and healthier as compared to conventionally grown products, which interests consumers to purchase them.

5.4.2.4 Consumer perceptions on the availability of organically grown products on the market

This section presents results with regard to consumer perceptions on the availability of organically grown products such as the difficult to find and whether organically grown products were limited only to certain retail outlets. Table 5.17 shows the consumer perceptions with regard to the availability of organically grown products on the market consumer perceptions towards organically grown products.

Table 5.17: Consumer perceptions with regard to the availability of organically grown products on the market

Organically grown products are difficult to find in the market					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	6	4.0	4.0		
Disagree (2)	24	16.0	20.0		
Neutral (3)	11	7.3	27.3		
Agree (4)	109	72.7	100.0		
Strongly agree (5)	-	-			
Total	150	100.0		3.49	0.903
Organically grown products are limited only to certain grocery retail shops such as Pick n' Pay, Spar and Woolworths					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly disagree (1)	-	-	-		
Disagree (2)	6	4.0	4.0		
Neutral (3)	12	8.0	12.0		
Agree (4)	41	27.3	39.3		
Strongly Agree (5)	91	60.7	100.0		
Total	150	100.0		4.45	0.807

Source: Survey Data (2017/18)

5.4.2.4.1 Organically grown products are difficult to find on the market

The study conducted by the IFOAM (2013) revealed that the accessibility of organically grown products is difficult, which is due to the fact that there are few producers who produce organically grown products. There is a limited availability of organically grown products on the market in South Africa, where the demand of organically grown products outstrips the supply (Kelly & Metelerkamp, 2015; Mhlophe, 2015). Table 5.16 shows that the majority (72%) of the interviewed consumers in Shelly Beach Shopping Centre agreed that these products are difficult to find on the market. About 20 percent of the consumers (that is those who disagreed (16%) and strongly disagreed (4%)) claimed that organically grown products were not at all difficult

to find. Those consumers that were neutral (not certain) of whether or not organically grown products were difficult to find were accounted for 7.3 percent of the sample. The mean agreement/disagreement score of 3.49 (which is close to 4 – leaning to agree), suggests that a majority of consumers find it difficult to access organically grown products on the market, therefore, implying that the demand of organically grown products outstrips their supply. This finding is confirmed by studies of Chikazunga (2012); Eloff (2014); FAO (2011); Yao and Kaval (2011) which stated that the most unfortunate part in the organically grown products industry is the limited availability accompanied by high demand levels. Additionally, though the demand is growing, the supply of organically grown products cannot keep up with the ever-growing demand at the moment (Brodie, 2014; Forbes, 2016; Kisaka-Lwayo & Obi, 2014; Somasundram *et al.*, 2016; Watrous, 2016).

5.4.2.4.2 Organically grown products are limited only to certain grocery retail shops

The results showed that the majority (about 88%) of the interviewed consumers in the Shelly Beach Shopping Centre (that is those who agreed (27.3%) and strongly agreed (60.7%)) were of the view that organically grown products are only limited to certain retail outlets such as Pick 'n' Pay, Spar and Woolworths. About 8 percent of the interviewed consumers were neutral (not sure) about this assertion that organically grown products are only limited to certain retail outlets. The minority (4%) of the interviewed consumers disagreed (were not convinced) that organically grown products are only found in certain retail outlets. The mean agreement/disagreement score of 4.45 (close to 4 but leaning to strongly agree (5)), suggest that “indeed” organically grown products are mostly limited to certain retail outlets, especially those shops that are accredited to sell organically grown products. Studies of National Sustainable Agriculture Coalition (NSAC) (2016); Ravhugoni and Ngobese (2010) stated that organically grown products are found and limited to only certain accredited retail outlets which is line with the finding of this study.

5.4.2.5 Whether consumer will continue to purchase organically grown products should the price increase

The principal factor on the ever-increasing production is the willingness of consumers to pay for organically grown products (Żakowska-Biemans, 2011). Not all consumers are able to afford organically grown products since the willingness to spend on organically grown products depends on the ability to pay for the product (Barrow, 2006). Table 5.18 shows the results of whether consumer of Shelly Beach Shopping centre will continue to purchase organically grown products should the price increase.

Table 5.18: Whether consumers of Shelly Beach Shopping centre will continue to purchase organically grown products should the price increase

If the price of organically grown products continued to rise, would you still be willing to buy organically grown products?					
Degree of agreement/disagreement	Frequency	Percentage (%)	Cumulative Percentage (%)	Mean	Standard deviation
Strongly Disagree	11	7.3	7.3		
Disagree	13	8.7	16.0		
Neutral	17	11.3	27.3		
Agree	67	44.7	72.0		
Strongly Agree	42	28.0	100.0		
Total	150	100.0		3.77	1.165

Source: Survey Data (2017/18)

The results showed that the majority (72.7%) of interviewed consumers in Shelly Beach Shopping centre (that is those that agreed and strongly agreed accounted for 44.7 and 28 percent respectively) indicated that they will continue to purchase organically grown products even if the price of organically grown products continues to rise. Consumers who will not continue to purchase organically grown products should the price continues to rise accounted for 16 percent (that is those who disagreed (8.7%) and strongly disagreed (7.3%)). Consumers who were neutral when asked if they will continue to purchase organically grown products if the price continues to rise accounted for 11.3 percent of the sample. Consumers express their willingness to pay premium prices for organically grown products since they perceived these products to be healthy and environmentally friendly (National Sustainable Agriculture Coalition (NSAC), 2016).

The mean agreement/disagreement score of 3.77 (which is close to 4 – leaning to agree), further suggest that consumers in Shelly Beach Shopping Centre will continue to purchase organically grown products even if the price continues to rise. Consumers are prepared to pay premium prices for better-quality products, as long as the products provide positive externalities they will continue to purchase even if the price increases (Williams, 2013). Studies of Petje (2013); Ragavan and Mageh (2013) have confirmed the health benefits associated with organically grown products which increases consumers' willingness to pay a price premium.

5.4.2.6 Recommendations by consumers on what they thought should be done to better promote the buying and consumption of organically grown products

Respondents were asked to indicate and or recommend ways in which organically grown products could be promoted for buying and consumption. Table 5.19 shows the recommendations by consumers of Shelly Beach Shopping centre on various ways they thought could better promote the buying and consumption of organically grown products.

5.4.2.6.1 Providing scientific evidence on product packaging

The packaging of organically grown products is an essential part in connecting the products and consumers (Yeh et al., 2016). The scientific evidence on product packaging of organically grown products focuses on the use of “Bioplastics” (van den Oever et al., 2017; Yeh et al., 2016). Bioplastics are a type of product packaging that have an improved degradability and composability (Yeh et al., 2016), which suggests that these packages are environmentally friendly. The results reveal that the majority (about 83%) of the interviewed consumers in Shelly Beach Shopping centre did not believe providing scientific evidence on product packaging would better promote organically grown products. About 17 percent of the interviewed consumers in Shelly Beach Shopping centre were of the view that providing scientific evidence on product packaging will better promote the buying and consumption of organically grown products. The results suggested that providing scientific evidence on product packaging may not promote the buying and consumption of organically grown products. This is in contrast with study of Thøgersen and Zhou (2012) which indicated that product packaging is important to consumers as it attracts consumers to purchase those particular products.

Table 5.19: Recommendations to better promote the buying and consumption of organically grown products as indicated by consumers of Shelly Beach Shopping centre

What do you think should be done to better promote organically grown products?		
Provide scientific evidence on product packaging		
	Frequency	Percentage (%)
No	125	83.3
Yes	25	16.7
Total	150	100.0
Make organically grown products more affordable		
	Frequency	Percentage (%)
No	71	47.3

Yes	79	52.7
Total	150	100.0
Create awareness for organically grown products through advertising		
	Frequency	Percentage (%)
No	42	28.0
Yes	108	72.0
Total	150	100.0
Provision of consumer education on organically grown products		
	Frequency	Percentage (%)
No	47	31.3
Yes	103	68.7
Total	150	100.0
Government regulation of organically grown products		
	Frequency	Percentage (%)
No	107	71.3
Yes	43	28.7
Total	150	100.0

Survey Data (2017/18)

5.4.2.6.2 *Make organically grown products more affordable*

The high prices of organically grown products have always been the problem on their purchase (Marian *et al.*, 2014). The majority (about 53%) of the interviewed consumers in Shelly Beach Shopping centre felt that making organically grown products more affordable would better promote them. About 43 percent (of the interviewed consumers in Shelly Beach Shopping centre did not share the same view that by making organically grown products more affordable will better promote their purchase and consumption. However, an earlier finding revealed that consumers in Shelly Beach Shopping Centre did not necessarily view or perceive organically grown products to be expensive (*see section 5.4.2.3.4*). Nonetheless, the finding here would suggest that making organically grown products more affordable would better promote their purchase and consumption. This is in line with the studies of Lee and Yun (2015) and Lee and Hwang (2016) which stated that high prices of organically grown products generate less repeated purchase. Therefore, making organically grown products more affordable will generate more repeated purchase.

5.4.2.6.3 *Creating awareness for organically grown products through advertising*

The results show that the majority (72%) of the interviewed consumers in Shelly Beach Shopping centre were of the opinion that creating consumer awareness for organically grown products through advertising would better promote the purchase and consumption of organically grown products. The remaining proportion (28%)

of the interviewed consumers in Shelly Beach Shopping centre did not view creating awareness through advertising as a method to better promote the purchase and consumption of organically grown products. Overall, the finding gives a sense that creating awareness through advertising is one method that can better promote the purchase and consumption of organically grown products. Studies of Olivová (2011); Shafie and Rennie (2012) and Eide and Toft (2013) stated that awareness about organically grown products created thorough advertising is crucial on consumer purchasing decisions.

5.4.2.6.4 Provision of consumer education on organically grown products

The results showed that the majority (about 69%) of the interviewed consumers in Shelly Beach Shopping centre viewed consumer education on organically grown products to be important in terms of promoting the purchase and consumption of organically grown products. About 31 percent of the interviewed consumers in Shelly Beach Shopping centre did not believe that consumer education on organically grown products would better promote the purchase and consumption of organically grown products. Overall, the finding suggests that consumers of Shelly Beach Shopping centre believed that an improvement in consumer education on organically grown products would better promote the purchase and consumption of organically grown products. This is supported by the study of Petje (2013) which revealed that consumers with high levels of education, knowledge and the benefits that can be derived from the consumption of organically grown products are more likely to be purchase and consume organically grown products.

5.4.2.6.5 Government regulation of organically grown products

The organically grown products regulations are legislations that are approved by the government for products to be deemed as organic (Barrete, 2012). The results showed that the majority (about 71%) of the interviewed consumers in Shelly Beach Shopping centre did not believe that government regulation would better promote the purchase and consumption of organically grown products. Only a smaller proportion (about 29%) were of the view that government regulations such as agricultural products standards act, network certification and third-party certification would better promote the purchase and consumption of organically grown products. Overall, the results gave a sense that consumers of Shelly Beach Shopping centre did not believe that government regulations would better promote the purchase and consumption of organically grown products. This is in contrast with studies of Kisaka-Lwayo and Obi (2014) and Mhlophe (2015) which stated that improving standards, certification and government regulation will protect and increase the organically grown product industry.

5.4.2.7 Would you recommend other people to start purchasing organically grown products?

Respondents were asked to indicate as to whether they would recommend other people to start purchasing organically grown products. Table 5.20 shows the response as to whether consumers of Shelly Beach Shopping centre would recommend other people to start purchasing organically grown products.

Table 5.20: Whether consumers of Shelly Beach Shopping centre would recommend other people to start purchasing organically grown products

Would you recommend other people to start purchasing organically grown products?		
Response	Frequency	Percentage (%)
No	12	8.0
Yes	138	92.0
Total	150	100.0

Survey Data (2017/18)

The majority (92%) of the interviewed consumers in Shelly Beach Shopping centre indicated that they would recommend that other people to start purchasing organically grown. Only a minority (8%) of the interviewed consumers in Shelly Beach Shopping centre indicated that they would not recommend other people to purchase organically grown products. Overall, the results suggested that consumers of Shelly Beach Shopping centre would recommend other people to start purchasing organically grown products. This is because significant proportions of the interviewed consumers are satisfied with the consumption of organically grown products and believed the purchasing and consumption of organically grown products to be environmentally friendly, have better taste and smell, healthy and safe (see section 5.4.2.3).

5.5 Chapter summary

This chapter presented the descriptive results of the study. The chapter started out by describing the demographic characteristics of the interviewed consumers in the Shelly Beach Shopping centre. The descriptive statistics included the age distribution, gender, education, marital status, ethnicity, family size, household income and employment status of respondents (interviewed consumers). It is important to understand the demographic profile of consumers as it may influence their purchase intentions/decisions of organically grown products. The majority of the interviewed consumers were of the white race (58.7%), female (62.7%), single (53.3%) and fell in the age group of between 35 and 49 years (35.33%). A greater proportion (about 73%) of the interviewed consumers in Shelly Beach Shopping centre were mostly full time employed, however, and about 27 percent of those were earning an income of less than ZAR10 000 and

ZAR11 000 - R20 000³ per month in each category. About (96%) of the interviewed consumers had knowledge about organically grown products and they purchase organically grown products once a month which accounted for (26.3%). A majority (96%) of the interviewed consumers view purchasing of organically grown products as important and the consumers chose Pick n' Pay and Woolworths as their preferred retail outlets which accounted for (33.3%) each. Results show that the majority (78%) of the interviewed consumers in the Shelly Beach Shopping centre were able to differentiate between organically grown products from conventionally grown products. However, about 28 percent of the interviewed consumers in Shelly Beach Shopping centre could not identify organically grown products by their physical appearance but were able to identify organically grown products from conventionally grown products through the use of accredited stickers and/or by virtue of these products being sold in accredited retail outlets. Perceptions and preferences by the interviewed consumers in Shelly Beach Shopping centre such as organically grown products being environmental friendly, safe (food safety), the ability to pay a price premium, healthiness, better taste and quality of the products appeared to shape a positive attitude towards the purchase of organically grown products. However, an issue on the availability of the organically grown products on the market may be deterring consumers from purchasing these products. The findings also showed that the interviewed consumers in Shelly Beach Shopping centre are willing to pay a price premium and would continue to purchase organically grown products even if the price continues to rise. A majority of consumers do not believe scientific evidence (83.3%) and government regulations (71.3%) would better promote organically grown products, whereas, a majority of interviewed consumers view making organically grown products more affordable, providing consumer education and creating awareness through advertising would better promote organically grown products. The following chapter presents the empirical results on the factors influencing the purchase of organically grown products in Shelly Beach shopping centre in Port Shepstone.

³ ZAR: South African currency (Rands)

6 CHAPTER SIX - EMPIRICAL RESULTS AND DISCUSSION

6.1 Introduction

This chapter presents and discusses the empirical results of the study. A multiple regression model was employed to identify and assess the factors influencing the purchase intention/decision of organically grown products in Shelly Beach shopping centre in Port Shepstone. The methodology chapter (chapter 4) outlined and explained the independent (explanatory) variables included in the multiple regression model. A thorough description of the statistically significant variables from the outcome of the model is provided in this chapter.

6.2 Factors influencing the purchase intention/decision of organically grown products in Shelly Beach shopping centre in Port Shepstone

As already indicated, a multiple regression analysis was used to test for the factors that have an influence on the purchase of organically grown products in Shelly Beach shopping centre in Port Shepstone. The dependent variable used in this study is the consumer purchase intention/decision (ranked in a 5-point Likert scale). Here the variable, whether the buying of organically grown products was extremely important to the consumers of Shelly Beach Shopping centre was used as a proxy for the consumer purchase intention/decision for organically grown products. The independent variables inputted in the multiple regression model included age of the consumer; gender; education; marital status; ethnicity; family size; income; employment status and perceptions towards the purchase of organically grown products that included: organically grown products are highly priced; environmentally friendly; safe; have a better smell and fresh; difficulty to access in the market; healthy; have a better taste and of high quality.

6.2.1 *Variables excluded from the model*

As indicated in chapter 4 and in Table 4.1, it was formulated that fifteen (15) independent variables were to be included in the model, however, four (4) variables, “organically grown products are healthy; environmentally friendly; highly priced and safe” were excluded from the model analysis due to multicollinearity.

6.2.2 *Model fitness*

The goodness-of-fit of the model measures the comparative quantity of the covariance and variances (Khine *et al.*, 2013). The goodness-of-fit of the model computed for this dataset included the R-Square, F-statistic and the variance inflation factors (VIF) statistics. The R-Square statistic value for this data is 0.6984 and the adjusted R-Square statistic value is 0.6462. This, therefore, suggests that the model accounts for about 70% of the total variability. The F-test tests for the overall significance of the model, that is testing the null hypothesis whether all of the coefficients on the independent variables in the model are equal to zero

(Montgomery, 2017). The F test results showed that the F statistic, $F(22, 127) = 13.37$ and the p-value associated with the F statistic, $F > \text{prob} = 0.000$. Based on the results, the null hypothesis is rejected with extremely high confidence - above 99.99% in fact, implying the model provides a better fit than the intercept-only model. Variance inflation factors were used to give details on how much multicollinearity existed in the regression analysis. The VIF measures how much the variance is inflated (Lin *et al.*, 2011). The VIFs that are above 10 are indicators of serious multicollinearity. However, in this study the classification accuracy in the obtained data indicated that multicollinearity was not a serious problem, hence the model was deemed to be appropriate for this dataset.

6.3 Results of the multiple regression analysis on factors influencing the purchase intentions/decisions of organically grown products in Shelly Beach Shopping centre

Table 6.1 presents the empirical results of the multiple regression analysis used to identify and assess the factors influencing the purchase intentions/decisions of organically grown products in Shelly Beach Shopping centre. Results showed that factors that significantly influenced the purchase intentions/decisions of organically grown products included age of the consumer; ethnicity; household family size; education (number of schooling years); employment status; income; and consumer perceptions towards organically grown products that include organically grown products have a better smell and freshness; good taste and of high quality and difficulty to access in the market.

The **age** variable was entered in the model as a categorical variable consisting of six (6) age groups and the age group “less 20 years” was used as a reference/base category. Results in Table 6.1 shows that out of all the age groups, only one age group describes a significant relationship with the purchase intentions/decisions of organically grown products. The age construct “21 – 24 years” is statistically significant at 10% level ($p = 0.103$) and negatively correlated with the purchase intentions/decisions of organically grown products. The model predicts that consumers in the age range between 21 – 24 years are less likely to purchase organically grown products as compared to those in the age group of less than 20 years. This can be supported by the findings of Van Doorn and Verhoef (2011) and Durmaz (2014) asserting that as the consumer grows old it also increases his/her purchase intentions of the organically grown products.

Ethnicity was a categorical variable consisting of three (3) ethnic groups and the ethnic group “African” was used as a reference/base category. Results in Table 6.1 show that both

Table 6.1: Results of the multiple regression analysis on factors influencing the purchase intentions/decisions of organically grown products in Shelly Beach Shopping centre

Parameter	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]		VIF
Constant	6.2085	0.7304	8.50	0.000	4.7631	7.6539	-
Age (Base category – < 20 years)							
21 – 24 years	- 0.3130 *	0.1906	-1.64	0.103	- 0.6903	0.0643	7.09
25 – 29 years	0.1519	0.2145	0.71	0.480	- 0.2725	0.5763	9.78
30 – 34 years	0.0238	0.1789	0.13	0.894	- 0.3302	0.3780	9.41
35 – 49 years	0.0319	0.2461	0.13	0.897	- 0.4550	0.5190	3.20
50 – 60 years	0.2641	0.3066	0.86	0.391	- 0.3426	0.8708	1.73
Gender (Base category – Female)	0.0489	0.1125	0.43	0.665	- 0.1738	0.2716	2.55
Marital Status (Base category – Single)	- 0.0014	0.1050	- 0.01	0.989	- 0.2093	0.2064	2.81
Ethnicity (Base category – African)							
Coloured	0.3608**	0.1776	2.03	0.044	0.0091	0.7124	1.61
White	0.4235 ***	0.1065	3.97	0.000	0.2127	0.6344	2.87
Household size (Base category – <= 5 members)							
6 – 10 members	0.7467 ***	0.1293	5.77	0.000	0.04908	1.0027	8.22
11 – 15 members	0.0807	0.1890	0.43	0.670	- 0.2932	0.4547	4.27
Education (number of schooling years)	- 0.0674**	0.0304	-2.21	0.029	- 0.1277	- 0.0070	6.51
Employment status (Base category – unemployed)							
Full-time employment	0.5810**	0.2071	2.80	0.006	0.1710	0.9909	9.44
Part-time employment	0.0266	0.2486	0.11	0.915	- 0.4654	0.5187	7.22
Income (Base category – < ZAR 10 000)							
ZAR 11 000 - ZAR 20 000	0.6557***	0.2150	3.05	0.003	0.2302	1.0812	10.15
ZAR 21 000 - ZAR 30 000	0.0949	0.2214	0.43	0.669	- 0.3432	0.5331	8.86
ZAR 31 000 - ZAR 40 000	0.1801	0.2280	0.79	0.431	- 0.2712	0.6315	9.29
ZAR 41 000 - ZAR 50 000	0.3001	0.2994	1.00	0.318	- 0.2924	0.8927	17.6 1
> ZAR 50 000	1.2131***	0.2961	4.10	0.000	0.6270	1.7992	6.70
Organically grown products have a better smell and fresh	0.2509***	0.0727	3.45	0.001	0.1069	0.9490	10.17
Organically grown products have a good taste and of high quality	- 0.5810 ***	0.0942	- 6.16	0.000	- 0.7676	-0.9447	8.40
Organically grown products are difficult to access in the market	- 0.3528***	0.0861	- 4.10	0.000	- 0.5233	- 0.1823	7.54
Number of observations	150						
F(22, 127)	13.37						
Prob > F	0.0000						
R-squared	0.6984						
Adj R-squared	0.6462						

Source: Survey Data (2017/18) Computed from STATA 14 ***, **, * denotes statistically significant at 1%, 5% & 10% levels

constructs, belonging to the Coloured and/or White ethnic group were positively correlated with the purchase intent/decisions of organically grown products at 5% ($p = 0.044$) and 1% ($p = 0.000$) significance levels respectively. The model predicts that consumers that belong to the Coloured ethnic group are more likely to have positive purchase intentions/decisions towards organically grown products than those consumers that belong to the African ethnic group. Likewise, the model predicts that consumers belonging to the White ethnic group are more likely to have positive purchase intentions/decisions towards organically grown products than those consumers that belong to the African ethnic group. However, the model further shows the magnitude of the purchase intentions/decisions towards organically grown products is greater among the White ethnic group. Stats SA (2012) revealed that Coloureds and Whites ethnic groups share a common cultural system, therefore, this is assumed to be the reason they are more likely to have a positive purchase intention than Africans. This, accordingly, is to be expected that Whites would lead the organically grown product marketplace as their income levels are much greater in South Africa compared to Africans (Engel, 2009; Stats SA, 2017). The results of this study are therefore not surprising since it was revealed that the organically grown product market were dominated by the White ethnic group.

The **household size** variable was entered in the model as a categorical variable consisting of three (3) groups and the household size construct “with less or equal to 5 family members” was used as a reference/base category. Results in Table 6.1 shows that only one household size construct describes a significant relationship with the purchase intentions/decisions of organically grown products. The household size construct “6 – 10 family members” is statistically significant at 1% level ($p = 0.000$) and positively correlated with the purchase intentions/decisions towards organically grown products. The model predicts that a household with 6 – 10 family members is more likely to have positive purchase intentions/decisions towards organically grown products than a household with less or equal to 5 family members. The household size with 6 – 10 family members can be considered as average family size (Virola *et al.*, 2007). The finding in this study is in contrast with the studies of Mhlophe (2015); Slamet *et al.* (2016) that alluded that consumers with small household family size are more willing to purchase organically grown products than those households with larger family size. The finding in this case is explainable in the sense that the larger the household, the higher the chances there could be more members employed increasing the family’s ability to afford expensive products such as food or accessories (Lantos, 2015).

The **education** (number of schooling years) was found to be statistically significant at 5% level ($p = 0.029$) and negatively correlated with the purchase intentions/decisions of organically grown products. The model predicts that an additional year of schooling would result in about (7%) decrease in the purchase intent of organically grown products. The results suggested that educated consumers are less likely to have positive purchase intents towards organically grown products. This is in contrast with the prior expectation. This may be due to the idea that as consumers become more educated, the more they would critic the certification and validation of organically grown products (Hamzaoui-Essoussi & Zahaf, 2012). Again, consumers may not know as to what degree they can trust the certification labels of organically grown products.

The **employment status** was a categorical variable consisting of three (3) groups and the construct “unemployed” was used as a reference/base category. Results in Table 6.1 show that only the full-time employment status construct describes a significant relationship with the purchase intentions/decisions of organically grown products. Full time employment is statistically significant at 5% level ($p = 0.006$) and positively correlated with the purchase intentions/decisions towards organically grown products. The model predicts that a full-time employed consumer is more likely to have positive purchase intentions/decisions towards organically grown products than an unemployed consumer. The finding is in line with the expected outcome and also supported by studies of Basha *et al.* (2015) and Mhlophe (2015) who alluded that people with full-time employment are more likely to afford products of high quality compared to their unemployed counterparts.

The **income** variable was entered in the model as a categorical variable consisting of six groups and the income construct “less than ZAR 10 000” was used as a reference/base category. The results in Table 6.1 show that only two income constructs describe a significant relationship with the purchase intentions/decisions of organically grown products. Results show that households with a monthly income that ranged between ZAR 11 000 – ZAR 20 000 and above ZAR 50 000 were positively correlated with the purchase intent/decisions of organically grown products at 5% ($p = 0.003$) and 1% ($p = 0.000$) significance levels respectively. The model predicts that a household that received a monthly income that ranged between ZAR 11 000 – ZAR 20 000 is more likely to have positive purchase intentions/decisions towards organically grown products than a household that received less than ZAR 10 000 monthly income. Likewise, the model predicts that a household receiving above ZAR 50 000 monthly income is more likely to have positive purchase intentions/decisions towards organically grown products than a household that received less than

ZAR 10 000 monthly income. However, the model further shows the magnitude of the purchase intentions/decisions towards organically grown products is greater among the households that received above ZAR 50 000 monthly income. The finding is in line with the prior expected outcome and in harmony with studies of Mhlophe (2015) and Slamet *et al.* (2016) which stated that high household monthly income positively influences consumers' decisions to purchase organically grown products rather than conventionally grown products.

The perception that organically grown products have a **better smell and are fresh** was found to be statistically significant at 1% level ($p = 0.000$) and positively correlated with the purchase intentions/decisions of organically grown products. The model predicts that a consumer who perceives organically grown products to be having a better smell and to be fresh is more likely to have positive purchase intent of organically grown products and thus likely to increase his or her purchase of organically grown products by 25 percent. The results suggested that the better smell and freshness of organically grown products increases the purchase of organically grown products. The studies of Dumea (2013) and Petrescu and Petrescu-Mag (2015) supports this notion that one of the reasons organically grown products are in demand is due to their perceived better smell and freshness.

The perception that organically grown products have a **good taste and of high quality** was found to be statistically significant at 1% with significance level of ($p = 0.000$) and negatively correlated with the purchase of organically grown products. The model predicts that perception that organically grown products have good taste and to be of high quality is more likely to decrease a consumer's purchase intent towards organically grown products by 58 percent. The finding is surprising and in contrast with the prior expectation and several studies for example Bryła (2016); Marian *et al.* (2014); Mditshwa *et al.* (2017); Thøgersen *et al.* (2016) which postulated that the attributes such as product better taste and perceived high quality would increase the purchase intentions of organically grown products. The finding could be explainable in the sense that the claim that organically grown products have a "better taste and to be of high quality" is not justifiable to all organically grown products as revealed by Dumea (2013); Mukul *et al.* (2013). Again, some consumers may see this claim that organically grown products have a "better taste and to be of high quality" as a marketing strategy to inflate the prices of organically grown products and therefore would stick with buying/purchasing the cheaper conventional products.

The perception on the **difficulty to access** organically grown products in the market was found to be statistically significant at 1% with significance level of ($p = 0.000$) and negatively correlated with the purchase intentions/decisions of organically grown products. The model predicts that a consumer who perceives that organically grown products are difficult to access in the market is less likely to increase his/her purchase intent towards organically grown products by 35 percent. The finding is in line with the prior expectation. The results suggested that limited availability of organically grown products in the market decreases their accessibility and thus the purchase intentions of organically grown products by consumers. The results are confirmed by the studies of Chikazunga (2012); IFOAM (2013); Kisaka-Lwayo and Obi (2014); Watrous (2016); Yao and Kaval (2011) which indicated that organically grown products were difficult to access in the market as they were not readily available. Additionally, organically grown products are in demand but the supply cannot satisfy the ever-growing demand Brodie (2014); Forbes (2016); Somasundram *et al.* (2016).

6.4 Chapter summary

This chapter provides and discusses the results of the empirical analysis on the factors influencing the purchase intentions/decisions of organically grown products in Shelly Beach shopping centre in Port Shepstone. Results indicated that age; ethnicity; household size; employment status; income; and perceptions that organically grown products have a better smell and fresh; good taste and of high quality and difficulty to access in the market were important predictors on the purchase intentions/decisions of organically grown products of consumers in Shelly Beach shopping centre. The variables ethnicity; household size; employment status; income and the perception that organically grown products have a better smell and fresh were found to be positively correlated with the purchase intentions/decisions of organically grown products consumers in Shelly Beach shopping centre. On the other hand, variables such as age; education (number of schooling years); perceptions that organically grown products have a good taste and of high quality and difficulty to access in the market were found to be negatively correlated with the purchase intentions/decisions of organically grown products consumers in Shelly Beach shopping centre. The next chapter presents the overall summary, conclusions and recommendations of the study.

7 CHAPTER SEVEN – SUMMARY CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter presents the summary, conclusion and recommendations for the study. In this chapter specific attention is given to the key results obtained in the study and further draws conclusions from the results obtained and lastly puts forward recommendations based on the results of the study.

7.2 Summary

The study was conducted in Shelly Beach shopping Centre, Port Shepstone under the Ray Nkonyeni Local Municipality of Kwa-Zulu Natal Province. The main aim of the study was to understand consumer perceptions, preferences and factors influencing the purchase of organically grown products.

The specific objectives of the study were:

- i. To investigate consumer perceptions and preferences towards organically grown products in Shelly Beach shopping centre in Port Shepstone.
- ii. To identify and assess factors influencing the purchase of organically grown products in Shelly Beach shopping centre in Port Shepstone.

The study adopted a quantitative research approach, which deals with quantifiable figures in a coherent system of study. A quantitative research approach was adopted since it is reliable and unbiased and can be used in response of normal questions of variables (Vosloo, 2014). This study followed a cross-sectional design since it mostly uses a survey method to collect data, it is relatively cheap and consumes less time to conduct (Labaree, 2009). A systematic random sampling method was used to gather data from 150 organically grown product consumers of fruits and vegetables in Shelly Beach shopping Centre. The data was collected by means of a survey method and using a structured questionnaire as a data collection instrument. Data collection was done by the researcher with the help of five trained field assistants. Data were collected in the months of November/December 2017 and January 2018, during working hours (08h00-17h00), and the interviews on average lasted up to 30 minutes. After data collection, data were captured and coded in the form of spread sheet in Microsoft Excel and exported to Statistical Package for the Social Science (SPSS) and STATA software for analysis. The first objective; (i) to investigate consumer perceptions and preferences towards organically grown products in Shelly Beach Shopping centre in Port Shepstone was achieved using

descriptive statistics/ analysis in the form of a Likert scale measure. The second objective; (ii) to identify and assess factors influencing the purchase of organically grown products in Shelly Beach Shopping centre in Port Shepstone was achieved using a multiple regression model.

7.2.1 Findings from literature

The findings presented herein relate to the secondary literature findings the study made use of.

Consumer perceptions and preferences towards organically grown products

Consumer perceptions are mostly influenced by what consumers have experienced before and which further influences their interest and status towards the products (Shafie & Rennie, 2012). According to Somasundram *et al.* (2016) the perceptions and preferences regarding organically grown products and its production is mostly based on avoiding the use of synthetic fertilisers and pesticides. Consumers prefer organically grown products only if they have positive perceptions towards them (Mhlophe, 2015). According to Grzelak and Maciejczak (2011) many consumers have a positive perception towards organically grown products and therefore, purchase organically grown products. The study of Aschemann-Witzel and Zielke (2017); Macaskill (2016); Muhammad *et al.* (2016) and Mditshwa *et al.* (2017) indicated that consumers with knowledge about organically grown products perceive them to be healthy, safe, environmentally friendly, have better taste and smell. The perceived healthiness, safe, environmental friendliness, nutritious and better taste and smell are the motivating features on consumers to prefer organically grown products (Basha *et al.*, 2015; Bryła, 2016; Mditshwa *et al.*, 2017). The price of organically grown products have a negative effect on the purchase of organically grown products since they are expensive (Lee & Yun, 2015). However, many consumers perceive the high prices of organically grown products is associated with high quality (Lee & Yun, 2015; Mhlophe, 2015).

Factors influencing the purchase of organically grown products

There are a number of factors that influence the purchase of organically grown products by consumers (Mhlophe, 2015). These include factors such as: environmental concerns, better smell, good taste and nutritional value, healthiness of organically grown products, safety of organically grown products and availability of organically grown products. Studies have discovered that the production of organically grown products causes less damage to the environment compared to conventional production, therefore, the reason consumers purchase organically grown products (Bryła, 2016; Lee & Hwang, 2016; Lee & Yun, 2015; Mditshwa *et al.*, 2017; Mhlophe, 2015). According to Seljåsen *et al.* (2013) and Mditshwa *et al.* (2017) many

consumers purchase organically grown products since they have better taste and smell and also, high nutritional value. Health sensible life is perceived to be the top motivating feature on the purchase of organically grown products (Yadav, 2016). According to Williams (2013) consumers who repeatedly purchase organically grown products are mostly motivated by the perceived environmental friendliness and healthiness of organically grown products. Food safety is a universal fear for a large part of consumers (Hasimu *et al.*, 2017). Food safety concerns have continued to be one of the most important reasons for the purchase of organically grown products (Mditshwa *et al.*, 2017; Prada *et al.*, 2017). The accessibility of organically grown products have been the issue ever since consumers learned about benefits associated with organically grown products consumption (Kelly & Metelerkamp, 2015; Mhlophe, 2015).

7.2.2 Primary findings/results

The findings presented herein relate to the main primary survey findings from this study. The study was dominated by White consumers that belonged to the White ethnic group which accounted for about 59 percent of the sample. The results also showed that the study was dominated by females (who accounted for about 63% of the sample), consumers that were mostly single, divorced or widowed (accounted for about 53%), consumers that fell within the age groups of between 35 and 49 years (accounted for about 35%), full-time employed consumers (accounted for about 73%) and those consumers that were earning a monthly income of less than ZAR⁴ 10 000 and ZAR11 000 – ZAR20 000 per month (which each accounted for about 27%). The results also indicated that consumers who were interviewed had at least 12 years in formal education and respondent's family size were less or equal to 5 members (accounted for about 45%).

Consumer perceptions and preferences towards organically grown products in Shelly Beach shopping centre in Port Shepstone

The results indicated that about (52%) of interviewed consumers were able to differentiate organically grown products from conventionally grown products. The majority about (93%) were able to identify organically grown products from other products when they have accredited stickers. The majority (96%) of the interviewed consumers in Shelly Beach Shopping centre were convinced that organically grown products are healthy. The majority (92%) of the consumers indicated that they purchased organically grown products because they perceived them to be environmentally friendly. A greater proportion about 41 percent of the interviewed consumers in Shelly Beach Shopping centre did not perceive organically grown products to be

⁴ ZAR: South African currency (Rands)

expensive. However, the majority (72%) of the interviewed consumers perceived that organically grown products were difficult to access in the market.

Factors influencing the purchase intentions of organically grown products in Shelly Beach shopping centre in Port Shepstone

The results indicated that consumers that belonged to the ethnicity group (Coloured and White compared to being African); a household with (6 – 10 family members compared to less or equal to 5 members); employment status (being full-time employed compared an unemployed consumer); income (household earning a monthly income of ZAR 11 000 – ZAR 20 000 and above ZAR 50 000 compared to a household earning less than ZAR 10 000 monthly income) and the perception that organically grown products have a better smell and fresh were found to be significant and positively correlated with the purchase intent of organically grown product consumers. On the other hand, the effect of age (being a consumer that belonged to the age range 21 – 24 years compared to consumers less than 20 years old); education (number of schooling years); the perception that organically grown products have a good taste and of high quality and their difficulty to access in the market were found to be significant and negatively correlated with the purchase intent of organically grown product consumers in the study areas.

7.3 Conclusion

Results of this study are of great importance since they provide valuable information on consumer's purchase intentions in Shelly Beach Shopping Centre, Port Shepstone, which can be used for organically grown fruit and vegetable marketing strategies for accredited retail outlets, as well as informing consumers about the benefits of consuming organically grown products. There are few studies which have been conducted to analyse consumers' organically grown products perceptions and preferences in South Africa. Consumers prefer organically grown products based on perceptions they have about these products. Perceptions such as; healthiness, safety, better taste and smell and environmental conscious are the reason many consumers prefer to purchase organically grown products. The current results contribute to the knowledge particularly on factors influencing consumers' purchasing behavior and intentions towards organically grown fruits and vegetables. The most important factors identified by the study which are ethnicity, household size, employment status, household income and better smell and freshness have a positive and significant outcome towards the purchase of organically grown products. These factors are perceived by consumers of Shelly Beach Shopping Centre as a motive for their purchase of organically grown fruits and vegetables. Equally so, the results also showed that factors such as: age, education, perceptions that organically grown

product have a good taste and to be of high quality and the difficulty to access organically grown products in the market negatively influences consumers' purchasing intentions of organically grown fruits and vegetables.

7.4 Recommendations

The following recommendations were made base on the findings of the present study. The researcher hopes that these recommendations will be of immense benefit to individuals, corporate organisations as well as government at large.

The recommendations for organically grown fruits and vegetables improvement of positive purchase intentions can be derived from the results of this study. It is crucial for the sellers to have a continuous communication in order to build awareness and knowledge about the benefits of organically grown fruits and vegetables. The benefits are mostly associated with positive purchase intentions towards organically grown products, health, safety, and environmental sustainability. The purchase of organically grown products increases due to the idea that their production uses less chemicals and meet the food safety standards, which increases consumers' intentions to purchase organically grown products, since they are more concerned about their health and safety.

There is a need for a thorough analysis of demographic factors: for marketers to effectively indorse organically grown products, they need to study and understand consumers' purchase intentions for organically grown products and their link with demographic characteristics. This is very important in the development of marketing strategies that must be used to focus on consumers that show positive purchase intentions for organically grown products and are willing to pay higher prices for these produces. Retailers offering organically grown products can use this information to select their target markets and can adapt their marketing strategies appropriately.

Organically grown product consumer awareness and education programmes must be targeted at youth, single consumers with high levels of formal **“education”**, which may create positive purchase intentions among young consumers. This may address the negative correlation between being within youth years (consumers of young **“age”**) and purchase of organically grown products. The encouragement and funding of emerging organically grown products farmers by the government is needed to expand the industry of organically grown product, as this will meet the ever-growing demand and solve the issue of **“difficulty to access”** organically grown products. Additionally, organically grown products retail marketers should make

sure that products are available at appropriate locations, in right quality and quantities and at the right time, since this heavily impacts the purchase intentions of organically grown products by consumers. Hence, the just in time (JIT) delivery process is the most recommended supply strategy.

In addressing the negative correlation between the perception about organically grown products being of **“good taste and high quality”** and the purchase intentions of consumers, marketers should use advertisements to try to change consumers’ negative perceptions that organically grown products are ludicrously priced. Marketers should promote positive perceptions among consumers through positive Word-of-Mouth (WOM), by directing much emphasis on the price-quality relationship (organically grown products are priced at a premium, due to their high quality in comparison with other alternative products). By doing so, consumers will develop positive purchase intentions towards organically grown products rather than just focusing on “good taste and high quality” as a marketing strategy.

7.5 Suggestions for future research

The study investigated consumer perceptions and preferences towards organically grown products. It also looked at factors influencing the purchase intentions/decisions of organically grown products in Shelly Beach Shopping Centre in Port Shepstone. The study area is an urban setting suggesting that it might have excluded consumer preferences, perceptions and purchase intentions of organically grown products of rural consumers, which might also add an interesting dimension as far as the purchasing intentions are concerned. Again, the study falls short in the sense that it did not elicit the views of non-consumers of organically grown products with regard to their perceptions. Future research can be extended to both the rural consumers and the non-consumers of organically grown products. Again, there is so far little research focus on consumer acceptability for organically grown products, in spite of the fact that acceptability may possibly mean consumer loyalty, it can be used to predict future demand. Also, it would be fascinating for future research efforts to focus on how to improve consumer awareness towards organically grown products.

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APPENDIX ONE - QUESTIONNAIRE
UNIVERSITY OF ZULULAND, KWADLANGEZWA CAMPUS
FACULTY OF SCIENCE AND AGRICULTURE
DEPARTMENT OF AGRICULTURE

Questionnaire for research project on: Consumer perceptions, preferences and their purchase intentions for organically grown products in Shelly Beach shopping centre, Port Shepstone.

All information provided by respondent will be treated as STRICTLY CONFIDENTIAL

Name of the interviewer

Questionnaire number

Survey date

Name of respondent (optional):

1. Demographic information

1.1. What is your age?

< 20	
21-24	
25-29	
30-34	
35-49	
50-60	
60+	

1.2. Gender

Male	
Female	

1.3. What is your marital status?

Married	
Single, Divorced or Widowed	

1.4. What is your cultural group?

African	
Coloured	
White	
Asian	

1.5. Size of household

Less or equal to 5	
6-10	
11-15	
> 15	

1.6. Highest level of education completed at school (indicate no. of years attended)

--

1.7. Employment status

Unemployed	
Full-time	
Part-time	
Retired	

1.8. Family monthly income

Less than R10 000	
R11 000-R20 000	
R21 000-R30 000	
R31 000-R40 000	
R41 000-R50 000	
More than R50 000	

2. Consumer perception and knowledge on organically grown products

2.1. Do you have any knowledge about organically grown products?

Yes	
No	

2.2. Are you able to identify or differentiate organically grown products from non-organically grown products?

Strongly disagree	
Disagree	
Neutral	
Agree	
Strongly Agree	

2.3. Organically grown products can be identified through:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Appearance					
Accreditation sticker					
Accredited shops					
Naked eye					

2.4. What does organically grown products or food mean to you?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
No pesticides and fertilizers					
No genetically modified organisms					
Naturally grown food					
Less antibiotics and hormones on food					

Produced without the use of technology					
--	--	--	--	--	--

2.5. Why do you purchase organically grown products?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Organically grown products is healthy					
Better smell and freshness					
Good Taste and High quality					
Environmentally concerned					
High price					
More appealing in nature					
Organically grown products is safe					

2.6. How often do you purchase organically grown products (food)?

Daily	
Once a week	
Once every two weeks	
Once a month	

2.7. What is your perception towards the availability of organically grown products in the market?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Unavailable					
Difficult to find					
Limited only in certain grocery shops e.g. Woolworths & Pick n' Pay					
Available in most Grocery shops					
Available in all grocery shops					

2.8. How important do you think it is to buy organically grown products?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Extremely important					
Important					
Not important at all					

2.9. Do you somehow feel that you are contributing positively to the environment when you purchase organically grown products?

Strongly Disagree	
Disagree	
Neutral	
Agree	
Strongly Agree	

3. CONSUMER WILLINGNESS TO PAY FOR ORGANICALLY GROWN PRODUCTS:

3.1. What is your opinion on the price of organically grown products?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Cheap					
Affordable					
Rationally expensive					
Very expensive					

3.2. Why are you willing to pay higher prices for organically grown products?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Health concerns					
Environmental concerns					
Food safety					

Good taste and better smell					
More appealing					

3.3. If the price of organically grown products continued to rise, would you still be willing to buy organically grown products?

Strongly disagree	
Disagree	
Neutral	
Agree	
Strongly Agree	

3.5 Which amongst the following is your most preferred organically grown products retail outlet?

Woolworths	
Shoprite/ Checkers	
Pick n' Pay	
Spar	
Other (specify)	

4. Recommendations

4.1. What should be done to better promote organically grown products?

Scientific evidence on product packaging	
Make more affordable	
Awareness through advertising	
Consumer education	
Government regulation	

Other suggestions, please specify:

.....

.....

4.2. Would you recommend other people to start purchasing organically grown products?

Yes	
No	

4.3. Has there been any change in your health after consuming organically grown products?

Yes	
No	

4.4. Is there a significant difference between organic and non-organically grown products?

Yes	
No	

5. I would like to thank you for your time and patience and your participation in this study. I really appreciate your input and I promise you that your information will be treated as confidential as I can. Do you have any questions or comments?

.....

.....

APPENDIX TWO - INFORMED CONSENT DECLARATION

INFORMED CONSENT DECLARATION

(Participant)

Project Title: Consumer perceptions, preferences and their purchase intentions for organically grown products in Shelly Beach shopping centre, Port Shepstone.

Siphelele V. Wekeza from the Department of **Agriculture**, University of Zululand has requested my permission to participate in the above-mentioned research project.

The nature and the purpose of the research project, and of this informed consent declaration have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to understand consumer perceptions, preferences and factors influencing the purchase of organic products in Shelly Beach Shopping centre, Port Shepstone in the Ray Nkonyeni Local Municipality of KwaZulu-Natal Province.
2. The University of Zululand has given ethical clearance to this research project and I have seen/ may request to see the clearance certificate.
3. By participating in this research project I will be contributing towards **Identifying** factors influencing the purchase of organic products in Shelly Beach Shopping centre, Port Shepstone in Ray Nkonyeni Local Municipality.
4. I will participate in the project by allowing the researcher to ask questions and give them accurate information they are looking for concerning consumer perceptions, preferences and factors influencing the purchase of organic products in Shelly Beach Shopping centre, Port Shepstone in Ray Nkonyeni Local Municipality of KwaZulu-Natal Province.
5. My participation is entirely voluntary and should I at any stage wish to withdraw from participating

further, I may do so without any negative consequences.

6. I will not be compensated for participating in the research.
7. There are no anticipated risks associated with my participation in the project.
8. The researcher intends publishing the research results in the form of **publication research paper**. However, confidentiality and anonymity of records will be maintained and that my name and identity will not be revealed to anyone who has not been involved in the conduct of the research.
9. I will receive feedback in the form of **workshops** regarding the results obtained during the study.
10. Any further questions that I might have concerning the research or my participation will be answered by **Siphelele V. Wekeza** at University of Zululand, **Department of agriculture (078 789 0490)**.
11. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.
12. A copy of this informed consent declaration will be given to me, and the original will be kept on record.

I,have read the above information / confirm that the above information has been explained to me in a language that I understand and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above- mentioned project.

.....

Respondent's signature

.....

Date

APPENDIX THREE – ETHICAL CLEARANCE CERTIFICATE

**UNIVERSITY OF ZULULAND
RESEARCH ETHICS COMMITTEE**
(Reg No: UZREC 171110-030)



RESEARCH & INNOVATION

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ETHICAL CLEARANCE CERTIFICATE

Certificate Number	UZREC 171110-030 PGM 2017/448									
Project Title	Consumer perceptions preferences and their purchase intentions for organically grown products in shelly beach shopping centre, port shepstone									
Principal Researcher/ Investigator	Wekeza S.V									
Supervisor and Co-supervisor	Dr. M Sibanda									
Department	Agriculture									
Faculty	Science & Agriculture									
Type of Risk	Low risk – Desktop research									
Nature of Project	Honours/4 th Year			Master's		x	Doctoral			Departmental

The University of Zululand's Research Ethics Committee (UZREC) hereby gives ethical approval in respect of the undertakings contained in the above-mentioned project. The Researcher may therefore commence with data collection as from the date of this Certificate, using the certificate number indicated above.

Special conditions:

- (1) This certificate is valid for 2 years from the date of issue.
- (2) Principal researcher must provide an annual report to the UZREC in the prescribed format [due date-01 July 2018]
- (3) Principal researcher must submit a report at the end of project in respect of ethical compliance.
- (4) The UZREC must be informed immediately of any material change in the conditions or undertakings mentioned in the documents that were presented to the meeting.

The UZREC wishes the researcher well in conducting research.

Professor Gideon De Wet
Chairperson: University Research Ethics Committee
Deputy Vice-Chancellor: Research & Innovation
16 November 2017

CHAIRPERSON
UNIVERSITY OF ZULULAND RESEARCH
ETHICS COMMITTEE (UZREC)
REG NO: UZREC 171110-30

16-11-2017

RESEARCH & INNOVATION OFFICE