Sustainable practices of upmarket South African restaurants

Angela Simona Kapwani Kasonga

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ABSTRACT

Sustainability... eco-friendly... environmentally friendly... sustainable practices... Green...

These terms and phrases have become the subject of many academic literature and studies in all industries. The need to become more sustainable stems from the fact that the ecosystems of the world are being negatively impacted by the growth of the human population and the subsequent growth of human activities. People and businesses need to be aware of the impact they have on the environment and their potential to jeopardise resources for the future generations. In turn, business need not only create profit, but they also need to be aware of their social, economic and ecological responsibilities, known as the triple bottom line.

As stated, this jargon has been widely used and researched extensively in all industries including the food and beverage industry. The aim of this report was to investigate and analyse the use of sustainable practices within the food and beverage industry of South Africa with a particular focus on the restaurant industry.

Restaurants are able to control and make decisions about where food comes from, how it will be prepared, who will engage in preparation and how it will be disposed. A review of the literature found extensive information on studies done in the US, UK and also some parts of Asia, however, sparse information with regards to South Africa, and in particular, Johannesburg was found.

Through qualitative research methods, this study analysed the extent and usage of sustainable practices within the restaurant industry. Practices such as waste management and the efficient use of energy and water, among others were included in this study with a response on how these practices were being implemented and whether or not the restaurateurs believed that it would provide them with some competitive advantage. The report focuses on restaurants, particularly, upmarket restaurants within the City of Johannesburg. It was found that restaurants are aware of the impact they have on the environment and they

are implementing a few of these ‘green’ initiatives within their restaurants even though they are not required to do so by any known law or regulation. It was also found that these restaurateurs do not believe that their usage of eco-friendly technologies enhance their brand equity which may then increase their competitive advantage.

The conclusions and recommendations suggest that like the Sustainable Restaurant Association (SRA) and Green Restaurant Association (GRA), there is space and need for such a mechanism within the South African restaurants industry to assist and support restaurants in moving towards more sustainable practices. Furthermore, due to increased concern about the future of the planet, government or other governing bodies need to establish some rules and regulations around the activities or restaurants. These will enable the restaurants to take note of and set goals for the future with regard to their environmental actions.

DECLARATION

I, Angela Kasonga, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Angela Simona Kapwani Kasonga

Signed at ……

On the …….. day of …… 2015

DEDICATION

For Kapwani

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- To God Almighty for giving me strength and wisdom and allowing me to prove that once again, through Him, all is possible.
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LIST OF ACRONYMS AND ABBREVIATIONS

MEA – Millennium Ecosystem Assessment

SRA – Sustainable Restaurant Association

GRA – Green Restaurant Association

UNFCCC – United Nations Framework Convention on Climate Change

UNEP – United Nations Environment Programme

UN-Habitat – United Nations Human Settlements Programme

RASA – Restaurant Association of South Africa

UNW-DPAC – United Nations Water Decade Programme on Advocacy and Communication

WBCSD – World Business Council for Sustainable Development

CHAPTER 1. INTRODUCTION

Over the years, the significance of the interrelationship between businesses, the environment and larger society have gained momentum (Smith & Sharicz, 2011). This can be seen with a growing number of companies which are now actively engaging in some form of corporate social responsibility (CSR) or another. Sustainable practices such as waste management and the efficient use of energy and water, in South Africa (like the rest of the world) have been the subject of many practitioner and academic studies, and in particular, within the food and beverage industry.

Previous studies (Iaquinto, 2014; Kasim & Ismail, 2012; Y. Wang, Chen, Lee, & Tsai, 2013) have researched sustainable practices within the restaurant industry of various countries. In South Africa, Welter (2012) did a study which focused on the sustainability of the restaurant industry within the City of Cape Town. These show that there appears to be some attention and studies on sustainable practices in the world which include South Africa. This research study focuses on upmarket restaurants within the City of Johannesburg for the reason that the city has the highest population in South Africa with over 4.4 million people counted in the 2011 census, and a population density of over 2500 people per square kilometre (Statistics South Africa, 2014a).

Using qualitative research methods, the study will investigate the attitudes of restaurateurs in Johannesburg towards sustainability and examining the degree to which sustainable practices are being implemented in their restaurants. The study will also aim to establish if restaurateurs perceive these practices as a provider of competitive advantage. The restaurants sampled are categorised as ‘fine dining’ or ‘upmarket’ and taken from Regions B and E of the City of Johannesburg as indicated in Figure 1.

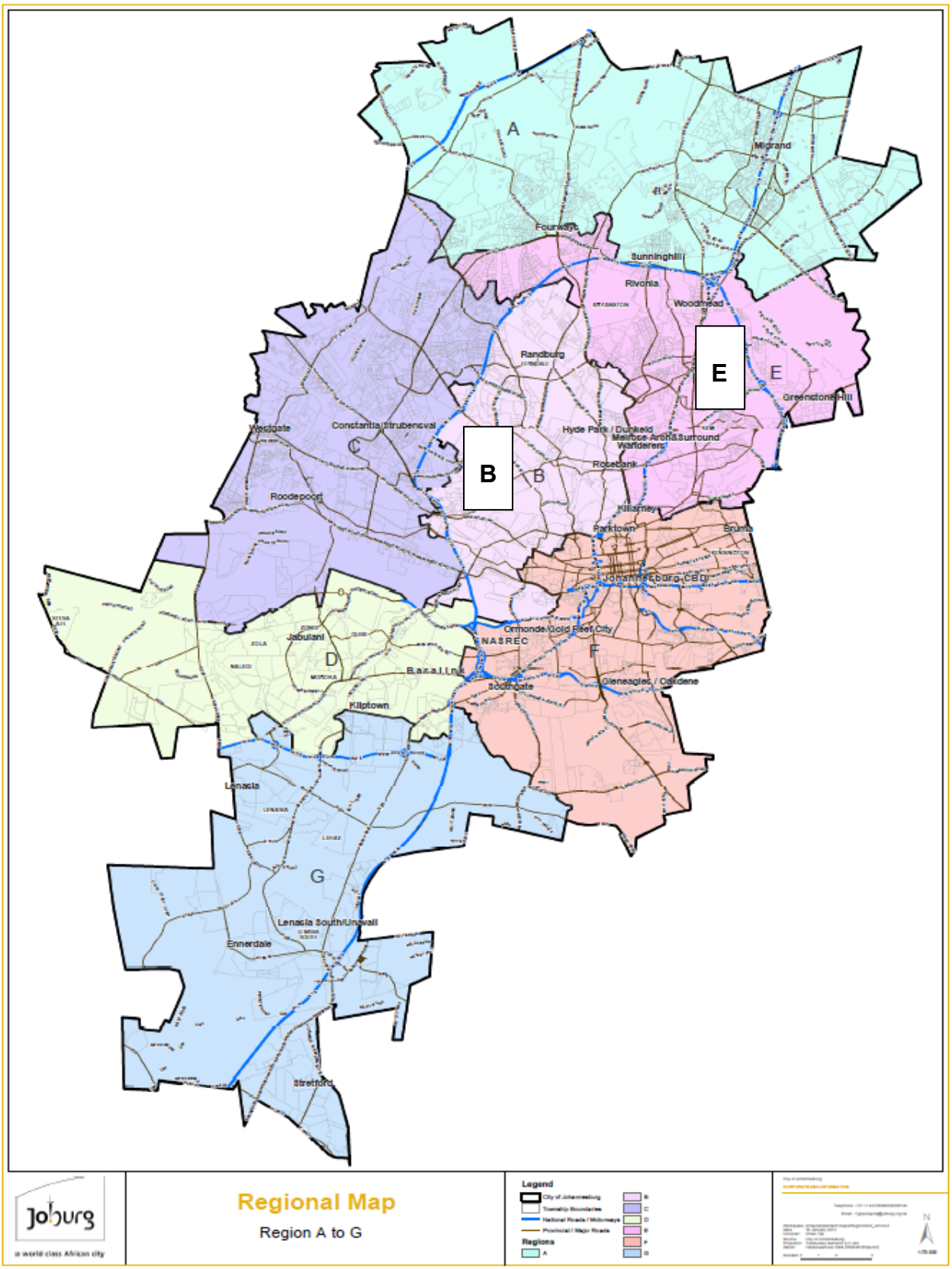

Figure 1: Regions B and E (Statistics South Africa, 2014a)

1.1 Purpose of the study

The purpose of this research is to investigate and analyse the use of sustainable practices of upmarket restaurants within the food and beverage industry of the City of Johannesburg and to establish whether or not restaurateurs believe that these practices contribute positively to their competitive advantage.

1.2 Context of the study

a. Food and Beverage Industry

In February 2014, Statistics South Africa (2014b) published a three month preliminary food and beverage industry report, which revealed that the yearly average increase in the food and beverage income was 6.6 per cent. Restaurants and coffee shops accounted for 47.2 per cent of the total food and beverage industry (and total income estimated at R5407million), with takeaway and fast food outlets accounting for 35.3 per cent and catering services accounting for 17.5 per cent.

In the preliminary industry report, restaurants and coffee shops are classified as businesses which provide the sale of meals and drinks, ordered from a menu, prepared on the premises for immediate consumption within provided seating (Statistics South Africa, 2014b). This definition therefore excludes fast food and street vendors. While the Statistics South Africa findings provide a picture of the industry in South Africa, this research study will mainly focus on the investigation of sustainable practices of restaurant industries within the City of Johannesburg as previously mentioned in the introductory paragraph.

b. City of Johannesburg

The City of Johannesburg is a municipality that is situated in the province of Gauteng, South Africa. The restaurants sampled will be taken from Regions B and E of the City of Johannesburg. Region B is the centre of the City of Johannesburg and is well known for its upmarket residential areas, both historic

and newer suburbs. To the east it borders Region E, which has an estimated population of 394000 and encompasses Sandton, which is known as the main financial district and dominates business activity (Statistics South Africa, 2014a). Regions B and E have the lowest unemployment in the City of Johannesburg at 9.2 per cent and 2.3 per cent respectively (City of Johannesburg, 2012) and these two regions have quite a few upmarket, fine dining establishments.

c. Upmarket / Fine dining

Fine dining, upmarket restaurants are defined as restaurants offering full table service with an upscale food and beverage menu (Ma, Qu, & Eliwa, 2014) and usually at expensive rates (Johnson, 2014). Most customers do not mind paying higher prices, because of the perceived value they place on the fine dining experience (Johnson, 2014). A high-class image and the unique concept heightens customers' emotions and expectations regarding the service and quality (Ma et al., 2014). Although, the owners of this type of restaurant want to create an atmosphere of elegance, the formality of the past has decreased significantly and in today's restaurants, the interior design has become more contemporary and the clientele has become younger (Harrington, Ottenbacher, & Kendall, 2011).

d. Sustainable practices

Sustainability means utilising what we need to live in the present without jeopardising the potential for future generations to meet their needs and in other words, the responsible use of resources over an indefinite period of time (McLean, 2009). Sustainability is interchangeably used with the term 'environmentally friendly'. The need for sustainability has given rise to sustainable practices.

This report will focus on sustainable practices such as waste management, energy and water usage as well as recycling. An examination of the food production line in the restaurant industry also makes it necessary to look at issues such as sustainable farming, ethical food and the support of local

produce. The restaurant industry being a key part of the food and beverage industry has the ability to affect the food supply chain in a positive way with regard to sustainability, and by addressing these issues, they can move towards sustainability and contribute to a sustainable hospitality industry (Welter, 2012). Customers are now becoming more aware of the food they eat, and high-end customers who can afford to go to more expensive restaurants are also opting for more sustainable produce (Schubert, 2008).

1.3 Problem statement

1.3.1 *Main problem*

There seems to be a lack of knowledge and implementation of sustainable practices throughout the restaurant industry in Johannesburg. This could indicate that certain restaurants are unable to positively contribute to their environments. The research problem is to analyse the extent and usage of sustainable practices in the upmarket restaurants within the City of Johannesburg and furthermore, to ascertain what the perception is regarding the use of these practices to achieve competitive advantage.

1.4 Significance of the study

People are becoming more aware about the impact they make on their environment and consumers are increasingly using sustainability as a factor in the choices that they make (Hartford, 2008). This is perhaps indications that, in view of the various debates about sustainability and sustainable practices (Notarnicola, Hayashi, Curran, & Huisingh, 2012; Smith & Sharicz, 2011), organisations and particularly restaurants require an in depth understanding of how to achieve sustainability and sustainable practices to operate in their environments. The study ultimately aims to provide guidance to existing and new restaurants and restaurateurs on the ways in which sustainable practices can be implemented within their environment and restaurants. These practices

may not only benefit the environment but may also help achieve diversification, improve image and increase long-term profitability (Schubert, 2008).

Sustainable practices may also lead to a reduction in costs. As an example, applying an energy management strategy that promotes energy efficiency can help improve the bottom line (Schubert, 2008). However, the financial case for or against sustainable practices is beyond the scope of this report.

As stated earlier, Welter's (2012) study focused on the restaurant industry within the city of Cape Town, South Africa. The findings cannot necessarily be extrapolated due to the differences between the cities of Johannesburg and Cape Town. According to Pirie (2010), Johannesburg is South Africa's biggest and wealthiest city and the city is also known as the first entry African city. Pirie further stated that unlike Johannesburg, Cape Town is 'not yet' a player in the global urban place. More recently, the 2014 MasterCard Global Destinations Index showed that Johannesburg is the most visited city in Africa. In 2014, Johannesburg hosted 4.3 million overnight visitors compared to 1.6 million overnight visitors in Cape Town. Total spend of the Johannesburg visitors was US$3.2 billion (Hedrick-Wong & Choong, 2014). In the majority of research papers cited here there was no differentiation between the various categories of restaurants available in the industry and furthermore the researchers found there was minimal information on general levels of sustainability within Johannesburg.

This research study investigates the sustainable practices of upmarket (fine-dining) South African restaurants. This study is significant because it particularly focuses on upmarket restaurants in the City of Johannesburg and thus adds to the existing body of knowledge on sustainability. This study will also highlight the perceived impact of sustainable practices on an organisation's competitive advantage.

1.5 Delimitations of the study

- The food and beverage industry will be analysed as part of the wider hospitality industry and in particular restaurants. Only restaurants within

regions B and E in the City of Johannesburg will be sampled, these regions are the only regions included, this was done on a judgement basis to limit the scope of this study.

- Only fine dining / upmarket restaurants will be sampled within the regions as opposed to other types of restaurants (e.g. casual dining and takeaways).
- There is some literature that details how sustainable practices will, in the long term, reduce costs and increase profitability. This study will not focus on the more quantitative study of profitability, but rather look at qualitative attributes such as the behaviour patterns and trends with respect to these restaurants.
- Some upmarket restaurants have been franchised within South Africa. The franchisee pays a royalty fee to the franchisor in exchange for marketing, products and brand identity. These restaurants have been removed to narrow the scope of this study.
- There is no central database which shows the total number of restaurants in Johannesburg. Two databases, namely, Dining-Out (Dining-Out, 2015) and EatOut 500 (EatOut, 2015) Magazine, have very comprehensive guides; however they only provide coverage for the more popular restaurants.

1.6 Definition of terms

Green practices – eco-friendly or environmentally friendly or sustainable practices

Fine Dining – Upmarket

1.7 Assumptions

The first assumption to be made is that there is the need for the food and beverage industry to become more sustainable. An increasing number of businesses generally, have implemented sustainability measures for a number

of reasons which may include but not limited to marketing purposes, to enhance cost reduction and the desire to comply with industry ethics.

Second assumption made is that fine dining restaurants are synonymous with upmarket restaurants. The two terms have been used interchangeably throughout the report.

The rest of this study will be organised as follows: Chapter two will explore existing literature around sustainable practices within the restaurant industry, Chapter three will provide the research methodology and process, the research results and findings will be presented and discussed in Chapter four, and Chapter five will conclude the research study.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

Since the adoption of the Kyoto Protocol (UNFCCC, 2005) treaty that was concluded for the purpose of reducing global warming, sustainable development has been further promoted worldwide as an important principle for establishing and managing organisational policies (Y. Wang et al., 2013). Achieving sustainability requires making decisions that consider the needs of current generation, as well as that of subsequent generations. Organisations need to demonstrate their ability to maintain viable business operations that do not negatively impact any social or ecological system. This phenomenon i.e. the need to not only create profit, but also take into account the impacts of their business on social, economic and ecological factors has been defined as triple bottom line sustainability (Slaper & Hall, 2011; Smith & Sharicz, 2011).

2.1.1 *The triple bottom line*

Sustainability has, in the past decade, often been a mentioned goal of businesses, yet measuring the degree to which an organisation is being sustainable can be difficult (Slaper & Hall, 2011). The triple bottom line is an accounting framework which focuses on the holistic returns of a business by looking at comprehensive investment results with respect to profits, people and the planet, these are also known as the 3Ps (Gimenez, Sierra, & Rodon, 2012; Slaper & Hall, 2011). Companies need to account for the resources that they use and the resulting footprint they leave behind and subsequent to that, they need to operate in a prudent and responsible manner and take care of their employee's health and safety and the quality of life in the external communities in which they operate (Gimenez et al., 2012). A challenge that has been established is in finding a common unit of measure for the 3Ps, although there are a few models that have been developed, there is no universal standard method, nor is there a universally accepted standard measure of the various triple bottom line categories (Slaper & Hall, 2011).

The concept of “Green” represents eco friendliness, social justice, economic development, and health (Y. Wang et al., 2013). A green industry is a sustainable industry and it considers recycling, low pollution and energy conservation throughout the production usage and disposal cycle (Y. Wang et al., 2013). There are platforms for businesses to explore sustainable development and share experiences, and knowledge about best practices. One of such platforms is that provided by the World Business Council for Sustainable Development (WBCSD, 2015). This organisation was created after the Rio de Janeiro earth summit and has about 200 international companies as its members. WBCSD has created various departments that report on key global sustainability issues. These issues include, Ecosystems, Water, Food And Biomaterials, Energy And Climate, and Socio-Economic Impact, amongst a list of other issues (WBCSD, 2015). These aforementioned issues are discussed in more detail below.

2.1.2 *Ecosystems*

Biologists are concerned that human activities are having immense negative impacts on the earth’s ecosystem (Mooney, Cropper, & Reid, 2004). The increase in human well-being and their ingenuity has resulted in many environmental problems which include biodiversity loss and ecosystem degradation to name a few (Wu, 2013).

The Millennium Ecosystem Assessment (MEA) was initiated by the United Nations and its objective was to assess the impact of ecosystem change on human well-being, and the consequences thereof (MEA, 2005). The MEA was a consortium of scientists from 70 nations who were involved in this extensive study (Mooney et al., 2004).

The MEA defines an ecosystem as a dynamic and complex community of plants, animals and microorganism and their interactions with the non-living components of their environment to function as a unit (MEA, 2005). In simpler terms, ecosystem’s services include the provision of food and clean water (Mooney et al., 2004). The human use and management of the earth’s

ecosystem in a manner that ensures its preservation, for sustained use, also determines the well-being of humans (MEA, 2005). The MEA's main finding was that human beings are putting strain on the natural functions of the earth ecosystem, and its ability to sustain future generations can no longer be taken for granted (MEA, 2005). More recently, Folke et al. (2011) found that it is essential to start taking account of and governing natural resources and ecosystem services, not just for saving the environment but also for the sake of development.

While the goal of sustainability is to improve and maintain human well-being, it cannot be achieved without simultaneously protecting the earth's ecosystems (Wu, 2013). Good policy and management decisions can positively address degradation of ecosystems. But, knowing how and when to intervene requires significant understanding of the ecological and social systems (Mooney et al., 2004).

2.1.3 *Water*

Water management, and the resultant impact of population growth, industrialisation and climate change, is gaining worldwide attention (Carden & Armitage, 2013). Water is at the core of sustainable development and is crucial for socio economic development, healthy ecosystems and for human survival (UNW-DPAC, 2014). However, policy development and governance of water management increasingly depends on policies in other sectors (Söderbaum & Tortajada, 2011).

The availability and quality of water, climate change, persistent pollution and loss of biodiversity are examples of water related environmental problems that are also associated with health, poverty, equality, human rights and security (Söderbaum & Tortajada, 2011). Declining efficient use of water in agriculture, increasing urbanisation and unregulated industrialisation, pose challenges for the water sector in the future (Alagh, 2010). We depend on water for our survival and welfare (Loucks, 2004), but are faced with the growing challenges of sufficient access to water related services, over exploitation of water

resources, pollution, health problems from contaminated drinking water, health problems from inadequate sanitation, leakage (up to 50% of water leakages occurring in some urban systems) and wastage (Carden & Armitage, 2013). The significant effects of these challenges are the threats they pose to future needs. Water scarcity, poor water quality and sanitation can impact food and energy, security, and the health and livelihoods of poor families and children around the world (UNEP, 2014). As the general needs of the world continue to increase significantly, due to increasing population, the water requirements of the energy sector are likely to increase as well (Söderbaum & Tortajada, 2011).

There is an increasing global awareness of (un)sustainable use of water and much has been achieved to counter negative trends with respect to health, ecosystems and natural resources, for instance by improving the availability and quality of water (Söderbaum & Tortajada, 2011). The responsiveness to issues with regards to water sustainability is growing, progress has been made but more still needs to be done to increase awareness for increased achievements in sustainable use.

2.1.4 *Food and Biomaterials*

Consumers are increasingly more health conscious and the growing demand for healthy foods is stimulating innovation and new product development in the food industry internationally (Lopez-Rubio, Gavara, & Lagaron, 2006). The biomaterials industry includes all products derived from plants and animals including natural fibres, oils and waxes, bio-plastics and bio-fuels. The assumption is that the use of these biomaterials as opposed to others have fewer negative impacts and can be replenished from a wider range of sources (Glew, Stringer, & McQueen-Mason, 2013). However, the increased production of bio-based materials and bio-fuels is heightening the risk of widespread famine. This is because, arable agricultural lands are being used for the production of bio-feedstock, such as corn, needed for making bio-fuels, instead of the production of human and animal food (Notarnicola et al., 2012). The severity of the threat from human activities on the global food systems needs serious consideration. Some of these threats are traceable to global climate

change impacts, exposure to dangerous pesticide, residues of animal growth hormones in food, the development and dissemination of genetically modified organisms (GMOs), the increase in extent and severity of invasive 'super weeds' and other threats (Notarnicola et al., 2012).

The cost of importing food is highly susceptible to global changes such as a change in the oil price and by 2050, world agriculture will need to produce 60% more food globally (UNW-DPAC, 2014). When there is increase in food prices, people tend to compromise on quality food, and this may result in poor nutrition, obesity and other health complications, as have been observed in various households (UN-Habitat, 2014).

Impacts such as climate change, water use, land use and pollution can be addressed through reduction strategies that are applied across the food production and consumption systems (Notarnicola et al., 2012). Such strategies include the establishment and implementation of sustainable agricultural practices, establishing local food networks and/ or increasing the use of waste materials (Notarnicola et al., 2012).

2.1.5 *Energy and climate*

The production of electricity through energy generation allows for a smooth running of economic activities and social infrastructure development and operation. Energy is therefore essential to economic and social development. But, depending on how it is produced, transported and used, it may also contribute to both local environmental degradation, such as air pollution and global environment problems, such as climate change (Spalding-Fecher, 2003).

Climate change may modify agricultural productivity through five main factors, which are, changes in precipitation and temperature, carbon dioxide, fertilisation, climate variability (such as changes in the rainfall patterns) and surface water runoff (Calzadilla, Zhu, Rehdanz, Tol, & Ringler, 2013). Excessive heat or insufficient water can interrupt or hinder crop growth. Extreme events such as floods and droughts can destroy harvests and also, the increase in sea levels due to polar ice melting reduces the availability of arable land. Therefore,

climate change is expected to have an impact on food production, food prices and potentially threaten food security (Bandara & Cai, 2014).

South Africa is likely to experience higher temperatures and less rainfall as a result of climate change (Calzadilla et al., 2013). High population growth in Africa and Asia will put further pressure on natural resources and food security (Calzadilla et al., 2013).

In recent years, there has been major drive for the switch to energy efficient devices and appliances within South Africa's residential sector following the power outages experienced since 2007. This increased the adoption of energy efficient technologies to further reduce electricity consumption by consumers (van Blommestein & Daim, 2013). Efficient consumption of energy is widely considered an inexpensive measure towards reducing energy consumption and greenhouse gas emissions (Azhar Khan, Zahir Khan, Zaman, & Naz, 2014). The continued increase in global emissions and its likely contribution to global warming have shifted focus to relative contribution of total emissions and seize of relative efforts by countries to reduce emissions (Azhar Khan et al., 2014).

Greenhouse gases in the atmosphere are at their highest level in over 800,000 years and it has been rising at an average of about 27 percent annually in the past decade (UNEP, 2014). Middle to higher income households are responsible for higher emissions as they have access to certain luxuries such as cars, air conditions and other energy intensive goods (UN-Habitat, 2014). Most of the greenhouse gas emissions that emanate from the residential and commercial sectors are a direct result of energy use in buildings (Azhar Khan et al., 2014). An increase in the irregularities of climate patterns are expected to affect energy costs, as well as introduce inconsistencies into the global food supply chain due to the increased vulnerability of agricultural systems (UN-Habitat, 2014).

2.1.6 *Socio economic impact*

Achieving sustainable development is increasingly becoming a major priority in urban neighbourhoods. A priority associated with the motivation to maintain

social quality of life and economic development, while also preserving the environment (Karatas & El-Rayes, 2012). Sustainable development of the communities can have positive effects on the inhabitants. This is because safe, green technologies limit environmental damage and pollution, that may have otherwise caused health problems for residents and workers within the community in the short and long-term (Strategic Development Partners, 2011).

Companies are increasingly interested in measuring their socio-economic impact for a variety of reasons which range from reducing costs and risks, to creating, and capturing new opportunities (WBCSD, 2015). Achieving sustainability in business is a strategy for success, and companies are realising that, what is good for the environment and society may also benefit and improve financial performance of the company (Dimian, Bildea, & Kiss, 2014).

Based on the above key global sustainability issues so far examined, this chapter on literature review aims to provide preliminary investigation of the current sustainable practices (or absence thereof) within the restaurant industry.

The next section looks into examples of restaurant associations that promote issues of sustainability.

2.2 Restaurant associations that assist with sustainability

There are two well-known restaurant associations that promote sustainable practices within the restaurant industry. One is the Green Restaurant Association (GRA, 2014), a non-profit United States organisation that provides means and guidance to restaurants on how to become more “environmentally responsible”. The other is the Sustainable Restaurant Association, also a non-profit organisation which is located in the UK, and it assists restaurants with making more sustainable choices.

2.2.1 *Green Restaurant Association (GRA)*

The GRA’s mission is to ‘create an ecologically sustainable restaurant industry’. The company provides restaurants with a certificate after they have been

assessed based on set of criteria (GRA, 2014). The Green Restaurant Association promotes three main areas through which restaurants may implement changes, namely, green action, green foods and green giving. Green action refers to energy and water efficiency as well as recycling. Green foods refer to foods that are organic and local. Green giving refers to donations to green projects (Y. Wang et al., 2013). The association awards points based on seven environmental categories which include water efficiency, waste reduction and recycling, sustainable furnishings and building materials, sustainable food, energy, disposables and lastly, chemical and pollution reduction. The point-awarding method as indicated in Figure 2 enables existing restaurants and food service operations, as well as new entrants into the industry, to obtain green certification (Y. Wang et al., 2013). There are three certification grading (2 stars, 3 stars and 4 stars) that restaurants may achieve and the minimum points required for each category as illustrated in Figure 2 below. Figure 2 also shows the maximum points that can be awarded in each environmental category. The point system requires the restaurants to achieve certain minimum number of points during the year. Furthermore, the restaurants are required to maintain achieved number of points in a year and improve upon those achieved points the following year. The association also provides guidance to restaurants on the various types of products they can use.

	2 Stars	3 Stars	4 Stars
Water Efficiency	10 points	10 points	10 points
Waste Reduction & Recycling	10 points	10 points	10 points
Sustainable Furnishings and Bldg Materials	0	0	0
Sustainable Food	10 points	10 points	10 points
Energy	10 points	10 points	10 points
Disposables	10 points	10 points	10 points
Chemical & Pollution Reduction	10 points	10 points	10 points
Points that can be received from any category	40 points	115 points	240 points
REQUIRED MINIMUM	**100 Points**	**175 Points**	**300 Points**

Figure 2: Restaurant certification standards (Green Restaurant Association)

2.2.2 *Sustainable Restaurant Association (SRA)*

The Sustainable Restaurant Association (SRA, 2014) categorises restaurants as one, two or three star sustainability champions based on a wide range of criteria covering 14 areas of sustainability. The SRA divides its areas of focus into three categories namely society, environment, and sourcing. Society category involves engaging with communities, treating people fairly, promoting healthy eating and responsible marketing. The environment category deals with management of energy, water, waste, the supply chain as well as the workplace resourcing. The sourcing category helps develop positive farming in the environment, local and seasonal food, sustainable fish, fair trade and ethical meat (SRA, 2014). Some of the characteristics of the SRA include (Welter, 2012):

- Recognise sustainability as a continuous process
- Voluntary membership

Both the GRA and SRA have developed business models that are applicable to the markets in which they operate (Welter, 2012). The next section explores the practice of sustainability within the restaurant industry.

2.3 Sustainability in the Restaurant Industry

Companies across all sectors are developing new products and processes with the aim of minimising negative environmental impacts (Schubert, Kandampully, Solnet, & Kralj, 2010). Past research on restaurants focussed mainly on nutrition and food safety, but after the 1990s, the concern for environmental protection and preservation gradually gained relevance (R. Wang, 2012). To meet this increasing demand for ‘green’ products and services, marketers throughout all industries are striving to develop and promote more eco-friendly goods (R. Wang, 2012).

Encouraged by the unprecedented customer demand for healthy and environmentally friendly products, sustainability has now become an primary part of doing business in all areas of industry (Namkung & Jang, 2013).

Companies are recognising the marketing potential of 'green' initiatives and are working towards carving a new niche for themselves in the market for consumers with environmental concerns (Schubert et al., 2010). There is greater environmental awareness, observable from the increased use of eco-labels on products, as evidence of certification (Pirani & Arafat, 2014). There are many different green practices that can be executed in restaurants including energy efficiency, water efficiency, recycling, sustainable food and pollution prevention (Namkung & Jang, 2013). Indoor air pollution is also an issue for restaurant operations, especially, with regards to tobacco smoke (second-hand smoke). One study pointed that employees in this industry face an increased risk of lung cancer due to exposure to smoke (Davies & Konisky, 2000).

Green restaurants lay emphasis on providing products and services that satisfy customer needs and create less environmental conflicts (R. Wang, 2012). A hurdle that restaurateurs face in incorporating green practices in their daily operations is that, the consumers' preferences, attitudes, perceptions of green products, and their willingness to pay for green restaurant products, remain unclear (Namkung & Jang, 2013; Schubert et al., 2010). The most important green practice a restaurant will implement may vary across restaurant segments. For example, the upscale dining customers may value organic food and drinks, above Styrofoam to-go containers. On the other hand, recycling products maybe the choice topping the list of fast food restaurants (Namkung & Jang, 2013).

The explosion of academic literature that discusses environmentally friendly practices within this sector is a response to the need within the industry to understand its responsibility. Wang (2012) lists the following ways in which green practices can be utilised in the restaurant:

- Recycling and composting food waste help to reduce the amount of waste and improve soil.
- Efficient energy and water equipments that may be utilised in the kitchen, dining and restroom.
- Eco-friendly cleaning supplies and packaging

- Menu sustainability / Sustainable food: This refers to a menu of organic food, grown with non toxic pesticides and fertilisers, or a menu of locally grown food, without necessarily transporting the food long distance, with the risk of exposing the environment to air pollution from emissions from transporting machines.

2.3.1 *Recycling and composting*

Waste generation, and the associated problems of littering and inefficient solid waste management are considered by some to be the most noticeable negative effects of the hospitality industry on the environment (Ball & Taleb, 2011).

Food waste can be defined as any food discarded as part of the business operations. These includes packaged food disposed after its expiration date, waste from the food preparation process and waste from left-over dishes or plates of guests (Pirani & Arafat, 2014). Food waste is thus, any food that is not consumed by humans, and such wastes may be generated at any level within the food chain (Okazaki, Turn, & Flachsbart, 2008).

More waste usually translates into a greater environmental footprint and therefore more harm to the ecosystem (Pirani & Arafat, 2014). There are various strategies for reducing, reusing and recycling waste that can be used by restaurants. Examples of these are composting, co-procurement and food donations (Welter, 2012) with composting being the most common form of recycling food waste (Davies & Konisky, 2000). The aforementioned waste hierarchy of reduce, reuse, recycle can be followed to improve the sustainability of a product (Glew et al., 2013). One way to reduce waste is to buy less food, and limit what may be thrown away as waste. Reusing is good, especially in the case of composting, where vegetable peels can be used in soil instead of being thrown in the dustbin. Restaurants may also recycle when a product can no longer be reused (Welter, 2012). However, rigid recycling standards may not provide the environmental advantages expected. For example, recycling a particular material may necessitate its transportation to a location far away, which may lead to a greater carbon footprint than the benefits from recycling

(Pirani & Arafat, 2014). Each situation therefore needs to be individually assessed. Waste mapping can be used to study how and determine where waste occurs, as well as how much it really costs the business to become more sustainable with the waste (Pirani & Arafat, 2014).

There are many factors that determine how a certain business processes its waste and the extent it implements recycling. These factors include the location of the business, the type of materials being recycled as well as the availability of recycling facilities in its locality (Pirani & Arafat, 2014). However, making the effort to become environmentally friendly may lead to certain benefits, for example, some benefits of waste management include, an improved business image, reduced carbon emissions from limited transportation of waste, reduced costs due to smaller orders from suppliers, improved relations with stakeholders, reduced risks and liabilities, and health and safety benefits (Pirani & Arafat, 2014).

2.3.2 *Energy and Water efficiency*

Food service operations are energy-intensive as they have a high usage of electricity and natural gas (Davies & Konisky, 2000). Davies and Konisky (2000) further explain that the energy consumption of these industries allows for opportunities to reduce the energy consumption in these industries and simultaneously reduce associated environmental impacts. Food service managers need to take inventory of their energy use, and use this in deciding how best to schedule the use of their equipment. One of the means of achieving such reduction in energy consumption is to schedule the use of equipment so that high energy consuming equipments are not used simultaneously (Peregrin, 2011).

Water usage is often overlooked and the restaurant managers may not even be aware of the large volume of water utilised in their kitchen (Peregrin, 2011). Grease and food waste are typically the two types of waste that may penetrate the water system through the restaurants' operations (Davies & Konisky, 2000).

Water and energy conservation are usually intertwined, especially at restaurants, so reducing consumption of one, inherently limits the other's consumption rate (Peregrin, 2011).

2.3.3 *Eco-friendly cleaning supplies and packaging*

Food service (e.g. restaurants) and food retail operations generate two main categories of solid waste, namely, food waste and packaging (Davies & Konisky, 2000). Eco-friendly restaurant practices entail using biodegradable, recyclable utensils, cups and packaging. With regards to packaging materials, corrugated cardboard and paper are generally the most significant type of solid waste generated by food service establishments. The other important types of packaging include, glass, metals and plastics (Davies & Konisky, 2000). Corrugated cardboard is primarily used as packaging in transporting products to the food service outlet. Paper is used as consumer take-away package (Davies & Konisky, 2000).

A number of factors influence the estimated environmental impact of packaging materials such as, the environmental polluting potency of the raw materials used, the energy spent during the life of the package, the life cycle of the packed material and many other environmental damaging impacts that may arise from the packaging in its lifecycle (Vujkovic & Matavuly, 2003).

2.3.4 *Menu sustainability / Sustainable food*

As mentioned earlier, menu sustainability mainly refers to the use of locally grown and organic food on the restaurant's menu. Food is crucial to human survival, yet its production is undermining the environment upon which their survival also depends. In addition to sustainable production of food, nutritional factors are also essential to the well-being of humans (Garnett, 2013).

Food safety include the consideration of issues such as, the potential health risk of pesticide residue on food, and the increased use of antibiotics, genetic modification and hormones (Davies & Konisky, 2000). The global food system significantly contributes to greenhouse gas emissions throughout the supply

chain stages, from agricultural production, to processing, distributing, retailing and waste generation (Friel, Barosh, & Lawrence, 2014; Garnett, 2013).

Sustainable diets are diets that benefit humans and natural resources, in that they protect and respect biodiversity, ecosystems. They are culturally acceptable, accessible, affordable, nutritionally adequate, safe and healthy, with the added advantage of optimising natural and human resources (Friel et al., 2014). Sustainable diets are therefore, those diets that have a lower adverse impact on the environment.

In order to provide green menus, restaurants will have to adopt several green methods including green procurement, green menu planning, green cooking and green packaging for take-out. Green procurement will involve the purchase of local foods for more than 50% of the food items per month, using organically certified food, reducing consumption of processed food, and efficiency in stock control. Green menu planning and cooking is about healthy cooking, conservation of energy during cooking as well as the use of more vegetables and fruits. Green packaging refers to safe, recyclable packaging made of biodegradable and composted materials (Y. Wang et al., 2013).

This researcher also found some other issues in the existing literature relevant to understanding sustainable practices in restaurant industries. These other issues are greener supply chain management and brand equity. These two are further discussed below.

2.3.5 *Supply chain management*

Consequent to the worldwide economic growth and globalisation of industries, there has been an increase in global supply chains resulting in higher emphasis on long distance logistics and transport activities (Abbasi & Nilsson, 2012). Food service and food retail industries are in a strong position to influence upstream environmental activity through what is referred to as “green supply” or supply chain environmental management. Restaurateurs are solely able to decide to utilise a greener supply chain based on the fact that individual restaurants have ultimate authority to determine which products they offer to

their customers (Davies & Konisky, 2000). The decision rests entirely with a restaurant, should they decide to adopt environmental ethics, as part of their purchasing criteria.

Green supply chain management involves co-ordinating the influences and relationships between supply chain management and the environment (Y. Wang et al., 2013). Incorporating environmental values into supply chain management involves, adopting environment friendly initiatives for product design, manufacturing processes, material sourcing and selection, delivery of the final product to customers and the management of the product after its useful life (Y. Wang et al., 2013). Green food and beverage supply chain management will thus include processes such as, menu design and food purchase with each process reflecting green concepts (Y. Wang et al., 2013).

Adapting the supply chain process and related activities towards sustainable practice operations present many challenges. Abbasi and Nilsson (2012) further explain that these challenges include:

- Cost: The cost involved in adopting green supply chain process, will influence a company's decision on whether to strive for environmental responsibility or profit.
- Uncertainties: This is relevant to sustainability issues as mankind tends to make basic assumptions that could be undermined by challenges that may occur through uncertainties.
- Mindset and cultural changes: The people in an organisation should have a creative and critical mindset, and they must have the desire to incorporate sustainable perspectives and assumptions in order to make sustainable development a natural part of future supply chains.
- Operationalisation: involves transforming sustainability ideas into action
- Complexity

2.3.6 *Brand Equity*

The challenge for marketers in building a strong brand is ensuring that customers have the right experiences with products and services. Depending

on the type of restaurant, providing evidence of green practices allow restaurant managers to reinforce green brand identity (Namkung & Jang, 2013). From incorporating these green environmental practices, the business image can be promoted towards achieving continuous operational objectives (R. Wang, 2012). A key challenge facing marketers is to identify which consumers are willing to pay more for environmentally friendly products. Knowing how to identify and profile consumers in this segment will be extremely useful in mapping out strategies that should be implemented (Laroche, Bergeron, & Barbaro-Forleo, 2001).

Restaurants operate within a very competitive environment because customers often have a diverse and extensive range of food choices. Therefore, when the actual food offered is of similar standards (relatively speaking) with that of many other restaurants, the image portrayed by a restaurant, may be the influencing factor in the decision to choose one restaurant over another (Ryu, Han, & Kim, 2008). Perhaps, the most convincing evidence of an increase in favourable consumer behaviour and preference for eco-friendly products, is that individuals are willing to pay more for eco-friendly products (Laroche et al., 2001).

The next section examines current literature on issues of sustainability in South African restaurants.

2.4 Sustainability in the South African restaurants

There is vast amount of literature on environmental consciousness and sustainable practices due to the popularity of the subjects. Kasim and Ismail (2012) conducted in-depth studies into the environmental practices of restaurants and the barriers that prohibit change. Their survey and findings were based on restaurants researched in Penang, Malaysia. A similar survey by Iaquinto (2014) researched sustainable practices within restaurants in Japan.

There is limited information on sustainability within South African restaurants, despite its importance for consumers to have this information, towards making good purchasing decisions for their well being and environment.

Few environmental watchdogs exist in South Africa, and green consumerism is not essential. Voluntary agreements have therefore been promoted over and above any applicable government legislation (Lund-Thomsen, 2005). It has been suggested that the South African government needs to be swift in its response to mitigating adverse impacts from the food industry on human health and the environment in South Africa, through education, regulation and support for healthy foods (Igumbor et al., 2012).

In South Africa, even though there is a statutory requirement for all listed companies on the Johannesburg Stock Exchange (JSE) to submit sustainability reports once a year, the JSE largely comprises big sized companies, and the restaurant sector being made up of smaller businesses are not ordinarily included on this list.

Legislation that may affect the restaurant industry directly includes the Consumer Protection Act (CPA) as well as the Foodstuffs, Cosmetics and Disinfectants (FCD) Act. CPA defines the customers' fundamental rights which include disclosure of information (and warnings), the right to have fair value, good quality and safe food as well as the restaurateur's accountability. The FCD Act refers to matters such as the hygiene requirements for food premises, the labelling and advertising of food as well as the trans-fat amount in food stuffs (Eldin Food Consulting, 2011).

In addition to the above, the Restaurants Association of South Africa (RASA, 2014) is a non profit organisation formed in 2004 to act as a restaurant lobbying body to the government. RASA has partnered with key people in the industry to develop a number of policies with clear and measurable guidelines to assist the industry in self regulation and standardisation (RASA, 2014). The association, in addition to offering training to restaurants' staff on how to provide good service, it also provides a service where they inform the restaurants whether or not their meal pricing competes with other restaurants worldwide. Restaurants are required to pay RASA a membership fee for the above services (RASA, 2014).

2.5 Conclusion of Literature Review

The literature review suggests that there are various issues that currently exist which require organisations to address the need for more sustainable practices. Restaurants in particular, also have responsibilities to their environment. They may access organisations or associations that provide products and methods which may assist businesses with the incorporation of more sustainable practices. Based on these findings therefore, the following propositions were formulated:

Proposition 1: Restaurants have included the following practices to minimise the impact to the environment.

a. Water efficiency
b. Sustainable food
c. Energy efficiency
d. Waste reduction, disposables and recycling
e. Sustainable furnishings and building materials
f. Supply chain management
g. Eco-friendly packaging and supplies (Biomaterial management)

Proposition 2: Restaurateurs perceive that environmentally friendly practices contribute positively to the competitiveness of the restaurant.

The next chapter will provide the research methodology and processes used in the articulation of this research work.

CHAPTER 3. RESEARCH METHODOLOGY

This research study is explorative, and uses qualitative methods for data gathering. A main feature of qualitative research is the utilisation of deductive analysis and the ability of the researcher to establish key themes and patterns within the data (Creswell, 2007).

3.1 Research methodology /paradigm

As stated above, this study uses the qualitative method of inquiry which implies that the research involves observing, describing, interpreting and analysing peoples' experiences, the way they think about themselves, and the world around them (Bazeley & Jackson, 2013). It is an inquiry process for understanding and exploring a social human problem (Creswell, 2012). A qualitative method has been chosen because the content has been explored and there was a requirement for commitment to time on the field (Creswell, 2012) . In line with similar research conducted in the hospitality industry, this research uses qualitative methods in gathering data as it focuses not only on the information that was presented, but also on the unspoken interactions including observations of environment and behaviour. The focus is therefore not just on "what was said" but also on "how it was said".

The data on sustainable practices of restaurants in Johannesburg has been gathered through interviews. The next section sets out this study's research design and outline.

3.2 Research Design

A cross sectional analysis was conducted in the form of semi-structured interviews. An interview guide was designed (See Appendix A) based on existing interview guides used by other researchers. This interview guide was, adapted to include sustainability issues as defined by the Green Restaurant Association (GRA) and Sustainable Restaurant Association (SRA). The cross

sectional analysis includes a thematic content analysis. The goal was to establish if there are any patterns of association within cases that hold true. Themes and concepts are therefore identified, grouped and interpreted while looking for commonalities and noting differences (Bazeley & Jackson, 2013).

The flow of the interview was structured with some open ended as well as some closed questions. The semi-structured interviews were conducted with questions based on few pre-determined areas of interest with possible prompts to help guide the conversation. This type of (un)structured interviews involve a broad area to explore and the researcher largely follows the direction of the participant (Petty, Thomson, & Stew, 2012).

3.3 Population and sample

3.3.1 *Population*

There are quite a few guides that enable a more accurate picture of the restaurant industry in Johannesburg. These include EatOut SA, Dining-Out as well as RASA. EatOut SA produces the EatOut 500 list in their annual magazine. The list contains 500 restaurants across South Africa and readers are requested and invited to nominate their favourite restaurants. The candidates are then scored by the EatOut panel after which the restaurants with the highest aggregate scores are listed at the top 500 in the magazine. The EatOut panel consists of 32 of South Africa's most enthusiastic food reviewers (EatOut, 2015). The restaurants that are included do not pay for inclusion in the magazine and so it is independent. RASA links to the commercial database on the dining out website (Welter, 2012). This dining out website is updated on a daily basis, as restaurants are constantly opening and shutting down. The restaurant owners pay an initial set up fee as well as a monthly hosting fee, should they wish to be included on the website.

EatOut and Dining-Out thus provide a snapshot of the industries in South Africa, including those of the City of Johannesburg. The two websites have been combined to establish a population and subsequent sample for this report.

The Dining-Out website, as at 11 February 2015, had a list of over 4000 restaurants in South Africa, of which 618 restaurants are in Johannesburg. The population includes a repeat of some restaurants which have more than one branch. The dining out website has two classifications, firstly the restaurants are classified by the type of food they serve, and then they are further classified by the ambience they try to create. The fine dining category falls under 'food type' and upmarket falls under 'ambience'. In choosing the population for this report, only one branch of each restaurant has been chosen. The website shows 20 restaurants that fall under fine dining and 29 restaurants which are classified as upmarket within Johannesburg. Furthermore, there are 11 restaurants in Johannesburg that fall under food type 'fine dining' AND ambience 'upmarket'. These 11 restaurants have been subtracted from the total to avoid double counting. The total population as per the dining out website is 38 (Figure 3).

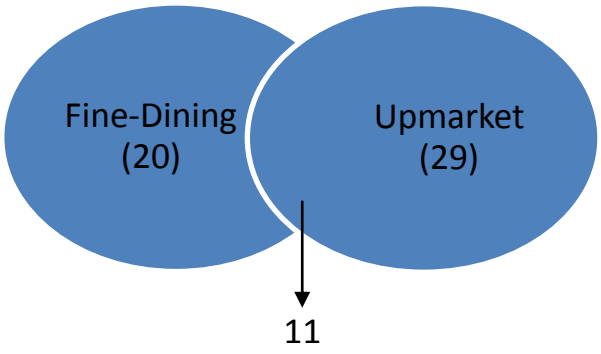

Figure 3: Population of Johannesburg restaurants (Dining-Out)

The EatOut 500 magazine gives a total of 4 restaurants in Johannesburg which are classified as fine dining (EatOut, 2015), none of these were found on the dining out website. The magazine does not use 'upmarket' as a categorisation method. Therefore, the total population combined from these two publications is 42. The sample was taken from these 42 restaurants and focuses on restaurants specifically within Region B and Region E.

3.3.2 *Sample and sampling method*

The sampling method chosen is known as purposive sample, as the sample was selected according to the relevance to the study (Petty et al., 2012). As previously mentioned in Chapter 1 and 2, there have been a number of similar studies in which a sample of restaurants were interviewed: the first study by Kasim and Ismail (2012) gathered data from a sample of 29 restaurants in Malaysia, the second study in Cape Town, reflected data collected from 26 restaurants. These two research papers were used as a guide for the number of restaurants that would be studied for this report.

A sample of 37 restaurants was chosen for this research of which 9 participated. This represents 21.4% of the total prescribed population. Franchises were not included in this sample.

The restaurants were approached initially through emails (interview guide attached) with a follow up phone call. All the interviews were conducted telephonically.

The restaurants that were identified for this sample but did not participate were either too busy or not interested. Some restaurants did not have a working telephone line and a few restaurants requested that the survey be emailed to them, but did not responded to the email thereafter.

Table 1: Profile of respondents

Description of respondent	Number sampled
Fine dining / Upmarket establishments in Region B of the City of Johannesburg	4
Fine dining / Upmarket establishments in Region E of the City of Johannesburg	5

3.4 The research instrument

The research instrument used was an interview guide with open as well as closed questions.

This interview guide was created mainly with a focus on the GRA's indicators of sustainable practices as shown in Figure 2. The restaurants were asked various questions about their own sustainable practices, and further, open questions with regards to how they manage water, waste reduction, recycling, sustainable furnishings and building materials, sustainable food (local / organic), energy, eco friendly cleaning supplies, packaging as well as the supply chain management. The restaurants were also asked to comment on each of the above list of questions, to ascertain what kind of actions they took in becoming environmentally friendly. The next section explains the procedure and method used in the gathering of data for this study.

3.5 Procedure for data collection

As discussed above, the restaurants were approached initially through emails and followed up with a phone call. The emails included an attachment of the interview guide, so the respondents could have a preview before the phone call was made. The interviews were open ended as the respondents were allowed to elaborate on their answers. The telephone calls were made in the morning, as most of the upmarket restaurants open for business and become much busier from lunch time onwards. The questions were answered by either the restaurant manager or the chef at the restaurants sampled.

3.6 Data analysis and interpretation

Thematic analysis has been done on the data that was received and captured. The data have been pooled together in order to ascertain themes within the various restaurants. The themes are analysed against the literature to check if the findings support or contradict existing literature.

3.7 Limitations of the study

- An appropriate limitation would be around the collection of data as most of the respondents were too busy or not interested in responding.
- This research cannot be generalised to a wider population, due to the nature of qualitative research. However, the research can be used as a guide for other restaurants which require greener practices as it provides rich detail which may be useful.
- The sample is biased due to sampling method use. Certain regions were not sampled for convenience and so these findings should be interpreted with some caution.

3.8 Validity and reliability

Validity is important in qualitative research due to the subjectivity in interpreting data which is often questioned (Brink, 1993). Validity can be further divided into external and internal validity. Reliability requires that the researcher has developed consistent responses or habits in using the method (Brink, 1993).

3.8.1 *External validity*

External validity talks to the degree or extent to which the representations of research findings are reasonably applicable across groups (Brink, 1993) so basically, the extent to which the findings can be applied in other contexts or with other participants, this refers to applicability and fittingness (Nelson, 2008; Petty et al., 2012). Due to the nature of qualitative research, external validity cannot be achieved as the findings may not be generalised. The research may be helpful to restaurateurs who want to improve their environmental footprint and utilise more sustainable practices within their restaurants.

3.8.2 *Internal validity*

Internal validity refers to the extent in which research findings are a true reflection or representation of reality rather than being the effects of extraneous

variables (Brink, 1993). The degree to which the findings can be trusted or believed by the participants of the study, which implies credibility (Nelson, 2008; Petty et al., 2012). The data collected from the respondents has been compared with the material gathered during the literature review to enhance credibility.

3.8.3 *Reliability*

Reliability refers to the consistency and stability of the researcher's account of the study. It refers to the research method's ability to consistently yield the same results over repeated periods (Brink, 1993). The extent to which the study could be repeated and variations understood, reliability therefore refers to consistency and auditability of the results (Nelson, 2008; Petty et al., 2012). Interview notes have been transcribed and kept for completeness and comprehensiveness of coverage.

3.9 Description of the participating restaurants

These respondents are upmarket and or fine dining restaurants in the Regions B and E of Johannesburg. The restaurants are situated in Illovo, Parktown North (x2), Morningside, Rivonia, Paulshof and Hyde Park (x2). Eight out of the nine restaurants only offer lunch and dinner service. The one restaurant that offers breakfast service also runs as a hotel, with the restaurant being opened to the public on a daily basis (except Sundays). Eight out of the nine restaurants are open from Monday through to Sunday and have very extensive menu options, serving anything from Indian food, sushi and steak to Japanese food. Some of the restaurants offer set menus but the majority are 'a la carte'. The average price range in the 9 restaurants is from a minimum of R80 to a maximum of R300 per person.

All of the restaurants sampled have won one award or another, such as the Platinum Diners Club Wine List Award, the Best New Restaurant Award, the EatOut 500 listing, and the Wine Magazine Award, just to name a few. Only one out of the nine restaurants sampled plays live music for the patrons, and

only one of these restaurants has the white linen table cloth service. All the restaurants have their own separate websites and the restaurants have not been running for more than 10 years. The oldest restaurant sampled started in 1995 with the youngest being just over a year old, having started in mid-2013.

CHAPTER 4. PRESENTATION AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents and provides detailed discussion on the feedback from the respondents. Some of the feedback is represented in tables that have been created with the responses received. As mentioned in Chapter 3, some questions were asked in such a way that the respondents could respond with yes or no answers, and others were open ended so that they could also provide more information. The restaurants that participated in the survey have been labelled from 1 – 9. The questions and discussions have been grouped together under the relevant propositions that were derived from the conclusion of the literature review.

4.2 Results pertaining to Proposition 1

Proposition 1: Restaurants have included the following practices to minimise the impact to the environment.

Table 2: Confirmations from restaurants 1 - 9 on which practices are used

Question 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Which of these environmentally friendly practices do you use in your restaurant? Please mark with (x)									
Water Efficiency	*x*		*x*		*x*	*x*			*x*
Waste reduction and recycling	*x*	*x*	*x*	*x*	*x*		*x*		*x*

Question 1	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Sustainable furnishings and building materials				*x*					
Sustainable food (local / organic / sustainable seafood)	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*
Energy	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*
Eco friendly cleaning supplies and packaging	*x*	*x*	*x*	*x*	*x*			*x*	*x*
Supply Chain Management				*x*					

The vast amount of literature on sustainable practices has shown that this is topical subject. The most popular practices that have been implemented have to do with energy, sustainable food, waste reduction and recycling as well as eco-friendly cleaning supplies and packaging.

Energy and sustainable food were the only two practices that had positive responses from all participants in the survey. Five, out of the nine restaurants sampled used water efficient equipment in their restaurants. None of the restaurants sampled indicated that they had implemented all the practices listed above. The details and discussion on how the above practices have been used are shown below.

4.2.1 *Water efficiency*

Devices that have been used include the flow regulators on taps, which limits the amount of water dispersed, the restaurants confirmed that a majority of the dishes are done in dishwashers as it limits the amount of water that is used per wash. It was also noted that water tanks are kept within the restaurant premises and used for the garden. The water tank will assist in storing water until the need arises for it to be used. The use of water efficient products was identified

by majority of the restaurants as a practice they implement within their premises. This implementation is in contrast to some of the literature previously cited as Peregrin (2011) acknowledged that water is often overlooked by restaurant managers who may not realise how much volume of water is used or wasted in their kitchens.

4.2.2 *Sustainable furnishings and building materials*

Only one restaurant confirmed that this is a practice they use within their restaurants. The restaurant itself has very minimalistic furniture with neutral colours and tones (beige, brown, white). They use sustainable paint on the interior walls of the restaurant. The restaurant is situated in a shopping complex so they are not able to influence the outside walls of the building. All the furnishings within the restaurant are treated with pine, with no harmful paints or sealants. The bar tops and decor is made out of recyclable wood. The crockery that is used is made of glass and for their lunch menu, they use only wood and brown recycled paper to serve the food on.

4.2.3 *Sustainable food, waste management (including recycling) and supply chain management*

Each and every restaurant surveyed responded positively to the practice of sustainable food. The restaurants had the following consistent feedback:

- Meats are sourced from sustainable farmers and with the lamb, we can trace the actual cut of meat back to the original farm in the Karoo
- Our fish are all farmed, including our Norwegian Salmon. The rest are local
- The costs attached to the organic vegetables are prohibitive but we use the closest supplier with the best quality
- Local and organic foods are used as much as we can, there may be some days were the requirement is higher and so we may have to substitute

- We only use organic food and in-season food and we only use fish that is on the green list
- Local suppliers are used as this will also limit the transport costs and the emissions
- The food that is sourced for the restaurant is organic. No hormones or pesticides are used

A restaurant's main business is the sale of food, making their sale of sustainable food a priority for success. The average price that is paid for food in these fine dining/upmarket restaurants is higher; hence, customers who support them will naturally expect to have the best sourced and highest standard of quality food. As stated above, these restaurants view sustainable food as foods without the use of hormones, steroids or fertilisers. This view aligns with literature as explained by Wang (2012) that menu sustainability will refer to the use of organic food which has non-toxic pesticides and fertilisers, and are not genetically modified.

Although the sustainability of food is top priority, only one restaurant provided a positive response to the question about focusing on the supply chain management activities, and as stated by Friel et al (2014) the supply chain includes anything from agricultural production right through to processing, distributing, retailing and waste. It can therefore be argued that agricultural production is covered in the 'sustainable food' section. The restaurants commented that the food is organic and sourced locally. The food used is in season and the fish are farmed. These practices mentioned above are SRA compliant as was found in the literature. SRA compliance with regards to sourcing includes food that is local and seasonal with a special requirement to have sustainable fish (SRA, 2014). Based on the above definition of the supply chain, we can deduce that these practices will form part of the initial step of a more sustainable supply chain.

The supply chain also includes activities which relate to distribution. If the food that is sold in the restaurant is sourced locally, this may limit the level of air

pollution, due to the short distance over which the food is transported (R. Wang, 2012).

As noted in chapter 2, the supply chain also includes the managing of the product after its useful life (Y. Wang et al., 2013). Restaurants confirmed that waste is limited by placing orders as and when the food is needed. The restaurants would typically order the lesser perishable items on a weekly basis and non-perishable items on almost a daily basis. Regarding recycling, the restaurants have confirmed that this is done, however, they more frequently use the recycling bins as provided for by the shopping centres. These restaurants within the complex are able to split refuse in to the relevant recycle bin groups. This way of recycling is within close proximity to the restaurant and so the carbon footprint is reduced as there is no need to transport the recyclable goods further away (Pirani & Arafat, 2014; Welter, 2012). Interestingly, one respondent stated “we are in discussions to recycle our cooking oil and convert that to bio-diesel fuel”.

Welter (2012) also agreed that reducing waste can be done by buying less food. The literature mentioned that another step in the waste process is composting. Composting was seen as the most common way to recycle food waste (Davies & Konisky, 2000). Surprisingly, none of the restaurants surveyed had practiced composting within their environment.

In light of the above discussion, it can be concluded that the restaurants who offer sustainable food and who have waste reduction and recycling activities, are also contributing to a more environmentally friendly supply chain.

4.2.4 *Energy efficiency*

The surveys showed that restaurants will use gas stoves and gas ovens to decrease their use of electricity. LED light bulbs are also used within the restaurants and the dryers in the bathrooms are energy efficient as well.

Energy efficiency is a practice that is commonly adopted by all the restaurants sampled, this could be a result of the energy conservation campaign in South

Africa to promote the switch to energy efficient devices since the 2007 power outages. as van Blommenstein and Daim (2013) found. It was also noted that there would be an increase in the requirement for consumers to adopt more energy efficient equipment and technology, which would likely assist with further decrease in the greenhouse gas emissions, as explained by Azhar Khan, Zahir Khan, Zaman and Naz (2014). The surveys have shown that the extent of energy efficient devices used within the restaurant industry is very minimal, especially as it has already been noted in the literature that the energy consumption of the restaurant industry is very extensive and so there is opportunity to reduce the energy consumption in these industries and simultaneously reduce associated environmental impacts (Davies & Konisky, 2000).

4.2.5 *Eco-friendly cleaning supplies and packaging*

Seven out of the nine restaurants identified this practice as one that implement in their restaurant, especially the use of environmentally friendly take away boxes. It was noted that for packaging, the restaurants use sugar cane take away boxes, cardboard boxes or recycled brown paper bags and tin foil if they can. Another theme was the lack of polystyrene or plastic use throughout the surveyed restaurants. The take away boxes are not branded as to limit the use of inks. Environmentally friendly printing is available; however, the restaurants confirmed that it is costly to do this at the moment. The use of environmentally friendly cleaning supplies is limited to carpet cleaners and toilet refreshers as the cost for these is high as well. Y.-F. Wang et al (2013) concluded that green menus include, among others, green packaging for take away boxes.

Table 3 below has been included to show whether or not these restaurants have had to research and gather information on sustainable practices themselves, or whether it is readily available and accessible. The table also shows, through Question 16 whether or not these restaurants are required to become more sustainable by any laws and regulations. The table shows if there is any urgency on the part of restaurants to become sustainable due to the demands from the community or the law. This would show if there is sufficient

motivation to improve the extent to which the sustainable practices are implemented.

Table 3: Positive responses to questions regarding the community, information and regulations

Question 14	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Do your customers and community demand that you have sustainable practices within your restaurant?	*x*				*x*				
Question 15	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Do you feel that there is sufficient information in South Africa on how you can become more sustainable as a restaurant?	*x*								
Question 16	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Are there any regulations or laws that require you to become more sustainable? If so, what are they?						*x*			

Most of the restaurants have concluded that their community and customers do not demand that they have these sustainable practices. One respondent stated that “it does not matter in South Africa, not at the moment” and further “customers believe it is nice to have and is a gimmick”. On the other hand, literature suggests that sustainable development can have positive effects on a community. It is becoming a priority in urban neighbourhoods towards maintaining their quality of life and economic development, while preserving the environment (Karatas & El-Rayes, 2012).

Furthermore, the information regarding sustainability practices in South Africa is quite thin, which is in line with the survey results above. Most of the articles found related to practices within the US, UK and Asia.

In addition, Lund-Thomsen (2005) found that there are few environmental watch-dogs, and green consumerism is not a central force in South Africa. A restaurant manager that was interviewed explained that “information is out there but South Africa is behind, it is not easy to get information, you need to go out there and look for it.

4.2.6 *Conclusion on discussion pertaining to Proposition 1*

In conclusion, although these restaurants are not required by any law to implement environmentally friendly practices, the majority of restaurants are doing so. The decision therefore rests entirely with the restaurant, should they decide to adopt environmental ethics and so the extents to which these sustainable practices have been implemented are low in some cases (e.g. energy). There may be certain motivations for doing so; however, these are beyond the scope of the study.

There is a definite indication that majority of the restaurants are aware of, and implementing most of the listed sustainable practices within their establishments, thus they are making the effort to minimise their impact on the environment. The next section presents the results relating to the second proposition.

4.3 Results pertaining to Proposition 2

Proposition 2: Restaurants perceive that environmentally friendly practices contribute positively to the competitiveness of the restaurant.

Table 4: Positive responses to priority and promotion of environmentally friendly practices

Question 9	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Do you consider environmentally friendly practices to be	*x*	*x*	*x*	*x*	*x*		*x*		*x*

in the top three priority list in your company policy?									
Question 11	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Why do you think that being a green restaurant gives you an advantage over your competitors?	*x*				*x*				
Question 12	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Would you promote your environmentally friendly practices (such as local/organic) to attract customers?	*x*		*x*		*x*				*x*

This table shows that the restaurants have made the need for environmentally friendly practices a priority. The table also shows how the respondents answered questions regarding how they feel about environmentally friendly practices, and whether or not they believe it gives them a competitive advantage. Four, out of the nine restaurants sampled, agreed that they do promote their green initiatives with customers so they can lure them into their establishments.

4.3.1 *Competitive Advantage*

Almost all of the restaurants sampled did not agree that going green will give them an advantage over their competitors. One respondent stated that “most people are not happy with a menu that changes based on availability and seasonality”. The majority also concluded that they do not promote their sustainable practices to attract customers. This is mainly due to the fact that they believe that consumers are not educated enough, and it matters less to the Johannesburg way of life. Consumers need to be educated on the seasonality and availability of foods within the restaurant industry, and on the meaning and

advantages of environmentally friendly practices. The literature, however, suggests that consumers are aware and have made this a priority.

There has been an increase in demand for eco-friendly products and services based on the various industries and restaurateurs' need to be aware of these so they can cater for this emerging customer (R. Wang, 2012). Namkung and Jang (2013) further state that the demand for healthy and environmentally friendly products has been driven by the customer, and that this has become an integral part of doing business in all domains of industry. The literature did not focus on restaurants in Johannesburg and so, the viewpoints expressed should be taken lightly. And it was further noted that the perceptions and attitudes of consumers towards these green restaurants remain quite unclear.

4.3.2 *Conclusion on discussion pertaining to Proposition 2*

In conclusion, the literature is contrary to the findings but it must be emphasised that the literature that was utilised did not include any findings with regards to restaurants within South Africa, and in particular, within Johannesburg. The restaurants sampled have provided a depiction of the Johannesburg market and majority of the restaurants perceive that sustainable practices do neither provide them a competitive advantage, nor are these practices demanded by their communities.

4.4 Conclusion

These results have shown that the environment is a priority for these upmarket restaurants in Johannesburg. The main practices are those of energy efficiency and the sustainable way in which food is sourced and cooked.

The first proposition has been positively validated, as majority of the restaurants sampled are implementing these sustainable practices in their business operation. Notably, there are no regulations or laws that require them to do so, therefore, restaurants are sourcing the information themselves and implementing the practices on a voluntary basis as they deem fit.

The second proposition has been found to be untrue as restaurants believe that consumers are not educated enough on these practices, and do not patronise restaurants based on the restaurant's incorporation of sustainable practices and environmental friendly attitude towards the environment. This is contrary to literature research that customers are in demand of more environmentally friendly goods. This literature obtained has not provided any reference to the Johannesburg restaurant market and so there is scope for more research to be done in this area.

These restaurants are concerned about the impacts that they are having on the environment, and they are implementing measures to minimise these. However, as can be observed from the results of the second proposition tabled, they do not believe that these measures will create a competitive advantage for them.

CHAPTER 5. CONCLUSIONS & RECOMMENDATIONS

5.1 Introduction

This chapter concludes on the report and provides recommendations to key stakeholders as well as some suggestions for future research that may not have been covered in this study.

5.2 Conclusions of the study

The research aimed to investigate the use of sustainable practices within the food and beverage industry, specifically within the upmarket restaurants of Johannesburg. This industry was analysed due to a surge of material surrounding key global sustainability issues such as the impact of human activity on ecosystems, the availability and quality of water and food, the use of energy and its continued impact on the climate, and lastly, the socio-economic impact. The literature then found specific information relating to the restaurant industry including various associations that have been established to educate and promote these.

Due to the lack of a centralised database, a sample was derived from the Dining-Out website and EatOut magazine. It was found that the majority of Johannesburg restaurants have implemented environmentally friendly practices within their organisations, the most popular of these being the implementation of energy efficient devices and the sale of sustainable food. These were found to be the common themes across all the restaurants surveyed. It was also found that these restaurants are implementing these practices on a voluntary basis as there are no laws and regulations that obliges them to be eco-friendly. The research also found that there is scope for restaurants to become more competitive should they promote their use of these practices to their customers, and it will enhance the establishment's brand equity. This finding was not reciprocated in the surveys that were conducted. The surveys found that the

restaurateurs do not believe that their environmentally friendly ways are important to the customer decision in choosing one restaurant over the other.

5.3 Recommendations

Despite the fact that the sample was not extensive enough for generalised recommendations to be made, the following recommendations have been provided as guidance for those restaurants willing to become more environmentally friendly.

Although the GRA and SRA are not South African based agencies, these associations provide restaurants with the necessary information on how to become more sustainable. The two websites are available online and provide much detail on this topic. Restaurateurs ought to learn from these associations, especially on how to apply the suggestions provided and its relevance to their organisations. There is also scope to establish such a mechanism within the South African restaurant industry. An association of the same calibre will equip individual restaurants within South Africa with the necessary information to move them towards sustainability.

Restaurant owners may also benefit from understanding the needs of their market. A lot of research has proved that consumers are becoming more aware of the food they eat, and are becoming more conscious about the choices they make in this regard. The restaurateurs can do mini surveys to see if consumers will be willing to pay specifically for eco-friendly produce. This could determine the restaurants strategy for the future, and create a competitive advantage if they are considered pioneers in the market with these promotions.

Following from the above recommendation and the increasing concern about the planet and future of the next generations, government needs to establish some rules and regulations around the activities of restaurants. Among others, it has been found that restaurants do utilise energy, water and do disburse waste. The regulations need to better regulate these practices in ensuring improved protection and preservation of the environment. Restaurants should not be left to make up their own minds about their response to sustainability.

5.4 Suggestions for further research

The following are some suggestions on further research that could be conducted in the South African market in order to fully understand the sustainable practices of restaurants:

- A quantitative study of the financial implications of restaurants going green and how these practices will impact their bottom line.
- Looking at what the consumer's response is to green restaurants. What are their attitudes and perceptions?
- This report has focussed on the findings of upmarket restaurants. Other studies could look at other types of restaurants e.g. casual dining or franchises.
- Each sustainable practice above could be studied in isolation with a focus on how restaurants have implemented these sustainable practices and if there are any laws or regulations on each of them.

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APPENDIX A

Interview Guide

Sustainable practices within your restaurant

I, _____ agree to participation in the research study conducted by Angela Kasonga.

My participation is voluntary and I understand that I can withdraw at any time during the study.

The purpose and nature of the study has been explained to me. I understand and give permission that extracts from the interview may be quoted and published in the research report.

I also understand that confidentiality will be ensured in the research report and no identifying features will be attached.

Signed_____
Date_____

QUESTIONS:

6. Which of these environmentally friendly practices do you use in your restaurant? Please mark with (x)

Name of Practice	**Tick**
Water Efficiency	
Waste reduction and recycling	
Sustainable furnishings and building materials	

Name of Practice	Tick
Sustainable food (local and organic/ sustainable seafood)	
Energy	
Eco friendly cleaning supplies and packaging	
Supply Chain Management	

7. Are there any others not listed above?
8. How do you use the above practices within your restaurant?
9. Do you consider environmentally friendly practices to be in the top three priority list in your company policy?
10. If not, why do you not consider it to be a priority?
11. Why do you think that being a green restaurant gives you an advantage over your competitors?
12. Would you promote your environmentally friendly practices (such as local/organic) to attract customers?
13. If not, why would you not promote them?
14. Do you believe your customers or community demand that you have sustainable practices within your restaurant?
15. Do you feel there is sufficient information in South Africa on how you can become more sustainable as a restaurant?
16. Are you aware of any regulations or laws that require you to become more sustainable? If so, what are they?

APPENDIX B

Population of fine dining / upmarket restaurants in Johannesburg as determined by the Dining-Out website and EatOut 500 magazine

1	10 2nd Avenue
2	Fairlawns Boutique Hotel and Spa
3	Coobs
4	Balata @ The Fairway Hotel
5	Kong Restaurant
6	PigalleSandton
7	Beluga @ The Waterfall
8	Il Tarfuto
9	Winnies Soul & Jazz Restaurant
10	The Green Peppercorn
11	310 Sustainable Eatery
12	The Elm Tree
13	Protea Hotel Fire & Ice
14	La Campagnola
15	Sophia's Bistro
16	The Baron Sandown
17	The Bull Run
18	The Grillhouse Sandton
19	SWAD Restaurant
20	Yamato
21	Mythos
22	Prime Grill and Butchery
23	The Raj Sandton
24	Signature Restaurant
25	Maharaja Restaurant
26	Bukhara Sandton
27	Browns of Rivonia
28	Level Four Restaurant
29	The Big Apple Restaurant
30	Tinstwalo @ Waterfall
31	The Butcher Shop & Grill
32	Tsunami
33	Adega
34	Katzys
35	Bombay Blues
36	Piccolo Mondo

37	Maximillien
38	Wombles
39	DW Eleven 13
40	Clico Boutique Hotel
41	Cube Tasting Kitchen
42	Five Hundred