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The influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective

Sikhauli, Mutali

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The influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective

Mutali Sikhauli
Student number: 675454

A research report submitted to the Faculty of Commerce, Law and Management
University of the Witwatersrand, Johannesburg
In partial fulfilment of the requirements for the degree of Master in Marketing

Supervisor: Dr Abigail Chivandi
Department of Marketing
School of Economics and Business Sciences
Faculty of Commerce, Law and Management

DECLARATION

I, Mutali Sikhauli, state that this is my own piece of work. This study was handed in for the completion of the requirements for the Master's degree in the field of Marketing at the University of the Witwatersrand in Johannesburg. This work has not been submitted before at any University or any institution for examination.

I further declare that:

- ❑ I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong and a criminal offence.
- ❑ I have followed the required conventions in referencing the thoughts and ideas of others.
- ❑ I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief or proof that this study is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

I therefore further recognise that it was my responsibility to conduct this research in an ethical manner and in according with the guidelines of the University of the Witwatersrand, and according to any laws or legal frameworks that may apply in the country where my research was conducted which is South Africa, as well as according to the norms and expectations of the Marketing discipline.

According to my knowledge and understanding, this research has satisfied all the statutory requirements and I have abided by all the laws and regulations that may apply when such phenomena are carried out.

Signed: ----------

Date: 26 / 09 / 2020

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ABSTRACT

Purpose – This study investigates the antecedents that lead to green practice behaviours in city centre based hotels. This study aims to add value in the academic space and in the tourism industry, especially the green innovative tourist destinations.

Background– As a discipline, marketing always runs parallel to socio-economic development, and it reflects existing socio-economic relations.

Everyone is now aware of the changes that are happening in the global atmosphere; we see it in the unpredictable weather patterns, degradation of rainforests, and an increase in genetically modified foods, etc. Tourism is portrayed as another subject of research and movement in colleges and universities, however in spite of its relative youth, it has created significant measures of knowledge. In the knowledge that already exists, this research paper disseminates the concept of green practice within city centre based hotels, and what leads to these hotels practising environmentally friendly practices.

Design/methodology/approach - Data was collected from 201 respondents using anonymously completed questionnaires. Research scales were adopted from previous research papers. With regards to the individual questions, the researcher had to modify them in order for them to fit the current study and purpose. “Green brand image” ,“Environmental sustainability” “Green innovation” , “Green Practices” were all measured using five scale items while “Green growth strategy” was measured using four scale items. All the measurement items were measured on a five point Likert-type scales that was anchored by 1 strongly disagree to 5 strongly agree to express the degree of agreement. All the data collected was then analysed using SPSS 25 and AMOS 25.

Findings – The researcher can conclude that there is a positive influence when it comes to city centre based hotels adopting green practices, this is backed up by the result tested in chapter five, especially this result between green innovation and green practices; the path coefficient came out as 0.358, which implies that there is a strong relationship between green innovation and green practice, whilst the p-value of 0.001 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant. From the stated hypotheses, only two hypotheses had insignificant relationships - this is hypothesis 1 and hypothesis 6, both with P values greater than 0.05. Finally, there was one hypothesis that was not tested at all which is

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hypothesis 3 - the relationship between green price and green innovation; this was due to the fact that the variables did not meet the testing requirements that AMOS 25 requires.

Practical Implications – The findings of this empirical study are expected to provide fruitful implications to both practitioners and academicians. On the academic side, the study has identified important relationships between green branding, green prices, green growth strategy, environmental sustainability, green innovation, and green practice. It should be noted that the relationship between green branding and green practices and green growth strategy and green innovation were insignificant. The study adds to the already existing literature within the green tourism area, specifically in the hospitality industry from a South African context.

The study makes it clear for executives, managers, as well as consumers, the importance of green practices in hotels. The relationship between the variables shows that indeed green tourism is the future and not only does it give a business a competitive edge, it does so while looking after the environment. And the image goes a long way within the community, building an everlasting brand as a responsible establishment. Despite the usefulness of this study, the research has its limitations, most significantly the sample size was small and limited to the Gauteng province, South Africa, this means future research can be conducted using the same variables on a bigger sample size as well as using different relationships between the variables.

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ACKNOWLEDGEMENTS

I really don't know how to do this but let me try.

Firstly, I would like to thank the almighty God for giving me strength and never giving up spirit. I would like to thank myself for never giving up on myself, getting up whilst I am down and pushing till the end.

For my family I would like to thank my parents, Avhatendi Audrey Sikhauli and Calvin Mashudu Sikhauli, for always encouraging me to always push, your never ending prayers are much appreciated, for my brothers for inspiring me to be always better than I am, to Khangwelo Sikhauli for opening the way for me with your MBA, and also for washing the dishes and cleaning whilst I couldn't - LOL. To my girlfriend, Onalenna Botshelo, you have been besides me ever since the 1st day, even when I was slacking you supported me still, for staying up late with me just to show your support and even you were not close, you still rooted for me from afar, you are highly appreciated.

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TABLE OF CONTENTS

DECLARATION ..... **i**

ABSTRACT ..... **ii**

ACKNOWLEDGEMENTS ..... **iv**

LIST OF TABLES ..... **x**

LIST OF FIGURES ..... **x**

CHAPTER 1: STUDY OVERVIEW **1**

1.1 Introduction 1

1.2 Problem statement 2

1.3 Purpose of the study 2

1.4 Research Objectives 2

1.4.1 Theoretical objectives *2*

1.4.2 Empirical objectives *3*

1.5 Research questions 3

1.6 Justification of the study/ Significance of the study 3

1.7 Limitations of the Study 4

1.8 Summary of Chapter 4

CHAPTER 2: LITERATURE REVIEW, CONCEPTUAL MODEL & HYPOTHSIS STATEMENT **5**

2.1 Introduction 5

2.2 Theoretical grounding (Theory) 11

2.2.1 Maslow's Hierarchy of Needs theory *11*

2.2.2 Stakeholders theory *13*

2.2.3 Theory of innovation adoption *14*

2.2.4 Expectancy theory *15*

2.3 Empirical review (Research variables) 16

2.3.1 Green branding *16*

2.3.2 Green price *17*

`

2.3.3 Environmental sustainability *18*

2.3.4 Green growth strategy *19*

2.3.5 Green innovation *22*

2.4 Types of Innovations in Hotels 24

2.4.1 Green Innovation in Hotels *25*

2.5 Green practices 26

2.5.1 Types of green practices *26*

2.6 Conceptual model 30

2.7 Hypothesis statements 30

2.8 Summary of chapter 31

CHAPTER 3: CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT 32

3.1 Introduction 32

3.2 Hypotheses Development 32

3.2.1 Green branding and Green practices *32*

3.2.2 Green branding and Green innovation *33*

3.2.3 Green price and Green innovation *34*

3.2.4 Environmental sustainability and Green innovation *35*

3.2.5 Green growth strategy and green innovation *35*

3.2.6 Green Growth strategy and Green Practice *36*

3.2.7 Green Innovation and Green Practice *37*

3.3 Conceptual model 38

3.4 Summary of chapter 38

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY 39

4.1 Introduction 39

4.2 Research strategy 39

4.2.1 Research philosophy *40*

4.2.2 Research design *41*

4.2.3 Research approach adopted for the study *42*

`

4.2.4 Rationale for Quantitative Research 42

4.3 Sampling Design 43

4.3.1 Target Population 43

4.3.2 Sample frame 43

4.3.3 Sample size 43

4.3.4 Sampling technique 43

4.4 Data Collection Method 44

4.5 Measurement Instrument | Questionnaire design | Measurement scale 44

4.5.1 Dependent (Predictor) variables 44

4.5.2 Mediating Variables 46

4.6 Data analysis approach summary 49

4.7 Statistical modelling 50

4.7.1 Measurement model 50

4.7.2 Cronbach Alpha 50

4.7.3 Reliability 50

4.7.4 Validity (Meaningfulness) 51

4.7.5 Confirmatory Factor Analysis 51

4.7.6 Structural Equation Modelling (SEM) and Path Modelling 52

4.7.7 Chi-Square 52

4.7.8 Model Fit Indices 52

4.7.9 Root Mean Square Error of Approximation (RMSEA) 53

4.8 Ethical consideration 53

4.9 Summary of chapter 53

CHAPTER 5: DATA ANALYSIS AND DISCUSSION OF RESULTS 54

5.1 Introduction 54

5.2 Descriptive statistics 54

5.2.1 Demographics 54

5.2.2 Summary of scale item results 56

`

5.3 Measurement model assessment – Reliability and Validity of instruments 63

5.3.1 Reliability measurements 63

5.3.2 Validity measurements 65

5.3.3 Confirmatory factor Analysis 66

5.4 Path Modelling and Hypothesis Testing 70

5.4.1 Path model 71

5.4.2 Hypothesis Testing 72

5.5 Summary of Chapter 73

CHAPTER 6: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS 74

6.1 Introduction 74

6.2 Demographic profile of respondents 74

6.2.1 Gender and Age 74

6.2.2 Level of education and Faculty 74

6.3 Discussion of Findings 74

6.3.1 Green branding and Green practices (H 1) 75

6.3.2 Green branding and Green innovation (H 2) 75

6.3.3 Green price and Green innovation (H 3) 75

6.3.4 Environmental sustainability and Green innovation (H 4) 75

6.3.5 Green growth strategy and green innovation (H 5) 76

6.3.6 Green growth strategy and Green practice (H 6) 76

6.3.7 Green Innovation and Green Practice (H 7) 76

6.4 Conclusion of the Study 77

6.5 Implications of the Study 78

6.5.1 Academics Implications 78

6.5.2 Marketing implications 78

6.6 Recommendations for Future Research 78

6.7 Conclusion 79

REFERENCES 80

`

APPENDIX A: QUESTIONNAIRE.....89

APPENDIX B: ETHICS CERTIFICATE.....95

APPENDIX C: PLAGIARISM RESULTS 96

`

LIST OF TABLES

Table 1: Summary of the African Tourism market 8

Table 2: Tabulated Differences in Tourists coming to South Africa 10

Table 3: Summary of US Hotel green practice behaviours 29

Table 4: Research Philosophy Summary 40

Table 5: Qualitative vs. Quantitative Summary 41

Table 6: Table of summary of scale item 57

Table 7: Scale accuracy analysis 63

Table 8: Inter – correlation matrix 66

Table 9: Model fit indices 66

Table 10: Model fit indices for Path analysis 70

Table 11: Hypothesis testing 72

LIST OF FIGURES

Figure 1: Summary of number of tourists coming to South Africa 9

Figure 2: Michelangelo Towers in Sandton 11

Figure 3: Maslow's hierarchy of needs 13

Figure 4: Conceptual model 30

Figure 5: Conceptual model 38

Figure 6: Data analysis approach summary 49

Figure 7: Demographics 54

Figure 8: Education 55

Figure 9: Faculty 55

Figure 10: Gender 56

Figure 11: CFA Model 69

Figure 12: Path model 71

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CHAPTER 1: STUDY OVERVIEW

1.1 Introduction

"As a discipline, marketing always runs parallel to socio-economic development, and it reflects existing socio-economic relations. The increase of environmental issues and the resulting awareness of the need for environmental conservation and sustainable development have, among other things, lead to a rethinking of the basic principles of marketing" (Saoussen, 2018).

The tourism industry is one of the growing large potential contributors to a country's GDP and one of the biggest and fastest growing industry globally (Hieu, 2017), as such, innovation cannot be detached from it; this is because innovation is an integral key element in boosting an economy in any given sector (Genc, 2017), especially green innovation; this is a given, considering how the environment is changing for the worst. The OECD (2013) argues that the travel industry is one of the most encouraging influencers of development for the world economy and key to driving the characteristic patterns of the progress to a green economy.

Furthermore the Organisation for Economic Co-operation and Development's (OECD) document "*Towards Green Growth* (2011a) recognises that innovation is at the core of transforming an economy, and that innovation contributes to the establishment of new markets and the creation of new jobs (OECD, 2013). Green innovation is associated with eco-friendly issues related to pollution prevention, eco-design, recycling waste, and energy saving (Huang, 2017). Green innovation includes green processes that see to it that the modification of an existing product reduces any negative effect on the environment during any stage of the manufactured good's life cycle (Huang, 2017).

Tourist destinations include restaurants, catering services, lodging, transportation, tour operators, theme parks, transportation, hotels, and other additional fields (Hieu, 2017). According to Weaver (2009) "the tourism industry relies heavily upon imagery and is built upon developing 'new' objects upon which to look". Weaver (2009), in addition, defines tourism as a "notion that involves the production and consumption of places that have a strong visual component, namely, museum exhibits, art, historical monuments and architecture".

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The incorporation of green ideas "into the design and packaging of their products can improve product quality and give a competitive edge associated with their product and services" (Weaver, 2009).

1.2 Problem statement

Everyone is aware of the changes that are happening in the global atmosphere; we see it in the unpredictable weather patterns, degradation of rainforests, and an increase in genetically modified foods, etc. Tourism is portrayed as another subject of research and movement in colleges and universities, however in spite of its relative youth, it has created significant measures of knowledge (Tribe, 2009). In the knowledge that already exists, this research paper disseminates the concept of green practices within city centre based hotels, and what leads to these hotels practising environmentally friendly practices.

1.3 Purpose of the study

This study investigates antecedents that lead towards green practice behaviours in city centre based hotels**.** This study aims to add value in the academic space and in the tourism industry, especially the green innovative tourist destinations.

1.4 Research Objectives

Research objectives of this paper are divided into two - the theoretical and empirical objectives

1.4.1 Theoretical objectives

- To review the eight variables that are contained in the conceptual model which is mentioned later in the chapter
- To review Maslow's hierarchy of needs theory
- To review the stakeholder theory
- To review the theory of innovation
- To review the expectancy theory

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1.4.2 Empirical objectives

The conceptual model provides linkages and relationships that make the research process possible; the empirical objectives are as follows;

- To assess whether there is a relationship between green branding and green practice
- To investigate whether there is a relationship between green branding and green innovation
- To examine whether there is a relationship between green price and green innovation
- To assess whether there is a relationship between environmental sustainability and green innovation
- To investigate whether there is a relationship between green growth strategy and green innovation
- To investigate whether there is a relationship between green growth strategy and green practices
- To investigate whether there is a relationship between green innovation and green practices

1.5 Research questions

- How does green branding have an impact on green practice?
- How does green branding have an impact on green innovation?
- How does green price have an impact on green innovation?
- How does environmental sustainability have an impact on green innovation?
- How does green growth strategy have an impact on green innovation?
- How does green growth strategy have an impact on green practice?
- How does green innovation have an impact on green practice?

1.6 Justification of the study/ Significance of the study

As mentioned previously, the tourism industry is one of the fastest and largest contributor to the country's GDP; this study seeks to add valuable knowledge in the academic space and tourism industry, which will in turn, help individuals and businesses to exponential apply this knowledge. This study will also help with policy formulation around the environment and how business activities impact the environment.

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1.7 Limitations of the Study

The limitations of the study include resources, the sample size, biased decision making.

Resources: due the funding for this research, the researcher is compelled to use a convenient sample size to fit the budget.

The sample size; the research is being conducted at a single South African university which does not really represent the country as a whole, meaning we cannot generalise the results that are collected from the study to the whole country. A bigger sample size would have to be used in the next research carried out.

Biased decision making; since the research is being carried out in a university which is an uncontrolled environment, respondents' answers may be influenced by other parties, like friends.

1.8 Summary of Chapter

Chapter one gives us the overview of the study as well a brief introduction into the study. It also lays out the problem statement, the purpose of the study as well as the research objectives.

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CHAPTER 2: LITERATURE REVIEW, CONCEPTUAL MODEL & HYPOTHSIS STATEMENT

2.1 Introduction

"All research needs to be informed by existing knowledge in a subject area. The literature review identifies and organises the concepts in relevant literature" (Slack, 2004).

Identifying specific research questions is what is contained in a literature review It needs to draw on and survey the extent of different sorts of sources, including insightful and capable articles, books, and electronic resources, which are carried in the following sub-segments whilst the researcher explores the grounding theories, as well as the variables involved in the paper.

The literature review includes the phases of examining, making notes, organising the written literature, composing the written literature, and building a list of references. The researcher also introduces the conceptual model that guides the research and finally, the hypothesis statements that have been hypothesised for the research paper. There are several variables that are discussed in this chapter, namely green branding, environmental sustainability, green growth strategy, green innovation and finally, green practices. The hypotheses have been developed around these variables.

Green marketing is such a broad spectrum and is involved in almost every aspect in the economy, whether it be financial, the service industry, the manufacturing industry, both large and small, and tourism, as well (Khandelwal, 2014), which is the key emphasis of the paper. Green marketing is regarded as "set of all the activities designed to generate and facilitate any exchange intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occur, with minimal detrimental impact on the natural environment" as defined by Polonsky, in 1994. (Khandelwal, 2014). Another definition of green marketing can be understood as "a philosophy to Reduce, Reuse and Recycle-reducing the environmental deterioration and energy consumption, increasing the repeated use of a product and recycling the product for the development of a new product" (Pandey, 2011). The American Marketing Association defines green marketing "as the study of positive and negative aspects of marketing activities on pollution, energy depletion, and depletion of non-energy resources" (Saoussen, 2018).

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The above definitions have one thing in common which is incorporating marketing into sustainability and they also address the issue of serving customer needs without depleting renewable and non-renewable resources. The definitions emphasise the difference between green marketing and conventional marketing. Conventional marketing focuses on creating products to address client issues at satisfactory costs, as well as providing the products to the customers in the most efficient way possible, whereas green marketing is about environmental sustainability, as well as maintaining the quality of the product in such a way that the customer will not be able to tell the difference between the green product and the normal product.

The study focused on the green tourism side of green marketing, with a focus specifically on city centre based hotels. The environment is changing and changing along with it, is society; a society which is now progressively mindful of the effect that products have on the environment. Saoussen and Amine (2018) point out that the change is also being noticed in the tourism sector, with tourist behaviour rapidly changing and tourists have been increasingly seeking responsible destinations. Green tourism / sustainable tourism is defined as "tourism that takes full account of current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities. It is not a special form of tourism; rather, all forms of tourism may strive to be more sustainable" (Saoussen, 2018).

Saoussen and Amine (2018) argue that for long term sustainability to be achieved, a set of green tourism principles should be followed. The principles are summarised as follows;

1) The Environmental Aspects: - "Make optimal use of environmental resources that constitute a key element in tourism development; - Maintaining essential ecological processes; - Helping to conserve natural resources and biodiversity".

2) The Socio-Cultural Aspects: - "Respect the socio-cultural authenticity of host communities; - Conserve the communities' built and living cultural heritage and traditional values; - Contributing to inter-cultural understanding and tolerance".

3) The Economic Aspects: - "Ensure viable, long-term economic operations; - Providing socio-economic benefits that are fairly distributed to all stakeholders; - Providing stable employment and income-earning opportunities and social services to host communities; - Contributing to poverty alleviation".

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In South Africa, the tourism department is concerned with maintaining long term sustainability. As it stands, in many parts of South Africa, there is an electricity supply problem, coupled with a drought problem, which hinders tourism establishments from delivering on the green tourism experience (Tourism, 2020). According to the South African Department of Tourism 2020 quarterly report, the tourism department introduced a Green Tourism Incentive Programme (GTIP) grant funding to assist private sector tourism enterprises to retrofit their facilities with efficiency solutions for energy and water usage; this is in line with the department's tourism development objectives. Under the "Green Tourism Incentive Programme GTIP", qualifying applicants are eligible for the following: "90% of the cost for a new resource-efficiency (energy and water) audit or the full cost for reviewing an existing resource-efficiency audit conducted by the National Cleaner Production Centre (NCPC); and grant funding to qualifying small and micro enterprises on a sliding scale from 30% to 90% (capped at R1 million per applicant) towards the installation of recommended water and energy efficiency measures".

In the green tourism market, it is stated that it contributes 5% of global Gross Domestic Product (GDP), while it adds to about 8% of total employment. The travel industry is one of the five top export workers in more than 150 nations, while in sixty nations, it is the main export. (Saoussen, 2018). This is expected to grow in the year 2020. Figure 1 is a table depicting a summary of the African Tourism market in 2010.

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Table 1: Summary of the African Tourism market

Key volume	Value figures
Tourist arrivals	48.8 mn (in 2010)
Tourism receipts	US$ 29,105 mn (in 2009)
Global share of tourists	5.2% (in 2010)
Jobs	Travel and tourism is expected to support directly 7,806,000 jobs (3.0% of total employment) in 2011
GDP	The direct contribution of travel and tourism to GDP is expected to be US$ 76.5 bn (4.0% of total GDP) in 2011
Exports	Travel and tourism visitor exports are expected to generate US$ 53.4 bn (8.2% of total exports) in 2011
Trends and outlook	According to the latest UNWTO barometer "Certainly, Sub-Saharan Africa should continue to benefit from the worldwide exposure during the FIFA World Cup last year, which provided an invaluable boost to the image not only of the host country, but also to that of other destinations in Southern Africa and even the rest of the continent. South Africa now has to prove its ability to capitalise on its improved infrastructure, increased self-confidence and the momentum generated by the megaevent. However, the immediate challenge is the consolidation of the results achieved last year". (UNWTO 2010)

Source: Saoussen and Amine (2010)

A report from the United Nations World Tourism Organisation (UNWTO) (2020) recorded that all regions in 2019 experienced a surge of tourist arrivals. The most growth came from the Middle East (+8%), Asia and the Pacific (+5%) were second. "International arrivals in Europe and Africa (both +4%) in line with the world average, while the Americas saw growth of 2%" (UNWTO, 2020).

In South Africa, tourism came up with a report detailing the ins and outs of tourists in 2019 as compared to 2018. Figure 1 shows the figures that were contained in the report to make up the statistic.

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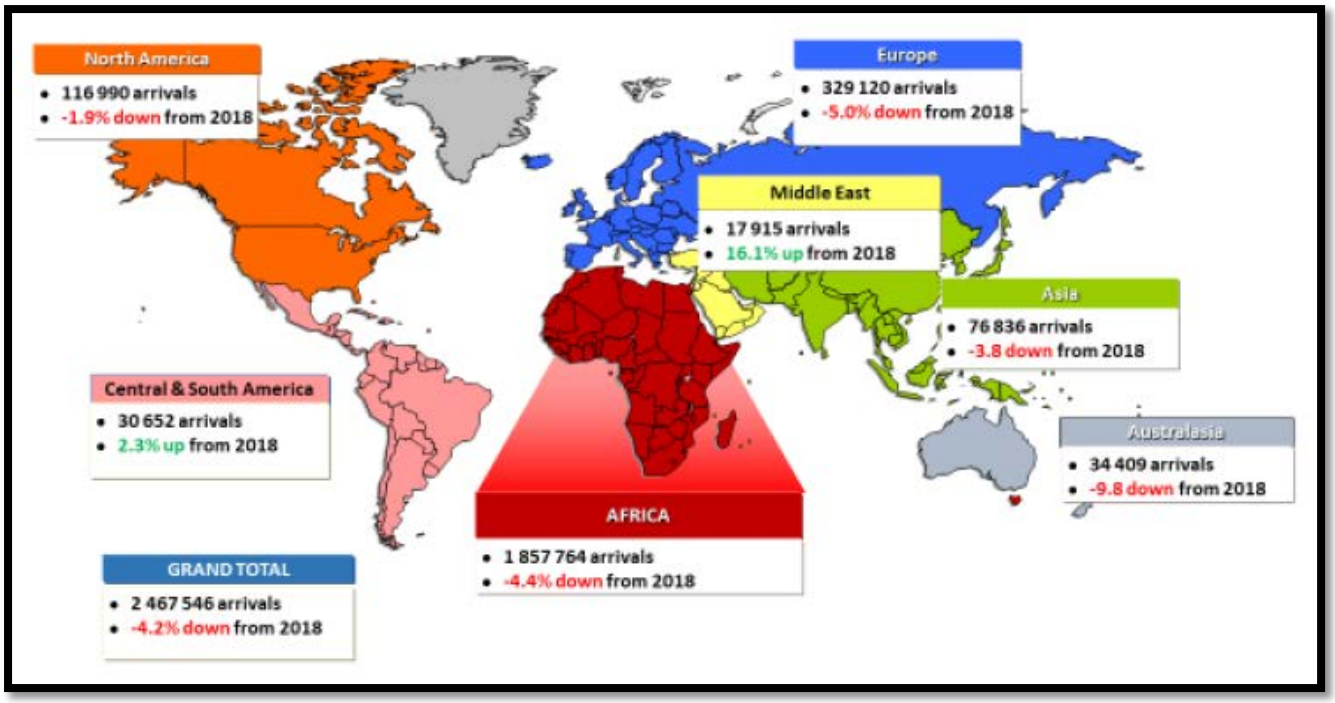


Figure 1: Summary of number of tourists coming to South Africa

Source: Department of Tourism performance report (2020)

Table 2 summarises the data for tourists coming into South Africa from different parts of the world. The report shows arrivals for the period July-Sept 2019 compared to the same period in 2018.

All tourist arrivals (2 467 546) decreased by - 4.2% for the period Jul-Sept 2019 contrasted with visits recorded during a similar period in 2018 (2 575 193).Total tourist arrivals from the overseas market decreased by -3.7% (-23 100), which was influenced by a decrease recorded in Australasia (-9.8%), Europe (-5.0%), Asia (-3.8%) and North America (-1.9%). Middle East recorded the highest increase (16.1%) from overseas markets followed by Central and South America (2.3%). Most Middle East countries showed an increase in tourist arrivals and Saudi Arabia recorded the highest increase in volume of 48.2% (1 539). The increase in Central and South America was motivated by an increase in tourist arrivals from most countries from this region, with Brazil recording the highest volume growth of 1 356 (7.3%). The negative growth recorded in Europe was influenced by most of the countries, which had shown a decrease in tourist arrivals from the region. Germany experienced the highest volume decline of -5 300 (-8.4%). The decrease from Asia was driven by a decline of -10.4% (-2 851) in tourist arrivals from China. Tourist arrivals from Africa declined by -4.4% (-85 090) during the period under review.

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Table 2: Tabulated Differences in Tourists coming to South Africa

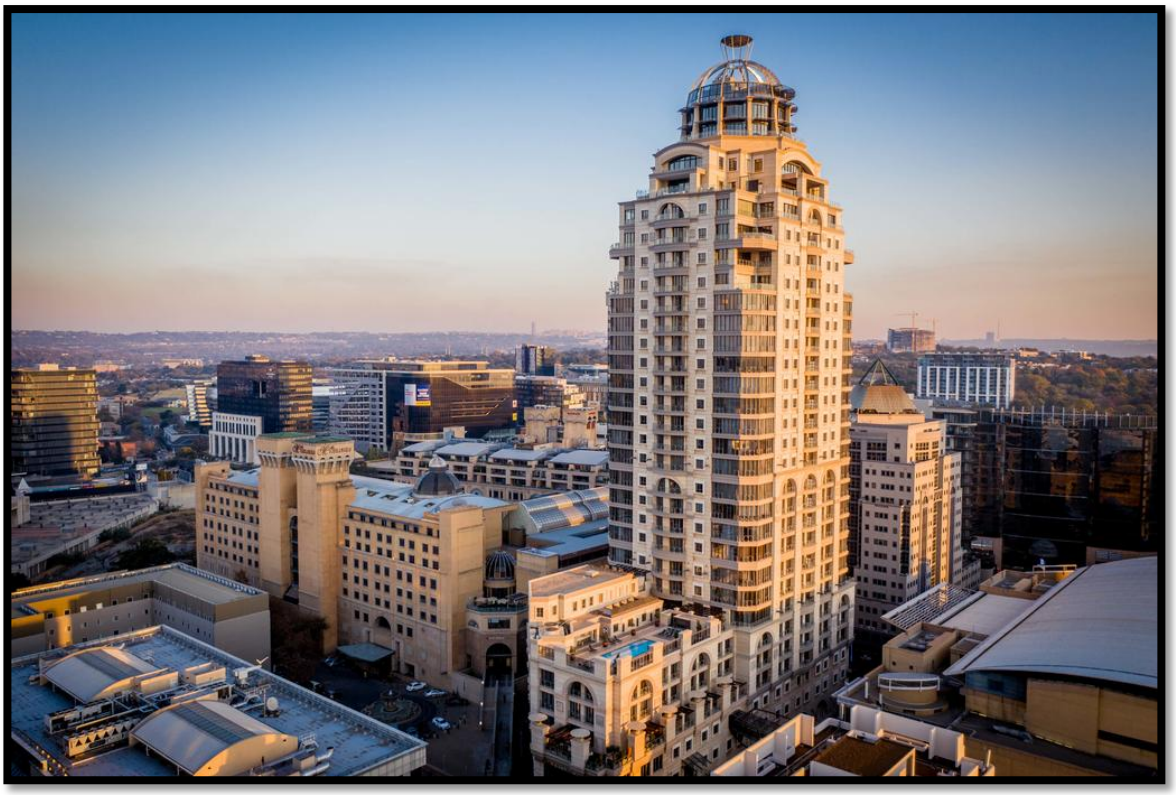
REGION	Jul-Sept 2019	Jul-Sept 2018	Diff	% Diff
EUROPE	329 120	346 323	-17 203	-5,0%
NORTH AMERICA	116 990	119 273	-2 283	-1,9%
CENTRAL & SOUTH AMERICA	30 652	29 973	679	2,3%
AUSTRALASIA	34 409	38 131	-3 722	-9,8%
MIDDLE EAST	17 915	15 431	2 484	16,1%
ASIA	76 836	79 891	-3 055	-3,8%
TOTAL OVERSEAS	605 922	629 022	-23 100	-3,7%
TOTAL AFRICA	1 857 764	1 942 854	-85 090	-4,4%
Unspecified	3 860	3 317	543	16,4%
GRAND TOTAL	2 467 546	2 575 193	-107 647	-4,2%

Source: Department of Tourism performance report (2020)

From the numbers presented in the above tables, we can tell that the tourism market is indeed a significant part of any country's GDP. To reiterate the topic for the research paper; **the influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective.** The topic narrates that we are focused on the accommodation part of green tourism, to be specific, city centre based hotels. A "hotel is a building that provides rooms for guests, meals and drinks, as well as other necessary and professionally managed facilities for profit" (Rumekso, 2002). According to Tarmoezi and Manurung (2000), a "hotel is a building that provides the rooms with supporting facilities, such as food and beverages. Based on the definition, a hotel not only sells the room but is one of accommodation that sell the other facilities".

In South Africa, the Department of Tourism has stated that hotels make up to 64% in the accommodation space (Tourism, 2020), the rest is divided amongst guest farms, caravan parks, guest houses and camping sites, and other accommodation. It is reported that the total income from accommodation went up from R5 938.3 million in July-Sept 2018 to R6 236.1 million in July-Sept 2019 which was a fair increase of about 5.0% and of that share the hotel industry brought home a profit of R3 860,1 in July-Sept 2018 and R3 990,0 in July-Sept 2019 (Tourism, 2020). The research focuses on the adoption of green practices behaviour in those hotels, mainly in Gauteng; this will be done through a series of chosen variables which are discussed later in the chapter, as well as the theories on which this paper is based. Figure 2 shows an image of a city centre based hotel - Michelangelo in the heart of Sandton city.

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Figure 2: Michelangelo Towers in Sandton

Source: www.bookings.com

2.2 Theoretical grounding (Theory)

According to Abend and Gabriel (2008), "theoretical grounding helps us to explain, predict and understand a certain phenomenon, in many cases to challenge and extend existing knowledge within the limits of critical bounding assumptions".

This study is based on the theory of Maslow's hierarchy of needs, stakeholder's theory and theory of innovation and these are discussed further.

2.2.1 Maslow's Hierarchy of Needs theory

Maslow, born in 1908, recommended that psychology should concentrate on the whole individual and how individuals act; he further recognised five essential needs that propel people, namely, esteem, psychological, safety, love, belongingness and self-actualisation (Udechukwu, 2009).

Figure 3 depicts the hierarchy of needs in the following order. Basic needs – physiological needs and safety and security, psychological needs – love and belonging and self-esteem and lastly, self-actualisation.

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According to Tikkanen (2007), for a motivation theory, the starting point is with the needs that are physiologically driven, furthermore for a person who lacks safety, food, love and esteem, their initial need will be food more than anything (Stephen, 2000) Tikkanen (2007) suggests that these needs are referred to as basic needs, for example, air, water, food, eating is consider a physical necessity from birth (Hjalager, 2000).

Once the physiological needs are reasonably well satisfied, subsequently, a new set of needs materialises, which, as seen in Figure 3, is considered to be safety needs, the second set of basic needs. The safety needs can be described as one's desire to be free from any harm or danger (Tikkanen, 2007). Lepp and Gibson (2003) postulate that between the more experienced tourists and the less experienced, the latter will have the need to satisfy higher order needs whilst the other would most probably prioritise eating and being safe.
Once the physiological needs, both need for food and safety are reasonably well satisfied, subsequently, a new set of needs materialises, it is third from the bottom in Figure 3 and this is the need of belongingness and love, intimate relationships and friends (Tikkanen, 2007) Tikkanen (2007) states that "the belongingness or love needs of the individual represent a wide variety of needs from a sense of affiliation (group membership, clubs, churches, work affiliations, etc.) to friendship and love of spouses, children, and parents".

When all three needs from the bottom have been reasonably satisfied, we move on to the fourth need, described as esteem needs – prestige and feelings of accomplishment, i.e. the second set of psychological needs (Tikkanen, 2007). Regardless of whether every one of these necessities are fulfilled, we may in any case, frequently expect that another discontent and eagerness will before long develop, except if the individual has an inward vocation (Tikkanen, 2007). This brings us to the last need in Figure 3, self–actualisation (self-fulfilment) needs are described as achieving one's full potential, including creative activities (Tikkanen, 2007).

According to Tikkanen, the hierarchy must be comprehended not to be elite or the only determiners of specific types of conduct. Not all conduct is controlled by the fundamental needs. We may even say that not all conduct is driven, as there are numerous determinants of conduct, other than intentions.

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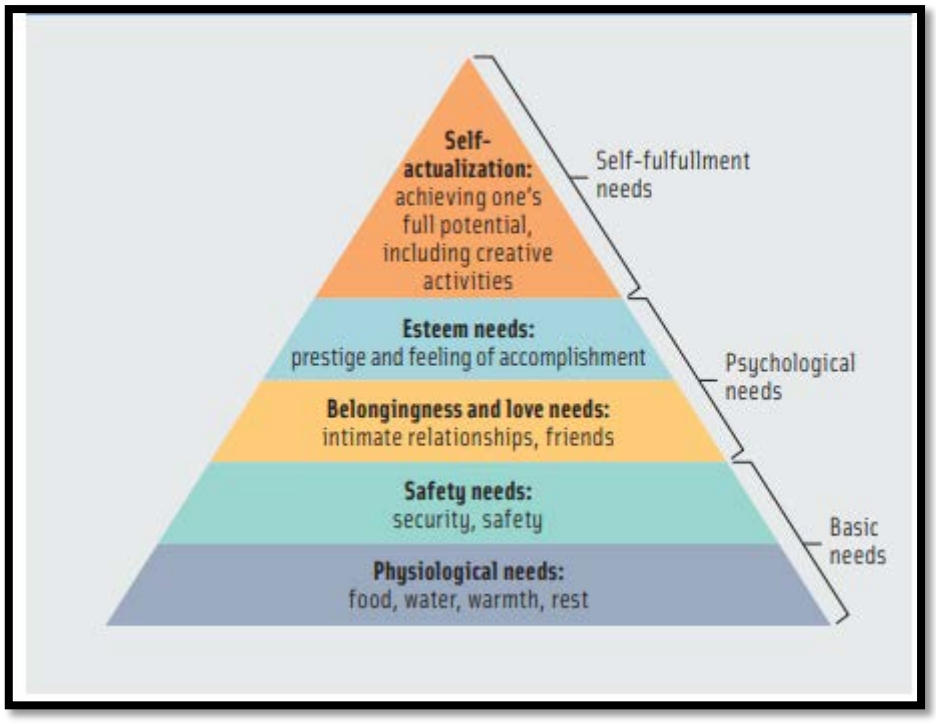


Figure 3: Maslow's hierarchy of needs

Source: Poston (2009)

2.2.2 Stakeholders theory

Hieu and Rasovska (2017) posit that a stakeholder is "any group or individual who can affect or is affected by the achievement of the organization's objectives." Stakeholders of a firm include; governmental bodies, customers, creditors, employees, suppliers, interest groups, public and stockholders (Roberts, 1992). According to Sohail (2017),

Stakeholder theory suggests that a business should seek strategies that are considered by the affected partiesto be influenced by choices while attempting to limit harm or amplify advantages to the representative group. Freeman, Wicks and Parmar (2004) postulate that "stakeholder theory instigates with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together. It also pushes managers to be clear about how they want to do business, specifically what kinds of relationships they want and need to create with their stakeholders to deliver on their purpose".

The "core tenet of stakeholder theory is to think beyond just financial performance. It can be seen that this meshes neatly with the triple-bottom line paradigm of doing business while avoiding harm to people and the planet" (Sohail, 2017). The stakeholder theory is applied to

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green practices. Green practice has been heavily linked with social responsibility, as well as high financial performance (Miroshnychenko, 2017).

2.2.3 Theory of innovation adoption

There is a high environmental impact cause by harmful business practices; hence the United Nations have come up with the method of environmental technologies adoption to protect the environment (Hieu, 2017). This theory is applied to this research because of the green innovation aspect that is included in the paper. According to Damanpour and Gopalakrishnan (1998) "Innovations come to organizations in two ways: they may be generated or adopted. Innovations that are generated in an organization are usually for its own use or for sale to other organizations and the generation of innovation is a process which results in an outcome; a new product, service, program, or technology". Damanpour and Gopalakrishnan (1998) define innovation as "the adoption of an idea or behaviour new to the organization, furthermore the innovation can be a product or a service, an organizational process or an administrative program, a technology, or a policy or a system related to organizational members".

Hieu and Rašovská (2017) maintain that there are five perceived characteristics that are of importance when it comes to innovation adoption, namely, relative advantage, complexity, compatibility, triability and observability. Ozaki (2011) had earlier mentioned these perceived charatacteristics and he further suggests that before the innovation decision process is reached, there is an array of conditions that brings consumers into the process: social norms, innovativeness, existing needs/problems, and previous experiences.

Hieu and Rašovská (2017) described the factors that influence innovation adoption as (1) Relative advantage; this is expressed as "the possible betterment in comparison with the existing conditions which is derived from the innovation as economic benefits, cost reductions, improved image, progress, convenience and satisfaction", (2) Compatibility is "the degree to which the potential users' inner beliefs, values and previous innovation experiences drawn out to equivalent levels of the technical system, organisational structure or employment support", (3) Complexity is described as "the related implementation difficulties of new skills, technology or knowledge which may burden the innovation acceptance," (4) Observability is considered to be the "level of customer's (users) understanding about the influence of innovation on them as well as its adoption, (5) Triability is described as the "level of

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understanding the customer has about influence of innovation on them, as well as their adapting to this innovation".

Wisdom, Chor, Hoagwood and Horwitz (2014) postulate that for adoption to start, there is usually a recognition of a need that exists, which then moves to finding answers, "then to the initial decision to attempt the adoption of a solution and finally to the actual decision to attempt to proceed with the implementation of the solution. Greenhalgh, Robert, Macfarlane, Bate, and Kyriakidou (2004) state that the adoption process can be characterised by; pre-adoption "(for example, awareness of innovation)", followed by periadoption which includes continuous access to innovation information and lastly, established adoption "(e.g., continuous access to innovation information)" On the other hand, another research paper by Frambach and Schillewaert (2002) identified two phases linked with adoption: "the organization's decision to pursue adoption and the staff's acceptance and initiation of their individual processes of accepting the innovation". Finally, "just as the decision to adopt is a process, how the adoption proceeds is better characterised in terms of level, rate, or degree of adoption" (Mendel et al., 2008). "The better the process of adoption can be understood, the more likely adoption challenges can be addressed thus leading to initial implementation" (Wisdom, et al., 2014).

2.2.4 Expectancy theory

"Expectancy theory has evolved in recent years as a basic paradigm for the study of human attitudes and behaviour in work and organizational settings" (Suttle, 1973)."Fundamentally, the theory facilitates via a framework, the assessment and evaluation of employee knowledge, skills and attitude" (Chen & Lou, 2002). Osteraker (1991) postulates that, in the tourism industry, "the theory focuses on processes that target employee motivation and the achievement thereof". Chiang and Jang (2008) describe expectancy theory as a "theory explaining the process individuals use to make decisions on various behavioural alternatives", furthermore, "the motivational forces for a behaviour, action, or task is a function of three distinct perceptions; expectancy, instrumentality and valence" (Suttle, 1973).

Expectancy theory is a theory of the process of motivation (Jang, 2008). The theory process explains how motivation comes about, rather than simply stating what motivates an employee (Jang, 2008). Process theories are, basically, working models of the dynamic procedures that people act in order to decide if they will be inspired to follow a specific movement and continue a specific degree of profitability. Process theories help depict and clarify how conduct is co-ordinated, stimulated, continued, or halted (Jang, 2008). Chiang and Jang (2008) state that the

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most valued theory of motivation among organisational and industrial psychologists is a theory of expectancy; this is among several process theories that exist.

“Hotel employees require intelligence, job knowledge and skills, and time management ability but without motivation, an employee will not advance in his/her career” (Jang, 2008).

The research paper consists of six variables; the expectancy theory is applied to the employees’ understanding of the various variables which will allow for the variable to be diffused and implemented through an eco-friendly hotel.

2.3 Empirical review (Research variables)

The conceptual model consists of six variables which are; green branding, green price, environmental sustainability, green growth strategy, green innovation and green practice. These constructs are reviewed in detail.

2.3.1 Green branding

It was stated in the previous segment that there are a couple of avocations for the appropriation of green marketing exercises in various industries. Consequently, “green marketing” exercises will boost the organisation's intangible brand equity (Chen, 2009). Constructing a solid brand has consistently been the principle objective, since it gives numerous advantages, for example, “larger margins, greater opportunities for extension and maintaining a strong position against competitors” (Delgado-Ballester & Munuera-Aleman, 2005). Chen (2009) has established a hypothetical framework which demonstrates that the green brand equity can be enhanced by green trust, green satisfaction, and green brand image.

Kotler and Armstrong (2010) characterised a brand as “a title, term, sign, image or a combination of these that distinguishes the creator or dealer of the item”. The American Marketing Association characterises branding as a title, term, plan, image or any other highlight that recognises one seller’s products or benefit as unmistakable from those of other dealers. The legal term for brand is trademark (Manjunath, 2014).

A brand may recognise one thing, a family of things, or all things of that vendor. On the off chance that this is utilised for the firm as an entity, the favoured term is ‘exchange title’. A brand helps an organisation to set up its claimed self, setting itself apart from the competition. Shoppers frequently develop an affiliation with a brand in which they have confidence and will, as often as possible, go back to buy or subscribe to the same item (Manjunath, 2014).

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Green brand is a title, term, plan, or image that distinguishes a dealer's products and separates them from competitors' products. Firms focus on branding since, at the product market level, brand value increases channel adequacy and communications and reduces costs related to the brand (Manjunath, 2014). In a few cases, firms are forcefully creating incentives for products that beat the competition with regard to natural concerns. For example, the Body Shop brand emphasises natural ingredients designed to improve natural beauty while endeavouring to attain sustainability. Nike, for instance, has made a commitment to decrease deforestation within the Amazon basin, but the decrease of the firm's carbon footprint and its commitment to rain forests is not central to the advancement of its brands. A brand can be separated from the competition, based on requests to sustainability or the environment. Firms that set up a well-defined brand personality are more likely to yield brand value (Manjunath, 2014)

Green brand image (GBI): "is defined in this study as a set of perceptions and associations in the mind of the consumers that are linked to their environmental commitments and concerns" (Cretu & Brodie, 2007; Padgett & Allen, 1997; Chen, 2009).

2.3.2 Green price

In marketing, for a product or service to be offered to consumers, a price has to be paid and only then will the customers reap the benefits of that product or service (Ong, 2015). Another definition for price was brought forth by Lichtenstein (1993) as a purchase agreement to be concluded where monetary value must be exchanged between the buyer and the seller. In addition, "price, one of the 4 Ps, is an important marketers' tool to attract customers to purchase their products" (Wong, 2006). For the benefit of the study, green price is defined as "premiums that consumers have to pay to acquire green products" (Sohail, 2017). The following definition is also considered; Davari and Strutton (2014) postulate that the cost of green products account for the premiums that consumers over and again should pay to get green products and such premiums are often necessary because production costs are higher.

"Despite a large majority of consumers intending to purchase green products, sales of green products have been below expectations", therefore the product quality is directly proportional to the price. The more customer perceive the quality of the product, the more they are willing to pay a premium price. Environmentally appropriate products are deemed to be priced a bit higher than their counterpart products, and although this is fact (Kathy, 2019), sustainable products are expensive due to the high manufacturing cost as well as the demand for environmentally friendly products is not yet as high as the usual products (Kathy, 2019), so, to

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cover the cost, products must be priced at a premium because trying to sell a lot of products at a low price will not allow for profit.

The marketing mix influences purchase decision process by psychological influences, situational influence and socio-cultural influence, under those influences, the purchase decision process is directly influence by issues like “price”, quality and availability (Ong, 2015). Furthermore, Sohail (2017) argues that price is also an important part of the marketing mix and most consumers are willing to pay a premium price if they know that the value the product will be adding to environmental sustainability, therefore it is the duty of the company to persuade customers to pay a premium price in order to benefit not only themselves, but future generations, as well as the environment.

“Tourism is considered a major industry in many countries and a significant part of global economic development, this is due to the growth of the hotel industry” (Hunga, 2010). According to Wangc (2010) “room pricing decision is one of most important aspects of hotel marketing strategies, since hotel price is one of the main influences on accommodation selection decisions furthermore room prices influence consumer perceptions of service quality and consumer satisfaction.”

2.3.3 Environmental sustainability

According to Khandelwal and Yadav (2014), sustainability is demarcated as “Create and maintain conditions under which [humans] and nature can exist in productive harmony, and fulfil the social, economic and other requirements of present and future generations of Americans”. The use and understanding of the word “environmental” has frequently been linked with some kind of human impact on the natural systems (Morelli, 2011). This context differentiates it from the word “ecological,” which can be characterised as a concept of interdependence of elements within a system. “Ecological Sustainability as a Conservation Concept,” has been put forward as an ecological definition of sustainability that goes hand-in-hand with biological conservation, defined as “meeting human needs without compromising the health of ecosystems”. But to precisely use the word ‘environmental’ for the purpose of this research “environmental” is viewed as a subset of a broader concept of ecology that is the intersection between human activities (hotels) and the ecological systems (Morelli, 2011).
The sustainability concept has been frowned upon as a useful concept on its own, due to the fact that institutions and researchers cannot agree in terms of the most suitable definition but it

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appears to be “serving a purpose when followed by a defining modifier like ecological, environmental, agricultural or economic (Morelli, 2011).

“Environmental sustainability is a concept based on a notion of ecosystem services – both renewable and non-renewable resources and waste absorptive capacity that provide benefits to humans and thus improves their welfare” (Moldan, 2012). According to Morelli (2011), “environmental sustainability is the maintenance of natural capital and as a concept apart from, but connected to, both social sustainability and economic sustainability”

For the purpose of this research, environmental sustainability is defined “as meeting the resource and services needs of current and future generations without compromising the health of the ecosystems that provide them, and more specifically, as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity” (Morelli, 2011).

The definition is linked to the research topic as follows;

1. Meeting the resources and services; this would include the hotel services that are being provided to the customer, due to a growing demand, hotels are finding more ways to be innovative in terms of the services they offer to their customers (Chen, 2011).
2. Allowing human society to satisfy its needs; according to the PwC hotels outlook 2018, by and large, income from the hospitality industry, especially hotel rooms “rose 4.6% to R16.6 billion in 2017”, global visitors numbers to South Africa kept on increasing with a 2.4% increment on average. The increase in tourist numbers from non-African nations was a solid 7.2% (PwC, 2018), this shows the need for hotel accommodation and how it is still growing exponentially.
3. Lastly, by supporting the ecosystem, businesses gradually need to be innovative at this point to be able to support and sustain the ecosystem with their business practices; that is where green business practices come into play. The green business practices should, amongst other things, include societal needs, preservation of biodiversity, regenerative capacity, as well as products designed for reuse and recycling.

2.3.4 Green growth strategy

For every business to have direction, a growth strategy has to be put in place for that to be possible. There has been a growing demand for environmentally friendly products, which has

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led to sustainability becoming an integral part of doing business across all industries (Sohail, 2017). Catastrophes brought forth by global warming, climate change, as well as air and water pollution, have seen customers become more aware of the products they use and the damage that these products cause to the environment (Sohail, 2017), meaning that organisations need to implement strategies to tackle the new-found customer who is now more environmentally aware.

Going green for any organisation, not just in the tourism industry, is now a viable option and firms need to internalise green growth strategies within their organisations due to 1. The cost of energy and material is continually increasing, 2. Pressure from the public keeps on increasing, 3. "There is increasing awareness that subscribing to triple-bottom line practices can increase consumer demand" (Cronin, 2011).

Davari and Strutton (2014) argue that for green marketing strategies to be successful, they require more than broad-brush execution of short-term marketing plans; it is necessary for the business to take a more subtle long term strategic thinking approach to be able to maintain relationships with green customers. The researcher has identified green marketing strategies, which have been adopted from Davari and Strutton (2014). These strategies, if implemented properly, can grow businesses significantly.

2.3.4.1 Defensive green strategies

Ginsberg and Bloom (2004) postulate that this type of strategy is utilised as a prudent step, a reaction to a crisis or reaction to a competitor's action. Davari and Strutton (2014) postulate "that defensive green strategies are employed to evade negative results that in any case would exude from threatening competitive or public policy initiatives". Defensive green firms have been known to experience the ill-effects of not having the option to separate their endemic qualities from the qualities given by other green competitors because of resource or capability constraints (Strutton, 2014). Defensive efforts to promote green initiatives often do not last. "Firms that opt for defensive green strategies often fail to achieve material buy-in of their green bona fides among targeted audiences" (Strutton, 2014). A firm that goes the defensive route hardly ever get their brand images enhanced, because customers usually see through the company's minimalistic efforts to go green.

2.3.4.2 Lean green strategies

Davari and Strutton (2014) describe that this permits firms to convert themselves into legally generous corporate citizens. This is another form of defensive strategies but compared to the

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previous type, it is much better because lean green firms commonly utilise professional ecological exercises to decrease costs by improving assembling or production network process efficiencies (Ginsberg 2004). Lean greens occasionally promote their green activities, rather chosing to make minimal effort, as opposed to green preferences. Simultaneously, lean green firms regularly secure sponsorships from administrative or ecological organisations (Ginsberg 2004).

2.3.4.3 Shaded green strategies

Chen and Lin (2011) described this strategy as one that "helps firms develop competitive advantages based on their ability to deliver innovative, green needs-satisfying products and technologies". "Firms that implement this assertive strategy differentiate products and brands from competitive alternatives based on their ability to deliver distinctive green values" (Strutton, 2014). Ginsberg and Bloom (2004) postulate, although as a secondary benefit, shaded green firms often support the presence of environmental values in their offerings.

2.3.4.4 Extreme green strategies

For businesses that are seeking to implement and assimilate environmental issues into their fundamental business and product life – cycle processes, Chen and Lin (2011) suggest that they use the extreme green strategy. Firms generally choose extreme green strategies to serve and satisfy the green needs of niche markets (Strutton, 2014). Davari and Strutton (2014) point out that extreme green firms distribute their products through specialty channels which boast environmental friendliness. "Extreme green strategies are shaped by holistic business philosophies and values that generally pervade throughout the organization. Life-cycle pricing approaches, total quality environmental management, and environmental munificent manufacturing processes are key extreme green" (Ginsberg 2004).

From the above listed green marketing strategies, Davari and Strutton (2014) suggest a business should know before adopting green marketing strategies, that there are two factors to consider; two factors before embracing green advertising procedures; the first identifies with the conceivable size of the green market in their sector; the second to those advertisers' capacity to separate their green products from the common or green products of competitors.

Davari and Strutton (2014) further add that after the factors have been considered, a business must answer four other questions: "(1) how substantial is the green consumer segment for the company? (2) Can the company increase its revenue by implementing a green strategy, (3) does

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the company have the required resources and the commitment of the top managers to be green? or (4) can the company compete with current rivals on environmental issues?" Then, based on the answers, one or more of the four green marketing strategies could be pursued.

According to Punith, Aziz and Rahman (2015), companies adopt various marketing strategies to respond to developing environmental concerns, furthermore, they called "these strategies environmental management systems which include strategies such as efficient use of energy, water and material resources in all aspects of the hotel's operations."

In South Africa, there is an hotel, located in Cape Town, that is currently applying multiple green growth marketing strategies, and stands out as it currently boasts it is Africa's greenest hotel. The hotel promises its guests a carbon-neutral stay; this includes the utilisation of a plant room, energy-efficient LED lights, an eco-pool and green roof. Further to this, the hotel uses "wind turbines for energy and recycles water by sterilising used bath and shower water through the use of UV light before re-using it to flush toilets" (Deon, 2015). It can be said that Hotel Verde is currently implementing extreme green strategies.

2.3.5 Green innovation

"Innovation orientation is viewed as a strategic orientation that influences organisational innovation in the hospitality/hotel sector and it has a diverse knowledge structure". Hurley and Hult (1998) posit that "innovation is the firm's willingness to learn new ideas and improve capacity to change managerial systems. Innovation in the service concept is driven by the 6Vs: value service creation, value service manoeuvring, value service capture, value service quality, value service delivery and economic value" (Lovelock & Wirtz, 2004). "Innovation in service provides an understanding of strategy execution, revenue and profit sources, and financial implications in the service industry" (Lovelock & Wirtz, 2004).

Green innovation is to a certain degree, a subtle idea, but can be acknowledged by its favourable impact on the environment (OECD, 2013), in addition, "it can be defined as innovation that results in a reduction of environmental impact, and/or optimises the use of resources throughout the lifecycle of related activities". Green product innovation includes "products that reduce the negative impacts and risks to the environment, utilize fewer resources and prevent waste generation in the product's disposal phase. In other words, green product innovation not only protects the natural environment, but also provides environmental benefits higher than conventional products" (OECD, 2013), Chen et al. defined green innovation "as hardware or

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software innovation that is related to green products or processes, including the innovation in technologies that are involved in energy-saving, pollution prevention, waste recycling, green product designs, or corporate environmental management".

There are different types of green product innovation, namely, "radical and incremental". Literature suggest that "radical green product innovation includes the use of new technologies, for example, electric vehicles, or the replacement of one critical component with a completely new one that significantly reduces the overall environmental impact of the product, for example, an insecticide, which is based on a completely new, natural or eco-friendly composition" (Dangelico, 2010). Gyuracz-Nemeth, Friedrich and Clarke (2014) defined radical innovation as "fundamental and revolutionary changes in the technology or the processes and activities including new, which breaks with current practice and is positively related to the risk that is associated with an attempted innovation".

Furthermore, incremental green product innovation "includes the increasing use of existing key dimension of green product such as eco-efficiency (e.g., incremental improvement of fuel efficiency in vehicles), the substitution of conventional materials with materials with a lower environmental impact (e.g., replacement of virgin materials with recycled ones), or the design of recyclable products (e.g., designed for disassembly)" (Dangelico, 2010). It is stated that "incremental changes include all the innovation and those current applied technologies which are not that costly but easier to predict" (Gyuracz-Nemeth, et al., 2014).

Although green product innovation does face a few challenges in terms of developing and implementing, amongst others, here are a few challenges; The first challenge is assimilating conventional and environmental product attributes, product quality and at a certain point, there is going to be a trade-off between the product quality and green attributes; second, would be selling at competitive price, high prices mean that industry and consumers go for alternative products, this is due to the fact unlike other non-green products, green products do not often receive government subsidies or government rebates to consumers; third, would be lack of customer awareness of green products' benefits, this can be caused by the lack of understanding of environmental sustainability (Dangelico, 2010).

These days, product innovation has become a large part for firms' endurance and a weapon to support market competitive advantage, a great product development execution can help firms to improve showcase position, avow brand name, jump rivalry, make a leap forward and pull in new clients.

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According to Gyuracz-Nemeth, Friedrich and Clarke (2014), innovation appears in the tourism industry in various ways and classification is of the utmost importance in order to tackle the different forms of innovation. Three main innovation groups were identified which are linked with tourism innovation; (1) “Innovation of the information and communication technologies, (2) Innovation of tourism products (3) Innovative solutions and recommendation to the challenges”.

2.4 Types of Innovations in Hotels

Dzhandzhugazova, Blinova, Orlova and Romanova (2016) identified the following innovation in hotels; Material and Technical innovations, Legal innovation, Organisation and management innovations, Economic innovations, marketing innovations and social innovations.

Material and Technical innovations; “Creating new materials, products, services and technologies, new ways to deliver services, improving the old ones” (Dzhandzhugazova, et al., 2016). Gyuracz-Nemeth, et al. (2014) believe that this kind of innovation is adept at providing technologies and products which offer as good as ever instruments/machines that are reasonable for creation and upgrade the viability of the board.

Economic innovations; Expanding the hospitality industry organisations from the centre to the periphery, erasing "blank spots" in the geographical space of the hospitality industry requires economic innovation. It is described as “the emergence of new markets caused by the introduction of new products or technologies, the creation of new ways to buy and sell goods, and economic processes following the innovation process” (Dzhandzhugazova, 2016).

Organisation and management innovations; according to Gyuracz-Nemeth, Friedrich and Clarke (2014) “this kind of innovation refers to the efficiency and effectiveness of the innovation and how to manage and develop the knowledge of the hotels’ CEO’s when they confront a competitive environment”.

Legal innovation; this is described as new laws or regulations introduced, as well as substantial changes in the existing ones (Dzhandzhugazova, 2016).

Social innovations; the purpose of this innovation is to include new ideas and solutions to social and cultural challenges that are facing society (Dzhandzhugazova, 2016).

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Marketing innovations; can be described "as new or significantly improved marketing methods, encompassing the major changes in the design and packaging of products, applying new sales techniques and product (services) presentations, presenting and promoting them on the markets, developing new pricing strategies" (Dzhandzhugazova, 2016).

2.4.1 Green Innovation in Hotels

As stated, innovations differ and some of those innovations qualify to be seen as green innovation in hotels. Green innovation has been stated to be; "innovation that results in a reduction of environmental impact, and/or optimises the use of resources throughout the lifecycle of related activities" (OECD, 2013).

The research paper has identified various green innovations in hotels that are currently happening in hotels worldwide; hotel rooms with free Wi-Fi , being able to compare hotel prices with ease, stress-free check in, rooms operated by smart phones allowing for keyless entry, Workflow Management tools, Improved in-room Hardware. (Jobs, 2020). Across the world, we have hotels taking the initiative in green innovation within the tourism sector, for example, Hotel Cavendish, located in Jermyn Street, Central London, is known to be at the forefront of eco-innovation, "through buying ethically sourced coffee and fair trade tea for customers, throughout its use of only eco-friendly chemicals and closely working with suppliers so that it can reduce packaging and time in transportation". Its waste product is recycled all the time (UKEssays, 2018). Another hotel, situated in London as well, Base2stay, is known for significantly investing in environmental eco-friendly projects, and also inspiring their workers to follow suit. It has a list of initiatives which include a zero emission car which it provides to guests that can go up to 60 mph. by offering the car to consumers they help them save from renting cars, paying for parking as well as petrol chargers. The mission of the hotel is to provide eco-budget services to the guests (UKEssays, 2018).

In South Africa, the hotel group, Tsogo Sun, has also taken a step towards green tourism in an hotel in the Western Cape. The hotel succeeded in reducing its water usage by an extra 17% throughout the previous year (Brophy, 2017). The initiatives the hotel took were; "(1) Pressure valves on showers allow for a maximum flow of eight litres per minute; (2) Urinal sensors; (3) Reduced pressure of hand wash basin taps;(4) Back of house shower pressure valves allow a maximum flow of up to three litres; (5) Extra hot water return line to provide hot water on demand; (6) Sheets and towels are not changed unless requested by guests; (7) No table cloths

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are used in the restaurant; (8) Linen serviettes replaced by paper serviettes; (9) Building management system to be alerted to high water usage, leaks,"

2.5 Green practices

Due to increasing population and industrialisation, the pressure being exerted on the infrastructure, environment, and the available crude resources has increased tremendously. All activities have been influenced by environmental problems but very few businesses instil environmental issues in their practices (Utkal & Yadav 2014). Choua, Chena and Wang (2012), postulate that "green practices in the tourism and hospitality industry can be mapped back to the theory of sustainable tourism and have been widely addressed, furthermore, they argued that it is vital for the tourism and hospitality industry to take it upon themselves to be responsible for the effect they have on the environment and contribute to sustainable development for the betterment of society". Green practice has been heavily linked with social responsibility, as well high financial performance (Miroshnychenko, 2017).

Green practices go hand-in-hand with going green; this implies a business seeks information and practices that can prompt all the more earth amicable and environmentally mindful choices and ways of life, which can help secure the planet's resources and support its crude resources for the present and people in the future (Turchetti, 2018).

Lin and Yi-Hui (2011) mention that the way toward receiving green practices includes actualising new or adjusted procedures, strategies, and frameworks to lessen contamination outflows and energy utilisation. Green practices will be all the more effectively diffused inside an organisation when the practices are increasingly aligned with the organisation's present advances and procedures (Ho, 2011). Lin and Yi-Hui (2011) are of a belief that "green practices incorporate both tacit and explicit knowledge, furthermore, the tacit knowledge may be inherent in identifying sources of pollution, reacting quickly to accidental spills, and proposing preventive solutions".

2.5.1 Types of green practices

There are a number of green practices; these include LED light bulbs, recycling, room temperature control, and linen and towel reuse programmes, the use of alternative power, for example wind or solar energy, windows that allow for energy regulation and roofs (Joun, 2016). Sroufe, Narasimhan, Montabon and Wang (2002) came up with three categories under which green practices would fall. These categories help businesses and managers to keep track of the

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business' green practice behaviour, as well as the impact these might have on the environment. These categories include operational, tactical, and strategic.

2.5.1.1 Operational Practices

Sroufe, Narasimhan, Montabon and Wang (2002) grouped this type of practice into three main categories; (1) Waste reduction, this includes creating various forms of practices involved in the decrease of solid waste, as well as proactive and reactive recycling, consumption of waste internally, substitution of less hazardous alternatives, remanufacturing and finding firms that know how to deal with waste material, (2) Reduction of resources, includes the saving of energy, reduction of packaging and the spreading of risk by utilising third party providers of specialised environmental services. (3) Resource distribution, this relates to communication of environmental initiatives to operating personnel, money spent on the environmental initiatives, the collection and diffusion of environmental information and setting up of rewards and incentives to promote environmentally conscious operations.

2.5.1.2 Tactical practices

This formally includes three activities that the business would need to carry out: (1) Supply chain management, involving the controlling of the supply chain, setting environmental standards for suppliers, allowing early environmental checks of suppliers as soon as the business engages in any business dealings with them, (2) The next activity the business would need to involve themselves in is design and development, this will be proactive environmental designing of product development, risk analysis, LCA, and environmental management systems as well as setting environmental goals for design. (3) Lastly, the business has to engage in recognition of environmental performance, including participation in various environmental initiatives and any awards that might be garnered for environmental activities.

2.5.1.3 Strategic practices

Finally, Sroufe, et al. (2002) described practices that specify how an organisation will utilise green practice behaviour to compete and how these green practices will not only be maintained but implemented throughout the business. Management in the business, including executive officers and vice presidents, are those responsible for setting the objectives, plans and policies. Strategic practices are made of policies, programmes and environmental awareness as these pertain to the competitive business environment. Contained in the policies and programmes are the employee training programmes, long term planning horizons, environmental corporate

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policy, mission statements and the presence of mission statements. Lastly, environmental awareness practices comprises strategic environmental alliances and searching the marketplace for information related to the environment.

2.5.1.4 Green practices in hotels

Given the categorisation that Sroufe, et al. (2002) developed, it is easy for hotels for implement and monitor green practice behaviours. Ogbeide (2012) states that "Consumers no longer accept just linen and towel reuse programs as being enough green practices in the green hotel concept". Consumers now expect more from environmentally=friendly hotels and require socio-environmental responsibility within their practices; consumers want such things as water preservation, energy efficiency, a waste management division, procurement, and water conservation (Ogbeide, 2012). A survey carried out by the American Hotel and Motel Association (AH&MA) revealed that managers at hotels valued reduction of waste management through recycling energy consumption, as well as, energy consumption to be their top priority (Ogbeide, 2012).

Table 3 shows what some of the hotels in the United States of America are doing as part of the green practice initiative.

The South African hospitality industry has also taking a step in the green tourism direction. According to Deon (2015), the article listed hotels and lodges that are eco-friendly, among others, these include, rhino walking safaris in the Kruger National Park, Teniqua treetops, which they use dry toilets and also the cleaning products that they use are all eco-friendly, next we have The Shire Eco – lodge located in Stutterheim, followed by Ikhyalamafu, Monks Cowl situated in the Drakensberg which is self-reliant with solar and hydropower, and it is self-sufficient in honey and vegetables. Other hotels and lodges include Thonga Beach lodge in Kwa-Zulu Natal, Kololo Game Reserve in Vaalwater, Mosaic Lagoon Lodge in Stanford, and last, The Peech Hotel in Melrose, Johannesburg, which boasts total sustainability practice including waste management, energy, and water conservation.

One of the greenest hotels in situated in South Africa. Hotel Verde is located in Cape Town. The hotel promises its guests an environmentally friendly stay; this includes the use of a LED lights, green roof, a plant room, and an eco-pool. Furthermore, wind turbines are used for energy in the hotel and water recycling uses a process of sterilising used water shower and bath through the use of UV light before it is re-used to flush toilets (Deon, 2015).

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As the topic suggests, we want to probe if green innovation influences the adoption on green practice behaviours in South African city centre based hotels; the results are discussed in Chapter 6, after the data analysis has been done.

Table 3: Summary of US Hotel green practice behaviours

Hotel	Practice Initiated	Impact
Westin, Seattle	Changed incandescent bulbs to energy saving compact fluorescent light bulbs and improving control mechanisms	Achieved 66 percent reduction in guest room wattage and an annual savings of $400,000.
Apple Farm Inn and Restaurant, California	Uses discharged water from washing machines to flush toilets	Saving 15,900 liters (4,200 gallons) of water per day and approximately $5,000 per year.
Disney World, Florida	Recycles 15.2 million liters (4 million gallons) of wastewater a day for irrigation of landscaping and golf courses.	More cost-effective as using municipal treated water would have been much more expensive.
Hotel Bel Air,	Undertook a comprehensive environmental program	Saved $10,000 in 10 months plus increased revenue from the sale of cardboards.
Hyatt Regency, Chicago	A comprehensive waste reduction and recycling program.	Recovered approximately 70% of recyclable materials and cut waste hauling costs in half. Recycling program has resulted in recovery of $120,000 in hotel items.
Inter-Continental, LA	Installed a power monitoring system	Saved some $12,000 in electricity costs
Intercontinental, Miami	Recycling program involving 30 materials.	Diverts 65 percent of the waste stream with annual savings of $31,000
	Recycling waste water for watering gardens as well as use of aerators on water outlets	Saved over 400 gallons of water per year, amounting to $4,000
	Reduced energy consumption by using energy efficient appliances	Saved 400,000 kwh of energy annually which amounted to $2,400
Habitat Suites Hotel, Austin, Texas	Water conservation programmed such as use of low-flow sink and shower aerators, water-saving toilets and water saving sprinklers.	Combined water-saving measures led to savings of $9,000
	Use of fluorescent and air-conditioning units	Saved over 122,000 kw of energy per year, which equals $10,954
Boston Park Plaza	Installed 1,686 thermopane windows at a cost of $1.2 million.	Each window saves the hotel $75 per year in energy costs and the guests benefit from quieter rooms

Source: Mensah (2004)

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2.6 Conceptual model

The conceptual model has been developed to help us better understand the topic at hand. This conceptual model can be seen in figure 4 below.

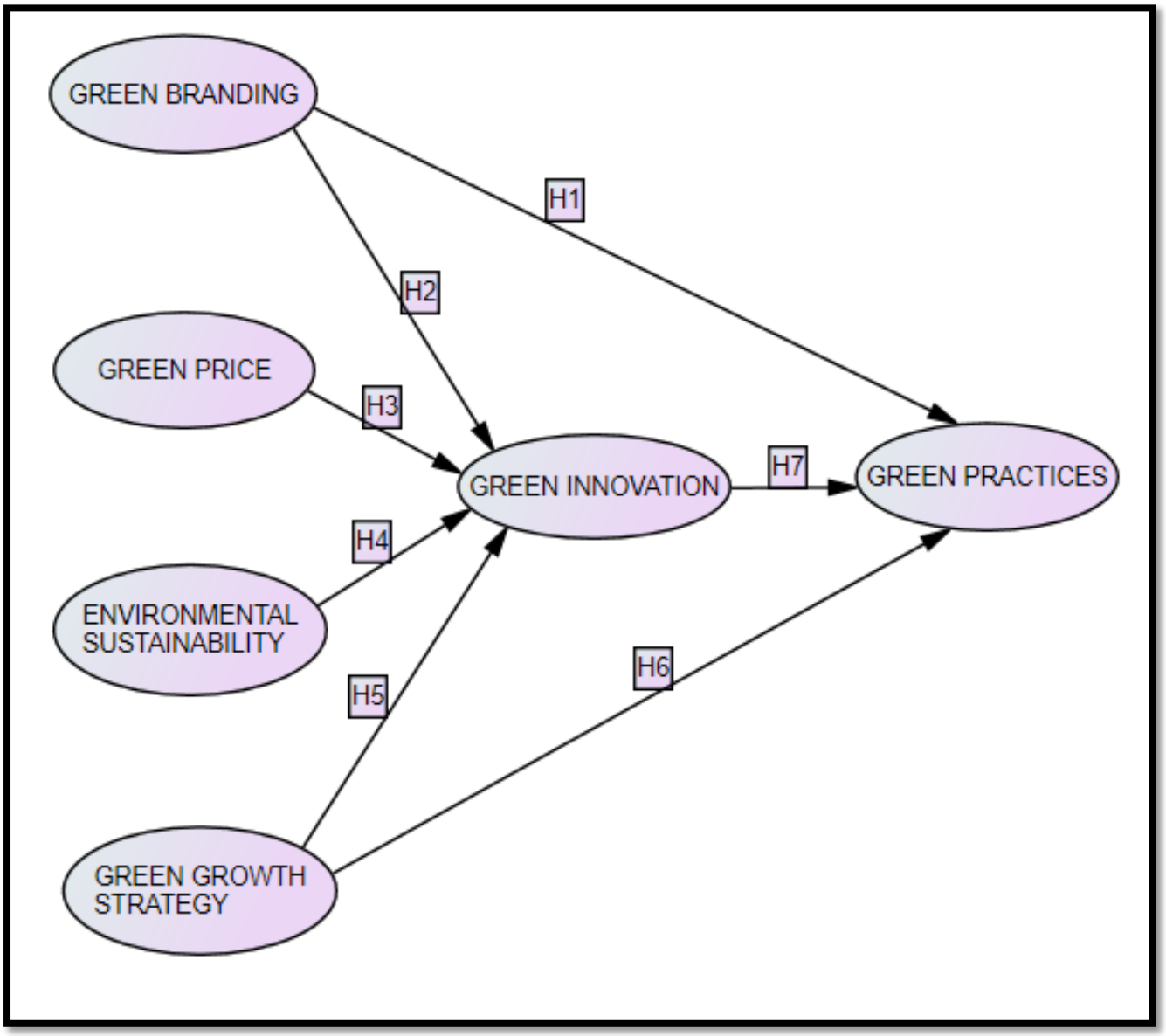


Figure 4: Conceptual model

2.7 Hypothesis statements

- H1: Green branding has a positive impact towards green practices.
- H2: Green branding has a positive impact towards green innovation.
- H3: Green price promotes green innovation.

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- H4: Environmental sustainability promotes green innovation.
- H5: Green growth strategy promotes green innovation.
- H6: Green growth strategy promotes green practice.
- H7 Green innovation has a positive impact towards green practice

2.8 Summary of chapter

Chapter two discusses all the literature that has been applied to this research paper; it starts off by introducing the importance of a literature review in a research paper and how it is carried out, it continues to further build on the introduction by discussing more of the green tourism space from a broad perspective until it narrows this down to the South Africa perspective. It also discusses the hospitality industry, as well; this is then followed by theories on which the study is grounded, finally each and every single variable in discussed in detail, making reference to previous research and linking the variables to South African eco-friendly hotels. The last two sub-headings include the conceptual model and the hypothesis statements which make way for chapter three.

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CHAPTER 3: CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

3.1 Introduction

Chapter three discuss further the stated hypotheses from the previous chapter, the research paper tests seven different hypothesis, each developed uniquely from the other. Before we continue with the discussion, we need to understand what an hypothesis is and what impact it has on our research paper as a whole.

According to Rodgers (1967) "Hypotheses are single tentative guesses, good hunches – assumed for use in devising theory or planning experiments intended to be given a direct experimental test when possible" Kerlinger (1956) argued that "A hypothesis is a conjectural statement of the relation between two or more variables". Another paper described hypothesis: "as a tentative explanation of the research problem, a possible outcome of the research, or an educated guess about the research outcome" (Prasad, 2001). Prasad, Rao and Rehani (2001) argued that the nature of the hypothesis can be characterised as follows "(1) It can be tested – verifiable or falsifiable, (2) Hypotheses are not moral or ethical questions (3) It is neither too specific nor too general (4) It is a prediction of consequences (5) It is considered valuable even if proven false".

3.2 Hypotheses Development

3.2.1 Green branding and Green practices

O'Neill and Mattila (2004) dictate that from a corporate system perspective, all around saw green brands in general gain share of the overall industry. Green branding is considered to be a fundamental part of a company's value proposition. A developing number of organisations are thinking "past the green company" to a circumstance where eco-friendly and socially dependable practices drives business performance. Numerous business companies now integrate the corporate social responsibility (CSR) perspective in their organisational strategy (Periyayya, 2013). Manjunath (2014) stated that "a brand can be separated from the competition based on requests to sustainability or the environment. Firms that set up well defined brand personality are more likely to yield brand value".

Sarkar (2012) points out that many people acknowledge that green marketing which suggests publicising of products having environmental qualities, with terms, for instance, recyclable,

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refillable and ozone friendly being a few of the terms customers consistently see as green marketing.

Sarkar (2012) further argues that while these terms are green promoting claims, when all is said and done, it shows that green marketing is an extensive concept, one that can be applied to consumer products, services, even industrial goods. Before consumers can attest that they are purchasing green products or service, they first need to understand what a green product is and Sarkar (2012) has put forth a number of characteristics that green products do not, as follows: "(1) endanger the health of people or animals;(2) damage the environment at any stage of its life, including manufacture, use and disposal, (3) Consume a disproportionate amount of energy and other resources during manufacture, use or disposal, (4) cause unnecessary waste, either as a result of excessive packaging or a short useful life, (5) involve the unnecessary use of or cruelty to animals and finally (6) use materials derived from threatened species or environments"

Green practice can be characterised as "a business that pursues knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations". "Green practice has been heavily linked with social responsibility as well as high financial performance" (Miroshnychenko, 2017). "Practising green is inherently proactive; it means finding ways to reduce waste and otherwise be more environmentally responsible" (Sarkar, 2012).

H1: Green branding has a positive impact towards green practices.

3.2.2 Green branding and Green innovation

Eco-branding/green branding was first presented in 1978 with German Blue Angel (to assist customers with settling on choices about the items they get and to choose whether they are ecologically well represented; such branding proposed preservation of the earth, advancing environmentally friendly developments, and bringing issues to light of the purchasers (Haq, 2016).

According to Rahman and Haq (2016), the green developments and eco-branding started impacting the acts of producers and customers in an ordinary way by the late nineties and early

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millennium when worries over an Earth-wide temperature boost and natural contamination began gaining traction in the world, this also encouraged businesses to be more innovative in their green offerings. The ISO 14020 series, as part of the ISO 14000 series of environmental standards, came up with a list of standards precisely for governing the environment (Development, 2013). Included in the ISO 14020 series are three types of labelling schemes: "Type I is a multi-attribute label developed by a third party; Type II is a single-attribute label developed by the producer; Type III is an eco-label whose awarding is based on a full life-cycle assessment". (Development, 2013)

Green innovation has been described in chapter two as "innovation that results in a reduction of environmental impact, and/or optimises the use of resources throughout the lifecycle of related activities. Green product innovation as products that reduce the negative impacts and risks to the environment, utilize less resources and prevent waste generation in the product's disposal phase" (OECD, 2013). The type of branding that a business comes up centres around the type of innovation that they set out to achieve, this is due to the fact that innovation can be considered a catalyst of growth (OECD, 2013), and this in turn, grows the brand as well .

H2: Green branding has a positive impact towards green innovation.

3.2.3 Green price and Green innovation

In chapter two, it was stated that Green / environmentally products are deemed to be priced a bit high than their counterparts products, although this is fact (Kathy, 2019), sustainable products are expensive due to high manufacturing cost as well as the demand for eco-friendly products is not as high as that for traditional products yet (Kathy, 2019) so to cover the cost, products must be priced at a premium because trying to sell a lot of products will not allow for profit. On the other hand ,green innovation can be described **"**as an innovation that puts emphasis on the reduction of waste, pollution prevention and environmental management system implementation" (Soewarno, 2019). Now from both definitions, we can determine that they are both aimed at reducing harm to the environment, furthermore what businesses would do in terms of manufacturing green products, includes being innovative to such an extent that the process does not harm the environment. But such processes are expensive since they are trying to take a different route from traditional manufacturing processes.

H3: Green price promotes green innovation.

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3.2.4 Environmental sustainability and Green innovation

According to Goodland (1995) “the environment has now become a major constraint on human progress. Fundamentally important though social sustainability is, environmental sustainability or maintenance of life-support systems is a prerequisite for social sustainability”

Despite the fact that environmental sustainability is required by people and was started in light of social concerns, environmental sustainability itself looks to improve human needs by ensuring the sources of crude materials utilised for human needs and guaranteeing that the sinks for human wastes are not surpassed, so as to forestall harm to people. Morelli (2011) postulates that the idea of sustainability has been progressively undermined as a useful notion without any delineating modifier, but once we add words like “agricultural, “economic” and “ecological” it starts to become a much more useful concept.

Goodland (1994) argues that mankind must figure out how to live inside the confinements of the biophysical condition, furthermore environmental sustainability implies natural capital must be looked after, both as a supplier ("sources"), and as a "sink" for wastes. Environmental sustainability is “sustainable production and sustainable consumption” (Goodland, 1995). On the sink side, this translates into holding waste emanations inside the assimilative limit of the earth without disabling it. On the source side, harvest rates of renewables must be kept inside recovery rates (Goodland, 1995).

Green innovation was described as, “innovation that results in a reduction of environmental impact, and/or optimises the use of resources throughout the lifecycle of related activities”.

From the characteristic of both variables, we can identify that they are all concerned about the environment’s welfare.

H4: Environmental sustainability promotes green innovation.

3.2.5 Green growth strategy and green innovation

Firms need systems or a strategy to manage ecological issues, to win the business sectors with naturally well-disposed items and to continue in business for a long time to come, and in this

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manner, the green development technique is considered as the most vital procedure in the time of ecological mindfulness (Soewarno, 2019). A few researchers have likewise centred their studies on how firms create and execute natural techniques, enhance, and produce green items to increase a superiorand an improved product to gain the competitive edge.

Soewarno, Tjahjadi and Fithrianti (2019) argue that the quintessence of a strategy is deciding to perform business practices uniquely in contrast to the way rivals do and the centre of the strategy is cross-functional or cross-activity integration, furthermore at the point when a firm builds up a green growth strategy with the idea to be environmentally savvy, it needs to figure and execute a green innovation strategy. "A green growth strategy forms a firm's environmental awareness of pollution prevention, product stewardship and clean technology" (Soewarno, 2019). A successful "green growth strategy will drive firms' top, middle, lower management and internal stakeholders to integrate the organizational resources and direct employees' behaviour to mitigate the risks of the bad impacts of manufacturing processes and outputs on the environment" (Soewarno, 2019).

"Eco-innovation projects and business models are often influenced by the internal governance of companies, the strategies that they adopt and the societal values that they promote. In particular", (Beltramello, 2013).

H5: Green growth strategy promotes green innovation.

3.2.6 Green Growth strategy and Green Practice

In Chapter two, the concept of a green growth strategy has been characterised as a tool that any business establishment will need to have for an upward trajectory. Especially now with a new-found consumer who is much more environmentally aware and is selective with what they purchase in terms of the product or service being harmful to the environment. There are different strategies that a business can implement to tackle this new environmental consumer; defensive strategies, lean green strategies, shaded green strategies, as well as extreme green strategies (Strutton, 2014).

Green practices were characterised with "going hand in hand with going green, this means that a business pursues knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations" (Turchetti, 2018). Chapter two also mentions that there "are a number of green practices these include recycling, LED light

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bulbs, room temperature control, and linen and towel reuse program, the use of solar/wind power, energy-efficient windows and roofs" (Joun, 2016).

H6: Green growth strategy promotes green practice.

3.2.7 Green Innovation and Green Practice

Ongoing OECD investigation shows that green innovation can possibly give proficient and effective solutions for environmental difficulties, as well as it can add into making organisations increasingly competitive, and consequently progress in the direction of a more robust economy (Beltramello, 2013). Beltramello, Haie-Fayle and Pilat (2013) argue that eco-innovation (green innovation) can prompt exponential growth and energy efficiency, in this manner improving the cost intensity of organisations. In both OECD and non-OECD nations, the environmentally friendly markets for products and services is developing at a rapid rate. A similar favourable position in such markets can subsequently be a significant source of economic growth (Beltramello, 2013).

According to Beltramello, Haie-Fayle and Pilat (2013), green innovation leads to the rise of new business firms introducing innovations in light of certain factors, for example, guidelines, "the availability of public support or market demand". In many countries, guidelines have all the hallmarks of being a significant inspiration for businesses to adopt environmentally friendly ways. In any case, showcasing requests from clients is likewise a significant determinant of green innovation, recommending that organisations are progressively taking advantage of the opportunities of increased sales and profit that "greening their business" can produce. "Green practice adoption involves implementing new or modified processes, techniques, and systems to reduce environmental harms and can be regarded as a technical innovation process" (Ho, 2011)

H7 Green innovation has a positive impact towards green practice.

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3.3 Conceptual model

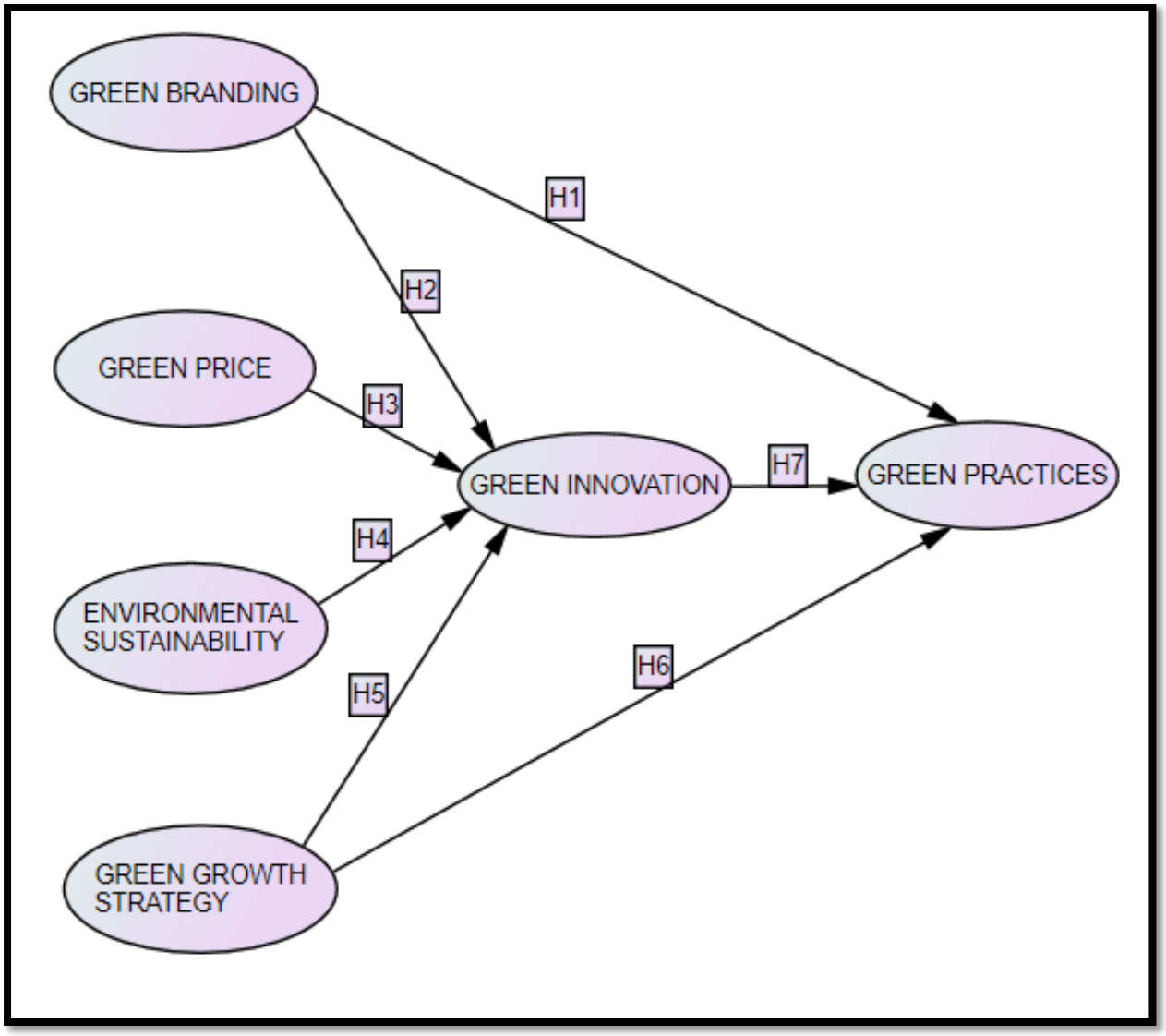


Figure 5: Conceptual model

3.4 Summary of chapter

Chapter three starts by describing what the characterises of an hypothesis statement are, it further mentions the nature of an hypothesis statement. The chapter continues when the researcher describes the different variables in order to show why the hypothesis statement is formulated the way it is. Finally, the conceptual model is depicted

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CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

For any study to be properly carried out, the research has to follow a certain research design, coupled with research methodology; this chapter discusses this in more depth as the chapter unfolds. Blessing and Chakrabarti (2009) postulate that "design is a multifaceted phenomenon which involves; people, a developing product, a process involving a multitude of activities and procedures, a wide variety of knowledge, tools and methods." Contained in those facets are goals and structures that determine the outcome of the design and methodology used.

4.2 Research strategy

"A research strategy is a step-by-step plan of action that gives direction to the researcher's thoughts and efforts, enabling the researcher to conduct research systematically and on schedule, to produce quality results and detailed reporting" (Dinnen, 2014). This enables the researcher to remain focused, reduces frustration, improves quality and most important, allows the researcher to work efficiently, saving on resources as well as time. The research strategy can be compared to the building blocks of the paper, describing the justification for the research and the experiments done to accomplish the desired goals (Dinnen, 2014). There are different types of research strategies, namely, descriptive research, exploratory research and finally, explanatory research.

- "Exploratory research is often conducted in new areas of inquiry in which the aim of the research is to examine the magnitude or extent of a particular phenomenon, problem or behaviour" (Bhattacherjee, 2012).
- "Descriptive research looks at the what, where, and when of a phenomenon. It is aimed at making careful observations and gives detailed documentation on a phenomenon of interest. These observations are based on the scientific method which means the research must be applicable and precise; which leads to the conclusion that it should be more reliable than casual observations" (Bhattacherjee, 2012).
- Bhattacherjee (2012) argues that "explanatory research seeks to explain an observed phenomenon, problem or behaviour and seeks to answer questions related to the why and how. It attempts to 'connect the dots' in research by establishing causal relationships between variables and identifying causal factors and outcomes of the target phenomenon".

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Based on the above definitions, the research followed an explanatory research strategy; this is discussed further as the chapter continues.

4.2.1 Research philosophy

Holden and Lynch (2004) describe research philosophy as the standard about how data is gathered, analysed, and applied to understand phenomena in life. There are three types of research philosophies: interpretivism, positivism, and realism.

Table 4: Research Philosophy Summary: Saunders, Mark & Lewis, P. & Thornhill, A (2009).

Ontology (nature of reality or being)	**Epistemology** (what constitutes acceptable knowledge)	**Axiology** (role of values)	**Typical methods**
	Positivism		
Real, external, independent One true reality (universalism) Granular (things) Ordered	Scientific method Observable and measurable facts Law-like generalisations Numbers Causal explanation and prediction as contribution	Value-free research Researcher is detached, neutral and independent of what is researched Researcher maintains objective stance	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
	Critical realism		
Stratified/layered (the empirical, the actual and the real) External, independent Intransient Objective structures Causal mechanisms	Epistemological relativism Knowledge historically situated and transient Facts are social constructions Historical causal explanation as contribution	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing Researcher tries to minimise bias and errors Researcher is as objective as possible	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency. Range of methods and data types to fit subject matter
	Interpretivism		
Complex, rich Socially constructed through culture and language Multiple meanings, interpretations, realities Flux of processes, experiences, practices	Theories and concepts too simplistic Focus on narratives, stories, perceptions and interpretations New understandings and worldviews as contribution	Value-bound research Researchers are part of what is researched, subjective Researcher interpretations key to contribution Researcher reflexive	Typically inductive. Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted

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4.2.2 Research design

"Research design is fundamental to all scientific endeavours, at all levels and in all institutional settings. Research design is tied in with settling on decisions and articulating a reason for the decisions one has made" (Yanow, 2012). The term 'design' in itself suggests a prudently formulated plan (Yanow, 2012).

The table shows the different research design approaches that can be followed when conducting research. A researcher can either follow one of each or use both of them, which is known as mixed methods. `

Table 5: Qualitative vs. Quantitative Summary: Bird, Deanne (2009).

Qualitative research	Quantitative Research
The aim is a complete, detailed description.	The aim is to classify features, count them, and construct statistical models in an attempt to explain what is observed.
Researcher may only know roughly in advance what he/she is looking for.	Researcher knows clearly in advance what he/she is looking for.
Recommended during earlier phases of research projects.	Recommended during latter phases of research projects.
The design emerges as the study unfolds.	All aspects of the study are carefully designed before data is collected.
Researcher is the data gathering instrument.	Researcher uses tools, such as questionnaires or equipment to collect numerical data.
Data is in the form of words, pictures or objects.	Data is in the form of numbers and statistics.
Subjective – individuals interpretation of events is important , e.g., uses participant observation, in-depth interviews etc.	Objective: seeks precise measurement & analysis of target concepts, e.g., uses surveys, questionnaires etc.
Qualitative data is more 'rich', time consuming, and less able to be generalized.	Quantitative data is more efficient, able to test hypotheses, but may miss contextual detail.
Researcher tends to become subjectively immersed in the subject matter.	Researcher tends to remain objectively separated from the subject matter.

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4.2.3 Research approach adopted for the study

Two types of research approaches have been identified - inductive and deductive approach.

Deductive approach is a basic form of valid reasoning; it starts out with an hypothesis statement and examines how a logical conclusion will be reached (Bradford, 2015), whereas with an inductive approach, it allows for generalisations from a specific context to the general context.

The research philosophy also acts as a guide as to which research approach the study should follow. Positivism instructs us to follow the deductive theory approach because this works hand-in-hand as the definition of the inductive approach clearly states. This leads to the next question: quantitative or qualitative?

4.2.4 Rationale for Quantitative Research

From the above figure, we are able to determine what qualitative research entails, which is exploratory in nature and used to gain an understanding of underlying reasons, opinions and motivations by providing insight into the problem (Wyse, 2011). It further states that the research is the gathering research instruments, this is because the research is involved primarily in focus groups, individual interviews, etc., whereas for quantitative research, Wyse (2011) defines it as a "method used to measure the issue by method for producing numerical information or information that can be changed into useable insights. It is utilized to evaluate mentalities, feelings, practices, and other characterized factors and to sum up results from a bigger example populace". Quantitative data collection methods contain "survey, longitudinal studies, interviews, telephone interviews, face-to-face, website interceptors, on-line polls, and systematic observations" (Wyse, 2011).

The study followed the quantitative route, because the research wanted to quantify how much green innovation has an influence on the adoption of green practice behaviours in city centre based hotels. The research model also supported this notion as it depicted causal relationships between the variables. The use of a questionnaire enabled the researcher to collect the data that needed to be analysed to reach a conclusion.

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4.3 Sampling Design

"Sampling design is the means of selecting a subset of units from a target population for the purpose of collecting information. This information is used to draw inferences about the population, as a whole. The subset of units that are selected is called a sample" (Canada, 2015).

4.3.1 Target Population

From the mentioned definition of sampling design, it outlined the target population as composed of subset units that are selected and from where we are going to draw our inferences. The study targeted students within the University of the Witwatersrand community.

4.3.2 Sample frame

From the mentioned definition of sampling design, it outlined target population as subset units that are selected and from where we are going to draw our inferences. The sample frame is the students at the University of the Witwatersrand. The University of the Witwatersrand has over 30000 students, the research will use simple random probability sampling to select the participants

4.3.3 Sample size

Israel (1992) argues that the question of which sample size to use is the most frequently asked question in quantitative research. A number of factors come into play when picking a sample size, including the "purpose of the study", size of population, selecting bad sample, and the allowable sampling error. Israel (1992) lists how you can determine a sample; "these include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulae to calculate a sample size".

The sample size to be used is 201 respondents from the chosen sample frame. The reason for such a sample size is because the software used was SPSS 25 and AMOS 25 and these programmes require at least that many to obtain accurate results.

4.3.4 Sampling technique

According to Parasuraman (2007), "the method of choosing individuals depends on whether a probability or a non-probability sampling method is used. In a probability sample, each element in the population has a known non-zero chance of inclusion and a non-probability sample is any sample that does not fit into the definition of a probability sample".

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There are different types of probability sampling methods - systematic probability sampling, pure/simple random probability sampling, stratified probability sampling and cluster probability sampling (Parasuraman, 2007). For the purpose of this study, the research followed a simple random probability sampling method because of the time constraints and lack of resources.

4.4 Data Collection Method

The current study is quantitative in nature and the researcher saw fit to choose a self-administered questionnaire as the form of data collection method amongst other methods that are available. The practicality of the questionnaire makes it a perfect data collection method because it allows respondents to remain anonymous in a larger population set.

4.5 Measurement Instrument | Questionnaire design | Measurement scale

"Instrument is the generic term that researchers use for a measurement device (survey, test, questionnaire, informal observations)" (Zohrabi, 2013).

The questionnaire consisted of two sections, section A and section B. In section A, respondents were required to fill in their biographical information and background data. Section B measured the research variables contained in the conceptual model. Items in this study were measured by using a five-point Likert scale from 1 to 5 rating, from strongly disagree to strongly agree.

4.5.1 Dependent (Predictor) variables

"The dependent variables are the types of variables that are completely dependent on the independent variable(s), the other name for the dependent variable is the Predicted variable(s)" (StatisticsSolutions, 2017)

Green brand image (GBI) – "Green brands are those brands that consumers associate with environmental conservation and sustainable business practices".

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

"You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below"

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GBI 1	The green brand image is regarded as the best benchmark of environmental commitments amongs hotels.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 2	The hotel's green brand image is trustworthy about environmental concerns.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 3	The hotel that I choose is well established about environmental concerns.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 4	The hotel is successful in its environmental performance.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 5	The hotel is professional about environmental reputation.	Strongly disagree	1	2	3	4	5	Strongly agree

Green Price strategy (GPS)

The price consumers pay for environmentally sustainable products and services.

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

"You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below"

GPS1	The quality of the hotel is worth the price.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS2	I prefer using green hotels when price discounts are offered.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS3	I use green hotels if they are easily available to me.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS4	I would prefer to use a green hotel if I have enough information, which confirms their greenness.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS5	For the price I paid the hotel delivered on their promise.	Strongly disagree	1	2	3	4	5	Strongly agree

Environmental sustainability (ES) (Ballantynea, 2009)

"A state in which the demands placed on the environment can be met without reducing its capacity to allow all people to live well, now and in the future".

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

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"You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below"

ES1	I talk to others about the importance of the environment	Strongly disagree	1	2	3	4	5	Strongly agree
ES2	I purchase products that are environmentally friendly	Strongly disagree	1	2	3	4	5	Strongly agree
ES3	I Conserve energy at home or work	Strongly disagree	1	2	3	4	5	Strongly agree
ES4	I choose green products over any other products.	Strongly disagree	1	2	3	4	5	Strongly agree
ES5	I use "green" (non-plastic) shopping bags	Strongly disagree	1	2	3	4	5	Strongly agree

Green growth strategy (GGS)

"Green growth strategy is a practical and flexible approach for achieving concrete, measurable progress across its economic and environmental pillars, while taking full account of the social consequences of greening the growth dynamic of economies".

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

"You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below"

GGS1	I am familiar with what strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS2	I am familiar with what green growth strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS3	I consider strategy to be an integral part of any business.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS4	I totally do not have an idea of what green growth strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree

4.5.2 Mediating Variables

"A mediator variable is the variable that causes mediation in the dependent and the independent variables. In other words, it explains the relationship between the dependent variable and the independent variable" (StatisticsSolutions, 2017).

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Green innovation (GI) (Chiou, 2011)

"Innovations that consist of new or modified processes, practices, systems and products which benefit the environment and so contribute to environmental sustainability"

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

"You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below"

GI1	The hotel I choose to go to uses eco-labelling.	Strongly disagree	1	2	3	4	5	Strongly agree
GI2	The hotel deliberates states whether its products are easy to recycle, reuse, and decompose.	Strongly disagree	1	2	3	4	5	Strongly agree
GI3	The hotel improves and designs environmentally friendly packaging (e.g.: less paper and plastic material used) for existing and new products	Strongly disagree	1	2	3	4	5	Strongly agree
GI4	The hotel offers educational material on environmental sustainability. (pamphlets)	Strongly disagree	1	2	3	4	5	Strongly agree
GI5	The hotel uses digital brochures to offer educational materials.	Strongly disagree	1	2	3	4	5	Strongly agree

Independent (Outcome) Variable

"Independent variables are variables that are manipulated or are changed by researchers and whose effects are measured and compared, the other name for independent variables is Predictor" (StatisticsSolutions, 2017).

Green Practices (GP)

"Practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations".

"1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree"

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“You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below”:

GP 1	Your preferred hotel is ecofriendly	Strongly disagree	1	2	3	4	5	Strongly agree
GP 2	The hotel provides educational information for its guests to help them understand its green practices.	Strongly disagree	1	2	3	4	5	Strongly agree
GP 3	The hotel uses recyclable products, paper and glass, metal, plastic, or cardboard. Placing recycling bins around is also considered a recycling practice.	Strongly disagree	1	2	3	4	5	Strongly agree
GP 4	The hotel implements a water conservation system, showers and bathtubs water pressures are normal.	Strongly disagree	1	2	3	4	5	Strongly agree
GP 5	The hotel uses energy star qualified appliances or any equipment for the energy conservation system such as energy-saving heating and cooling temperature systems	Strongly disagree	1	2	3	4	5	Strongly agree

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4.6 Data analysis approach summary

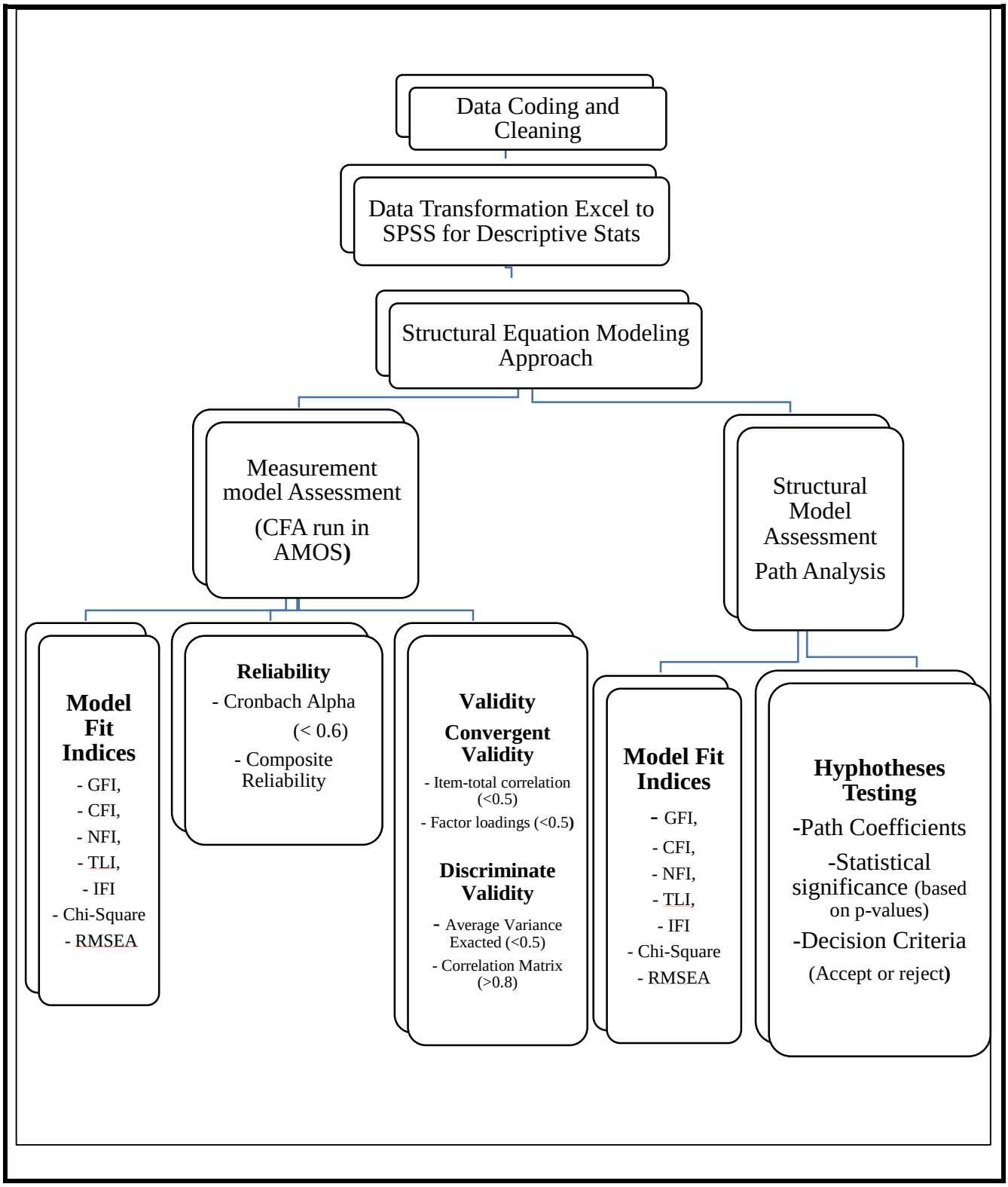


Figure 6: Data analysis approach summary

Source: Chinomona (2016)

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4.7 Statistical modelling

The components of statistical modelling are discussed below.

4.7.1 Measurement model

"Measurement models refer to the implicit or explicit models that relate the latent variable to its indicators" (Bollen, 2001). "The measurement model represents the theory that specifies how measured variables come together to represent the theory" (StatisticsSolutions, 2013). Bollen (2001) further argues that before you come up with a measurement model, the researcher must ask several questions, as follows; "(a) Are there causal or effect indicators? (b) Are there multiple or single indicators of the latent variable? (C) Is the latent variable continuous or not continuous? (d) Are the indicators continuous or not continuous? (e) Does more than one latent variable influence the indicator variable?" Once the researcher successfully addresses the above questions, they will be able to decide the desired measurement model.

The measurement model used in the current study is the Confirmatory Factor Analysis.

4.7.2 Cronbach Alpha

According to literature, "a higher level of Cronbach's coefficient alpha indicates higher reliability of the measurement scale" as per Chinomona (2011). The findings of the study are discussed further in chapter five, and include the acceptable thresholds.

4.7.3 Reliability

- Reliability (Consistency) refers to the quality of a measurement procedure to provide repeatability and accuracy.
- "Reliability estimates are used to evaluate the stability of measures administered at different times to the same individuals or using the same standard (test–retest reliability) or the equivalence of sets of items from the same test (internal consistency) or of different observers scoring a behavior or event using the same instrument" (Chinomona & Surujlal, 2012).
- A range of 0.00 to 1.00 is acceptable when it comes to reliability coefficients, with higher coefficients indicating higher levels of reliability.

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- A good measure of some entity is expected to produce consistent scores. A procedural reliability is estimated using a coefficient (i.e., a numerical summary). The major types of coefficients include:
    - ✓ Cronbach's Alpha value
    - ✓ Composite reliability value

4.7.4 Validity (Meaningfulness)

A valid measurement tool or procedure does a good job of measuring the concept that it purports to measure.

- Validity means that correct procedures have been applied to find answers to a question.
- Validity is often defined as the extent to which an instrument measures what it purports to measure.
- Validity requires that an instrument is reliable, but an instrument can be reliable without being valid
- Three main classes of validity are listed below, each having numerous subtypes
    - Convergent validity
        - ✓ Item loading (standardised regression weights)
        - ✓ Item-to-total correlation values
    - Discriminate validity
        - ✓ Inter-construct correlation matrix
        - ✓ Average variance extracted vs. Shared variance

4.7.5 Confirmatory Factor Analysis

Factor analysis is “a data reduction technique that is used to statistically aggregate a large number of observed measures (items) into a smaller set of unobserved (latent) variables called factors, based on their underlying bivariate correlation patterns. This technique is widely used for assessment of convergent and discriminant validity in multi-item measurement scales in social science research” (Bhattacherjee, 2012). Furthermore, factor analysis provides information about reliability, item quality, and construct validity. According to Prudon (2015),

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for the last two decades confirmatory factor analysis has been the preferred method among researchers.

Prudon (2015) further defines confirmatory factor analysis as a method that "expresses the degree of discrepancy between predicted and empirical factor structure in $\chi 2$ and indices of goodness of fit (GOF), while primary factor loadings and modification indices provide some feedback on item level"

4.7.6 Structural Equation Modelling (SEM) and Path Modelling

Structural equation modelling (SEM) is "a multivariate statistical framework that is utilized to model complex relationships between directly and indirectly observed (latent) variables" (Stein, et al., 2012). Stein, Morris, and Nock (2012) further described "SEM is a general framework that involves simultaneously solving systems of linear equations and encompasses other techniques such as regression, factor analysis, path analysis, and latent growth curve modelling".

Path analysis/ path modelling is a "multivariate GLM technique for analysing directional relationships among a set of variables. It allows for examination of complex nomological models where the dependent variable in one equation is the independent variable in another equation, and is widely used in contemporary social science research" (Bhattacherjee, 2012).

Structural equation modelling and path modelling was carried out for this research paper and the results are discussed in chapter 5

4.7.7 Chi-Square

The traditional measure for evaluating overall model fit and "assesses the magnitude of discrepancy between the sample and fitted covariance matrices" is known as Chi-Square (Hooper, 2008). The results and thresholds are discussed further in chapter 5.

4.7.8 Model Fit Indices

There are more than a dozen different fit statistics researchers use to assess their confirmatory factor analyses and structural equation models; for the purpose of this research paper, the model fit indices that are reported for confirmatory factor analysis and path analysis are – goodness of fit index (GFI), comparative fit index (CFI), normed fit index (NFI), Tucker Lewis index (TLI), incremental fit index (IFI) and Relative Fit Index (RFI). Each model fit index is

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discussed further in chapter 5; this includes the thresholds as well as the reported model fit results for the research paper.

4.7.9 Root Mean Square Error of Approximation (RMSEA)

The RMSEA is an index of the difference between the observed covariance matrix per degree of freedom and the hypothesised covariance matrix which denotes the model (Cangur, 2015).

4.8 Ethical consideration

This research study has included all ethical principles of sincerity, caution, integrity, and respect for intellectual property. A recognised ethical committee gave ethical clearance for the research. All respondents were also informed that all data collected would be used for the sole academic purpose of a Marketing Master thesis.

4.9 Summary of chapter

Chapter four is the research design and methodology chapter; this chapter outlined what the research looked like and what design process were followed to develop the paper; furthermore, the researcher described the methodology that was employed to understand the data that was collected through the self-administered questionnaire. All this is done through sub-optics that explicitly explain in detail how everything was carried out as well as explaining the terms that are referenced throughout the research paper.

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CHAPTER 5: DATA ANALYSIS AND DISCUSSION OF RESULTS

5.1 Introduction

Chapter five deals with the analysis of data that has been collected, starting with the descriptive statistics, which for this research paper is; age, education, faculty and gender and finally, a discussion of scale item results follows. This is followed by the discussion of the measurement model assessment which is made up of the results of validity and reliability and achieved by using CFA Confirmatory factor analysis. To finish off, path modelling results are also analysed. All the above analyses was done by using SPSS 25 and Amos 25.

5.2 Descriptive statistics

5.2.1 Demographics

	Frequency	%	Valid %
18-22	61	27.4	30.7
23-25	53	23.8	26.6
26-28	34	15.2	17.1
29-31	29	13	14.6
32-34	14	6.3	7
35-37	8	3.6	4
Total	199	89.2	100

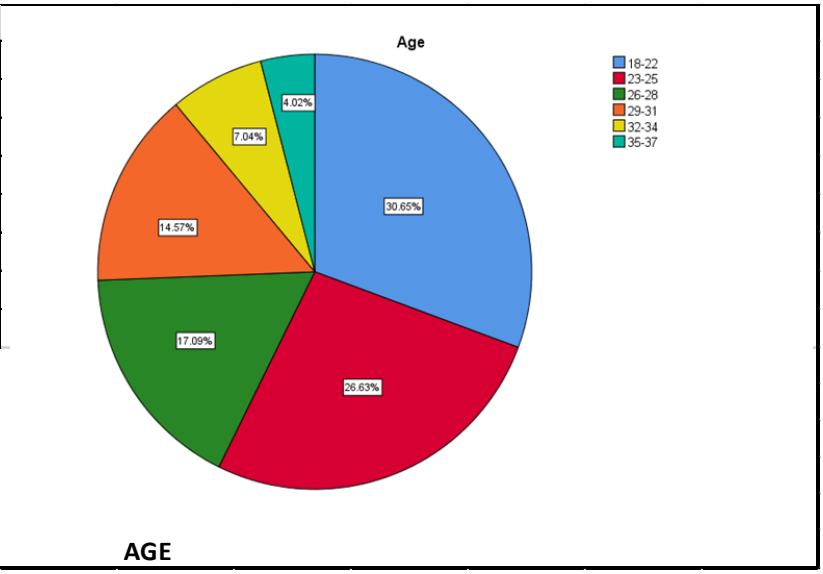
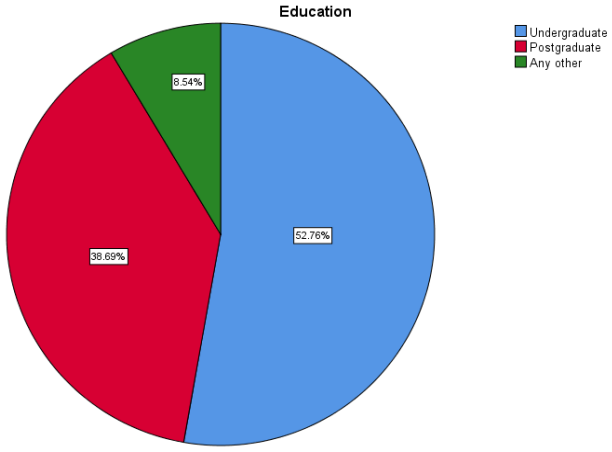


Figure 7: Demographics

Figure 7 depicts a table and a pie chart representing age. The majority of the respondents were aged between (18 – 22) at 30.7% , followed by respondents aged between (23 – 25) at 26.6% , then followed by ages (26 - 28), (29 – 31), (32 - 34) at 17.1% , 14.6% ,7% respectively and last, we have ages between (35 - 37) at 4%, being the fewest respondents.

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	Frequency	%	Valid %
Undergraduate	105	47.1	52.8
Postgraduate	77	34.5	38.7
Any other	17	7.6	8.5
Total	199	89.2	100

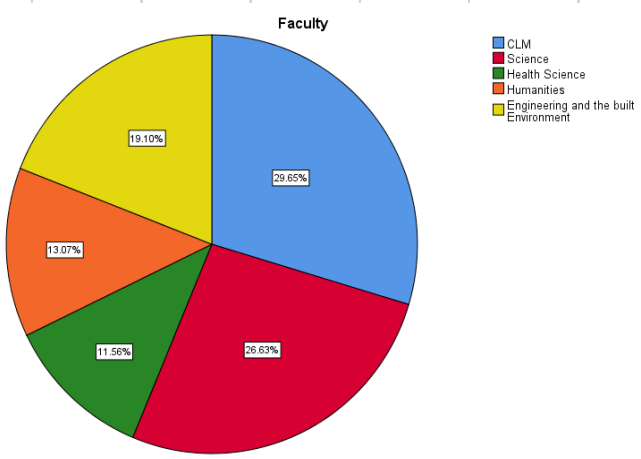


EDUCATION

Figure 8: Education

Figure 8 depicts a table and a pie chart representing the level of education. Undergraduate respondents made up 52.8% of the pool, followed by postgraduates at 38.7% and finally, any other level of education made up 8.5% of the respondents.

	Frequency	%	Valid %
CLM	59	26.5	29.6
Science	53	23.8	26.6
Health Science	23	10.3	11.6
Humanities	26	11.7	13.1
Engineering and	38	17	19.1
Total	199	89.2	100



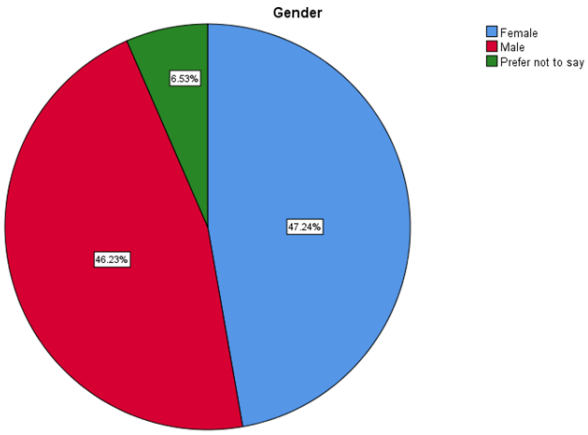
FACULTY

Figure 9: Faculty

Figure 9 depicts a table and a pie chart representing from which faculty the respondents came. For the purpose of this research, respondents from five different faculties were picked, with Commerce, Law and Management having the most respondents at 29.6%, followed by the Science faculty at 26.6%, then Engineering and Built Environment faculty and Humanities with 19.1% and 13% and last, the Health Sciences faculty with 11.6%.

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	Frequency	%	Valid %
Female	94	42.2	47.2
Male	92	41.3	46.2
Prefer not to say	13	5.8	6.5
Total	199	89.2	100



GENDER

Figure 10: Gender

Figure 10 depicts a table and a pie chart representing the gender. From the table, females were the most respondents at 47.2%, followed by males with a percentage of 46.2%, last, people who preferred not to choose their gender made up 6.5%.

5.2.2 Summary of scale item results

The research variables employed in this research were all measured using a 5-point Likert Scale, ranging from 1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree. The first variable, green brand image (GBI) was measured using five items, ranging from GBI 1 - GBI 5. The second variable, green price strategy (GPS) was also measured using five items, ranging from GPS 1 - GPS 5. The third variable, environmental sustainability (ES) was measured using five items and it ranged from ES1 – ES5. The fourth variable which is the green growth strategy (GGS) was measured using four items ranging from GGS 1 - GGS 4. The fifth variable, green innovation (GI) was measured with five items ranging from GI 1 - GI 4. Finally, the last item, green practice (GP), was measured with five items ranging from GP 1 – GP 5.

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Table 6: Table of summary of scale item

Scale : Frequency and Percentage (%)											
Constructs		Strongly Disagree		Disagree		Moderately Agree		Agree		Strongly Agree	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Green brand image	GBI 1	10	4.5	14	6.3	68	30.5	73	32.7	34	15.2
	GBI 2	5	2.2	18	8.1	74	33.2	72	32.3	30	13.5
	GBI 3	7	3.1	28	12.6	64	28.7	81	36.3	19	8.5
	GBI 4	3	1.3	17	7.6	73	32.7	66	29.6	40	17.9
	GBI 5	4	1.8	16	7.2	68	30.5	69	30.9	42	18.8
Green price stragey	GPS 1	7	3.1	25	11.2	64	28.7	70	31.4	33	14.8
	GPS 2	7	3.1	22	9.9	57	25.6	64	28.7	49	22
	GPS 3	5	2.2	12	5.4	51	22.9	76	34.1	55	24.7
	GPS 4	6	2.7	10	4.5	46	20.6	61	27.4	76	34.1
	GPS 5	6	2.7	20	9	69	30.9	74	33.2	30	13.5
Environmental sustainbility	ES 1	16	7.2	27	12.1	54	24.2	67	30	35	15.7
	ES 2	13	5.8	25	11.2	67	30	63	28.3	31	13.9
	ES 3	5	2.2	20	9	58	26	67	30	49	22
	ES 4	9	4	37	16.6	74	33.2	46	20.6	33	14.8
	ES 5	21	9.4	58	26	51	22.9	41	18.4	28	12.6
Green growth strategy	GGS 1	19	8.5	31	13.9	41	18.4	57	25.6	51	22.9
	GGS 2	13	5.8	39	17.5	69	30.9	49	22	29	13
	GGS 3	9	4	16	7.2	44	19.7	54	24.2	76	34.1
	GGS 4	39	17.5	29	13	54	24.2	43	19.3	34	15.2
Green innovation	GI 1	13	5.8	32	14.3	71	31.8	54	24.2	29	13
	GI 2	13	5.8	28	12.6	66	29.6	69	30.9	23	10.3
	GI 3	11	4.9	24	10.8	76	34.1	62	27.8	26	11.7
	GI 4	21	9.4	36	16.1	64	28.7	56	25.1	22	9.9
	GI 5	15	6.7	37	16.6	60	26.9	53	23.8	34	15.2
Green Practice	GPract 1	8	3.6	31	13.9	61	27.4	76	34.1	23	10.3
	Gpract 2	13	5.8	40	17.9	70	31.4	54	24.2	22	9.9
	Gpract 3	9	4	28	12.6	69	30.9	66	29.6	27	12.1
	Gpract 4	12	5.4	22	9.9	53	23.8	76	34.1	36	16.1
	GPract 5	22	9.9	16	7.2	72	32.3	54	24.2	35	15.7

The table above depicts results that were gathered from respondents

GBI 1 statement *"**The green brand image is regarded as the best benchmark of environmental commitments amongst hotels**"* illustrates that most respondents agreed with the statement and represented 32.7% of the total sample. These were followed by moderately agree and strongly agree represented by 30.5%, moderatelyagree represented by 15.2% and disagree represented by 6.3% of the sample, last, strongly disagree represents the least of the respondent with 4.5%

GBI 2 statement **"The *hotel's green brand image is trustworthy about environmental concerns"*** illustrates that most respondents moderately agree with the statements and represented 33.2% of the total sample. These were followed by agree and strongly agree

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represented by 32.2%, moderately agree represented by 13.50% and disagree represented by 8.1% of the sample, last, strongly disagree represents the least of the respondent with 2.2%.

GBI 3 statement ***"The hotel that I choose is well established about environmental concerns"*** illustrates that most respondents agree with the statements and represented 36.3% of the total sample. These were followed by moderately agree and disagree represented by 28.7%, moderately disagree represented by 12.6% and disagree represented by 8.1% of the sample, lastly strongly disagree represents the least of the respondent with 3.1%.

GBI 4 statement ***"The hotel is successful in its environmental performance"*** illustrates that most respondents moderately agree with the statements and represented 32.7% of the total sample. These were followed by agree and strongly agree, represented by 29.6%, moderately agree represented by 17.9% and disagree represented by 7.6% of the sample, last, strongly disagree represents the least of the respondent with 1.3%

GBI 5 statement ***"The hotel is professional about environmental reputation"*** illustrates that most respondents agree with the statements and represented 30.9% of the total sample. These were followed by moderately agree and strongly agree represented by 30.5%, agree represented by 18.8% and disagree represented by 7.2% of the sample, last, strongly disagree represents the least of the respondent with 1.8%.

GPS1 statement **"The quality of the hotel is worth the price"** illustrates that most respondents agree with the statements and represented 31.4% of the total sample. These were followed by moderately agree and strongly agree represented by 28.7%, moderately agree represented by 14.8% and disagree represented by 11.2% of the sample. Last, strongly disagree represents the least of the respondent with 3.1%.

GPS2 statement **"I prefer using green hotels when price discounts are offered"** illustrates that most respondents agree with the statements and represented 28.7% of the total sample. These were followed by moderately agree and strongly agree represented by 25.6%, moderatelyly agree represented by 22 % and disagree represented by 9.9 % of the sample. Last, strongly disagree represents the least of the respondent with 3.1%.

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GPS3 statement **"I use green hotels if they are easily available to me"** illustrates that most respondents agree with the statements and represented 34.1 % of the total sample. These were followed by strongly agree and moderately agree represented by 24.7%, agree represented by 22.9 % and disagree represented by 5.4% of the sample. Last, strongly disagree represents the least of the respondent with 2.2 %.

GPS4 statement **"I would prefer to use a green hotel if I have enough information, which confirms their greenness"** illustrates that most respondents strongly agree with the statements and represented 34.1% of the total sample. These were followed by agree and moderately agree represented by 27.4%, agree represented by 20.6% and disagree represented by 4.5% of the sample. Last, strongly disagree represents the least of the respondent with 2.7%.

GPS5 statement **"For the price I paid the hotel delivered on their promise"** illustrates that most respondents agree with the statements and represented 33.2% of the total sample. These were followed by moderately agree and strongly agree represented by 30.9%, agree represented by 13.5% and disagree represented by 9 % of the sample. Last, strongly disagree represents the least of the respondent with 2.7 %.

ES1 I statement **"I talk to others about the importance of the environment"** illustrates that most respondents agree with the statements and represented 30% of the total sample. These were followed by moderately agree and strongly agree represented by 24.2%, agree represented by 15.7% and disagree represented by 12.1% of the sample. Last, strongly disagree represents the least of the respondent with 7.2 %.

ES2 statement **" I purchase products that are environmentally friendly"** illustrates that most respondents moderately agree with the statements and represented 30% of the total sample. These were followed by agree and strongly agree represented by 28.3%, strongly agree represented by 13.9% and disagree represented by 11.2% of the sample; lastly strongly disagree is represents the least of the respondent with 5.8%.

ES3 statement **"I conserve energy at home or work"** illustrates that most respondents agree with the statements and represented 30% of the total sample. These were followed by

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moderately agree and strongly agree represented by 26%, strongly agree represented by 22% and disagree represented by 9% of the sample. Last, strongly disagree is represents the least of the respondent with 2.2%.

ES4 statement **"I choose green products over any other products"** illustrates that most respondents moderately agree with the statements and represented 33.2% of the total sample. These were followed by agree and strongly agree represented by 20.6%, strongly disagree represented by 16.6% and strongly agree represented by 14.8% of the sample, lastly, strongly disagree represents the least of the respondent with 4%.

ES5 statement **"I use "green" (non-plastic) shopping bags"** illustrates that most respondents disagree with the statements and represented 26% of the total sample. These were followed by moderately agree and agree represented by 22.9%, agree represented by 18.4% and strongly agree represented by 12.6% of the sample, last, strongly disagree represents the least of the respondents with 9.4%.

GGS1 statement **"I am familiar with what strategy is"** illustrates that most respondents agree with the statements and represented 25.6% of the total sample. These were followed by strongly agree and moderately agree represented by 22.9%, moderately agree represented by 18.4% and disagree represented by 13.9% of the sample. Last, strongly disagree represents the least of the respondents with 8.5%.

GGS2 statement **"I am familiar with what green growth strategy is"** illustrates that most respondents moderately agree with the statements and represented 30.9% of the total sample. These were followed by agree and disagree represented by 22%, disagree represented by 17.5% and agree represented by 13% of the sample, lastly, strongly disagree represents the least of the respondents with 5.8%.

GGS3 statement **"I consider strategy to be an integral part of any business"** illustrates that most respondents strongly agree with the statements and represented 34.1% of the total sample. These were followed by agree and moderately agree represented by 24.2%, moderately agree represented by 19.7% and disagree represented by 7.2% of the sample. Lastly, strongly disagree represents the least of the respondents with 4 %.

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GGS4 statement **"I totally do not have an idea of what green growth strategy is"** illustrates that most respondents moderately agree with the statements and represented 24.2% of the total sample. These were followed by agree and strongly disagree represented by 19.3%, strongly disagree represented by 17.5% and strongly agree represented by 15.2% of the sample, lastly disagree represents the least of the respondents with 13%.

GI1 statement **"The hotel I choose to go to uses eco-labelling"** illustrates that most respondents moderately agree with the statements and represented 31.8% of the total sample. These were followed by agree and disagree represented by 24.2%, disagree represented by 14.3% and strongly agree represented by 13% of the sample, lastly, strongly disagree represents the least of the respondents with 5.8%.

GI2 statement **"The hotel deliberately states whether its products are easy to recycle, reuse, and decompose"** illustrates that most respondents agree with the statements and represented 30.9% of the total sample. These were followed by moderately agree and disagree represented by 29.6%, disagree represented by 12.6% and strongly agree represented by 10.3% of the sample, lastly, strongly disagree represents the least of the respondents with 5.8%.

GI3 statement **"The hotel improves and designs environmentally friendly packaging (e.g.: less paper and plastic material used) for existing and new products"** illustrates that most respondents moderately agree with the statements and represented 34.1% of the total sample. These were followed by agree and strongly agree represented by 27.8%, strongly agree represented by 11.7% and disagree represented by 10.8% of the sample, lastly, strongly disagree represents the least of the respondents with 4.9%.

GI4 statement **"The hotel offers educational material on environmental sustainability (Pamphlets)"** illustrates that most respondents moderately agree with the statements and represented 28.7% of the total sample. These were followed by agree and disagree represented by 25.1%, disagree represented by 16.1% and strongly agree represented by 9.9% of the sample, lastly, strongly disagree represents the least of the respondents with 9.4%.

GI5 statement "The hotel uses digital brochures to offer educational materials" illustrates that most respondents moderately agree with the statements and represented 26.9% of the total

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sample. These were followed by agree and disagree represented by 23.8%, disagree represented by 16.6% and strongly agree represented by 15.2% of the sample, lastly, strongly disagree represents the least of the respondents with 6.7%.

GPract 1 statement **"Your preferred hotel is eco-friendly"** illustrates that most respondents agree with the statements and represented 33.2% of the total sample. These were followed by moderately agree and strongly agree represented by 30.9%, strongly agree represented by 13.5% and disagree represented by 9% of the sample, lastly, strongly disagree represents the least of the respondents with 3.6%.

GPract 2 statement **"The hotel provides educational information for its guests to help them understand its green practices"** illustrates that most respondents moderately agree with the statements and represented 31.4% of the total sample. These were followed by agree and disagree represented by 24.2%, disagree represented by 17.9% and strongly agree represented by 9.9% of the sample, lastly, strongly disagree represents the least of the respondents with5.8 %.

GPract 3 statement **"The hotel uses recyclable products, paper and glass, metal, plastic, or cardboard. Placing recycling bins around is also considered a recycling practice"** illustrates that most respondents moderately agree with the statements and represented 30.9% of the total sample. These were followed by agree and disagree represented by 29.6%, disagree represented by 12.6% and strongly agree represented by 12.1% of the sample, lastly, strongly disagree represents the least of the respondents with 4%.

GPract 4 statement **"The hotel implements a water conservation system, showers and bathtubs water pressures are normal"** illustrates that most respondents agree with the statements and represented 34.1% of the total sample. These were followed by moderately agree and strongly agree represented by 23.8%, strongly agree represented by 16.1% and disagree represented by 9.9% of the sample. Lastly, strongly disagree represents the least of the respondents with 5.4%.

GPract 5 statement **"The hotel uses energy star qualified appliances or any equipment for the energy conservation system such as energy-saving heating and cooling temperature systems"** illustrates that most respondents moderately agree with the statements and

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represented 32.3% of the total sample. These were followed by strongly agree at 15.7 % and agree 24.2 %

5.3 Measurement model assessment – Reliability and Validity of instruments

"Measurement is the assigning of numbers to observations in order to quantify phenomena; furthermore, measurement involves the operationalisation of constructs in defining variables and the development and application of instruments or tests to quantify variables" (Winterstein, 2008). The quality of a measuring instrument is indicated by reliability and validity.

5.3.1 Reliability measurements

To validate reliability of measurement items, Cronbach Alpha, composite reliability (CR) and average variance extracted (AVE) were utilised. Reliability helps the researcher to test the integrity and credibility of the research. The Cronbach alpha and CR confirm the presence of reliability while the AVE proves the existence of discriminate validity. The table below depicts the Cronbach, CR, AVE, and factor loadings values, which are discussed further.

Furthermore, the following research constructs were deleted because they did not meet the factor loading threshold of 0.5 or greater as recommended by Chinomona (2017), GBI 1, GBI 2, GB3, ES3, ES5, GGS 3, GGS 4, GPract 1 and GPract 2.

Table 7: Scale accuracy analysis

Research Construct		Cronbach's Test		C.R. Value	AVE value	Factor Loadings
		Corrected total to item	α Value			
GBI	GBI3	0.516	0.749	0.76	0.51	0.629
	GBI4	0.635				0.802
	GBI5	0.579				0.700
ES	ES1	0.573	0.778	0.78	0.55	0.737
	ES2	0.694				0.810
	ES4	0.576				0.666
GGS	GGS1	0.601	0.751	0.76	0.61	0.717
	GGS2	0.601				0.839
GI	GI1	0.608	0.84	0.84	0.51	0.683
	GI2	0.659				0.722
	GI3	0.645				0.729
	GI4	0.667				0.732
	GI5	0.645				0.721
GPract	GPract3	0.634	0.798	0.80	0.57	0.772
	GPract4	0.625				0.714
	GPract5	0.670				0.776

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Note: GBI = Green brand image; ES = Environmental sustainability; GGS = Green growth Strategy; GI= Green innovation; Gpract = Green Practice; CR = Composite reliability; AVE = Average variance extracted

5.3.1.1 Cronbach alpha

Cronbach's alpha is the most popular coefficient for internal consistency (SÜß, 2005). Chinomona (2017) defines Cronbach alpha as a statistical tool for assessing reliability of instruments intended to measure a specific construct, furthermore, this is in line with Nunnally and Bernstein (1994) who suggest that the acceptable value for Cronbach alpha value is 0.6. In the above table, the Cronbach alpha values for the study range between 0.748 – 0.84 which is above the required threshold meaning that there is proof that reliability exist.

5.3.1.2 Composite Reliability (CRη= (Σλyi) 2/ [(Σλyi) 2+ (Σεi)])

Another measure for reliability is composite reliability. Composite reliability, sometimes known as construct reliability, "is a measure of internal consistency in scale items" (SÜß, 2005). Because Cronbach can sometimes over or underestimate reliability, Composite reliability was introduced to measure reliability in an event where conditions for using Cronbach are not met (SÜß, 2005).

For the purpose of this study, the acceptable threshold for the composite reliability must be above 0.7 which is recommended by Chinomona (2017). As shown in the table, all the CR values are reported above 0.7, ranging from 0.76 to 0.84, which shows that indeed, internal consistency exists.

5.3.1.3 Average Variance Extracted (AVE) (Vη=Σλyi2/ (Σλyi2+Σεi)

The average variance extracted is one of the measures that is used to measure convergent validity (Sánchez, 2015). Alarcón and Sánchez (2015) defined this as a "measure of the level of variance captured by a construct versus the level due to measurement error, values above 0.7 are considered very good, whereas, the level of 0.5 is acceptable".

From the above table, the AVEs ranged from 0.51 to 0.61, this means that, for this study, convergent validity exists.

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5.3.2 Validity measurements

Generally, “validity is an indication of how sound your research is. More specifically, validity applies to both the design and the methods of your research” (Zohrabi, 2013). Furthermore, “validity in data collection means that your findings truly represent the phenomenon you are claiming to measure” (Sánchez, 2015). Valid claims are solid claims.

5.3.2.1 Convergent validity

This is known as the “degree of confidence we have that a trait is well measured by its indicators” (Sánchez, 2015). To measure convergent validity for the research, the item-to-total correlation and factor loadings were considered. For convergent validity to exist, the loadings must load above 0.5 as recommended by Chivandi (2017); for the current study item-to-total correlation ranged from 0.516 – 0,694, for the factor loading they ranged from 0.629 – 0.839 as shown in the table above. This proves that the items are explaining more than 50% of their individual constructs.

5.3.2.2 Discriminate validity

This is known as “the degree to which measures of different traits are unrelated” (Sánchez, 2015). Chivandi, Chinomona and Maziriri (2017) recommend that one of the methods a researcher can use to check for discriminant validity of the research constructs is whether the correlations among latent constructs were less than 0.60. As seen in the below table, all correlation between the constructs is less that the recommended 0.60, which indicates that discriminant validity exists.

Furthermore, it is said that shared variance is supposed to be greater than the correlation coefficients of the corresponding research constructs,(Chivandi, 2017); as the table shows, the shared variance is greater and is represented by 1.

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Table 8: Inter – correlation matrix

Correlations						
		GBI	ES	GGS	GI	GPrac
GBI	Pearson Correlation	1				
ES	Pearson Correlation	.289**	1			
GGS	Pearson Correlation	.142*	.480**	1		
GI	Pearson Correlation	.447**	.455**	.370**	1	
GPrac	Pearson Correlation	.193**	.173*	.182*	.345**	1
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Note: GBI = Green brand image; ES = Environmental sustainability; GGS = Green growth Strategy; GI= Green innovation; Gpract = Green Practice

5.3.3 Confirmatory factor Analysis

"Confirmatory factor analysis is a multivariate statistical procedure that is used to test how well the measured variable represents the number of constructs" (StatisticsSolutions, 2013). "CFA follows a general procedure which includes defining the individual construct, developing the overall measurement model theory, designing a study to produce empirical results and lastly, assessing the measurement model validity". To assess model validity, this was done through model fit indices and meeting certain thresholds for the model to fit. According to Moss (2016), "Model fit indices establish whether the overall model is acceptable, if the model is acceptable, researchers then establish whether specific paths are significant"

Table 9: Model fit indices

Model fit Index	Chi-square	GFI (Goodness of fit)	CFI (Comparative fit index)	TLI (Tucker-Lewis Index)	IFI (Incremental Fit Index)	RFI (Relative Fit Index)	NFI (Norm Fit Index)	RMSEA Root (Mean Square Error of Approximation)
Indicator Value	1.470	0.921	0.961	0.950	0.962	0.859	0.90	0.049

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5.3.3.1 Chi-square(X2/DF)

The Chi-Square value is the traditional measure for evaluating overall model fit and "assesses the magnitude of discrepancy between the sample and fitted covariance matrices" (Hooper, 2008). As recommended by Chinomona (2013), the acceptable threshold for chi – square is less than 3; from the table above, it shows that for this study, the chi square has met the requirement.

5.3.3.2 Goodness of fit (GFI)

According to Chinomona (2013), the GFI must be greater than or equal to 0.9 in order to show model fit, however a value greater than 0.8 can marginally be accepted. GFI for the current study is 0.921 which shows impressive model fit.

5.3.3.3 Comparative Fit Index (CFI)

According to Chinomona (2013), the CFI must be greater than or equal to 0.9 in order to show model fit. CFI for the current study is 0.961 which shows impressive model fit.

5.3.3.4 Tucker-Lewis Index (TLI)

According to Chinomona (2013), the TLI must be greater than or equal to 0.9 in order to show model fit. TLI for the current study is 0.950 which shows impressive model fit.

5.3.3.5 Incremental fit Index (IFI)

According to Chinomona (2013), the IFI must be greater than or equal to 0.9 in order to show model fit. IFI for the current study is 0.962 which shows impressive model fit.

5.3.3.6 Relative Fit Index (RFI)

According to Chinomona (2013), the RFI must be greater than or equal to 0.9 in order to show model fit, however a value greater than 0.8 can marginally be accepted. RFI for the current study is 0.859 which shows impressive model fit.

5.3.3.7 Relative Fit Index (RFI)

According to Chinomona (2013), the NFI must be greater than or equal to 0.9 in order to show model fit. NFI for the current study is 0.90 which shows impressive model fit.

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5.3.3.8 Random Measure of Standard Error Approximation (RMSEA)

The RMSEA "expresses how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix and in recent years, it has been regarded as 'one of the most informative fit indices' due to its sensitivity to the number of estimated parameters in the model" (Hooper, 2008). An acceptable threshold of 0.08 or less is acceptable for RMSEA (Chinomona, 2013), for the study the RMSEA is 0.049, meaning the threshold was impressively met and it indicates that model fit exists.

5.3.3.9 Confirmatory Factor Analysis (CFA) Model

The figure below depicts the confirmatory factor analysis model, the model was drawn using the AMOS 25 graphic software. The software allows the researcher to draw the perfect shapes of the model which represent the different characteristics of the model. The rectangular shape represents the observed variables, then the circle shapes represents the latent variables and lastly, the oval shapes represents the error terms.

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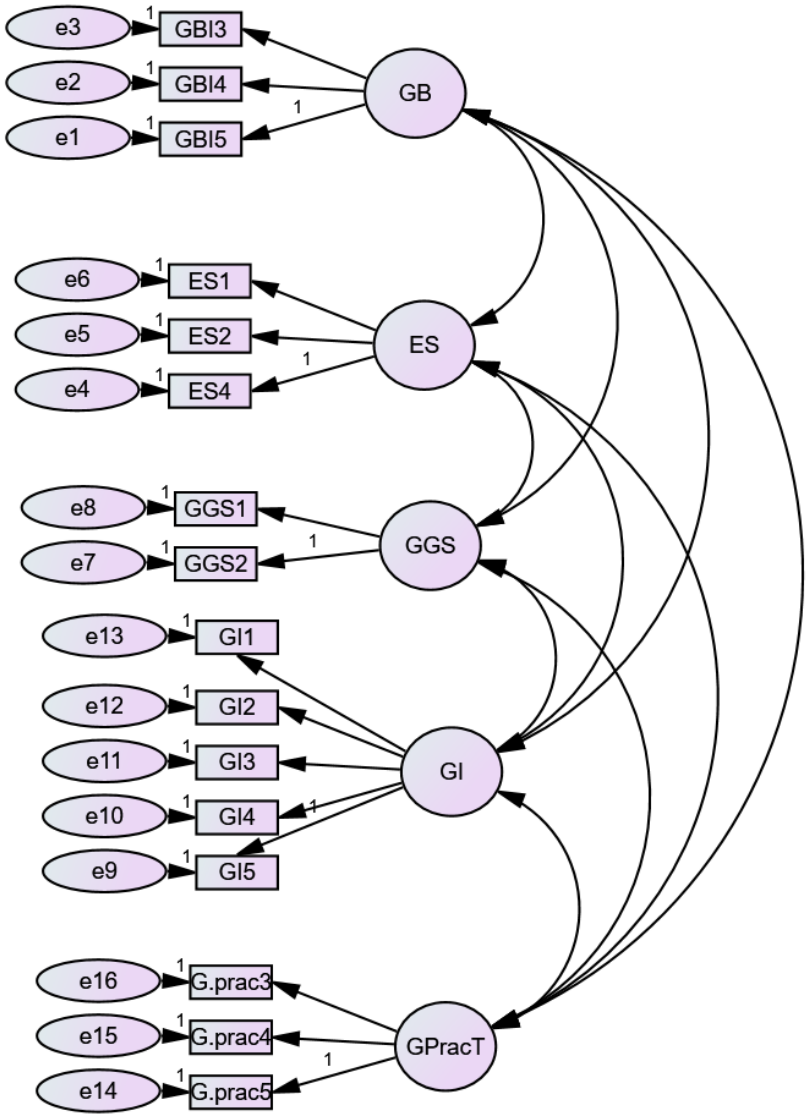


Figure 11: CFA Model

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5.4 Path Modelling and Hypothesis Testing

After confirmatory factor analysis was performed, the researcher continued to perform path analysis which yielded new model fit indices, as well as a path model which is depicted further in the chapter. According to Wuensch (2016), "Path analysis is a method employed to determine whether or not a multivariate set of non-experimental data fits well with a particular (a priori) causal model". Path modelling is followed by hypothesis testing where the results are determined by the path coefficients as well as p-values.

Table 10: Model fit indices for Path analysis

Model fit Index	Chi-square	GFI (Goodness of fit)	CFI (Comparative fit index)	TLI (Tucker-Lewis Index)	IFI (Incremental Fit Index)	RFI (Relative Fit Index)	NFI (Norm Fit Index)	RMSEA Root (Mean Square Error of Approximation)
Indicator Value	2.106	0.888	0.904	0.883	0.906	0.799	0.835	0.075

As was done before for confirmatory factor analysis, model fit indices have to be examined for the path analysis as well, and we use the same threshold that we used in the previous CFA test.

As represented from the table above, the Chi-square met the acceptable threshold, as for GFI, TLI, RFI, NFI, they marginally met the acceptable threshold, ranging from 0.799 to 0.888 as they did not manage to be greater than or equal to 0.9 whilst CFI and NFI managed to meet the acceptable threshold of the required greater than or equal to 0.9.. Finally, the RMSEA met the acceptable threshold by being less than 0.08 at 0.075.

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5.4.1 Path model

In the path model, green brand (GB), environmental sustainability (ES), and green growth strategy (GGS) are the predictor variables. Green innovation (GI) is the moderator variable and Green practice (Gpract) is the dependent variable. What really sets the path model apart from the CFA model, is the single headed arrows on the variables which signify causal relationships.

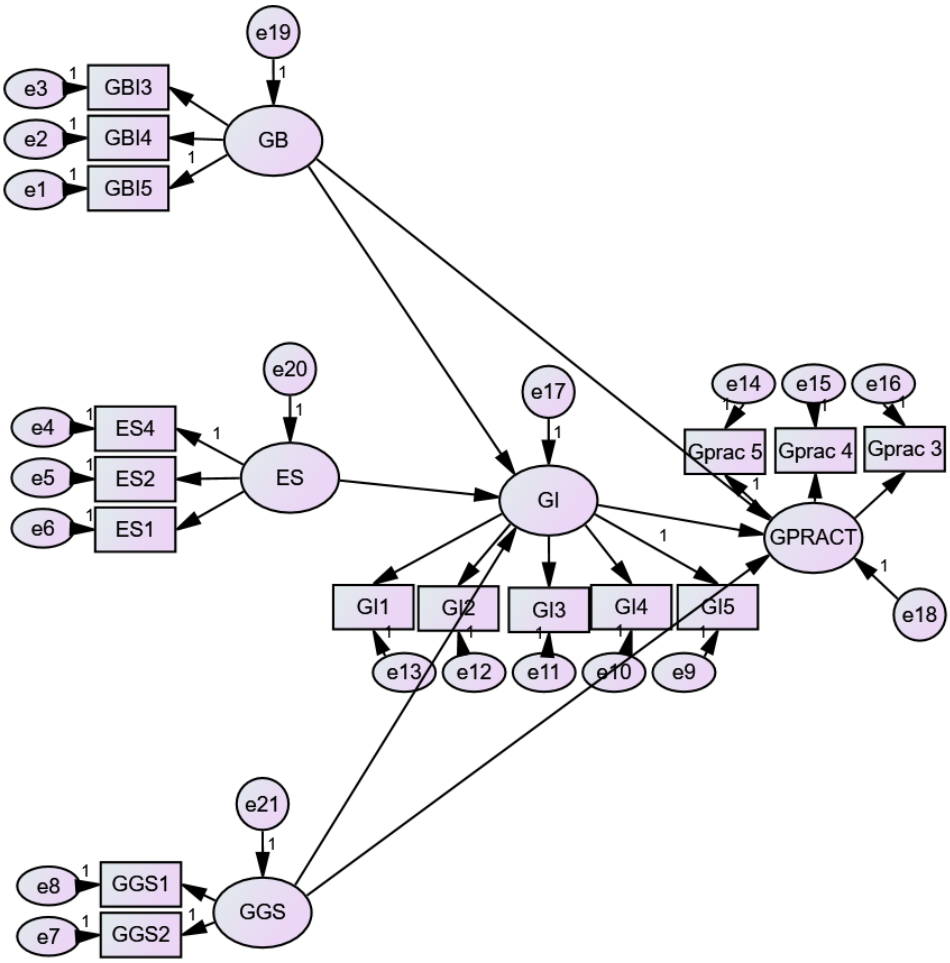


Figure 12: Path model

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5.4.2 Hypothesis Testing

Before diving into the testing of any hypothesis, we must first understand what an hypothesis is. According to Shaffer (1995), an hypothesis is amongst other definitions "is an educated guess about something in the world around you. It should be testable, either by experiment or observation. As for hypothesis testing, it is a way for a researcher to test the results of a survey or experiment to see if you have meaningful results" (Shaffer, 1995). The table has a list of our tested hypotheses that fit our model.

Table 11: Hypothesis testing

Hypothesis relationship	Hypothesis	Path coefficient	P values	Outcomes
GBI > GI	H2	0.441	***	Supported and significant
ES > GI	H4	0.296	***	Supported and significant
GGS > GI	H5	0.282	0.008	Supported and significant
GB > GPRACT	H1	0.025	0.906	Supported and insignificant
GI > GPRACT	H7	0.358	0.001	Supported and significant
GGS > GPRACT	H6	0.085	0.339	Supported and insignificant

Note: GBI = Green brand image; ES = Environmental sustainability; GGS = Green growth Strategy; GI= Green innovation; Gpract = Green Practice

- **GBI > GI (H2)**, the path coefficient is 0.441, this implies that there is a strong relationship between GBI and GI. The p-value of *** denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.
- **ES > GI (H4)**, the path coefficient is 0.296, this implies that there is a strong relationship between ES and GI. The p-value of *** denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.
- **GGS > GI (H5)**, the path coefficient is 0.282, this implies that there is a strong relationship between GGS and GI. The p-value of 0.008 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.

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- **GB > GPract** (**H1)**, the path coefficient is 0.025, this implies that there is a strong relationship between GB and Gpract. The p-value of 0.906 denotes a $p > 0.05$ confidence level and this signifies that the hypothesis is supported and insignificant.
- **GI > GPract** (**H7)**, the path coefficient is 0.358, this implies that there is a strong relationship between GI and GPract. The p-value of 0.001 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.
- **GGS > GPract** (**H6)**, the path coefficient is 0.441, this implies that there is a strong relationship between GGS and GPract. The p-value of 0.339 denotes a $p > 0.05$ confidence level and this signifies that the hypothesis is supported and insignificant.

5.5 Summary of Chapter

In this chapter, data that was collected using self-administered questionnaires, was analysed using SPSS 25 and Amos 25, furthermore the research was able to create diagrams to depict the confirmatory factor analysis as well as path diagrams. Model fit indices were also described to confirm the existence of the fit indices and finally, the proposed hypotheses were tested.

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CHAPTER 6: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The last and final chapter, this chapter brings the whole research paper together by discussing the findings as well as reviewing the object of the study. Furthermore, the chapter draws conclusion from the results collected in chapter five as well as shedding light on those results, whether positive or negative. Lastly, the chapter deduces the implication of the study, both academic and marketing, then gives recommendations for future research.

6.2 Demographic profile of respondents

6.2.1 Gender and Age

Females were the most respondents at 47.2% followed by males with a percentage of 46.2%, lastly, people who preferred not to choose their gender made up 6.5%. For the age demographic the majority of the respondents were between (18 – 22) at 30.7 % , followed by respondents aged between (23 – 25) at 26.6 % , then followed by ages (26 - 28), (29 – 31),(32 - 34) at 17.1% , 14.6% ,7% respectively and lastly we have ages between (35 - 37) at 4 % being the fewest respondents.

6.2.2 Level of education and Faculty

Undergraduate respondents made up 52.8% of the pool, followed by postgraduates at 38.7 % and finally any other level of education made up 8.5% of the respondents. The faculties were represented as follows, with CLM had the most respondents at 29.6%, followed by the science faculty at 26.6%, then the Engineering and built environment faculty and humanities with 19.1%and 13% and lastly health sciences faculty with 11.6%

6.3 Discussion of Findings

In the beginning of the research objectives were developed, both theoretical and empirical, four empirical objectives were developed. These objectives were developed to help understand “The influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective” All hypotheses were tested using path modelling on AMOS.

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6.3.1 Green branding and Green practices (H 1)

The empirical objective of the study was suggested; to assess whether there is a relationship between green branding and green practice. From the result stated in chapter five, the path coefficient is 0.025, this implies that there is a strong relationship between green branding and green practices. The p-value of 0.906 denotes a $p > 0.05$ confidence level and this signifies that the hypothesis is supported and insignificant. There is a positive relationship between the two variables. Due to insufficient data, the researcher was not able to make a conclusion hence the relationship is insignificant. Previous literature from Manjunath (2014) stated that "a brand can be separated from the competition based on requests to sustainability or the environment Firms that set up well-defined brand personality are more likely to yield brand value". The scholar suggests that there is a relationship between green branding and green practices, as a company that engages in green branding will significantly increase its company value.

6.3.2 Green branding and Green innovation (H 2)

The empirical objective of the study was suggested; to investigate whether there is a relationship between green branding and green innovation. From the result stated in chapter five, the path coefficient is 0.441, this implies that there is a strong relationship between GBI and GI. The p-value of *** denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant. There is a positive relationship between the two variables and it is significant as well. Previous literature from Rahman and Haq (2016) signifies the importance of branding, and the differentiating factor it brings into the business, this also applies to green innovation.

6.3.3 Green price and Green innovation (H 3)

The study proposed a positive relationship between green price and green innovation. Due to not having enough suitable questions to be test and run through AMOS, the relationship between green price and green innovation was not considered.

6.3.4 Environmental sustainability and Green innovation (H 4)

The empirical objective of the study was suggested; to assess whether there is a relationship between environmental sustainability and green innovation. From the result stated in chapter five, the path coefficient is 0.282, this implies that there is a strong relationship between GGS and GI. The p-value of 0.008 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant, there is a positive relationship between the two

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variables, the relationship is significant as well. According to previous literature from Goodland (1995) and Beltramello, Haie-Fayle and Pilat (2013), this suggests that environmental sustainability is important to mankind as well as business. The previously mentioned scholars suggest that when a business decides to be environmentally sustainable that specific establishment grows.

6.3.5 Green growth strategy and green innovation (H 5)

The empirical objective of the study was suggested to investigate whether there is a relationship between green growth strategy and green innovation. From the result stated in chapter five, the path coefficient is 0.282, this implies that there is a strong relationship between GGS and GI. The p-value of 0.008 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant and we can deduce that there is positive relation between the variables. Previous literature seems to agree with the relationship between the two variables. Beltramello, Haie-Fayle and Pilat (2013) also agree with the relationship as they stated that "Eco-innovation projects and business models are often influenced by the internal governance of companies, the strategies that they adopt and the societal values that they promote".

6.3.6 Green growth strategy and Green practice (H 6)

In chapter two, the study proposed a positive relationship between the variables, the empirical objective stated; to investigate whether there is a relationship between green growth strategy and green practice. From the result as stated in chapter five, the path coefficient is 0.441, this implies that there is a strong relationship between Green growth strategy and Green Practice The p-value of 0.339 denotes a $p > 0.05$ confidence level and this signifies that the hypothesis is supported, there is relationship between the two variables, a positive relationship but it is insignificant due to the p value. The relationship being insignificant means that there is not enough data to make a conclusion at this time. Previous literature from Strutton, Arezoo Davari and David (2014) , Kim, Hlee and Joun (2016) suggest the positive relation between variables is due to the fact that any business that implements a green growth strategy, will certainly follow suit with green practices.

6.3.7 Green Innovation and Green Practice (H 7)

The seventh empirical objective of the study was to investigate the influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective. The research paper suggested that there was a positive relationship

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between green innovation and green practice. In chapter five, the result for this suggested relationship were as follows; the path coefficient came out as 0.358, which implies that there is a strong relationship between green innovation and green practice. Whilst the p-value of 0.001 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.

Given the above results, it means that the hypothesis statement (H7) is true. The findings are in line with previous literature on green innovation and green practice: Ho, Lin and Yi-Hui (2011) believe that "Green practice adoption involves implementing new or modified processes, techniques, and systems to reduce environmental harms and can be regarded as a technical innovation process" whilst Beltramello, Haie-Fayle and Pilat (2013) suggest that "green innovation leads to the rise of new business firms to introducing innovations in light of certain factors, for example, guidelines, the availability of public support or market demand" all of which lead to green practice. The results also answer the research question; "How does green innovation have an impact on green practice" since there is a positive impact; this is because a business that takes part in green practices stands a chance to boost their performance as well as to maintain a competitive edge.

In South African city centre based hotels' context, it means that hotels that take part in green innovation will have a positive impact towards the business' green practice.

6.4 Conclusion of the Study

To reiterate the topic of the study; **the influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective**. The study set out to investigate the influence green innovation has towards the adoption of green practices in city centre based hotels. This was done through employing several variables, green branding, green prices, green growth strategy, environmental sustainability, green innovation, and green practice in a conceptual model that would allow us to assess our hypothesis. The researcher can conclude that there is a positive influence when it comes to city centre based hotels adopting green practices, this is backed up by the results tested in chapter five, especially the result between green innovation and green practices; the path coefficient came out as 0.358, which implies that there is a strong relationship between green innovation and green practice, whilst the p-value of 0.001 denotes a $p < 0.05$ confidence level and this signifies that the hypothesis is supported and significant.

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From the stated hypothesis, only two hypotheses had insignificant relationships - this is hypothesis 1 and hypothesis , both with p values greater than 0.05. Finally, there was one hypothesis that was not tested at all, which is hypothesis 3 the relationship between green price and green innovation; this was due to the fact that the variables did not meet the testing requirements that AMOS 25 requires.

6.5 Implications of the Study

6.5.1 Academics Implications

The study has identified important relationships between green branding, green prices, green growth strategy, environmental sustainability, green innovation, and green practice. It should be noted that the relationship between green branding and green practices and green growth strategy and green innovation were insignificant.

The study adds to the existing literature within the green tourism, specifically in the hospitality industry from a South African context.

6.5.2 Marketing implications

The study makes it clear for executives, managers, as wells as consumers of the importance of green practices in hotels. The relationship between the variables shows that indeed green tourism is the future and not only does give a business a competitive edge, it does so, looking after the environment, and the image goes a long way within the community, building an everlasting brand as a responsible establishment.

6.6 Recommendations for Future Research

There is still more research that can be done within the South African context in terms of green tourism, especially in the hospitality industry. Scholars can employ more variables within the marketing mix to find out more about the environmentally well-being of the hospitality industry, not just on green practices. Furthermore, there is still space for research to be explored between green branding and green practices as well as green growth strategy and green innovation as this relationship came out as insignificant. If more funds and time are employed to this research there is still more that scholars can discover.

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6.7 Conclusion

The last chapter summarised the whole study in a nutshell through the discussion of the findings and well as both key academic implication and marketing implications. The chapter concluded by providing options for future research.

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REFERENCES

1. Abend, G., 2008. The meaning of 'theory'. *Sociological theory*, *26*(2), pp.173-199.
2. Alarcón, D., Sánchez, J.A. and De Olavide, U., 2015, October. Assessing convergent and discriminant validity in the ADHD-R IV rating scale: User-written commands for Average Variance Extracted (AVE), Composite Reliability (CR), and Heterotrait-Monotrait ratio of correlations (HTMT). In *Spanish STATA Meeting* (pp. 1-39). Universidad Pablo de Olavide.
3. Ballantyne, R., Packer, J. and Falk, J. 2009, Visitors' learning for environmental sustainability: testing short-and long-term impacts of wildlife tourism experiences using structural equation modelling. *Tourism Management*, *32*(6), pp.1243-1252.
4. Beltramello, A., Haie-Fayle, L. and Pilat, D., 2013. Why new business models matter for green growth.
5. Bhattacherjee, A., 2012. Social science research: Principles, methods, and practices.
6. Bird, D.K., 2009. The use of questionnaires for acquiring information on public perception of natural hazards and risk mitigation-a review of current knowledge and practice. *Natural Hazards and Earth System Sciences*, *9*(4), p.1307.
7. Blomstrom, Duena. Emotional Experience. 2015. 24 April 2018. https://duenablomstrom.com/2015/05/13/ex-for-banks-sake/ . [Accessed 24 April 2018].
8. Bollen, K.A. 2001 "Indicator: Methodology." International Encyclopaedia of the Social & Behavioral Sciences 7282-7287.
9. Bradford, Alina. Live Science. 23 March 2015. 15 March 2017. http://www.livescience.com/21569-deduction-vs-induction.html.[Accessed 15 March 2017]
10. Brophy, Selene. Cape Water Crisis: 9 ways this hotel reduced its YOY consumption by 17%. 2017. 20 February 2020. https://www.traveller24.com/Explore/Green/cape-water-crisis-9-ways-this-hotel-reduced-its-yoy-consumption-by-17-20170905 .[Accessed 20 February 2020]

`

11. Brunner, M. and SÜβ, H.M., 2005. Analyzing the reliability of multidimensional measures: An example from intelligence research. *Educational and Psychological Measurement*, *65*(2), pp.227-240.

12. Buskirk, Trent. The analysis factor. 2016. 17 April 2018. http://www.theanalysisfactor.com/target-population-sampling-frame/ [Accessed 17 April 2018

13. Canada, Statistic. Statistic canada. 2015. 15 April 2018. http://www.statcan.gc.ca/pub/12-539-x/2009001/sample-plan-eng.htm [Accessed 17 April 2018

14. Cangur, S. and Ercan, I., 2015. Comparison of model fit indices used in structural equation modeling under multivariate normality. *Journal of Modern Applied Statistical Methods*, *14*(1), p.14.

15. Carson, D., Gilmore, A., Perry, C. and Gronhaug, K., 2001. *Qualitative marketing research*. Sage.

16. Chan, E.S. and Wong, S.C., 2006. Hotel selection: When price is not the issue. *Journal of Vacation Marketing*, *12*(2), pp.142-159.

17. Chen, C.S. and Lin, L.Y., 2011. A new framework: Make green marketing strategy go with competitive strategy. *Journal of Global Business Management*, *7*(2), p.1.

18. Chen, W.J., 2011. Innovation in hotel services: Culture and personality. *International Journal of Hospitality Management*, *30*(1), pp.64-72.

19. Chiang, CF and Jang, SS, 2008. An expectancy theory model for hotel employee motivation. *International Journal of Hospitality Management* , *27* (2), pp.313-322.

20. Chinomona, R. and Maziriri, E.T., 2017. The influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention: a case of male consumers for cosmetic brands in South Africa. *Journal of Business and Retail Management Research*, *12*(1).

21. Chinomona, R. and Surujlal, J., 2012. The influence of student internship work experience on their self-improvement and professionalism in Sport Management:: sport management. *African Journal for Physical Health Education, Recreation and Dance*, *18*(Issue-4_2), pp.885-899.

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22. Chinomona, R., 2013. Mobile gaming perceived enjoyment and ease of play as predictors of student attitude and mobile gaming continuance intention. *Mediterranean Journal of Social Sciences*, *4*(14), p.237.

23. Chiou, T.Y., Chan, H.K., Lettice, F. and Chung, S.H., 2011. The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. *Transportation Research Part E: Logistics and Transportation Review*, *47*(6), pp.822-836.

24. Chivandi, A., Chinomona, R. and Maziriri, E.T., 2017. Service Innovation Capabilities towards Business Performances in the Hotel Sector of Zimbabwe.

25. Chou, C.J., Chen, K.S. and Wang, Y.Y., 2012. Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*, *31*(3), pp.703-711.

26. Cretu, A.E. and Brodie, R.J., 2007. The influence of brand image and company reputation where manufacturers market to small firms: A customer value perspective. *Industrial marketing management*, *36*(2), pp.230-240.

27. Cronin, J.J., Smith, J.S., Gleim, M.R., Ramirez, E. and Martinez, J.D., 2011. Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*, *39*(1), pp.158-174.

28. Damanpour, F. and Gopalakrishnan, S., 1998. Theories of organizational structure and innovation adoption: the role of environmental change. Journal of Engineering and technology management, 15(1), pp.1-24.

29. Dangelico, R.M. and Pujari, D., 2010. Mainstreaming green product innovation: Why and how companies integrate environmental sustainability. *Journal of business ethics*, *95*(3), pp.471-486.

30. Davari, A. and Strutton, D., 2014. Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviors. *Journal of Strategic Marketing*, *22*(7), pp.563-586.

31. Deon. 10 Eco-Friendly Hotels in South Africa. 2015. 21 February 2020. https://www.domesticflights-southafrica.co.za/10-eco-friendly-hotels-in-south-africa/ [Accessed 21 February 2020].

`

32. Department of Tourism, 2020 "Tourism Quarterly Performance Report.".

33. Development, International Institute for Sustainable. The ISO 14020 series. 2013. 26 February 2020. https://www.iisd.org/business/markets/eco_label_iso14020.aspx [Accessed 26 February 2020].

34. Dinnen, Jenny. Mackenzie Corporation. 2014. 18 January 2020. https://www.mackenziecorp.com/phase-2-clearly-define-research-strategy / [Accessed 18 January 2020].

35. Dzhandzhugazova, E.A., Blinova, E.A., Orlova, L.N. and Romanova, M.M., 2016. Innovations in hospitality industry. *International Journal of Environmental and Science Education*, *11*(17), pp.10387-10400.

36. Frambach, R.T. and Schillewaert, N., 2002. Organizational innovation adoption: A multi-level framework of determinants and opportunities for future research. *Journal of business research*, *55*(2), pp.163-176.

37. Genc, R. and Genç, E.A., 2017. Market-oriented innovations in tourism. *Research in Hospitality Management*, *7*(1), pp.51-58.

38. Ginsberg, J.M. and Bloom, P.N., 2004. Choosing the right green marketing strategy. *MIT Sloan management review*, *46*(1), pp.79-84.

39. Goodland, R., 1995. The concept of environmental sustainability. *Annual review of ecology and systematics*, *26*(1), pp.1-24.

40. Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P. and Kyriakidou, O., 2004. Diffusion of innovations in service organizations: systematic review and recommendations. *The Milbank Quarterly*, *82*(4), pp.581-629.

41. Gyurácz-Németh, P., Friedrich, N. and Clarke, A., 2014. Innovation Types in a Distinctive Hotel. Współczesne Zarządzanie, 13(2), pp.86-96.

42. Hieu, V.M. and Rašovská, I., 2017. A proposed conceptual model of green pratices impacting on the tourism business and their performances: a case of Phu Quoc island Vietnam.

43. Hjalager, A.M. and Corigliano, M.A., 2000. Food for tourists—determinants of an image. *International journal of tourism research*, *2*(4), pp.281-293.

`

44. Holden, M.T. and Lynch, P., 2004. Choosing the appropriate methodology: Understanding research philosophy. *The marketing review*, *4*(4), pp.397-409.

45. Hooper, D., Coughlan, J. and Mullen, M., 2008. Structural Equation Modelling: Guidelines for Determining Model Fit. Electronic Journal of Business Research Methods, 6 (1), 53–60.

46. Huang, J.W. and Li, Y.H., 2017. Green innovation and performance: The view of organizational capability and social reciprocity. *Journal of Business Ethics*, *145*(2), pp.309-324.

47. Hung, W.T., Shang, J.K. and Wang, F.C., 2010. Pricing determinants in the hotel industry: Quantile regression analysis. *International Journal of Hospitality Management*, *29*(3), pp.378-384.

48. Jobs, Soeg. Top 10 Innovation in the Hospitality Industry. 2020. 20 February 2020. https://www.soegjobs.com/top-10-innovation-hospitality-industry/#blogh310id .[Accessed 20 February 2020].

49. Kathy. Why are eco-friendly products more expensive? 2019. 19 November 2019. http://clarifygreen.com/eco-friendly-products-cost-more/ .[Accessed 19 November 2019].

50. Khandelwal, U. and Yadav, S.K., 2014. Green Marketing and Sustainable Development: Marketing Professionals Attitude Towards Green Marketing. *International Journal of Marketing & Business Communication*, *3*(1).

51. Kim, J.Y., Hlee, S. and Joun, Y., 2016. Green practices of the hotel industry: Analysis through the windows of smart tourism system. *International Journal of Information Management*, *36*(6), pp.1340-1349.

52. Kim, V.W.E. and Periyayya, T., 2013. The beauty of Green branding: Way to the future. *Global Journal of Management And Business Research*.

53. Kimberlin, C.L. and Winterstein, A.G., 2008. Validity and reliability of measurement instruments used in research. *American journal of health-system pharmacy*, *65*(23), pp.2276-2284.

`

54. Kimberlin, C.L. and Winterstein, A.G., 2008. Validity and reliability of measurement instruments used in research. *American journal of health-system pharmacy*, *65*(23), pp.2276-2284.

55. Kotler, P. and Armstrong, G., 2010. *Principles of marketing*. Pearson education.

56. Kumar, P.D., 2011. Green marketing: a start to environmental safety. *Advances in Management*.

57. Lawler III, E.E. and Suttle, J.L., 1973. Expectancy theory and job behavior. *Organizational behavior and human performance*, *9*(3), pp.482-503.

58. Lepp, A. and Gibson, H., 2003. Tourist roles, perceived risk and international tourism. *Annals of tourism research*, *30*(3), pp.606-624.

59. Lichtenstein, D.R., Ridgway, N.M. and Netemeyer, R.G., 1993. Price perceptions and consumer shopping behavior: a field study. *Journal of marketing research*, *30*(2), pp.234-245.

60. Lin, C.Y. and Ho, Y.H., 2011. Determinants of green practice adoption for logistics companies in China. *Journal of business ethics*, *98*(1), pp.67-83.

61. Lin, L.Y., 2010. The relationship of consumer personality trait, brand personality and brand loyalty: an empirical study of toys and video games buyers. *Journal of Product & Brand Management*.

62. Manjunath, G., 2014. Green Branding: An Analysis. *Asia Pacific Journal of Marketing & Management Review*, *3*(1).

63. Mensah, I., 2004. Environmental management practices in US hotels. *Retrieved November*, *7*, p.2008.

64. Miroshnychenko, I., Barontini, R. and Testa, F., 2017. Green practices and financial performance: A global outlook. *Journal of Cleaner Production*, *147*, pp.340-351.

65. Moldan, B., Janoušková, S. and Hák, T., 2012. How to understand and measure environmental sustainability: Indicators and targets. *Ecological Indicators*, *17*, pp.4-13.

66. Morelli, J., 2011. Environmental sustainability: A definition for environmental professionals. *Journal of environmental sustainability*, *1*(1), p.2.

67. Nunnally, J.C., 1994. *Psychometric theory 3E*. Tata McGraw-hill education.

`

68. OECD 2013. "Green Innovation in Tourism Services." *OECD Tourism Papers*

69. Ogbeide, G.C., 2012. Perception of green hotels in the 21st century. *Journal of Tourism Insights*, *3*(1), p.1.

70. Ong, J.W., Goh, G.G.G., Goh, C.Y., Too, M.S.M. and Goh, L.P., 2015. Green Product Pricing And Malaysian Consumers'willingness To Pay. *Kajian Malaysia: Journal of Malaysian Studies*, *33*.

71. Ozaki, R., 2011. Adopting sustainable innovation: what makes consumers sign up to green electricity?. *Business strategy and the environment*, *20*(1), pp.1-17.

72. Parasuraman, A., Grewal, D. and Krishnan, R., 2007. Marketing Research , Boston: George T

73. Poston, B., 2009. "Maslow's hierarchy of needs." Surgical technologist (2009): 347-353.

74. Prudon, P., 2015. Confirmatory factor analysis as a tool in research using questionnaires: A critique. *Comprehensive Psychology*, *4*, pp.03-CP.

75. Punitha, S., Aziz, Y.A. and Abd Rahman, A., Adoption of Sustainable Supply Chain Management (SSCM) by the Hotel Industry. *Universiti Putra Malaysia Press Serdang• 2016*, p.29.

76. PwC. "South Africa – Nigeria – Mauritius – Kenya – Tanzania,Hotels outlook: 2018–2022,Positioning for future growth." 2018. 17 July 2019. https://www.pwc.co.za/en/assets/pdf/hotels-outlook-18-2022.pdf .[Accessed 17 July 2019].

77. R. Edward Freeman, Andrew C. Wicks, Bidhan Parmar. Stakeholder Theory and "The Corporate Objective Revisited". 2004. 23 February 2020. https://pubsonline.informs.org/doi/abs/10.1287/orsc.1040.0066 [Accessed 23 February 2020

78. Rahman, S. and Haq, M.M., 2016. Eco-branding: A Way to Sustainable Business Opportunities in Bangladesh.

79. Roberts, R.W., 1992. Determinants of corporate social responsibility disclosure: An application of stakeholder theory. *Accounting, organizations and society*, *17*(6), pp.595-612.

`

80. Rowley, J. and Slack, F., 2004. Conducting a literature review. *Management research news*.

81. Rumekso, S.E., 2002. Housekeeping Hotel. *Andi, Yogyakarta*.

82. Saoussen, B. O. U. Z. I. D. A., and DR MOKHEFI Amine 2018. "GREEN MARKETING THE BEST TOOL TO PROMOTEA GREEN TOURISM." Entrepreneurial Journal of Business Economics (مجلة الريادة لاقتصاديات الأعمال)

83. Sarkar, A.N., 2012. Green branding and eco-innovations for evolving a sustainable green marketing strategy. *Asia-Pacific Journal of Management Research and Innovation*, *8*(1), pp.39-58.

84. Saunders, Mark & Lewis, P. & Thornhill, A (2009). Understanding research philosophies and approaches. Research Methods for Business Students. 4. 106-135.

85. Schwartz-Shea, P. and Yanow, D., 2012. Interpretive research design: concepts and processes.

86. Shalini Prasad, Ajith Rao and Eeshoo Rehani. "Developing Hypothesis and Research questions."18 September 2001. 25 February 2020. https://www.public.asu.edu/~kroel/www500/hypothesis.pdf . [Accessed 23 February 2020].

87. Soewarno, N., Tjahjadi, B. and Fithrianti, F., 2019. Green innovation strategy and green innovation. *Management Decision*.

88. Sohail, M.S., 2017. Green marketing strategies: how do they influence consumer-based brand equity?. *Journal for Global Business Advancement*, *10*(3), pp.229-243.

89. Solutions., Statistics. Confirmatory Factor Analysis. 2013. 13 January 2020. http://www.statisticssolutions.com/academic-solutions/resources/directory-of-statistical-analyses/confirmatory-factor-analysis/ . [Accessed 13 January 2020].

90. Sroufe, R., Montabon, F.L., Narasimhan, R. and Wang, X., 2002. Environmental management practices: a framework. *Greener Management International*, *40*, p.23.

91. StatisticsSolutions. StatisticsSolutions Advancement through clarity. 2017. 15 october 2017. http://www.statisticssolutions.com/ . [Accessed 15 october 2017].

`

92. Stein, C.M., Morris, N.J. and Nock, N.L., 2012. Structural equation modeling. In *Statistical Human Genetics* (pp. 495-512). Humana Press.

93. Stephen, D.C. 2000 The Maslow business reader.

94. Tarmoezi, T. and Manurung, H., 2000. Professional hotel front liner. *Jakarta: Kesaint Blanc (edisi pertama)*.

95. Tikkanen, I., 2007. Maslow's hierarchy and food tourism in Finland: five cases. *British food journal*.

96. Tribe, J. ed., 2009. *Philosophical issues in tourism*. Channel view publications.

97. Udechukwu, I.I., 2009. Correctional officer turnover: Of Maslow's needs hierarchy and Herzberg's motivation theory. *Public Personnel Management*, *38*(2), pp.69-82.

98. UKEssays. Innovation in the hotel industry. . 2018. 20 February 2020. https://www.ukessays.com/essays/business/innovation-in-the-hotel-industry.php?vref=1 . [Accessed 20 February 2020]

99. UNWTO. 2020."World Tourism Barometer."

100. Weaver, A., 2009. Tourism and aesthetic design: enchantment, style, and commerce. *Journal of Tourism and Cultural Change*, *7*(3), pp.179-189.

101. Wisdom, J.P., Chor, K.H.B., Hoagwood, K.E. and Horwitz, S.M., 2014. Innovation adoption: a review of theories and constructs. *Administration and Policy in Mental Health and Mental Health Services Research*, *41*(4), pp.480-502.

102. Wyse, Susan E. Snap surveys. 2011. 15 April 2018. https://www.snapsurveys.com/blog/what-is-the-difference-between-qualitative-research-and-quantitative-research/ .[Accessed 15 March 2017]

103. Zohrabi, M., 2013. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory & practice in language studies*, *3*(2).

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APPENDIX A: QUESTIONNAIRE

SECTION A

GENERAL INFORMATION

Please indicate your answer by ticking (✓) on the appropriate box.

A1 Please indicate your Age.

- ☐ 18 – 22
- ☐ 23 – 25
- ☐ 26 – 28
- ☐ 29 – 31
- ☐ 32 – 34
- ☐ 35 – 37

A2 Indicate your level of study.

- ☐ Undergraduate
- ☐ Postgraduate
- ☐ Any other e.g. Post doc

A3 Please indicate the faculty you belong to.

- ☐ Commerce law and management (CLM)
- ☐ Science
- ☐ Health Science
- ☐ Humanities
- ☐ Engineering and the built Environment

A 4 Please indicate if your gender

- ☐ Female
- ☐ Male
- ☐ Prefer not to say

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SECTION B

Green brand image (GBI) - Green brands are those brands that consumers associate with environmental conservation and sustainable business practices.

1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below

GBI 1	The green brand image is regarded as the best benchmark of environmental commitments amongs hotels.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 2	The hotel's green brand image is trustworthy about environmental concerns.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 3	The hotel that I choose is well established about environmental concerns.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 4	The hotel is successful in its environmental performance.	Strongly disagree	1	2	3	4	5	Strongly agree
GBI 5	The hotel is professional about environmental reputation.	Strongly disagree						Strongly agree

SECTION C

Green Price strategy(GPS)

The price consumers pay for environmentally sustainable products and services.

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1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below

GPS1	The quality of the hotel is worth the price.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS2	I prefer using green hotels when price discounts are offered.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS3	I use green hotels if they are easily available to me.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS4	I would prefer to use a green hotel if I have enough information, which confirms their greenness.	Strongly disagree	1	2	3	4	5	Strongly agree
GPS5	For the price I paid the hotel delivered on their promise.	Strongly disagree	1	2	3	4	5	Strongly agree

SECTION D

Environmental sustainability (ES) (Roy Ballantynea, 2009)

A state in which the demands placed on the environment can be met without reducing its capacity to allow all people to live well, now and in the future.

1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below

ES1	I talk to others about the importance of the environment	Strongly disagree	1	2	3	4	5	Strongly agree
ES2	I purchase products that are environmentally friendly	Strongly disagree	1	2	3	4	5	Strongly agree
ES3	I Conserve energy at home or work	Strongly disagree	1	2	3	4	5	Strongly agree

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ES4	I choose green products over any other products.	Strongly disagree	1	2	3	4	5	Strongly agree
ES5	I use “green” (non-plastic) shopping bags	Strongly disagree	1	2	3	4	5	Strongly agree

SECTION E

Green growth strategy (GGS)

Green growth strategy is practical and flexible approach for achieving concrete, measurable progress across its economic and environmental pillars, while taking full account of the social consequences of greening the growth dynamic of economies.

1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below

GGS1	I am familiar with what strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS2	I am familiar with what green growth strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS3	I consider strategy to be an integral part of any business.	Strongly disagree	1	2	3	4	5	Strongly agree
GGS4	I totally do not have an idea of what green growth strategy is.	Strongly disagree	1	2	3	4	5	Strongly agree

SECTION F

Green innovation (GI) (Tzu-Yun Chiou, 2011)

Innovations that consist of new or modified processes, practices, systems and products which benefit the environment and so contribute to environmental sustainability

1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below

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GI1	The hotel I choose to go to uses eco-labelling.	Strongly disagree	1	2	3	4	5	Strongly agree
GI2	The hotel deliberates states whether its products are easy to recycle, reuse, and decompose.	Strongly disagree	1	2	3	4	5	Strongly agree
GI3	The hotel Improves and designs environmentally friendly packaging (e.g.: less paper and plastic material used) for existing and new products	Strongly disagree	1	2	3	4	5	Strongly agree
GI4	The hotel offers educational material on environmental sustainability. (pamphlets)	Strongly disagree	1	2	3	4	5	Strongly agree
GI5	The hotel uses digital brochures to offer educational materials.	Strongly disagree	1	2	3	4	5	Strongly agree

SECTION G

Green Practices (GP)

Practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations.

1=strongly disagree, 2= disagree, 3= moderately agree, 4= agree and 5= strongly agree

You can indicate the extent to which you agree or disagree with the statement by ticking the corresponding number in the 5 point scale below:

GP 1	Your preferred hotel is ecofriendly	Strongly disagree	1	2	3	4	5	Strongly agree
GP 2	The hotel provides educational information for its guests to help them understand its green practices.	Strongly disagree	1	2	3	4	5	Strongly agree
GP 3	The hotel uses recyclable products, paper and glass, metal, plastic, or	Strongly disagree	1	2	3	4	5	Strongly agree

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	cardboard. Placing recycling bins around is also considered a recycling practice.							
GP 4	The hotel implements a water conservation system, showers and bathtubs water pressures are normal.	Strongly disagree	1	2	3	4	5	Strongly agree
GP 5	The hotel uses energy star qualified appliances or any equipment for the energy conservation system such as energy-saving heating and cooling temperature systems	Strongly disagree	1	2	3	4	5	Strongly agree

THANK YOU

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APPENDIX B: ETHICS CERTIFICATE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF ECONONICS AND BUSINESS SCIENCERS ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: CBUSE/1501**
PROJECT TITLE	**The influence of green innovation towards adoption of green practice behaviours in city centre based hotels: Gauteng province perspective.**
INVESTIGATOR	**Mr. Mutali Sikhauli**
SCHOOL/DEPARTMENT OF INVESTIGATOR	**School of Economic and Business Sciences**
DATE CONSIDERED	**25 July 2019**
DECISION OF THE COMMITTEE	**Approved unconditionally**
EXPIRY DATE	**31 October 2019**
ISSUE DATE OF CERTIFICATE	**19 August 2019**

CHAIRPERSON
(Dr Suvera Boodhoo)

cc: Supervisor: Dr Abigail Chivandi

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature

Date 17 / 09 /2019

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

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APPENDIX C: PLAGIARISM RESULTS

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ORIGINALITY REPORT

15%	10%	5%	13%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.tandfonline.com Internet Source	1%
2	Submitted to University of Witwatersrand Student Paper	1%
3	Submitted to University of KwaZulu-Natal Student Paper	1%
4	www.emeraldinsight.com Internet Source	<1%
5	irjbm.org Internet Source	<1%
6	Submitted to Regenesys Business School Student Paper	<1%
7	Submitted to University of Hull Student Paper	<1%
8	gbata.org Internet Source	<1%
9	www.domesticflights-southafrica.co.za Internet Source	<1%