

GREENING THE CORE BUSINESS FUNCTIONS: A RETAIL AND FINANCE SECTOR PERSPECTIVE

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Abstract: Although South African businesses have made significant progress regarding environmental management, many businesses still do not recognise the need to become green. Green businesses adopted environmentalism across the business functions using fewer natural resources. The primary objective of this paper is to explore the effect of greening on the core business functions in the retail- and finance industries. A quantitative research approach is followed. A non-probability convenient sample of 140 businesses was surveyed in the Nelson Mandela Metropole using self-administered questionnaires. It was found that retail businesses perceive their marketing/sales and operations functions as greener than their finance and human resource functions; however finance businesses perceive their finance and human resources functions as greener. Greening the operations functions differ in retail and finance businesses as products and services offered differ considerably in these two sectors. The human resource-, marketing/sales and finance functions can utilise the same green business practices in both sectors.

Key phrases: greening, core business functions, sustainability, business activity

1 INTRODUCTION

In South Africa, sustainability has been addressed in the King III report in terms of the triple bottom-line concept of economic-, social- and environmental sustainability (Carroll & Buchholtz 2000:57) and both large and small businesses have to adhere to the principles of the King III report. The establishment of the ISO 14000 standards took place at the Rio Summit on the Environment and provided a framework for Environmental Management control systems, such as ISO 14001 and ISO14002 (Sustainable Business 2009:1). It also includes a framework for the Eco Management and Audit Scheme which require businesses to obtain certification from a third party. A South African company, Green Business R, is responsible for this certification. Environmental exploitation and sustainability is of long-term concern in South Africa (Finlay 2000:81).

Engel (2008:1) asserts that South Africa has made significant progress with environmental management in the last decade by implementing laws and strategies that focus on sustainable development and green issues. In spite of this notion, most businesses still do not recognise the need to become green. Previously, businesses assumed that greening as a business strategy would cost money (Van der Zee 2008:6). Natural resources can be replaced with alternative sources which will have positive outcomes for businesses and the environment such as keeping the

environmental footprint small, reduce waste and materials re-use (Dallas 2008:9). Green businesses should therefore have green visions with strategic plans based on long-term objectives and not on short-term goals only (Gunningham, Kagan & Thornton 2003:223). These strategic plans should focus on greening the core business functions.

The purpose of this paper is to determine if and how the core business functions are affected by going green with specific reference to the retail- and finance sector. Firstly, the problem statement and objectives of the research project are provided. A theoretical exposition of what going green entails and the impact thereof on the core business functions will be outlined. Thereafter, the research methodology of the study will be highlighted. The research results will be given, followed by the main conclusions and guidelines on how retail and finance sector businesses could implement green issues within the core business functions.

2 PROBLEM STATEMENT

The effects of climate change along with pollution and the depletion of non-renewable natural resources have given rise to environmental awareness (Douglas 2006:458). As a result, policies that focus on the protection of the environment are continually being developed worldwide (Brunoro 2008:719). Businesses can assist in protecting the environment by becoming green, in other words sustainable businesses, which can be defined as economic development that generates wealth and meets the needs of the current generation while saving the environment for future generations (Daft 2008:154).

Going green creates sustainable development within the business which in turn creates value for the customers (Brammer & Pavelin 2006:435). Nidumolu, Prahalad and Rangaswani (2009:56) state that going green contributes to the bottom- and top-line returns. Barstow and Watson (2008:21) concur that going green is financially cost effective and contributes to the bottom line of the business as they receive tax incentives and rebates and numerous other grants from government and private entities. Businesses in today's global environment are facing increased competitive, regulatory and community pressures, as well as the quest for environmental sustainability. As customers became more aware of environmental issues, there is

an increase in the demand for ecological products, also in the retail- and finance sector businesses. This increased awareness of and sensitivity toward environmental issues place certain demands on the core business functions to become greener.

The above discussion leads to the research question to be addressed in this research paper: *What is the influence of going green on the core business functions of retail and finance businesses in the Nelson Mandela Metropole?*

In the next section the objectives of the study is highlighted.

3 OBJECTIVES

The primary objective of this paper is to explore the effect of green business practices on the core business functions in the retail- and finance industries. To help achieve this primary objective, the following secondary goals are identified:

- To determine what green business practices entail and the effect thereof on the core business functions.
- To empirically assess the effect of green business practices on the core business functions;
- To provide guidelines on how retail- and finance businesses could incorporate green business practices in their core business functions.

A theoretical overview of green business practices will next be presented.

4 THEORETICAL OVERVIEW OF GREEN BUSINESS PRACTICES

A green business will be defined followed by the impact of green practice implementation on the core business functions.

4.1 Definition of green business

Zsolnai (2002:656) defines a green business as a business that has adopted the concept of environmentalism across the various functions of the business. Morebusiness.com (2009:1) provides the most comprehensive definition and regards a green business as using less natural resources and use sustainable methods and materials such as recycling of paper, plastic and electronics and sell sustainable products (recycled, plant-based or organically-grown).

4.2 Impact of green practice implementation on the core business functions

Implementation of green practices has financial implications for businesses. One way to make it more cost effective to implement green practices is to start implementing it within the core businesses functions. The impact of green practices on the core business functions, operations, human resources, marketing and finance will next be discussed.

4.2.1 Operations

Businesses must use eco-friendly materials, procedures and processes such as the recycling of waste products like plastic, paper and glass as eliminating waste can increase operating income (Business Knowledge Source 2009:1). More advanced cutting edge technology nowadays enables businesses to move to a 100% paperless administrative environment (Hellriegel, Jackson, Slocum and Associates 2006:62) while saving large quantities of energy, paper and ink. Businesses can find cheaper ways to communicate e.g. replacing paperwork with computers and storing information in computer databases, hence centralising their ICT systems so as to eliminate the high cost of running each department independently (Harris 2008:139).

Machines and materials used should be environmentally friendly and should be recycled where possible (Silins 2009:46). Strategic decision making is impacted by stakeholders as they demand environmentally friendly operations in terms of changing the materials used and redesigning operations (Pearce & Robinson 2003:41). Businesses should seek suppliers who employ green production processes even though it may be more expensive (Bowens, Cousins, Lamming & Faruk 2007:41). It is essential to deal with suppliers who are committed to sound environmental performance as it directly influences the environmental position of the business in terms of the performance of their products and services (Millett 2000:71).

4.2.2 Human resources

Managers must incorporate environmental concerns in their recruitment and training programmes to build an environmental culture in the business (Carroll &

Buchholtz 2000:385). Freemantle and Rockey (2004:19) mentioned that a green business is regarded as a preferred employer as employees contribute to the greater good of society and will be likely to remain in the service of the business for a long time (Miller & Buys 2008:555). This will results in being able to minimise recruitment costs, have employees with high morals which will produce quality work. Human resource management (HRM) can help create a green workplace and green corporate culture if employing green-minded staff and implement reward systems that motivate or encourage green activities (Swallow 2009:261). Vaccaro (2008:69) agreed that when employees are involved in greening the workplace the level or organisational performance is raised.

Wankel (2008:258) regards the effect of greening HRM as providing human support for environmentally oriented strategies and systems e.g. top management support, environmental training, employee empowerment, teamwork and rewards and systems; and recruitment and retention. Gunningham *et al.* (2003:223) maintains that it is the responsibility of businesses to develop and install pollution prevention technologies and practices and to train employees to ensure the daily effectiveness of environmental control measures. Allowing employees to work from home by telecommuting can save fuel consumption (Iwata 2008:1). These cost savings benefit the business and allow employees to feel more comfortable by being at home instead of being in a busy office. Miller and Buys (2008:552) indicate that having green businesses and buildings can enhance the productivity and health of the occupants. Barclay and Grosvenor (2007:291) mention that staff productivity is improved if employees are involved in making the workplace greener and more energy efficient as it allows employees to feel like they are part of the team and this keep them motivated.

4.2.3 Marketing

Green business practices and/or products can in their overall corporate message attract new customers and benefit financially (Miller & Buys 2008:556). The marketing team must know who green consumers are as they are influenced by environmental issues pertaining to purchasing and nutritional choices (Mostafa 2007:220). People are also not just buying green products due to environmental concerns but for health and safety reasons (Ottoman, Stafford & Hartman 2006:22).

In providing products that are perceived to benefit the individual and marketing those as green products more effectively can capture the target audience. Retail supermarkets should choose packaging material that has minimal impact on the environment (Bosch, Tait & Venter 2006:687).

Cynicism about green product, green claims and businesses' intention are hindrances to green marketing (Crane & Peattie 2005:357). A balance must be obtained in the pursuit of higher sales and profits with a concern for the environment and society (McDonaugh & Prothero 2007:389). If a business gains public approval by using green marketing it can also cut costs (Hellriegel *et al.* 2006:290). Green business practices lead to positive positioning which project a image of corporate social responsibility that create a positive value and reputation for a business (Muller 2005:164). A business can get credibility by satisfying customers by meeting their needs for new green products or can provide current products in a green manner. Green business practices attract a lot of media attention and this makes the general public more knowledgeable on environmental matters (Cobb 2009:16). Weiss (2006:173) therefore urges businesses to go green as it can be invaluable publicity.

4.2.4 Financial management

Ottman *et al.* (2006:23) stressed that being green will not only save the earth, but will also ensure efficiency and cost effectiveness. Green buildings cut energy bills by 30% and increase employee productivity by 10 to 15 percent as a healthier working environment is created. Timmins (2009:34) estimates that businesses could save up to 20% on energy bills by taking low- or no cost action on energy efficiency. Carroll and Buchholtz (2000:385) explain that green business practices means that finance and accounting personnel will need to develop effective environmental auditing systems. As waste disposal costs are managed better, it results in cost savings and profit improvements (Millett 2000:3). Greenwood (2008:2) mentions that the implementation of simple techniques like recycling will require no capital outlay. Another viewpoint is that green business practices can make it more likely to attain easier access to finance resulting from more favourable risk profiles and improved relations with financial institutions (Perrini, Pogutz & Tencati 2006:73). According to Lesourd and Schilizzi (2001:34), financial risks can be linked to environmental damage.

4.3 Green business practices in retailing and finance

Yudelson (2007:11-12) found that the retail sector has been slow to participate in the green building revolution in spite of benefits such as reduced energy costs; improved productivity, reduced health impacts of building operations and greater funding availability from institutional sources. Des Abbayes, Schultze and Jaussaud (2009:4) investigated 20 retailers for the European Commission and found that all retailers implemented actions to protect the environment according to the time needed for implementation, country where the retailer operates and activity of the retailers (generalist versus specialised). Ambec and Lanoie (2008:46) indicate that businesses, such as retailers, can benefit from being more environmentally aware as it can lead to better financial performance, increasing revenues, having better access to certain markets, and more distinct product differentiation. The financial sector should take a leading role in providing resources required to green the economy and at the same time benefit from the growing demand for ecologically friendly infrastructure, products and services (Greenov European Union 2011:1).

It was furthermore noted that as environmental technologies is expected to grow, it provides a new opportunity for financial institutions to reposition themselves and get ready to serve and profit from the emergence of green economies around the world. In order to be more effective, environmental strategies should rely on well-designed specific tools that are able to guarantee the right balance between the positive impact on the environment; attractiveness for the clients; and financial and competitive feasibility for the bank (Iraldo, Melis & Sabbatino 2011:1).

Table 1 outlines the green practices that retailers and financial sector businesses can implement. As can be seen in Table 1, retail- and finance sector businesses can implement many green business practices. The next section highlights the demographical influence on greening of business.

TABLE 1: Green practices of retail- and financial sector businesses

Retail sector green issues	Financial sector green issues
<ul style="list-style-type: none"> • Reduce carbon • Manage waste • Reduce energy • Recycle waste e.g. paper, bulbs and electronic waste 	<ul style="list-style-type: none"> • Making the business a case for sustainable investment • Offer green mortgages with lower interest rates for new energy efficient homes • Provide green equity home loans to install

Retail sector green issues	Financial sector green issues
<ul style="list-style-type: none"> • Raise environmental awareness • Reduce green house gas emissions • Avoid nanomaterials and genetically modified products including packaging • Sell green consumer products e.g. organic food • Use hybrid fuel efficient delivery vehicles • Use solar power panels for refrigeration • Sell green products that save water for water footprinting • Use sustainable packaging and design • Conduct green retail industry research • Use waste- and energy reduction suppliers by means of score cards • Create web fronts (small retail stores where shoppers could try sample items, place an order and have their goods shipped home via a central warehouse) • Provide re-usable packaging • Use eco friendly shelving and display cases • Install eco-friendly flooring • Implement check-out lines for customers that bring their own bags 	<ul style="list-style-type: none"> residential renewable energy • Offer green commercial building loans for lower energy consumption • Provide green car loans for high fuel efficiency • Supply green cards (debit and credit) giving Non-Government Organisations donations • Finance green finance large-scale fuel and renewable energy projects • Provide green venture capital and private equity e.g. carbon credit developers • Offer green security bonds e.g. forest bonds • Have green indices related to global warming • Supply carbon commodities and funds driven by the European Union Emissions Trading Scheme to grow the carbon market • Have green fiscal funds by buying shares in a green fund • Offer green investment funds toward sustainability • Publish environmental knowledge and obtain media coverage

(Sources: Ambec & Lanoie 2008:25; Bosch et al. Juravle & Lewis 2009:1; 2006:687; Lim & Wong 2010:1; Millett 2000:71; Mintzer 2008; Readers Survey 2011:1-2; Patton, Nydam, Stone & Moscardi online:1-2; Sullivan 2007:2-4; Wei 2008:1)

5 DEMOGRAPHICAL INFLUENCES ON GREENING OF BUSINESS

Various authors (see for example Chan 2000:7; Frooman 2005:3 and Peattie 2001:129) attempted to investigate green business practices and the role played by demographical variables. Simpson, Power and Samson (2007:28) argued that greening should be placed in context within the realities of organisational dynamics. Diamantopoulos, Schlegelmilch, Sinkovics and Bohlen (2003:465) concur that socio-demographics play an important role in profiling green customers and businesses. Green, Morton and New (2000:206) is of the opinion that greening of businesses could be impacted by various organisational context factors.

D'Souza, Taghian, Lamb and Peretiatko (2007:371) found moderate relationships between demographical factors and its impact on green decisions in business. Kreidler and Joseph-Mathews (2009:228) further postulate that going green should go

beyond recyclable or sustainable products and that businesses should also focus on psychographic factors.

Based on the above reasoning, an ANOVA analysis was conducted between the five independent variables (classification data) and the four dependent variables (core business functions) for both finance- and retail businesses. A total of 40 hypotheses were thus originally formulated (20 each for both industries). Table 2 outlines the variables used and broad hypotheses formulated in this study.

TABLE 2: Variables used and hypotheses formulated in this study

Independent variables (Classification data)	Dependent variables (Core business functions)	Hypotheses
Finance businesses		
Employment size	Operations; Marketing/sales; Finance; HR	H0 _{1a} – H0 _{4a}
Position in business	Operations; Marketing/sales; Finance; HR	H0 _{5a} – H0 _{8a}
Number of years involved in green practices	Operations; Marketing/sales; Finance; HR	H0 _{9a} – H0 _{12a}
Ethnic affiliation	Operations; Marketing/sales; Finance; HR	H0 _{13a} – H0 _{16a}
Age	Operations; Marketing/sales; Finance; HR	H0 _{17a} – H0 _{20a}
Retail businesses		
Employment size	Operations; Marketing/sales; Finance; HR	H0 _{1b} – H0 _{4b}
Position in business	Operations; Marketing/sales; Finance; HR	H0 _{5b} – H0 _{8b}
Number of years involved in green practices	Operations; Marketing/sales; Finance; HR	H0 _{9b} – H0 _{12b}
Ethnic affiliation	Operations; Marketing/sales; Finance; HR	H0 _{13b} – H0 _{16b}
Age	Operations; Marketing/sales; Finance; HR	H0 _{17b} – H0 _{20b}

The ANOVA results of the relationships between the classification data variables and perceptions regarding the greening of the four core business functions in finance- and retail businesses are presented in the results section.

6 RESEARCH METHODOLOGY

The research methodology of the study is next described.

6.1 Research paradigm

The positivistic or quantitative research method is used in this study, whereby the emphasis is on the quantification of variables and statistical controls. The main approaches followed are exploratory- and descriptive research aimed at exploring

and describing the perceptions of businesses regarding greening the core business functions in retail- and finance businesses.

6.2 Population

For the purpose of this research project, the target population consists of all retail- and finance businesses within the Nelson Mandela Metropole of the Eastern Cape Province of South Africa and which are to some extent involved in green business practices. The reason for the selection of these two sectors is that it appeared in the literature study that extensive research has been done on greening in the manufacturing sector but less regarding the finance- and retail sectors, respectively. The intention is to expand this study at a later stage to other sectors such as communication, transport, construction and engineering and leisure and entertainment.

6.3 Sampling

A non-probability sampling technique (convenience sampling) is used in this study. The reason for the selection of this sampling technique was based on convenience, accessibility and cost considerations. A total of 200 self-administered questionnaires were distributed to finance and retail businesses in the designated region (100 questionnaires to each industry respectively) and were completed by owners/co-owners and managers of these businesses.

6.4 Data collection

Data was collected by means of both primary- and secondary data. Secondary data was collected by means of an extensive literature study which included text books, journal articles and the Internet. Primary data was collected by means of a survey using self-administered questionnaires. Attempts were made to ensure an equal amount of businesses from both industries as to make more objective deductions of greening retail and finance businesses. The final sample size was 140 which included 70 retail and 70 finance businesses. As only 70 usable questionnaires were obtained from finance businesses in the designated region, it was decided to collect only 70 questionnaires from retail businesses as well. The effective response rate was thus 70% (140 of 200).

6.5 Questionnaire design

Based on the size of the sample (140), a survey by means of self-administered questionnaires was best suited to this study. The questionnaire consists of two sections:

- Section A deals with variables or statements regarding the perceptions of respondents regarding the greening of the core business functions. Four factors (core business functions) were tested, namely: operations; marketing/sales; finance and human resources. A total of 20 variables were tested in this section. The type of ordinal scale used is by means of semantic differential scaled-response questions using a five-point Likert-type scale (ranging from 1 for strongly agree to 5 for strongly disagree).
- Section B provides classification data (demographic characteristics) of respondents of retail and finance businesses and contains a nominal scale of measurement, using categorical variables. Five classification data variables were tested, namely: employment size; position occupied; number of years involved in green practices; ethnic affiliation and age group.

6.6 Pilot study

The questionnaire was distributed to five retail- and five finance businesses in the designated region, involved in green business practices (convenient sample). The questionnaire was also given to a few academics in the field of business management, ethics and statistics. Some problem areas were identified and suggestions for improvement were provided which ensured face validity of the questionnaire.

6.7 Data processing and analysis

Completed questionnaires were inspected, edited, coded and data was transferred to an Excel spreadsheet. The SPSS-statistical software package was used to analyse the data obtained from the empirical research. The techniques used during the data analysis stage included: descriptive statistics (e.g. mean and standard deviation), frequency distributions (percentages), reliability testing (Cronbach's alpha), correlation coefficients and analysis of variance. In the next sections the empirical results is presented.

7 EMPIRICAL RESULTS

The empirical results will be discussed in terms of the descriptive statistics, frequency distribution results, Cronbach alphas and ANOVA.

7.1 Descriptive statistics

Table 3 provides a summary of the descriptive statistics of the core business functions. Section A of the questionnaire deals with statements on the core business functions being operations, marketing/sales, finance and human resources.

TABLE 3: A summary of the descriptive statistics for the core business functions

Items	Factors (Core functions)	Finance businesses		Retail businesses	
		Mean	Standard deviation	Mean	Standard deviation
1-5	Operations (A1)	2.67	0.83	2.54	0.82
6-10	Marketing/sales (A2)	2.65	0.77	2.45	0.81
11-15	Finance (A3)	2.76	1.36	2.92	0.81
16-20	Human resources (A4)	2.69	0.83	2.99	0.75

Table 3 shows that regarding the measure of central tendency (mean values) of these factors, it appears that most of these values cluster around point three (neutral) on the instrument scale for finance and retail businesses. The only exception is that the mean value (2.45) of the marketing/sales function of retail businesses tends to be on the agree-side of the scale (point two on the scale). None of the mean scores lies on the disagreement side of the scale (point four and five). The measure of dispersion used is the standard deviation.

Most of the standard deviation scores are relatively low (below one), indicating that respondents do not vary much in their responses towards these statements. However, the finance function of finance businesses obtained a score of 1.36 which indicates that responses varied significantly.

Table 4 provides a profile of the respondents of this study by indicating the frequency distribution results for the demographic data. The results for both the finance and retail businesses are shown.

TABLE 4: Frequency distribution results: A respondent profile

Characteristic	Category	Finance businesses %	Retail businesses %
Employment size	<199	71	75
	200-499	9	13
	>500	20	12
Position occupied	Owner	12	28
	Co-owner	32	13
	Manager	56	59
Years involved in green practices	<1 year	25	42
	1-3	39	22
	4-6	15	12
	>6	21	24
Ethnic affiliation	Black	45	24
	White	40	47
	Coloured	13	8
	Other	2	21
Age	18-25 years	14	9
	26-35	23	41
	36-45	24	21
	46-55	32	22
	56-65	7	7

From Table 4, it is evident that the majority of respondents of both finance and retail businesses are employed in smaller businesses (71% and 75% respectively), whilst 20% (finance) and 12% (retail) are employed in larger businesses. The majority of the respondents of both finance and retail businesses are managers (56% and 59% respectively), whilst the remainder are either owners or co-owners. Thirty-nine percent of the respondents have been involved in green business practices for one to three years (finance) while 42% have been involved for less than one year (retail). In terms of ethnic affiliation, 45% of the respondents are black (finance) and 47% are white (retail). Forty-seven percent of the respondents are between the ages of 26 and 45 in finance businesses and 62% in retail businesses. The majority of the respondents in this sample can be classified as either white or black.

7.2 Frequency distribution results of perceived green business functions

Further analysis indicates the extent to which respondents perceived the core business functions of finance and retail businesses to have “gone green”. To determine the frequency of the responses as indicated in Table 5, the results were

combined with points one and two being agree, three being neutral and four and five being disagree. The frequency refers to the total number of times that the statements of a specific function were selected by respondents in these three respective categories.

The average was calculated by dividing the frequency by the number of statements in a particular factor/function. The factors (core business functions) were ranked according to the highest agree average score. The results of this section were only taken from Section A of the questionnaire (four core business functions), namely: operations; marketing/sales; finance and human resources from both finance and retail businesses. A total of 20 statements (five on each core business function) were tested and did not include any demographical variables.

TABLE 5: Frequency distributions of perceived greening of core business functions

Business functions	Scale measurement	Frequency	Average	%	Overall ranking based on agree
<i>Finance businesses:</i>					
Operations (A1)	Agree	162	32.40	46	3
	Neutral	115	23.00	33	
	Disagree	73	14.60	21	
Marketing/Sales (A2)	Agree	161	32.20	46	3
	Neutral	112	22.40	32	
	Disagree	77	15.40	22	
<i>Finance (A3)*</i>	Agree	168	33.60	48	1
	Neutral	99	19.80	28	
	Disagree	83	16.60	24	
Human resources (A4)	Agree	163	32.60	47	2
	Neutral	103	20.60	29	
	Disagree	84	16.80	24	
<i>Retail businesses:</i>					
Operations (A1)	Agree	175	35.00	50	2
	Neutral	112	22.40	32	
	Disagree	63	12.60	18	
<i>Marketing/Sales (A2)*</i>	Agree	200	40.00	57	1
	Neutral	99	19.80	28	
	Disagree	51	10.20	15	

Business functions	Scale measurement	Frequency	Average	%	Overall ranking based on agree
Finance (A3)	Agree	120	24.00	34	3
	Neutral	128	25.60	37	
	Disagree	102	20.40	29	
Human resources (A4)	Agree	104	20.80	30	4
	Neutral	126	25.20	36	
	Disagree	120	24.00	34	

* Most perceived green function

In terms of finance businesses, the core functions perceived (although marginally) to be the least “green” are operations and marketing/sales, whilst the finance function is perceived to be most “green”. For the retail businesses, the human resources function is perceived to be the least “green”, whilst the marketing/sales function is perceived to be the most “green”.

7.3 Reliability and validity of the measuring instrument

External validity refers to the generalisation of research results to other population groups and was ensured by means of clear guidelines regarding the research conditions in which the research was to be conducted (Struwig & Stead 2001:136). Internal validity of the instrument’s scores was ensured through both face- and content validity. This was ensured through expert judgement by researchers in business management, ethics and statistics and a pilot study amongst 10 businesses (five retail and five finance businesses) in the designated region. The statistical software package, SPSS, was used to determine Cronbach’s alpha values for the four predetermined factors (core business functions). To confirm the internal reliability of these factors, Cronbach’s alpha was calculated (refer to Table 6).

TABLE 6: Cronbach’s alpha for Section A of the questionnaire: Core business functions

Variables	Factor/Core function	Finance businesses	Retail businesses
		Cronbach’s Alpha	Cronbach’s Alpha
1-5	Operations (A1)	0.87	0.88
6-10	Marketing/sales (A2)	0.78	0.81
11-15	Finance (A3)	0.73	0.83
16-20	Human resources (A4)	0.86	0.85

The reliability coefficients of Cronbach's alpha values for the various factors are all above 0.7. It can therefore be concluded that all factors for both business types are internally reliable.

7.4 Correlation

Regarding the correlation between the variables which constitute each factor, an inter-item correlation exercise was conducted. It appears that all of the variables in each factor show strong positive relationships with each other. A positive correlation coefficient (*r*-value) indicates a strong or positive relationship among the variables. None of the variables showed a negative/reverse relationship. All variables constituting the four factors (core functions) indicated strong inter-item correlation. The variables with the highest positive *r*-value (strongest positive relationship) were found in the operations factor/function (0.8981) of retail businesses, while the variable with the lowest positive *r*-value (weakest positive relationship) were found in the marketing/sales factor/function (0.0159) of retail businesses.

7.5 ANOVA

The purpose of this analysis is to investigate the relationship between the five independent variables (classification data) and dependent variables (four core business functions/factors) and to test the stated hypotheses. The following demographical (independent) variables are used in this study as to establish its relationship with the perceptions of greening the four core business functions (dependent variables) in finance and retail businesses: size of business; position occupied; years' involvement with green practices; ethnic group and age.

An ANOVA analysis was conducted between the five independent variables (classification data) and the four dependent variables (core business functions) for both finance- and retail businesses. A total of 40 hypotheses were originally formulated (20 each for both industries). The ANOVA results were calculated for all 40 hypotheses to determine whether there are statistically significant relationships. The ANOVA results clearly indicated that there are no statistically significant relationships between the five independent variables (classification data) and four dependent variables (core business functions) for both finance and retail businesses. T

he null hypotheses ($H_{0_{1a}}$ to $H_{0_{20b}}$) can, in all cases, not be rejected as it does not fall within the rejection region ($p < 0.05$ and large F-statistic values). As there are no statistically significant relationships between these variables, the specific ANOVA results are thus not reported in this paper.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

From the literature review it was clear that greening the operations functions in retail businesses require different practices than those for finance businesses. This could be ascribed to the fact that products and services offered differ considerably in these two sectors. On the other hand, the human resource-, marketing/sales and finance functions can utilise the same green business practices, regardless of their sector. It is clear from the empirical findings that the retail businesses regard the marketing/sales and operations functions as more important than the finance and human resources functions. This is just the opposite for the finance sector businesses.

These results make sense as the finance sector is a service-orientated sector and the finance function is therefore related to making decisions on which green services to offer to attract customers. It is also important that finance businesses pay attention to whom they employ as their employees have to serve customers (render services). Planning of operations and marketing of green services are not regarded as important as recruitment of employees (HR) and the financial services offered to customers. It must be remembered that service-based businesses, such as in the finance sector, offer intangible “products” and they rely on their employees to market and render services. If these employees are “green”, they will be able to market the green services convincingly and with confidence. Green financial businesses will also be able to attract the best employees as these employees will regard them as preferred employers (saving the planet and environment). As indicated in the literature, the importance of choosing the right employees cannot be over-emphasised.

A retail business on the other hand could offer products to be sold and marketing the green business is regarded as very important so that customers are informed that

green products are available for sale. The manner in which they operate (recycling, choosing green suppliers and having a paperless operations system) will be regarded as important as this can ensure that customers get green products and observe that they are committed to green issues. They can send e-mails to customers notifying them of green products available showing them their commitment to being green. To conclude, having green core business functions either for a finance- or retail business is beneficial for the business's bottom-line because conserving resources and cutting down on waste saves money.

8.2 Recommendations

Based on a combination of the literature and empirical findings, guidelines on greening the core functions within the retail- and financial sector businesses is outlined in Table 7.

TABLE 7: Guidelines on the greening of the core business functions

Retail and finance sector
Financial sector green issues
<ul style="list-style-type: none"> • Employee staff that are environmentally conscious • Create a green corporate culture • Train staff on environmental issues • Implement reward systems that motivate or encourage green activities • Create a eco friendly workplace to increase productivity • Have top management support for going green • Implement green management measures • Allow some employees to work from home
Finance
<ul style="list-style-type: none"> • Invest in green technology to ensure cutting costs in the short- and long term • Let finance- and accounting staff develop effective environmental auditing systems • Recycle to save costs
Marketing
<ul style="list-style-type: none"> • Raise environment awareness in advertising • Conduct green industry research • Link products/services to supporting green actions • Give donations to green actions organisations • Be knowledgeable of who green consumers are and of their needs • Promote the benefits of using green products or services • Use greening of business practices as a positioning tool

Retail and finance sector	
<ul style="list-style-type: none"> Use green business practices to obtain publicity 	
Operations	
Retail	Finance
<ul style="list-style-type: none"> Reduce carbon, energy and green house gas emissions Manage waste and encourage recycling, including re-usable packaging Use hybrid fuel efficient delivery vehicles Use solar power panels for refrigeration and or power saving Sell green water footprinting- and organic products Use waste- and energy reduction suppliers by means of score cards Create web fronts Use eco friendly shelving, display cases and install eco-friendly flooring Implement check-out lines for customers that bring their own bags Create a 100% paperless business 	<ul style="list-style-type: none"> Offer green- mortgages, equity home-, commercial building- and car loans; green cards (debit and credit); security bonds and investments Finance green finance large-scale fuel and renewable energy projects Provide green venture capital and private equity Implement green indices related to global warming Supply carbon commodities and funds to grow the carbon market Have green fiscal funds by buying shares in a green fund Create a 100% paperless business Obtain information on environmentally friendly technology

As can be seen in Table 7, financial and retail sector businesses have the same guidelines for greening their human resource, marketing and finance functions. However, their operations functions require different greening approaches due to differences with regards to finance being service-orientated and retailing a combination of both a service- and product-orientation.

9 LIMITATIONS OF THE STUDY

The following limitations of this paper are acknowledged:

- A convenience sample was drawn from the target population only in Nelson Mandela Metropole which could have impacted on the representativeness of the sample.
- The sample was restricted to only 140 businesses (70 in each industry) which could have limited generalisations to the larger population.
- Mainly small and medium-sized organisations were included in the sample and larger businesses might have different perceptions regarding the impact of green practices on the core business functions.

The following extract appears to be appropriate to conclude this paper with:

“... pressures from a variety of stakeholders on various natural environmental issues, still exist ... increased awareness arose from economic and geopolitical forces that have caused organizations to further consider the importance of greening their industries. This greater awareness means that progress in managing organizational greening is even more pertinent today than it has ever been. Organizational environmental performance is at a historical pinnacle of transparency and evolved from mandatory reporting as set forth by governments to voluntary efforts to share information with stakeholders. Also, there are numerous agencies that evaluate the performance of organizations for socially responsible investment.” (Sarkis 2010:452)

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