Montemorelos University

Faculty of Business and Legal Sciences

CASUAL MODEL OF THE FACTORS THAT PREDICTRETAIL SUPERMARKET PERFORMANCE VALIDATED BY SUPERMARKET MANAGEMENT IN TRINIDAD

Thesis
presented in partial fulfilment
of the requirements for the degree
Doctorate in Business Administration

by

Keston Quow

April 2019

ABSTRACT

CASUAL MODEL OF THE FACTORS THAT PREDICT RETAIL SUPERMARKET PERFORMANCE VALIDATED BY SUPERMARKET MANAGEMENT IN TRINIDAD

by

Keston Quow

Main advisor: Stephen Pilgrim

DOCTORAL THESIS ABSTRACT

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Title: CASUAL MODEL OF THE FACTORS THAT PREDICT RETAIL SUPERMARKET PERFORMANCE VALIDATED BY SUPERMARKET MANAGEMENT IN TRINIDAD

Researcher's name: Keston Quow

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Date completed: April 2019

Problem

The empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which has an acceptable goodness of fit with the theoretical model.

Methodology

The research was empirical quantitative, descriptive, exploratory, explanatory and transversal. The study population was made up of 851 supermarkets throughout the country of Trinidad. An instrument was administered and a sample of 151 supermarkets from the population described. The substantive statistical process was based

on the analysis of sequence diagrams by structural equation models, performed in AMOS 24.0.

The constructs for the four instruments used were done through factorial analysis techniques (with explained variance levels of over 65%, which are acceptable) and structural equation models (with high standardized coefficients for the indicators). For reliability of the instruments the Cronbach's alpha method was used (reaching levels higher than .8).

Results

The model was validated with the sample of supermarkets identified above. The confirmatory model included selective indicators which showed the following values of the adjustment indices used as criteria: (a) χ^2 equal to 105.631 and p equal to .085, (b) χ^2/df equal to 1.214, (c) NFI equal to .853, (d) GFI equal to .894, (e) TLI equal to .963, (f) CFI equal to .970 and (g) RMSEA equal to .044..

Of the seven measures of goodness of fit used, five complied with the criterion (χ^2, χ^2/df, TLI, CFI, and RMSEA) and two were very approximate (NFI and GFI).Considering these results, the empirical model had a goodness fit with the theoretical model required by the selected criteria.

Conclusion

It can be concluded that the management of supermarkets must be mindful of many factors regarding their performance. Firstly, their efforts regarding quality management and leadership must be of a high standard which firstly has a causal relationship with supermarket performance. Marketing factors were proven to be a mediating

variable since it also has a causal relationship with supermarket performance. Quality management acts a prerequisite to marketing factors within the supermarket. Finally, it was found that economic factors did not contribute directly to supermarket performance, but more so indirectly through the management function.

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Tesis
presentada en cumplimiento parcial
de los requisitos para el título de
Doctorado en Administración
de Negocios

por

Keston Michael Quow

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15 de abril de 2019
Fecha de aprobación

DEDICATION

Isaiah 43:1 … Fear not: for I have redeemed thee, I have called thee by thy name; thou art mine.

To my one and only Savior, Jesus Christ, for calling my name at the right time. After many failed attempts to commence a doctoral program it is only the divine hand that could have led me firstly to his church, then to this program and finally to completion.

To my mother, Sybil Quow, for being my biggest fan throughout my entire life.

To my supporting wife, Danielle Paty-Quow. Alongside every great man is an extremely extraordinary woman. No one will ever know the struggles you endured during this program.

To all my family members, who never gave up on believing in me.

To my son, Jonathan Quow, the generational cycle of poverty has been broken and all of this is for you, go forth and conquer.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

“You can't connect the dots looking forward; you can only connect them looking backwards. So, you have to trust that the dots will somehow connect in your future. You have to trust in something – your gut, destiny, life…” (Steve Jobs, 2011). After many failed attempts to commence a doctoral program, looking back in hindsight I can see clearly that while I had purposed in my life to achieve certain milestones by my own hand, that God had it all orchestrated on his timing. It was not by chance that I was led to truth in this church, nor was it by chance that Pastor Durwin Clarke mentioned this program to me in an evangelistic meeting. Finally, it was not by chance that I have completed. Twelve years ago, when I intended to further my studies to the doctoral level, it simply was impossible, and it was difficult to connect the dots looking forward. Looking backwards however, I can see that a wholehearted trust in God is what brought me through this ambiguous journey.

I must acknowledge Dr. Stephen Pilgrim who has been a burst of inspiration to me from the very first day we met. He never fell short of painting a real picture of the eventualities at hand, but also for making clear the opportunities that existed. Supporting professors, Dr. Omar Arodi Flores Laguna, Dr. Karla Saraí Basurto Gutiérrez and Dr. Ronny Kountur have also been critical in getting me through this research process which appeared to be virtually impossible at times.

I owe a debt of gratitude to Dr Pedro and the administration at Montemorelos University who were quite welcoming to us and made sure that we were well taken care of

while in Mexico. Also, I must mention all administrators of the North Eastern Conference, who embraced me with their warm hospitality.

A note of thanks to my sister Carol Quow, who was critical in the data collection process. This simply could not have happened without her persistence in going the extra mile to ensure that all tasks were completed within the identified timeframe.

CHAPTER I

INTRODUCTION

Context of the Research

The retail distribution channel has evolved tremendously considering the different business orientations that developed over time. The *business orientations* are philosophies which act as overarching principles that guide the general operations and rules of engagement in the business community. The *production orientation* in the early 1900's sought to provide goods at the lowest price through production efficiencies (Kotler & Armstrong, 2008). Over time, this evolved to the marketing orientation which takes a consumer centric approach to selling and consumer engagement. Marketing in the 21st century involves channelling all efforts around satisfying the needs and wants of the consumer. This is the philosophy of the marketing orientation concept, which is what retailers attempt to do when they open their doors to the public (Gilbert, 2003). This study focuses on the operations of the supermarket retail channel and factors which contribute to its success in Trinidad.

This chapter is composed of a brief background which establishes a basis for this research. It presents the problem statement, defines the terms used, and sets forth the research hypothesis and research question. It also establishes objectives, a justification, limitations, delimitations, the assumptions and finally a philosophical framework that guides the study.

Background

This section seeks to briefly understand the variables for this research an attempt to establish a phenomenon and then a problem statement. These are marketing performance, economic factors, management/leadership capabilities and supermarket performance.

Supermarket Performance

Kalmárová (2012) in an analysis of supermarket giant Sainsbury, identified that the performance of the supermarket was linked directly to its financial performance. Ratios around sales, profitability, efficiency and liquidity were used to determine the performance of Sainsbury.

Sharmeela-Banu, Gengeswari, and Padmashantini (2013) established that there are financial and non-financial indicators that determine the performance of retail establishments. The non-financial indicators are equally important since they contribute to the financial indicators in the long run. Non-financial indicators such as satisfaction, switching barriers, pricing, customer loyalty, perceived service quality and customer service contribute to customer retention which ultimately contributes to the performance of the firm.

The structure proposed by Sharmeela-Banu et al. (2013) regarding financial and non-financial indicators is in fact utilized by Morrisons, supermarket giant in the United Kingdom (UK). Financial indicators include sales, UK grocery market share, sales growth, underlying profit, earnings per share, net debt, capital investment, return on capital employed. Non-financial indicators include colleague engagement, carbon footprint reduction waste to landfill reduction (Morrisons, 2013).

“Establishing long term relationships with customers and converting the relationships to their loyalty has become the key of profitability” (Akpinar, Gul, & Gulcan, 2011, p. 19). This philosophy stems around customer relationship management which entails finding customers, making them loyal and increasing their individual spend, thereby contributing to a profitable performance of the retail institution.

Tajeddini and Trueman (2008) examined customer orientation and the extent to which the focus of the marketing function is based on the consumer. The intricate needs and wants of the consumer are addressed to remain successful. They confirmed that customer orientation directly impacts retail business performance.

Marketing Performance

This section presents some broad based definitions and examples pertaining to marketing strategies used in supermarkets. Marketing is the administration method in charge for detecting, do in advance and filling customer necessities (CIM, 2015). This is no different in the retail environment and the supermarket industry. The success of the retail marketing channel is dependent on the implementation of an effective retail marketing mix. The elements of the traditional marketing mix include product, price, place and promotion (Weeks, Scott, & Lloyd, 2005). These remain consistent; however they are taken from the perspective of the retail channel and are modified as required. Supermarkets that adopt superior marketing mix strategies will see greater successes (Gilbert, 2003). Examples of supermarket retail marketing mix applications may include retail product, store merchandise, pricing, advertising and location.

According to Rajic and Dado (2013), supermarket patrons are satisfied by atmospherics and service quality. Pleasant ambient factors and superior service

mould customer satisfaction which in turn increases store visits. This ultimately affects the performance of the supermarket positively.

Finkel (2016) affirms that retailer brands are a key trend regarding the success of supermarkets. Supermarkets invest in developing and having their retailer brands to compete against existing manufactured brands. With full ownership of the brands, they have the flexibility of maintaining lower prices and superior product placements.

Baker (2013) mentions that everyday low pricing (EDLP) is a key pricing strategy used by Asda, UK's second largest supermarket. The EDLP strategy seeks to maintain low prices everyday compared to competitors, without the need for mark downs.

Baker (2013) further alludes to the importance of marketing for supermarkets. Advertising for supermarkets are essential to appeal to the customers that they target. The objective of advertising campaigns for supermarkets is to bring about a level of awareness of the products and services available to the customers they serve so that a decision could be made to patronize the store. Asda uses extensive digital marketing to engage its audience.

Klementschitz (2014) establishes that the location of supermarkets in relation to their size and categories sold can influence its success. In highly urban areas, there is high pedestrian traffic and certain categories of products become relevant. In rural areas, larger size store formats are more practical which allows a different class of products to be sold.

Economic Factors

Huang, Kim, and Birkenmaier (2016) emphasize the hardship that is experienced with a recession and the extent to which consumers and by extension the retail

channel is affected. Unemployment becomes relevant during a recession which directly affects disposable income and may lead to food insecurity.

Larkin (2011) advises that the general state of an economy will have a direct impact on the outcome of all businesses within a country. High unemployment, little income growth, credit troubles, low interest rates and inflation are quite a few factors that will impact consumer spending and confidence in the supermarket channel. Consumers are at risk of having a decrease in disposable income as a result. This does not mean that they will not purchase food items from supermarkets; it simply means that their shopping baskets will evolve to the circumstances that exist. Their focus may now be price and value, causing them to trade down to inferior goods.

Larkin (2011) further elaborates that in response to the dismal conditions of a downturned economy and contracted disposable incomes, supermarkets must adapt to remain competitive. They may need to source inferior product lines at lower prices or mark down their merchandise, resulting in a decrease in margins. This would put significant pressure on them to sustain profits. In addition to this, there may be a shift away by consumers from premium retailers to traditional small scaled grocery stores where there is perceived value for money.

Balios, Eriotis, Fragoudaki, and Giokas (2015) endorse the above as well. Supermarket owners must adapt to the prevailing conditions to survive. It calls for a proactive level of management; however, if the supermarket is not affected negatively by the economic conditions, then there is no need to adapt.

Management/Leadership Capabilities

Management is the social process of working on organizational objectives with

and/or through others in a dynamic environment. It is imperative to note that during this process, resources are always limited, and it calls by efficiencies and effectiveness (Kreitner & Cassidy, 2012).

Management is not to be confused with leadership. While management deals with the entire process, leadership deals with influencing people. It is the process of inspiring others to achieve objectives. While the management process is formal and hierarchical, leadership may be formal or informal (Hackman & Johnson, 2013).

Experienced management and influential leadership are critical for the successful running of a retail establishment. Operational efficiencies for the management process will entail innovations, efficient executions and flexibility amidst changes within the retail environment. Additionally, managing people and leading them is also critical for the successful achievement of management objectives. It is important to keep staff members motivated at all times so that the management process is not compromised in any way (Hemalatha, Venkatram, & Krishnaveni, 2014).

Definition of Terms

Below, the most relevant terms of this study are identified. The study is limited to Trinidad, so the below terms are only relevant to this country.

Economic factors: all economic factors that exist within the country of study that are relevant to the supermarket industry only.

Marketing performance: the outcome of all the marketing instruments utilized by players within the supermarket channel of the country of study.

Management/Leadership capabilities: the management and leadership capabilities and processes of players within the supermarket industry.

Supermarket performance: the performance of supermarkets within the country of study defined by non-financial indicators

Statement of the Problem

This section provides the under arching phenomena of this research paper. It starts with outlining the magnitude of the supermarket industry in Trinidad & Tobago compared with developed markets. It then demonstrates theoretical conflicts and uncertainties around the industry.

The supermarket industry is considerable and has evolved tremendously in the 21st century. In the US, it is worth $601 billion USD, with an annual growth of 1.3% from 2011 to 2016. It employs approximately 2.6 million persons and has 41,416 businesses. Supermarket trends in the US reflect consumers gravitating towards premium offerings, organic and all natural brands. There has been a high level of competition among existing players within the industry. Lower margins have been the main tool to remain competitive while most supermarkets are gravitating towards the warehouse club and supercentre formats which offer high cost savings and convenience to consumers. The supermarket and groceries channel make up the largest retail channel in the US (Ibisworld, 2016a).

In the UK by contrast, the supermarket industry is £ 160 billion ($200 billion USD), with an annual growth of 1.2% from 2010 to 2016. The industry employs over 1 million persons. The downturn in the economy has been a challenge and has resulted in changes in consumer preferences. Despite this, the industry has seen growth, especially with the introduction of the supermarket chains Aldi and Lidl, which are now major competitors to giants Tesco and Morrisons. The outcome has been price wars through major discounting (Ibisworld, 2016b).

In contrast to the US and UK, Trinidad and Tobago's supermarket retail channel has been developing in recent times to mirror trends from both the US and UK. This has been seen through wider aisles, check-out counters, in-house bakeries, delis and more health and organic products. In the small twin island state which comprises of 1.3 million persons, there are approximate 300 supermarkets which comprise large chains, medium sized establishments and small/micro minimarts (Babwah &Associates, 2015).

In 2004, the industry was valued at $617 million USD which has grown to $1.95 billion USD by 2011 and further to 3.4 billion by 2015. This represents a 450% growth over an eleven-year period (Logan, 2005).

Table 1 produced by the author, shows that the supermarket industry in Trinidad & Tobago is a major contributor to GDP. It accounts for more than half of the distribution GDP, which emphasizes its significance.

With a growth of women in the labour force, the supermarket industry in Trinidad & Tobago has seen greater demands for ready-to-eat meals and convenient shopping at a one stop location. It has been seen that there is a high dependence on US goods

Table 1

Supermarket Revenue in Comparison to GDP for T&T 2004, 2012 & 2015

	USD '000 000's		
	2004	2011	2015
Total GDP	12,320	24,007	22,128
Distribution GDP	1,565	4,270	5,593
Revenue of Supermarket Channel	617	1,950	3,400
Rev SM/Total GDP	5%	8%	15%
Rev SM/Distribution GDP	39%	46%	61%

with an import bill of $892 million USD in 2014 for such. There has been a high influx of Chinese supermarkets in recent years.

Tsolakis (2015) elaborates that during times of economic uncertainty, supermarkets are severely challenged to maintain profitability. Sales are often stifled as customer loyalty dwindles. There is therefore a greater need to establish loyalty programs to maintain customer focus during recessionary periods in order for supermarkets to survive.

In a downturned economy, there is a school of thought that suggests persons will gravitate to larger retailers like Wal-Mart to capitalize on cost savings around bulk purchases (Martin, 2014). On the contrary, Ewoldt (2013) suggests that consumers switch to smaller non-traditional channels in a depressed economy. These are conflicting ideologies which will both affect the performance of supermarkets.

Driggs, Dudlicek, Goldschmidt, Hofbauer, and Levin (2016) makes mention of many factors that inhibits the progress and success of supermarkets in the US. These include, dismal economic conditions, health trends and transparency in transactions. There is also a greater need for assortment, convenience, value and experiences. There is a greater dependence on supercentres and warehouse clubs which is putting tremendous pressures on supermarkets to remain profitable. Finally, there is shift in consumer spending from brick and motor models to click and order.

Failure of the retail supermarket distribution channel can have detrimental effects on the wellbeing of a country in many ways. It could result in mass food shortages and outright social upheaval as seen in Venezuela (Brodzinsky, 2016). It can negatively affect the GDP of the country and employment rates as this channel is a major contributor to GDP and employment as seen in the US and UK (Ibisworld, 2016a, 2016b). If not

properly regulated, it can result in inequalities and unfair practices among players within the industry (Hübner, Kuhn, & Wallenberg, 2016). There is therefore a coherent need to study this channel and understand the contributing factors to its performance and success.

Chikweche (2015) identified that there is a void in literature around developing countries for the retail supermarket industry. The extent of research is focused around the United States and the United Kingdom. This existing research elaborates the dominance of supermarket chains in these developed countries and the struggles for independent and smaller supermarkets to survive.

Iton (2015) mentioned that there is limited research of an evolving food market regarding consumer relations in the Caribbean. Amidst this, the retail sector in developing countries has transformed tremendously nonetheless.

The phenomena of this study fall within the matters mentioned above. The supermarket industry is a very substantial one in Trinidad and Tobago. As a result of this, it is of paramount importance that all the variables mentioned, be fully understood since there are many stakeholders within the industry. The phenomenon governing this study is the uncertainty of all the variables mentioned regarding the performance of the supermarket industry, given its substantial size and importance.

The Research Problem

In this section, the confirmatory problem and its corresponding model, along with its respective definitions will be addressed.

Declaration of Confirmatory Problem

The problem to be investigated in this study is the empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, does has an acceptable goodness of fit with the theoretical model? (see Figure 1).

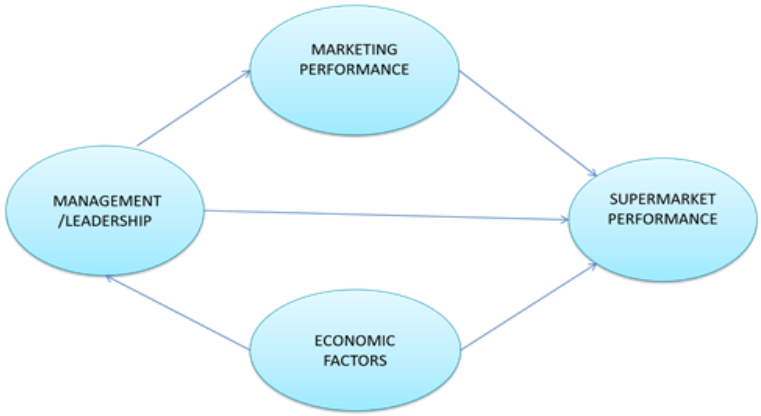


Figure 1. A sequence diagram of the confirmatory model causal factors of supermarket performance.

Hypothesis

In order to provide statistical evidence and scientifically support to the present study states the following hypotheses:

H_1: The problem to be investigated in this study is the empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, has an acceptable goodness of

fit with the theoretical model.

Complementary Hypothesis

In this study, the below complementary hypothesis was considered:

H_2: Management/leadership influences, economic factors and marketing performance are predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.

Complementary Research Question

The proposed model derived the below complementary question to better direct the scope of this study.

What is the extent to which management/leadership capabilities, economic factors and marketing performance affect retail supermarket performance in Trinidad?

Research Objectives

The following objectives were established for the validation of the model:

1. Build questionnaires directed to the supermarket industry for measuring management/leadership capabilities, economic factors, marketing factors.

2. To evaluate and adapt a questionnaire for supermarket performance which focuses on non-financial indicators.

3. Evaluate the goodness of the confirmatory model to explain and evaluate the theoretical relationships between constructs.

4. Assess the variables involved in the study: (a) management/leadership capabilities, (b) economic factors, (c) marketing factors and (d) supermarket performance.

5. To inform supermarkets in Trinidad the extent to which management/leadership

capabilities, economic factors and marketing factors directly impact their performance.

Justification

The discipline of marketing in a general sense is a management process responsible for identifying, anticipating and satisfying customer requirements profitably (CIM, 2015). Likewise, the concept of the marketing orientation focuses on business entities satisfying the needs and wants of consumers (Kotler & Armstrong, 2008). Marketers therefore seek to understand consumers and provide products and services tailored to them with a profit motive. This function is no different in the retail environment. The retailer acts as a conduit or middleman through which the consumer can interact with the marketers. They therefore occupy a middle position, thereby receiving and passing on products from wholesalers or manufacturers to customers and consumers.

Retailing is important because it involves direct interface with the consumer. “The key objective for any successful channel is to ensure availability of the right product, in the right quantity, at the right time via the right channel” (Gilbert, 2003, p. 7). This emphasizes the focus around the consumer and the extent to which the retailer must attempt to satisfy his/her needs. “We are witnessing the emergence of new forms of retailing, in part as a response to demand from increasingly sophisticated consumers. The market is becoming more segmented with retail formats focusing on the needs of particular consumer groups” (Gilbert, 2003, p. 1). This suggests that the extent of the evolution of the retail market comes as a result of consumers and a dire need to meet their needs.

Amidst current trends and ideologies mentioned above, two underlying factors must be considered. Firstly, the focus is on the consumer and secondly, the retailer’s

motive is profit driven. Both are critical, and it could be deduced that consumer satisfaction is a function of retail profitability. Enough research must be conducted to understand the right mix of merchandise and/or services required by the consumer. Once this is done, it is made available in a retail environment. In exchange for money, the consumer can purchase as required. The inflow of revenue to the retailer is the beginning of the profit function. Once the mark-up made from every product sold is able to cover the operating expenses of the retail establishment, only then can it declare profitability. The quest to remain profitable remains difficult amidst many challenges in the retail environment (Driggs et al., 2016; Larkin, 2011; Monteiro, Farina, & Nunes, 2012; Tsolakis, 2015).

This study will therefore be relevant to retailers in the supermarket channel for the country of Trinidad. With the onset of globalization and high consumerism, retailers in the supermarket channel must remain relevant, but at the same time be appealing to the customers that they serve. They must be able to overcome challenging economic positions resulting from global trends and remain profitable.

Entrepreneurs within this channel in Trinidad should benefit as the findings of this study will be able to drive their overall success as they will further have insights on the supermarket industry. With this greater appreciation, they will be able to better enhance their retail offering to better suit their customer base. In doing this, they will better be able to sustain themselves over the long run in terms of its profitability.

The study may also be a base for expansion in the future around wider distribution channels. This study focuses only on the supermarket channel, but similar trends may be seen in other channels, for example down trade distribution, pharmacies, and convenience channels. This information will be particularly useful for distribution

companies and suppliers in Trinidad. Distribution companies are also middle men in the supply chain, so fully understanding the issues that challenge its performance will be of major interest to them.

Manufacturing companies who engage in domestic production will also be interested in such information because they will have to engage such middle men to ensure that their products successfully reach the end consumer.

It is hoped that this study also acts as a catalyst to further understanding the practices of different players in the supply chain. By better understanding them, they can be better regulated to manage unfair practices among different players. This of course is the role of government and it is hoped that this course of studies can evolve to better direct legislative bodies in Trinidad & Tobago to further develop, manage and regulate the supermarket industry.

In concluding, the study is a practical justification as it attempts to understand the underlying challenges surrounding the supermarket retail distribution channel and hopes to act as a catalyst for providing solutions and strategies which will be beneficial to many stakeholders in society.

Limitations

Limitations of this research are as follows:

1. It was impossible for the researcher to administer all the research instruments, so a third party was hired to assist.

2. It was difficult to access supermarkets in highly rural areas in the country of research as this was time consuming and costly.

3. Most of the sample consisted of smaller supermarkets.

4. The model contains four variables. There are other variables that were not considered in the model that may impact supermarket performance. These may include consumer performance, government influences and competitive forces.

Boundaries

Boundaries of this research are as follows:

1. Research was only limited to Trinidad. The sister island of Tobago was not included.

2. This study focuses on the supermarket channel which is only one distribution channel among many.

3. The findings in this study are not directly intended to solve the problems identified, but more so to establish relationships.

4. The research was conducted only during the first half of 2018.

5. The population of the supermarket industry was established based on the distribution base of one company.

Assumptions

Assumptions of this research are as follows:

1. Respondents were sincere in answering all instruments.

2. The behaviours of supermarket managers are consistent across the country.

3. Supermarket managers did not have selfish motives in participating in this study.

Philosophical Framework

God is the creator of all things, disciplines and knowledge, “The fear of the

LORD is the beginning of wisdom: and the knowledge of the holy is understanding" (Proverbs 9:10, KJV). This text suggests that the fear for the Lord is not one of a negative connotations, but more so of respect and love. Only through respect for him, could true wisdom and knowledge be attained which is all further rooted to him. He ultimately gives meaning to all knowledge which includes social sciences. How then is the issue of effective retail management rooted to the bible?

Business

The concept of business is very widespread in the bible. In its initial forms of civilizations, markets operated through bartering. From a biblical perspective, persons specialized in their own fields, for example, Abel was a keeper of sheep and Cain a tiller of the ground (Genesis 4:3). Trade among the brothers is not implicitly mentioned in the book of Genesis, but one could imagine that if Abel wanted vegetables, that he would go to his brother. As time unfolded, so too did trading practices, it involved persons of trade coming to a common meeting place to exchange their product. This is seen in Ezekiel 27:17 (KJV), "Judah, and the land of Israel, they were thy merchants: they traded in thy market wheat of Minnith, and Pannag, and honey, and oil, and balm." Such business transactions were necessary for survival. When valuable minerals were then discovered and acknowledged, this took on many different monetary forms and means of payment. This concept is expressed in Ezekiel 27:12 (KJV) "Tarshish was thy merchant by reason of the multitude of all kind of riches; with silver, iron, tin, and lead, they traded in thy fairs." Monetary payments in the form of cash and notes only came about in the seventeenth century, but the concept of its use and value has its biblical underpinnings as seen in Ezekiel.

From a Christian perspective, an important part of business operations is the effective stewardship of resources, thereby promoting integrity in trading practices. This is seen in Proverbs 10:9 (KJV) “He that walked uprightly walked surely…”. “Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things.” (Philippians 4:8, KJV). In the process of trading, the Christian is expected to do so using the above biblical principles, thereby maintaining a positive relationship with each other.

Biblical Retail Applications

Finally, the Bible offers many instances where there are retail establishments and transactions. Consider Revelation 13:17 (KJV), “And that no man might buy or sell, save he that had the mark, or the name of the beast, or the number of his name.” This verse speaks to end time prophecies with the mark of the beast and the ability to trade. Such trade relates to retail transactions suggesting that God’s faithful servants will be unable to engage in any retail transactions should they accept the mark of the beast.

An excerpt from Revelation 6:6 also supports retail transactions“…a measure of wheat for a penny, and three measures of barley for a penny”. While this text alludes to prophecies once again, to which its interpretation is extensive, it makes the analogy of trading with respect to a retail environment.

In James 4:13 (NKJV), this profit function is mentioned as a result of trading, “Come now, you who say, today or tomorrow we will go to such and such a city, spend a year there, buy and sell, and make a profit”. This quote is a summary of the marketing

definition discussed earlier. It involves retail transactions to make profits. The entire function of retail marketing is further captured in Ezekiel 27:12-25 (NKJV).Ezekiel speaks to a trading place or a market, the exchange of goods for one another and the use of money and wages for the acquisition of goods.

With a closer look at all the examples provided, it could be seen that the bible provides an outline for businesses and trading from a Christian perspective. It demonstrates numerous examples of retail environments with trading patterns. Having success in retail marketing channels is absolutely imperative in the 21st century. God exists as a perfect divine entity and left his Holy Bible as a blue print of his perfect character. Using any principles presented in his Holy Bible, for the furtherance of 21st century principles will ultimately bring glory to his name which is what he desires. "Therefore, whether you eat or drink, or whatever you do, do all to the glory of God." (1 Corinthians 10:31, NKJV).

Chronogram/Organization of the Study

The purpose of this chapter was to identify an outline of the study. Chapter I included an overview of the U.S., UK and Trinidad & Tobago's supermarket industries. The magnitude and importance of the industry to each country was emphasized and a coherent need to fully appreciate the factors affecting it. It also briefly identified three possible variables that affect the performance of the supermarket industry. The purpose of this study was to examine the causal relationship between four variables for supermarkets in Trinidad. The importance of this study will be relevant to entrepreneurs within the supermarket industry to fully appreciate which factors determine the success of their businesses. The chapter also included the research objectives, hypotheses,

and a background literature review of the variables identified.

Chapter II is the actual literature review, which is a thorough investigation around all the variables identified in Figure 1. These are management/leadership, marketing performance, economic factors and supermarket performance. The importance of these variables will be presented as it pertains to the dependent variable which is the performance of the supermarket channel in Trinidad. Relevant dimensions will be presented along with the relationships between the variables. The main objective of this chapter is to establish proxies for each variable to drive the development of a sound methodology in Chapter III.

Chapter III includes the methodology of the study and the justification for using a structural equation modelling. This chapter takes a deep dive into identifying the population and a sampling framework. In Chapter III, the procedure for approaching each supermarket and attaining information is clearly explained. The instrument used for data collection is identified and explained along with the measures of validity and reliability.

Chapter IV provides a very clear review of the data collected and the structural equation modelling used. A thorough analysis is provided with solid conclusions. The results of tests for the empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which has an acceptable goodness of fit with the theoretical model will be presented. A solid conclusion around the null or alternative hypotheses will be shown.

Chapter V will conclude the findings and present the new stock of theory based on

the research conducted. It will refer to the research objectives and research hypothesis laid in chapter 1. Clear references will be made to exiting literature and comparisons will be done to establish the relationship with the findings. Gaps will also be identified which will show where possible research can be focused in the future. Finally, the chapter concludes with clear cut implications and recommendations for supermarket entrepreneurs, governmental agencies, and other key stakeholders within the industry, with an overview of changes needed for future sustenance.

CHAPTER II

LITERATURE REVIEW

Introduction

The main objective of this research is to explore the causal relationships between the variables marketing performance, management/leadership influences, economic factors and supermarket performance in accordance to the before mentioned theoretical framework.

This chapter will commence by providing some brief definitions of supermarkets and then seek to investigate each variable individually. This will be followed by a thorough overview of any existing relationships among the constructs. This will be followed by references made to previous research carried out on the various constructs and relationships that exist among them.

Supermarket

In a most basic sense, Erasmus (2006) defined a supermarket as a large departmentalised retail store which has the main focus of selling food products and groceries. This definition is further expounded on by Jiao, Moudon, Ulmer, Hurvitz, and Drewnowski (2012) and seeks to define supermarkets as stores that are run by national or regional chains which sell a wide range of foods such as canned and frozen foods, fresh fruits, vegetables, fresh/prepared meats, fish, seafood and poultry.

The definition put forth by Jiao et al. (2012) aligns to Igami (2011) establishes

supermarkets as a self-service store with floor space for at least 231 m^2 (2,486 ft^2) and/or a minimum annual revenue of 100 million. A key factor is that 30% of the revenue comes from food products. There has also been the recent introduction of a larger supermarket format which includes household merchandise, referred to as a General Merchandise Store (GMS), hypermarket or superstore.

The most profound definitions were put forth by Han et al. (2012) who established different classifications of retailers and clearly identified where supermarkets stood apart from groceries. Four classifications of retail food stores were defined. These were convenience stores, supermarkets, grocery stores and speciality food stores. Convenience stores have two cashiers at most with no fresh meats for sale. They have less than 10 food stores and are not a specialty food store. Examples of specialty food stores would include bakeries, meat/fish, fruit/vegetables, and candy or coffee/tea shops. A supermarket however has a minimum of four cash registers while selling more than twenty fruits and vegetables. It has fresh meats, milk produce but is not considered a specialty store. Finally, a grocery store sells food items but does not fall with the category of a supermarket, specialty food store or a convenience store.

Finally, Yin, Pei, and Ranchhod (2013) defined a chain as an operator of 10 or more retail stores.

Marketing

The concept of marketing from a supermarket's perspective, its importance and dimensions will be presented below.

Retail activity may be defined as all actions and elements that focus on delivering goods and services to consumers through a retail institution (Prasad Kotni, 2016).

From the perspective of a retailer, according to Kuhlman (2016) marketing mix modelling involves the study and understanding of the four P's, that is, product, price, place and promotion. Regarding the retailer, the product refers to the retail institution itself and all the elements that comprise of it. These include its merchandise, brand name, service, atmospherics, features and benefits (Gilbert, 2003).

Garg (2014) established that the extent of effective marketing involves understanding psychographic factors of consumers and classifications around varying lifestyles. These may include media habits, social issues or in a general sense, shopping personalities.

Importance

Kuhlman (2016) established that the objective of marketing spend is to maximize sales where possible with minimum spend. It is also crucial to measure and track marketing expenditure to determine its effectiveness within a retail establishment. This view is also endorsed by Prasad Kotni (2016) who mentions that effectively marketing retail services includes all activities performed by retailers with the sole purpose of maximising customer convenience and satisfaction. Effectiveness in retail services can increase sales ultimately.

Rajic and Dado (2013) demonstrated that it costs up to five times to acquire a new customer through new marketing spend, than to retain an existing one. The longer a customer remains with a company, the greater the contribution to the bottom line. Loyal customers take less time to purchase, are less sensitive to price and refer other customers. A 5% increase in customer retentions may translate into a 25% increase in profits.

The extent of consumer research around marketing effectiveness have been focused in the USA and Western Europe, whereas there has been a dearth of such research in emerging markets (Rajic & Dado 2013). This amplifies the relevance and importance of this research. Marketing mix strategies such as price reductions in products within supermarkets and location of a retail establishment affects purchasing patterns and frequency. It therefore must be understood (Gao, 2014; Klementschitz, 2014).

Intense competition and demanding consumers have led retailers to devise innovation in how they represent themselves (Viswanathan, 2012). Proper positioning and targeting are crucial to attract and retain complex customers (Garg, 2014).

Dimensions

Studies carried out by several authors reveal that there are many dimensions that must be considered.

Private Store Brands

Private store brands are also major contributors to supermarket loyalty and success (Bushey, 2014; Cleary, 2013; Seenivasan, 2011). Store brands continue to be an effective tool in increasing profits and leveraging bargaining power over manufacturers.

Consumers that have a higher than average income are less appreciative of store brands. Under such conditions, the retailer will not benefit from having a wide array of store brands. However, households that have very high store brand loyalty (particularly in staple products) are very loyal to the store brands (Seenivasan, 2011). In a scenario where there is a category captain and a rival manufacturer, the retailer benefits when the store brand is marketed after the lesser of the two national brands

(Bushey, 2014).

Additionally, there is often a connection between sales staff associated within a retailer and its private label brands (Michel, Merk, & Eroglu, 2015). Salesperson brand relationship (SBR) can be measured by three dimensions. These are brand affect, brand trust and perceived customer recognition. It was found that SBR has a direct influence on salesperson's attitudes of selling particular brands over another. The effect is even seen to be greater with private label brands belonging to the establishment they are employed with. It forges a level of commitment by the employee to the company. Private label brands not only deliver high profits and differentiate retailers but keep their staff members committed with minimal staff turnover.

With the introduction of Wal-Mart in New York, many smaller supermarkets had to revamp their strategy to remain competitive (Cleary, 2013). Supermarkets were prompted to price their private label brands more competitively and manufacturer brands to be more price responsive. Consumers that moved away from supermarkets to Wal-Mart were deemed price sensitive; however, the ones that remained loyal, were less price sensitive and had a greater appreciation for the value associated with private label brands. Loyalty programs were not deemed the best way to retain consumers with the introduction of Wal-Mart, but more so a competitive pricing strategy around private label brands (Cleary, 2013).

Chen (2016) confirmed that having a wide product assortment is crucial for remaining competitive and could be a better strategy than lowering prices.

Price

Gao (2014) emphasizes that the prices set in a supermarket are a major factor

which contributes to the overall success. Price reduction with extensive advertising has two effects. There is a welfare improving effect whereby consumers benefit from the price reductions. On the contrary, there is a welfare harming effect whereby consumers suffer from high transportation costs incurred in travelling to distant supermarkets to capitalize on price discounts. When online shopping is considered, there is a social surplus since transportation costs are eliminated. The removal of transportation costs further imply that the local firm does not have exclusive power and that competition is intensified since the firm can now continue to lower prices and intensify promotions.

The behaviour and rationale around retailers offering discounts must also be considered. Retailers randomize prices and consumer purchase decisions are based on a critical price. When inventory levels of consumers are high, the probability of maintaining a sale is minimal. Consumers simply will not store more than the quantities purchased under the sale. Inventories and purchase behaviours of consumers are therefore synchronized. Retailers will therefore randomly engage in discounts to maximize sales in the event inventory levels of consumers are low (Gao, 2014).

Promotion & Price

Promotional and pricing strategies also play a major role in the success of supermarkets (Chaudhry, 2014; Kuhlman, 2016; Lyle, 2014). It is important to develop strategies for both to ensure that profits are maximized. For this to happen effectively, the inventory levels must be managed in accordance with the aforementioned strategies. Good stock turns guarantee good cash flow which is critical for survival in the supermarket industry which is a low margin one (Lyle, 2014).

Kuhlman (2016) mentions that there are significant relationships between budgets

allocated towards promotions and in-store displays of stock for supermarkets and net retail dollar sales.

The retailer generally will lower price for products that are high in inventory to promote the off take from the shelf. This will be coupled with low incentives for the purchase for new products. The intent is to direct the attention to the high inventory products. When consumers experience a situation of low personal inventory, they will capitalize on the discounts. When retailer's inventory is low, they keep the price high (Gao, 2014).

Steffy (2016) identified that the extent of Walmart's strength in the US has been as a result of *Everyday Low Pricing Strategies.* They are able to capitalize on cost savings from bulk purchases which it passes onto its customers.

Location

According to Klementschitz (2014), location plays a major role in the success of supermarkets as it shapes consumer behaviour. In this study, four location types (relating to small supermarkets 1000 m^2) were identified. These were rural/peripheral, rural/central, urban/central and urban/peripheral. It was seen that categories of product sold are influenced by the location type. For example, in urban/central, there were high sales of stationary types where there is a high concentration of offices in this area.

Users of private cars show the highest expenditure rate, followed by cyclists, pedestrians, and then public transport for all location types. Generally, people shopping in central areas tend to spend more than people in rural areas. People shopping in rural/peripheral areas always used their cars since most of these supermarkets are only accessible by car. In highly urban central areas, the use of a car is not as relevant;

however, walking plays a major role. Overall, except for rural/peripheral areas, there is a general shift away from non-motorised modes of transport to supermarkets. This aligns to smaller shopping trips as it relates to items and weight of goods purchased (Klementschitz, 2014).

Category Management

Further considering stock management, according to Guissoni, Consoli, and Mateus Rodrigues (2013), category management (CM) may be defined as practices of the distributor/supplier process in managing categories of products as strategic business units and improving business results by focusing on delivering consumer value. Their study found that CM had a positive effect on the store relating to market share and competitiveness. Non-leader categories were seen to have grown significantly with the use of CM. The use of CM therefore increases the overall performance of the supermarket.

Despite such positive effects noted by Guissoni et al. (2013), there may be negative effects associated with CM. Hong, Misra, and Vilcassim (2016) investigated the effectiveness of category management, as it relates to product assortment. It was found that consumers pay greater attention to category assortment representations, however; individual product lines and categories got less attention as opposed to when they were represented separately. In light of this, consumers' attention span is decreased as there is much more to focus on within the category. The outcome is that there is a decreased likelihood of purchasing.

Category captaincy is a modern practice used in supermarkets whereby ownership of the product category in terms of placement, branding and decisions around

pricing is given to one of the existing manufacturers usually through a bidding process (Viswanathan, 2012). When category captaincy is implemented, quite several effects are seen. The captain benefits from the substitution effect as it is allowed a greater spread of its products. The efficiency effect unfolds which allows the retailer to benefit from the captaincy arrangement through slotting fees. While there may be a falloff in revenue from the substitution effect, this is compensated by the efficiency effect, causing the overall gain to be a positive one. The overall channel sees an uplift or improvement with consumer surplus through product introduction incentives and increased product differentiation. This benefit however comes at the expense of rival manufacturers (Bushey, 2014; Viswanathan, 2012).

It is of major importance that with a category captain arrangement that the retailer does not allow one manufacturer to benefit at the expense of others, since the falloff in sales can reflect in the overall profitability of the retail establishment itself. The retailer must encourage fair trading practices and allow auction bidding by all manufacturers. This will see the retailer benefiting in the long run (Bushey, 2014).

There are varying scenarios that exist with category captainship as it relates to its management of the captain and the rival manufacturers. In-store marketing, brand management and retail pricing can be managed by the retailer or delegated to the category captain. According to Bushey (2014), when retail pricing and in-store marketing are delegated to the category captain, market share grows for the category. Retailers and consumers benefit at the expense of manufacturers since they get caught up in a prisoner's dilemma as they bid more and more for captainship.

When in-store marketing is managed by the retailer, the manufacturers often

lower their prices as they are forced by the retailer to do so. In this scenario it is not in the interest of the retailer to implement brand management since this comes at a cost. The retailer will focus on category management which raises the perceived value to the consumers. This however, may affect their profits negatively. On the contrary, the delegation of category management and brand management increases retailer profitability (Bushey, 2014).

Consumer Oriented Marketing Strategies

According to Garg (2014), based on the target market, different marketing mix strategies can be employed. It was showed that it is extremely important for supermarkets to fully understand their customer base. In doing this, they can better serve them. Three categories of customers were identified through proper segmentation. These were *economic, recreational* and *apathetic.* It was noted that there were distinct behaviours observed among the three customer groups which aligned to different marketing strategies.

The economic customers made planned visits and were very price conscious. As a result, they were more inclined to be attracted to price discounts and promotions. The recreational customers were fun seeking and were easily enthused by new product introductions and store layout. The apathetic customers were not particularly interested with the shopping environment, so it was necessary to keep them engaged through good employee service (Garg, 2014).

When considering socioeconomic profile, supermarkets must tailor their services and operations to the needs of their customers (Garg, 2014; Prasad Kotni, 2016; Rajic & Dado, 2013; Thomas, 2013). Factors may include age, gender, occupation,

education levels, income and family size. For example, when considering the elderly, a lift facility may be necessary. Also, varying educational levels may require different signage needs. Secondly it is necessary to fully appreciate the behaviour of the target market. These include the frequency of shopping, preferred time of shopping, amount spent, distance travelled and family life cycle stage. A frequent shopper, for example may appreciate a loyalty program and price sensitive consumers will be attracted to promotional incentives. In essence, it is necessary for the retailer to fully understand their target market and to systematically meet their needs (Prasad Kotni, 2016).

According to Thomas (2013), many in-store variables can be attributable to a store's success. It was found that quality was the major contributor to store satisfaction by consumers, followed by store service and product assortment to lesser extents. The findings suggest that the trends of the Indian middle upper-class consumers are changing since they are no longer making choices solely on price. They prefer to have a relevant offering of merchandise as opposed to having too wide of a variety.

Ellickson (2013) argues further that investments in quality merchandise in-store and its layout can lead to a sustainable competitive advantage.

Sales associates also contribute significantly to consumer patronage and satisfaction. Satisfaction contributes positively to repurchase loyalty and the likelihood of recommending the store (Thomas, 2013). According to this study, the right attributes will satisfy consumers which ultimately will result in the success of the supermarket.

Consistent with Rajic and Dado (2013), whose study was conducted in Serbia, it was found that consumer satisfaction was dependent on ambient factors. The study intended to show the relationship between retail customers' behavioural intentions

based on atmospherics, service quality and satisfaction. Customer's service quality perceptions are shaped by atmospheric and ambient factors including internal design factors, store cleanliness, wide assortment of goods, spatial layout, temperature, odours and lighting. It was found that customer satisfaction is a major determinant of behavioural intentions. Satisfaction however, was not directly influenced by atmospheric conditions; it helps to increase positive customer perceptions which in turn can lead to a future positive satisfactory experience.

In a study conducted by Grigsby-Toussaint and Rooney (2013), it revealed that targeted marketing activities can directly impact certain groups including children. The study investigated the extent to which unhealthy foods are marketed to children and the possibilities of this being a principal cause for obesity among children. The results show that families with young children are highly exposed to more food marketing within the retail environment than previously thought. Most stores were found to have marketing claims for less healthier products like salty snacks than the healthier ones like fruits and vegetables. Stores with *Women, Infants and Children* (WIC) are more likely to have marketing elements than non-WIC stores. There was a higher degree of marketing efforts in convenience stores as opposed to groceries. Marketing claims of fun were associated with salty snack, breads, pastries and prepared foods. Cartoon characters where most used with candy, while toys and giveaways were used with breakfast cereal, peanut butter and jelly products.

In concluding the above literature clearly shows that the marketing mix strategies identified by Gilbert (2003) can directly and indirectly impact the success, patronage and repatronage of supermarkets.

Management/Leadership Influences

The section contains the concepts, importance and dimensions of general management/leadership.

Concept

General management and leadership of a supermarket include a wide array of disciplines that fall within the realm of supermarket ownership.

Supply chain management is critical in a retail environment and could be managed effectively by vendor managed inventory systems which allow better collaboration between vendors through greater communication and information sharing. There is better forecasted demand, supply chain variability, inventory management, better inventory replenishment, improved customer service and finally better profits. From a supply chain perspective, performance is measured by cost, profit, stock outs and customer service (Borade & Sweeney, 2015).

Total Quality Management (TQM) challenges the internal operations of a business entity with the objective of driving innovation, creativity, risk taking, which are all geared towards meeting the needs of the customer. It ideally can drive customer satisfaction across cultural diversity (Wang, 2017).

Knowledge management systems (KMS) uses advanced technologies to store information and technical processes for companies. It includes corporate policies, proposed action plans and employee suggestions (Hyun Kim, Mukhopadhyay, & Kraut, 2016).

Kanja and Mwangangi (2017) established that warehouse management and order management are critical within a retail environment. Warehouse management is the extent to which items sold within a retail store is housed until it is ready for sale to

the consumer. Order management is the process of attaining products sold within a retail store in a cost-effective manner.

Corporate branding plays an important role in the eyes of consumers in choosing their retail destination (Mitchell, Hutchinson, & Quinn, 2013).

Importance

The management of retail establishments are faced with providing customers with a positive shopping experience to increase customer satisfaction and drive customer loyalty through repeat purchases. The outcome of this is to increase the financial performance of the store (Bagdare, 2013).

Service quality which is driven by management is a general measure of customer satisfaction (Mehralian, Babapour, & Peiravian, 2016).

Effective supply chain management has a positive effect on cost savings within a retail environment which is a driver for success (Kanja & Mwangangi, 2017). The extent and importance of supply chain management has to be understood in relation to competitive advantage and the performance of the firm (Banerjee & Mishra, 2017).It is imperative to manage stock outs which are critical in the supermarket retail business since it ensures that customers are satisfied (Borade & Sweeney, 2015).

Management overlooks the effectiveness of IT systems in the retail environment which must be measured and assessed since it contributes to the overall performance of the retail establishment (Hyun Kim et al., 2016).

Supervisors within a retailer directly influence customer satisfaction. Directly improving supervisors' capacity to make better decisions can therefore directly impact customer acquisition and retention positively (Jarvis, 2016).

Dimensions

The different dimensions mentioned by various authors are outlined below.

General Management

Waal, Nierop, and Sloot (2017) in an application of the high performance organisation (HPO) framework to the supermarket industry made a specific definition of management. It is the fair treatment by management to all employees. It includes trustworthiness, integrity, commitment, enthusiasm and respect which is embedded within the leadership styles of management. The model revealed that management quality of supermarkets contributes highest to the performance of supermarkets.

Davidov (2014) examined five dimensions of managing a supermarket. These are innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness. It was found that there is a significant relationship between the five dimensions identified and entrepreneurial orientation which is the ability of the managers to leverage strategic initiatives to create company wealth. This in turn has a positive relationship with the performance of supermarkets. It was found that education and experience negatively correlate with the performance of supermarkets and the entrepreneurial orientation scale. This paper spoke to the overarching strategy of supermarkets as it relates to the managerial efforts which all have a direct correlation with the performance of supermarkets.

Total quality management (TQM) involves the management of an institution engaging in innovation, creativity and risk-taking to meet customers' needs, thereby assuring customer satisfaction. TQM not only improves retailer competitiveness, but also drives customer retention. With reference to the retail channel, it is important to understand customer value of target customers. In this regard, management should put

equal emphasis on goods and service quality to deliver excellence to the customer. The issue of TQM is therefore very important in delivering a favourable performance when it comes to the supermarket channel (Wang, 2017).

The supermarket industry is service driven, and the issue of good service is extremely imperative in satisfying and retaining customers. Service quality is measured by the SERVQUAL model which illustrates the gap between the expected and delivered service (Mehralian et al., 2016). The five dimensions that were considered in this model are reliability, responsiveness, assurance, empathy, and tangibility. Mehralian et al. (2016) found that the SERVQUAL model is more suitable for retailers offering tangible goods compared to services, which is applicable to supermarkets. Their study sought to validate the five dimensions of SERVQUAL. Reliability had the strongest effect followed by assurance. Empathy, responsiveness and tangibility followed.

Mehralian et al. (2016) concluded that the retailer should have competent and well-trained staff members to deliver precise and regular service, dealing with everyday issues. Despite the study being focused on the pharmacy channel, the same principles apply to the supermarket channel.

The extent of the products stocked and sold can have a direct impact on supermarket performance. McDaniel and Malone (2014) examined two supermarket chains in California that decided to cease the sale of tobacco related products for health, ethical and business-related issues. There was great uncertainty around the decision from the owners as there were financial implications regarding the matter with a predicted fall off in sales. Surprisingly, smoking customers, while inconvenienced, respected the decision taken by management. Secondly, there was a lot of positive publicity around the

decision by the media and the general public.

Most of the stores in the chains reported a very minimal fall off in sales, however the largest one indicated a million dollar fall off from the bottom line. Given its size, it was affected severely. Supermarkets are profit driven; however, other motives drove the decision to stop selling a certain range of products. The outcome was varying degrees of decreased profits and some customer dissatisfaction. The clear-cut decisions made by management regardless of the motive undoubtedly will affect the performance of the supermarket (McDaniel & Malone, 2014).

During unstable economic conditions, leadership in retail establishments must take a proactive approach to management. The extent of the strategies adopted during these circumstances can determine the success and/or failure of the retailer itself (Balios et al., 2015).

Supply Chain Management

Kanja and Mwangangi (2017) confirmed that supply chain management for retail stores is affected directly by order management and warehouse management. While warehouse management was important, order management most affected the supply chain performance of the retailer. The study suggested that the greater the efforts incurred in order management, the more cost-effective supply chain processes will be given to all external factors.

In a study conducted by Banerjee and Mishra (2017), supply chain executives viewed the inclusion of core suppliers in strategic decision-making processes relating to information sharing as important; however, it is not widely practiced since it is perceived as a hindrance to competitive advantage. Despite this, it was seen that there is

a very strong relationship between supply chain management and competitive advantage. A strong relationship also exists among supply chain management and the firm's performance.

Success for retailers also depends highly on effective supply chain management (Borade & Sweeney, 2015). A case study presented by Borade and Sweeney (2015) shows that *vendor-management inventory* (VMI) partnerships are highly effective in reducing demand variability, inventory holding costs and distribution costs. This is done through information sharing to align operational activities and strategic objectives between suppliers and customers. Such activities include ordering and payment systems, production and replenishment planning, relationship building and joint improvement activities. The overall performance of retailers inclusive of supermarkets therefore depends on the efficient management of supply chain networks.

Human Resources

Management of people is a critical factor that impacts any institution. This does not exclude the supermarket industry which is not only very labour intensive, but also service oriented. Hemalatha et al. (2014), through the use of a performance model, made the direct link of performance and staff. The *Human performance technology* (HPT) model is a process model that is widely used for performance improvement in different types of organizations.

The study by Hemalatha et al. (2014) applies HPT to four supermarkets in India which were experiencing poor performance over a period. The analysis found several factors contributing to the poor performance of the supermarkets. These were nonresponsive centralized administration, poor inventory management, and frequent

changes of front-end employees. It concluded that customer satisfaction and retention is key for maintaining sales in the supermarket channel. In the subsequent study, all the factors relating to the negative performance of the supermarkets in India were all routed to staffing issues. It can therefore be seen that the effective management of staff is of paramount importance when it comes to managing a supermarket.

Jarvis (2016) also spoke to staffing in supermarkets, but his focus was on the supervisory effort. It was emphasized that a key factor that determines the success of any service driven company is its staff which is managed by a supervisory or managerial effort. In instances where there are no strategies in place to upgrade supervisor skills and capabilities, retailers have greater challenges in satisfying customers and achieving better business results. The onus is therefore on the supermarket management to effectively have plans and strategies to train, develop and enhance its supervisory work force to better serve its customers. This effort serves to better manage floor staff which in turn results in better customer satisfaction and patronage which will positively affect the performance in the long run.

Branding

In addition to the overall strategies adopted, the efforts and focus of the establishment and growth of a corporate brand can also impact the performance of the supermarket in the long run (Mitchell et al., 2013). Strong brands equate to high consumer loyalty and store repatronage. Brand management by SME retail firms play an important role in its overall success. Internal and external factors contribute to the extent of brand management by retail SME's. These include, the influence of the entrepreneur and key decision makers within the firm, the resources allocated to brand management,

the marketing networks surrounding the firm and industrial/sector norms. Of these, the most influential contributor is the owner or entrepreneurial influence. The owner will define the role of branding and its approach based on an overarching vision. From a management perspective, branding is aligned to the subjective goals of the company.

Consumers are ultimately drawn to retailers to purchase goods and services. It is therefore important for retailers to stock and sell the right portfolio of products to ensure that customers are satisfied (Laforet, 2015). *Fast* moving consumer goods (FMCG) seen in supermarkets have changed the way they are represented. There is a widespread adoption of corporate branding. This occurs where there is an extension of a corporate brand being represented on a FMCG entity, for example Disney with Kellogg's. This trend is as a result of increases in perceived benefits in terms of their greater influence among stakeholders. There has also been a high presence of mono or stand-alone brands with the rational being that companies may find it less risky to have new brands in specific markets based on prevailing conditions. It was therefore seen that the portfolio of brands represented is significant in the supermarket channel (Laforet, 2015). The managerial implication is stocking the right portfolio of brands based on consumer preferences.

Information Technology Systems

Hyun Kim et al. (2016) investigated knowledge management systems (KMS) which used advanced technologies to store information and technical processes for companies. It included corporate policies, proposed action plans and employee suggestions. Their study focused on the effectiveness of KMS in a grocery retail chain. It showed that the use of KMS by managers positively impacted the sales performance

of the grocery chain. The extent of its success was determined by alternative sources of knowledge and the task environment. Grocery environments that had limited computerized resources, benefitted most with the introduction of KMS. KMS amplified the efficiency and performance of groceries where computerized resources existed.

Regarding the task environment, KMS provides greater benefits to environments that have a great use and requirement for information and knowledge. It can therefore be seen that the use of KMS which is a subset of Information Technology systems, once implemented by the management of supermarkets and used properly, can yield positive results, thereby delivering positive performance.

Economic Factors

The concepts, importance and dimensions of economic factors are presented below.

Concepts

Gilani (2014) mentions that an economic recession is a decrease in real GDP growth for more than two consecutive quarters during which there are decreases in employment, investment and corporate profits.

Blázquez Cano and Puelles Gallo (2014) further support this definition from the perspective of consumer marketing, which is a state where demand for a product is less than its former level.

Valášková and Klieštik (2015) established that consumer behaviour is a constant decision-making process that consumers make around purchasing, use, evaluation and disposing of products. This process becomes critical during recessionary periods

since the circumstances that the consumer is faced with are different.

Importance

Understanding consumer motives during recessions is necessary (Blázquez Cano & Puelles Gallo, 2014). It is important to understand to what extent consumers are affected during recessionary conditions and the extent to which consumer behaviours are adapted as a result (Minseuk, 2015).

Beatty and Senauer (2013) further emphasizes that there is a need to examine the changes in shopping patterns resulting from economic down turns. This is brought about by a firm understanding of the extent to which the state of the economy affects employment levels which may impact consumer behaviour (Huang et al., 2016).

According to Birkeland (2014), shopping patterns within supermarkets may change. From a retailer's perspective, it is important to understand to what extent it is necessary to adapt marketing strategies.

Gilani (2014) argue that it is critical to know the extent to which retailers are affected during recessions.

Dimensions

Two dimensions from various authors will be presented below.

Change in Consumer Behaviour

In a study conducted by Valášková and Klieštik (2015), consumer reactions during recessionary conditions were categorized in three types. *Benefit-seeking shopping behaviour* was seen among consumers between 15 to 45 years of age with disposable income of 501 to 750€. Consumers typically seek out any benefits that will deliver cost

savings of any type during the shopping trip. These include the use of coupons, comparison of prices and patronizing sales.

Limited shopping behaviour was seen among consumers over 61 years of age with income of less than 500€. Consumers in this group generally decrease their shopping cart, taking things they need only. The frequency of purchases may increase, but the value of the trip is very small (Valášková & Klieštik, 2015).

The savings shopping behaviour is seen in consumers who are between 46 to 60 years of age and have an income over 750€. Ideally, these consumers make cautious decisions around all their purchases. Much consideration will therefore go into the retailer, product and brands of choice to capitalize on all possible savings (Valášková & Klieštik, 2015).

It was found that changes in consumer behaviour during a recession have no relationship with the age structure of the population (Valášková & Klieštik, 2015). This suggests that all persons of different age categories were affected negatively during a recession. It was further observed that changes in consumer behaviour are dependent on income of consumers and the length of the economic recession. The longer the crisis, the more consumers become vigilant in an attempt to minimize costs. There is high comparison of goods and a switch to private label brands. It was noted that this behaviour is likely to continue even after the crisis.

Minseuk (2015) investigated the effects of a recession on households' grocery spending and behaviours, focusing on prices paid, type of outlets purchased, and the composition of food baskets, choice of brands and use of coupons. It was found that there were increases of food purchases from groceries since persons eat less out. This

spending however was redirected towards discount stores, items on deals and smaller packaged items offered by manufacturers. Private label brands saw an increase by 19.2% in sales over value priced brands introduced by manufacturers. There was a high use of coupons; however, the study does not reveal significant findings that suggest that this was a result of the macroeconomic shocks.

A similar result was seen in a study conducted by Seenivasan (2011). In recessionary periods, consumers are very price sensitive and gravitate towards cheaper private label brands. If they are satisfied with the private label, their perceptions of private labels and the store increase. Post-recession, they are more inclined to keep using the private labels since they would have grown accustomed to it. In both cases, recessionary periods would have impacted the operations of the supermarket in which they would have had to react to remain competitive.

The recession in 2008 had many changes in consumer behaviour and industry trends in the post periods which have been observed to be new norms (Beatty & Senauer, 2013). Consumers were affected negatively as there was an increase in unemployment to 9.9%. This affected consumer spending in many ways, but the most alarming trend was a shift away from expenditure on food at restaurants to preparing food at home. There was a 69% decrease in eating out, where 9,000 restaurants closed by 2011. The alternative was spending more time acquiring food and preparing it at home. There was an average increase in food preparation time of 30 minutes and 7.11 minutes spent in food acquisition. This is consistent with the increase in purchases at groceries seen above by Minseuk (2015).

Consistent with Beatty and Senauer (2013) and Minseuk (2015), Birkeland

(2014) investigated how time was spent in households during the recession. More households increased the time spent in preparing food during a recession. Additionally, it was found that the food services industry saw a decline during similar periods. The conclusion made was that persons were buying less prepared food and taking the time to make meals at home to save costs (Birkeland, 2014). While the food services industry saw a decline, the implication here is that consumers are purchasing more food stocks to go home to prepare meals. While the study did not investigate this directly, it suggests that the supermarket industry would have benefited during recessionary periods as a result.

Prevailing recessionary conditions have a negative impact on consumers' employment status (Huang et al., 2016). Unemployment directly affects consumer's spending within the retail environment. The extent of food insecurity became relevant as consumers simply did not have enough funds to acquire all the food they required. Huang et al. (2016) reported that nearly 20% of the respondents had unemployment experiences and 10% of household heads experienced food insecurity. Unemployment therefore has a direct impact on food insecurity. The implications here is that the supermarket retail channel will be affected negatively during recessionary periods since consumers have less money to spend on food.

Retailer Adaptation

Retailers too have a responsibility during recessions to react to consumer behaviour. In a study conducted by Blázquez Cano and Puelles Gallo (2014), while focusing on the retail textile industry, investigated consumer behaviour during recessionary periods. The economic climate directly affected consumers' incomes. It was

found that low income consumers have greater preferences to hedonic elements associated with emotive aspects of shopping. On the contrary, high income earners were time sensitive and appreciated convenient shopping experiences. The implications here for retailers is that during economic downturns, it is important to assess their target markets and determine what their shopping preferences are and create a retail experience to cater to that.

Furthermore, Beatty and Senauer (2013) concluded that consumers have become extremely frugal during economic downturns. 45% of consumers indicated that they are highly price conscientious and that they seek out value while shopping to maximize expenditure. Many diverted to less expensive stores while coupon redemptions rose by 27%. Internet coupon redemptions increased by 263%. Grocery stores have had to adjust their operations to remain competitive, by lowering prices and making cheaper private label brands available (which grew by 34%). They have also reduced the number of package sizes and facings. It was seen here that the retailer has a part to play as well during recessionary periods to adjust their retail operations to meet the change in consumer behaviour. This finding was consistent with what was presented by Blázquez Cano and Puelles Gallo (2014) above.

Balios et al. (2015) took it a step further and emphasises that retailers must be proactive to a recession. Their findings show that some retailers operate with a level of inefficiency during recessionary periods. The change in economic climate calls for updated operational efficiencies. If this does not happen, then the retailer is operating in an inefficient manner. Retailers should therefore act conservatively regarding managing costs when the first signs of a recession may appear. On the contrary, if a company

is not affected negatively by the conditions of a recession, then the company should further invest in the operations of the company to maximize efficiencies. Recessionary conditions therefore require proactive management by retailers.

Generally, supermarkets must be willing to adapt to customers' needs during recessionary periods (Gilani, 2014). It was found that the discount supermarkets grew market share during this period as consumers were very price sensitive and preferred to continue consuming premium products at a reduced price. The large and medium sized supermarkets had to evolve their operations to maintain market share. This included price adjustments, promotions, innovations, and cost-cutting campaigns, revisions in recruitment and employee conditions.

Once again, the findings of Gilani (2014) have shown that during economic downturns, the performances of supermarkets are affected and there is a great need for adaptive measures and strategies. The same can be said for an economic upturn. Walden (2013) found that in periods of strong economic growth where disposable income is high, consumer spending has a strong relationship with vehicles and house appliances.

Tsolakis (2015) further states that in economic downturns, retailers can actively use loyalty programs to retain customers. This was the case in Greece after the economic downturn in 2008.

Supermarket Performance

Below, the concepts, importance and dimensions of supermarket performance will be presented.

Concepts

There are financial and non-financial indicators that act as a measure of supermarket performance (Davidov, 2014). Examples of financial measures for supermarkets could be turnover and margin per square (Waal et al., 2017). Customer retention and loyalty are non-financial measures. Customer retention is the extent to which customers continue to utilize the services of a firm. Customer loyalty is a measure of customer behaviour and attitudes towards a firm or product. Loyal customers may not just repurchase, but they may refer others as well (Allan, 2016).

"Consumer satisfaction is defined as the relationship between the perceived performance and the consumers' expectations from goods and services. If the consumer's experience about the product is higher than their expectations, their satisfaction will be high; otherwise low" (Akpinar et al., 2011, p. 24).

Repeat purchase intention may be defined as the act of re-purchasing a firm's service or goods, given the present condition and other eventualities (Sharmeela-Banuet al., 2013).

Organisations that adopt a service culture spend time adopting high service standards which ultimately translate into high customer satisfaction which further translates into higher sales. Customer satisfaction is therefore linked to customer loyalty and ultimately performance (Waal et al., 2017).

Importance

Sharmeela-Banu et al. (2013) mentions that customer retention is at the heart of SME performance in the services sector. The longevity of the firm is established as there is an existing customer base, with no need to extend expenditure on new customers.

There is a positive relationship between customer retention and the firm's performance.

According to Akpinar et al. (2011) customer satisfaction is the extent to which expectations are met and surpassed during the purchase. This is the first step in establishing customer relationship management which is critical in supermarket retailing to remain competitive and to enhance profitability.

A customer-oriented approach drivers' better performance since services are inseparable from production and consumption (Tajeddini & Trueman, 2008). The health of a retailer is an indication of the number of loyal customers attached to the retailer. Increased rates of retention directly impact profitability (Thomas, 2013).

Gjekanovikj (2015) further confirms that customer loyalty is an important tool to fight competition. The objective of any retail establishment is to keep customers to earn more profits. This concept brings customer relationship and customer relationship management to the forefront. Loyalty to retailers is earned and cannot be bought.

Dimensions

Based on studies done by various authors, the dimensions for supermarket performance will be presented below.

Financial Measures

The performance of supermarkets and businesses in general are determined by its sales and profitability. Tesco's CEO reportedly resigned in 2014 as a result of being unable to boost the performance of the third largest supermarket chain since it reported two consecutive years in decreases in sales and profits (Piercy, 2014).

According to Hyun Kim et al. (2016) sales for retail outlets is a highly relevant

measure to determine its overall performance when considering a chain of outlets. Sales are immediately registered at the point of sales as compared to profits which can be determined by other factors on a company wide basis.

Peng, Pike, Chung-Hsin Yang, and Roos (2012) sought to measure the effects of cooperation among competing supermarkets and the extent to which it would affect business performance. Financial and operating statistics were used to assess performance. In their study however, absolute figures were not disclosed as a result of confidentiality issues. Changes in the timeframes were therefore reported.

In a study conducted by Geyskens, Gielens, and Wuyts (2015), the aim was to measure whether buyer group membership affects retail performance. Retail performance was measured by sales or cost of goods sold. The study also considered indicators of retail productivity to determine its performance. These included stores selling area, store formats operated, non-grocery retailing activities and international operations.

Store selling area is an indicator of capital used and can be measured by store energy costs, use of shelving, displays and front-end registers. Store formats typically include the breadth and depth of product assortment, price, accessibility of location, and convenience. Non-grocery retailing activities refer to non-retailing investment activities, for example, banking services or travel. International operations refer to the number to countries in which the retailer operates (Geyskens et al., 2015).

Customer Satisfaction and Retention

According to Sharmeela-Banu et al. (2013) established a firm's performance is linked directly to retention of its customers. There are non-financial metrics to be

considered. These are repeat purchase and word of mouth. The model developed suggested that satisfactions, switching barriers, pricing, customer loyalty, and perceived service quality and customer service are first hand contributors to customer retention, which directly impact the performance of the firm. Such an evaluation of non-financial performance is more fitted towards service driven firms given the intangibility of their operations.

Akpinar et al. (2011) affirmed that success is determined by creating customer loyalty through satisfaction. It was found that there is a positive relationship between loyalty and age. Females were found to be more loyal and distance from home was found to be a factor. Issues such as after sales service, durability of bags, handling of exchanges, handling of complaints and length of time for check out, all play a major role in customer satisfaction. Addressing simple issues drive customer satisfaction which equates to loyalty in the long run.

In a study conducted by Allan (2016) within the hotel industry, it was seen that service quality and customer satisfaction are strong predictors of customer retention. Service quality contributes positively to customer loyalty and retention, while customer satisfaction is the actual reason for loyalty and retention.

Tsolakis (2015) established that in periods of economic downturn, loyalty programs can assist in retaining customers. They keep customers engaged, and local supermarkets can sustain sales and survive in challenging times. This was seen to be the case in Greece after the economic downturn in 2008. It was noted however, that prior to this there were few customer loyalty schemes. The introduction of such after the crash was a huge success as it was a novelty. The key thing to note is that at the heart

of any retail establishment must be a customer centric philosophy which communicates directly with their customer base.

Customer Orientation

Tajeddini and Trueman (2008) showed that higher levels of innovativeness and customer orientation drove greater business performance. It is necessary to keep the customers' interest a key priority which contributes positively to performance in the long run.

Thomas (2013) also confirms that price, product quality, product assortment and store service all contributes to customer satisfaction. Customers that are satisfied are further likely to become loyal and also make referrals. This in itself contributes to the longevity of the business.

High Performance Organisation (HPO) Framework

Waal (2012) presented the HPO framework which determined high performance and excellence in organizations. It established best practices for high performance. It identified 35 characteristics that are subcategorized into five factors. The subjective measures of organisational performance are accepted indicators of real performance. The higher the scores, the better the overall performance of the company and there is a direct link between the five HPO factors and competitive performance. The five factors are outlined below.

Management quality was defined as fair treatment by management to all employees. There is trustworthiness, integrity, commitment, enthusiasm and respect embedded within the leadership styles of management. There is high accountability and full transparency of values within the company.

Openness and action orientation were defined as the opinions and values of employees being considered by management. An environment of learning through making mistakes is encouraged, through extensive dialog and exchange of knowledge.

Long-term orientation is defined as a long-term commitment to all stakeholders is made through extensive partnerships with suppliers. The work environment is seen as a safe environment that encourages growth and development of employees from within.

Continuous improvement and renewal are defined as the organisation continuously challenging itself to simplify its processes, innovate and create new sources of competitive advantage.

Employee quality was defined as a diverse management team and workforce assembled and trained to deliver extraordinary results.

Waal et al. (2017) confirmed that the HPO framework was effectively used to determine performance of supermarkets based on the underlying factors. It was shown that bigger supermarkets perform better than smaller ones, possibly because they require more staff and a greater management effort. Of the five HPO factors, management quality and long-term orientation scored the highest. Generally, high performance companies tend to be sales driven and focused on employee satisfaction. Supermarkets that have low HPO scores need to focus on innovation, pay more attention to employees and focus on the generation and usage of information and knowledge.

Relationships between Variables

This subsection seeks to present some relationships that exist between some of the latent variables in this investigation.

Marketing and Management/Leadership

Garg (2014) established that supermarkets must tailor their services and operations to meet the needs of consumers. Similar sentiments were expressed by Prasad Kotni (2016) who emphasized the need to systematically meet the needs of their target market. Thomas (2013) and Rajic and Dado (2013) spoke to having suitable in-store variables that contributed to the success of supermarkets. Issues around pricing (Chaudhry, 2014; Kuhlman, 2016; Lyle, 2014), stock management (Guissoni et al., 2013), brand management (Bushey, 2014), private label brands (Seenivasan, 2011) and staff (Michel et al., 2015) all are integral in the operations of supermarkets.

The above factors are marketing variables which were investigated under the marketing section of this literature review; there is an obvious relationship with management aspect of the supermarket channel contributing to the overall success. Theoretically management will be the decisive force in implementing the before mentioned marketing mix variables. There may therefore be a relationship between management and marketing. Davidov (2014) alluded to five dimensions contributing to the success of the entrepreneurial effort around the supermarket channel. It could be implied that the marketing mix variables seen above may fall under the competitive aggressiveness dimension mentioned by Davidov (2014) as it relates to the managerial effort of a supermarket.

Wang (2017) spoke from a management perspective regarding total quality management contributing to the overall success of the supermarket. Rajic and Dado (2013) concluded that quality in ambient factors were integral to keeping consumers

satisfied. Furthermore et al. (2013) and Hemalatha et al. (2014) emphasized the performance of staff and linked it to human performance technology, while Michel et al. (2015) elaborated the role of sales staff attributing to the overall success of the supermarket. The role of management in implementing successful marketing strategies is therefore further seen.

Marketing and Supermarket Performance

The goal of retail marketing spend is to improve sales (Kuhlman, 2016). Marketing efforts within a supermarket is intended to draw consumers and retain them. High consumer retention increases profitability in the long run (Rajic & Dado, 2013). Marketing mix elements such as private store brands, effective pricing, promotional strategies and a prime location have all contributed to the success of supermarkets (Bushey, 2014; Chaudhry, 2014; Cleary, 2013; Gao, 2014; Klementschitz, 2014; Kuhlman, 2016; Lyle, 2014; Seenivasan, 2011).

Economic Factors and Supermarket Performance

The circumstances that exist under a recession affect consumers in a negative way. Employment status of consumers are affected by unfavourable economic circumstances (Beatty & Senauer, 2013; Gilani, 2014; Huang et al., 2016). With decreases in disposable income, there naturally will be a decrease in consumer demand and an attempt to minimize costs (Blázquez Cano & Puelles Gallo, 2014; Valášková & Klieštik, 2015). Minseuk (2015) even suggested that consumers may redirect their spending towards other institutions like discount stores in an attempt to save costs.

In light of the aforementioned considerations, the general performance of

supermarkets will be affected as a result. Gilani (2014) also proposed that corporate entities see decreases in investments and profits during a recession.

Economic Factors and Management/Leadership

Undesirable economic conditions drive the management of supermarkets to make decisions that ensure the survival and longevity of their respective businesses (Birkeland, 2014). This comes with a close understanding of consumers and how their behaviours would have evolved as a result of the economic circumstances and a subsequent need to adapt the retail operations as necessary. The extent of these measures may include price adjustments, providing cheaper private label brands, promotions, innovations, cost-cutting campaigns, revisions in recruitment and employee conditions (Beatty & Senauer, 2013; Gilani, 2014). Thus, the economic climate demands revised operational efficiencies (Balios et al., 2015).

Supermarket Performance and Leadership/Management

A direct relationship between supermarket performance and management was established by Waal et al. (2017). With an application of the HPO framework to supermarkets, it was found that management quality was the leading contributor to supermarket performance. Management took the perspective of sound leadership with high accountability and transparency.

Research about the Variables

This section will present previous research done on the variables presented in the theoretical framework.

Marketing Performance

Kuhlman (2016) sought to establish relationships between marketing spend and net sales. The two variables used were net retail dollar sales measured by actual sales passing through the register daily during a marketing event, and promotional dollars which included all marketing expenditure during a campaign. Sales and marketing data were used over a two-year period for three companies. Data was collected from the IT department of the retail establishments that were studied.

The application of correlations and multiple linear regression was applied. The outcome of this study revealed that none of the specific marketing programs had a statistically significant effect on net retail dollar sales.

Prasad Kotni (2016) examined the relevant in-store services by consumers that could impact sales. The study had a population of five hundred customers who were selected through simple random sampling. An instrument was issued whereby sixty (60) items were categorized into seven variables. Services related to store management (SSM), communication services (CM), customer care services (CCS), services related to merchandise (SM), services by staff (SS), transaction services (TS) and infrastructural services (IS) were measured using a five-point Likert scale. The proposed model for in-store services (INS) was INS = *f* (SSM, CS, CCS, SM, SS, TS, IS).

Factor analysis was applied and the outcome was that no specific measure directly impacts the in store services and by extension sales. More so, it is important for the store to appreciate the specific needs of the socioeconomic profile of customers and adapt its service to meet their needs.

Thomas (2013) sought to establish relationships with customer loyalty/ satisfaction

and store image (see Figure 2). A questionnaire was utilized and all items for the respective constructs were measured using a five-point Likert scale. This was issued to 334 consumers in a city in India. The variables investigated were: customer satisfaction, customer loyalty, store image, demographic variables, price product assortment, product quality, and store service.

Structural equation modelling (SEM) was applied and it was found that store image was a major contributor to customer satisfaction but not to customer loyalty.

Rajic and Dado (2013) examined the relationship between retail atmospherics and consumer behavioural intentions (see Figure 3).

A questionnaire with a seven-point Likert scale ranging from strongly disagree to strongly agree was issued to 786 customers in Serbia to determine their preferences in the retail environment. Sixteen items were applied to retail atmospherics, five items for service quality, three for customer satisfaction and three for behavioural intentions.

SEM was applied and it was found that retail atmospherics does not predict customer satisfaction or behavioural intentions. It does however predict service quality. Service quality does predict customer satisfaction and behavioural intentions. Finally, customer satisfaction predicts behavioural intentions.

Management/Leadership

Davidov (2014) investigated the relationship between entrepreneurial orientation and supermarket performance. Entrepreneurial orientation was measured by five variables: innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness. A questionnaire was established with a seven point Likert scale. The survey was issued to 181 store managers.

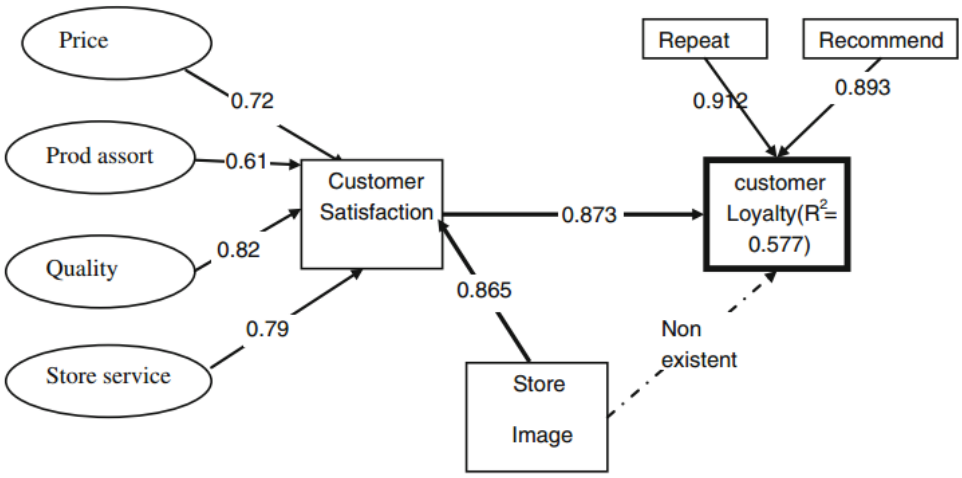


Figure 2. Measurement model for the constructs for Thomas (2013).

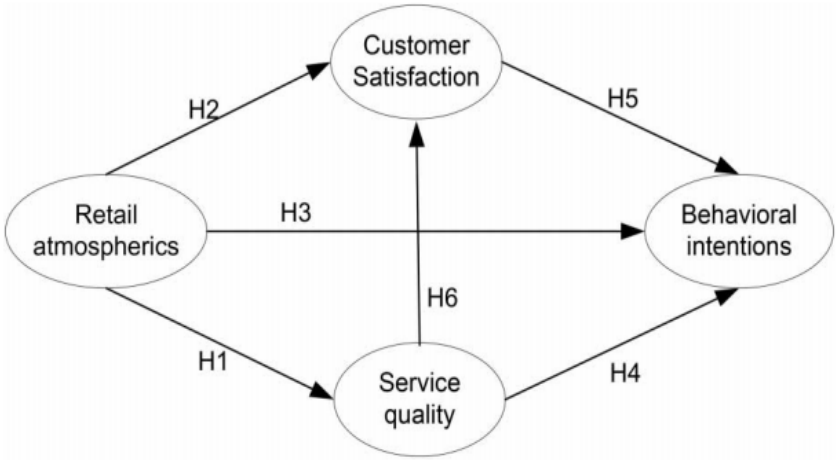


*Figure 3.*Conceptual model for Rajic and Dado (2013).

Multiple regression was applied and it was found that all variables significantly predict entrepreneurial orientation which in turn predicts supermarket performance.

Banerjee and Mishra (2017) investigated the effectiveness of supply chain management in relation to competitive advantage and the firm's performance. This was

measured using a questionnaire with 36 items to measure supply chain practices, 16 for competitive advantage and seven for firm's performance. A Likert scale was used to measure the responses from (1) strongly disagree to (7) strongly disagree for supply chain practices and competitive performance. The firm's performance was measured with a scale from significant decrease (1) to significant increase (7). The sample included 481 top level executives in a retail chain.

Factorial analysis revealed that supply chain practices have nine dimensions and competitive advantage has four dimensions. The conclusion is that the extent of supply chain practices does in fact impact competitiveness and performance.

Economic Factors

Birkeland (2014) investigated the amount of time spent on food preparation at home (see Figure 4) considering undesirable economic circumstances. A phone survey targeting 7500 households in the US was done.

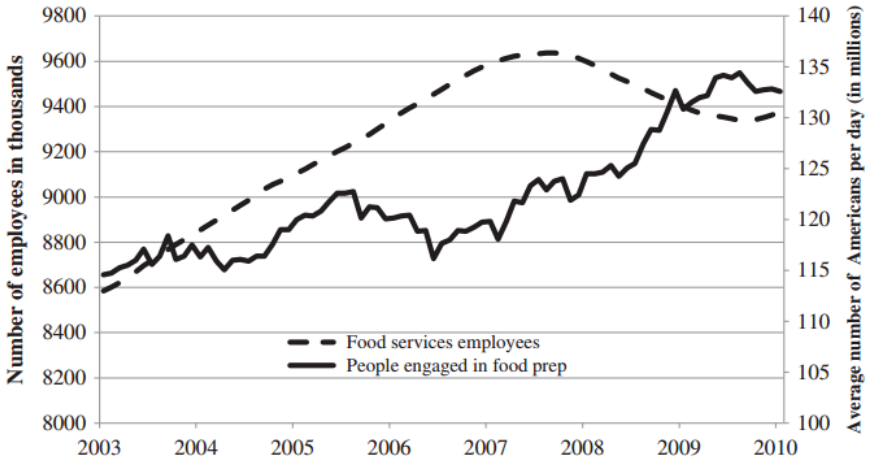


Figure 4. Employment and number of people cooking at home for Birkeland (2014).

Through the uses of descriptive statistics, it was seen that as employment increases, there is a higher number of hours spent in food preparation at home.

Supermarket Performance

Waal et al. (2017) sought to apply the HPO framework to supermarkets to determine its suitability in assessing supermarket performance. The questionnaire had 35 characteristics of the five HPO factors (management quality, openness and action orientation, long-term orientation, continuous improvement and renewal and employee quality) which were applied. A scale from 1 (very poor) to 10 (excellent) was used and the instrument was issued to 122 top level management of supermarkets.

Descriptive and correlation analyses show that the HPO framework was indeed a good measure of supermarket performance.

CHAPTER III

METHODOLOGY

Introduction

The primary objective of this research was to investigate the relationship between the variables marketing performance, management/leadership influences, economic factors and supermarket performance based on the previously identified theoretical model.

The structure of this chapter is as follows: (a) type of research, (b) population of study, (c) the sample, (d) measuring instruments, (e) the null hypotheses (f) goodness indices of adjustment, (g) complementary question, (h) data collection and (i) data analysis.

Type of Research

Research involves the scientific process whereby problems are identified and solved in a systematic manner. It encompasses the quest for knowledge to predict a phenomenon (Nather, 2015). This research was quantitative since it involved the use of structured numerical data and the application of statistical analysis to establish fundamental relationships in building theory (Hernández Sampieri, Fernández Collado y Baptista Lucio, 2014).

The research can also be described as exploratory since it intended to establish causal relationships between the identified relationships (Hernández Sampieri et al., 2014). It sought to examine the extent to which marketing performance, management/leadership influences, and economic factors affect supermarket performance

in the country of Trinidad.

The instrument was issued during the months of April to May 2018. Considering that the extent of the data collection, analysis and interpretation was for a specific period, the research was categorized as transversal (Hernández Sampieri et al., 2014).

The research can further be categorized as descriptive, meaning that it simply sought to determine, describe and identify characteristics of elements among the variables in relation to the identified problem (Aziz, 2015). The variables marketing performance, management/leadership influences, economic factors and supermarket performance were all descriptively evaluated.

It was field research as data was collected from supermarkets of all sizes within the country of Trinidad.

Population of Study

A personal interview was conducted with a representative from one of the leading distribution companies in Trinidad & Tobago. The below information was revealed about the supermarket industry which was critical for further understanding and conducting this research in relation to the population of the study.

A.S. Bryden & Sons (Trinidad) Ltd is a privately-owned company that has been in existence since 1923 in Trinidad & Tobago. Its core business lies within the distribution of fast moving consumer goods and is grouped into three specialized sales team. These include Food & Grocery, Premium Beverages and Hardware and Housewares departments. The company has established itself as Trinidad’s distributor of choice for intentionally recognised brands. As a result, its distribution network spans to all corners of the country and includes all the key supermarket players.

The company services all the key supermarkets which are considered the modern trade which account for about two hundred and fifty (250) stores. The company also has a robust network of traditional stores that its services which accounts for approximately three thousand (3000) customers. Approximately 20% of their distribution network in the traditional stores is within the supermarket channel.

Within the modern trade, there are four major stores that are comprised of supermarket chains throughout the country. These are categorized as the “Big 4” and accounts for approximately 40% of the company’s sales collectively. The balance of the stores is independent supermarkets and smaller chains. There is one club store which has four stores throughout the country. Chinese supermarkets have been growing rapidly in the past five years and amounts to about one hundred and fifty (150) stores (A. S. Bryden & Sons, Trinidad).

Table 2 shows that based on A. S. Bryden & Sons (Trinidad) extensive distribution network, the supermarket population is 851 doors for the entire country. The assumption is made based on the strength of the company, its distribution network and strong brands that they are servicing all the supermarkets in Trinidad and their data is correct.

Table 2

Supermarket Population

Type	Quantity
Modern supermarkets	250
Chinese supermarkets	150
Traditional supermarkets	450
Club store	1
Total	851

Sample

According to Hernández Sampieri et al. (2014), a sample can be described as an accurate representation of the population. In cases of research, it is more feasible to use a sample since it enables time and cost savings. It is crucial to establish parameters for determining a sample to ensure that it is inclusive of the characteristics of the entire population.

The instrument was issued to 253 supermarkets of varying sizes to different geographic areas in Trinidad. Of the supermarkets approached, 151 responded giving a representative sample of 59% of the supermarkets approached and 17% of the entire population.

Measuring Instruments

An overview of the variables in the study regarding instrument development, content validity, construct validity and the reliability of the instruments is done in this section.

Variables

In research, a variable can be described as anything quantitative or qualitative that has a value which can vary and is subject to observation (Hernández Sampieri et al., 2014). The variables used for this research is as follows: (a) independent (marketing performance, management/leadership influences and economic factors), (b) dependent variable (supermarket performance).

Instrument Development

In a research process, any tool that is used to capture information for further processing is known as a measuring instrument. It seeks to summarize previous

theoretical contributions through the use of items that correspond to the variables under consideration (Hernández Sampieri et al., 2014).

Below is a general outline of the steps taken in the development of the instrument used in this study.

1. A conceptual definition was done for all the variables: marketing performance, management/leadership influences, economic factors and supermarket performance.

2. Each of the variables was dimensioned. Several criteria were formulated for each construct with the assistance of advisors.

3. Upon completion of the instruments, experts within the industry were contacted for relevance, clarity and suitability.

4. The final instrument used contained six sections: (a) general instructions, (b) general information which captured demographic data, (c) marketing performance, which included 19 statements; (d) management & leadership, which included 14 statements; (e) economic factors which included 12 statements and (h) supermarket performance which included 21 statements. The supermarket performance instrument was an adaptation of the High Performance Organisation (HPO) framework presented by Waal (2012). A five point Likert scale was used for all variables: (a) strongly agree, (b) agree, (c) uncertain, (d) disagree and (e) strongly disagree.

5. The instruments were then administered by a research assistant. See instrument in Appendix A.

Instrument Validity

In this section a synopsis of the validity of the content and the validity of the constructs for each variable will be seen.

Content Validity

The validation process for the content presented regarding the variables is as follows:

1. Concepts were presented to the team of advisors at the University of Montemorelos which were developed over a period of time. Subsequent meetings with Dr Stephen Pilgrim were had to finalize the most accurate measurement of variables that were presented for the model.

2. An extensive literature review was done from numerous databases on the variables marketing performance, management & leadership, economic factors and supermarket performance.

3. After much consideration around the dimensions that were relevant for this study, a further search was conducted on similar instruments used in existing research that was already conducted. Necessary adaptations were done and a final instrument for this study was developed.

4. The instrument was presented to the advisers for comment, review and critique. Changes were made where required.

5. Three industry experts were then contacted for relevance, suitability and clarity of the instruments (see Appendix G for letter of request regarding content validity to an expert). The experience of these experts spanned across the supermarket industry, academia and research. Again, necessary adaptations were made as required to finalize the instrument.

Validity of Construct

The factorial analysis procedure was used to evaluate the validity of each of the variables mentioned in this research. The output from SPSS regarding the validation of

each construct is shown in Appendix B. The analyses of the statistical tests are presented below for each variable.

Marketing Performance

The marketing performance instrument was made up of five dimensions: (a) price (MP1 to MP3), (b) promotion (MP4 to MP7), (c) location (MP8 to MP9), (d) category management (MP 10 to MP 13) and (e) consumer-oriented marketing strategies (MP14 to MP19).

Validity of the marketing performance construct was done through the factorial analysis procedure (see Appendix B). The correlation matrix shows that 17 of the 19 statements all have a positive correlation coefficient greater than .3. Most correlations make the factor analysis appropriate.

The sample adequacy measure KMO reports an outstanding value (KMO = .857). The Bartlett sphericity test shows significant results (X^2 = 1259.19, *df* = 171, *p* = .000).A look at the anti-image covariance matrix reveals that all the values on the diagonal are significantly greater than zero (greater than .763).

Regarding the extraction statistics by main components, it is seen that commonality values (Com_{min} =.406; Com_{max} = .818) are all superior to the extraction criteria (*Com* = .300) for all 19 items. Upon investigation of the total variance explained, a confirmatory analysis was carried out with five factors explaining 64.77% of the total variance. The criterion is 50%, so the result seen for this construct is met.

The Varimax method was used for the rotated factorial solution. The five factors for the construct marketing performance are shown in Table 3. The relative factor for each indicator is seen here.

The first factor comprised of five indicators and was assigned the name “customer benefits”. The indicators were as follows: “location of store is important” (MP 8), “customers shop where is nearest to them” (MP 9), “prices are comparable to other stores” (MP 2), “prices are a good reflection of quality” (MP 3) and “suppliers believe that category placements are important” (MP 12).

Table 3

Rotated Matrix for Marketing Performance

Indicators	Factors 1 2 3 4 5				
Location of store is important	**.805**				
Customers shop where is nearest to them	**.727**				
Prices are comparable to other stores	**.712**				
Prices are a good reflection of quality	**.631**				.412
Suppliers believe that category placements are important	**.434**				
Grouping of similar products		**.806**			
Product category groupings are beneficial to our customers		**.742**			
Promotional offers are important to customers		**.703**			
Intentional premium placements for products		**.479**	.406		
Merchandise displayed to allow customers to get around			**.812**		
Store layout allows customers to move around without challenges			**.722**		
Parking area is insufficient.			**.594**		
Loyalty of programs are important to customers			**.477**		
In-store music facilitates customer shopping experience				**.860**	
Ability to hear instore announcements				**.824**	
Advertising through ATL			.422	**.496**	
In-store lighting facilitates customer shopping experience					**.764**
Price tags visible					**.704**
Point-of-sale materials are noticeable					**.456**

The second factor comprised of four indicators and was assigned the name “customer engagements”. The indicators were as follows: “grouping of similar products” (MP 10), “product category groupings are beneficial to our customers” (MP 13), “promotional offers are important to customers” (MP 7) and “intentional premium placements for products” (MP 11).

The third factor comprised of four indicators and was assigned the name “facility store enhancements”. The indicators were as follows: “merchandise displayed to allow customers to get around” (MP 16), “store layout allows customers to move around without challenges” (MP 15), “parking area is insufficient” (MP 17) and “loyalty of programs are important to customers” (MP 5).

The fourth factor comprised of three indicators and was assigned the name “facility store atmospherics”. The indicators were as follows: “in-store music facilitates customer shopping experience” (MP 19), “ability to hear in-store announcements” (MP 4) and “advertising through” ATL (MP 6).

General Management/Leadership

The general management/leadership instrument was made up of four dimensions: (a) supply chain management (ML1 to ML4), (b) human resources (ML5 to MP7 & ML14), (c) branding (ML8 to ML9) and (d) consumer oriented marketing strategies (ML10 to ML13).

The fifth factor comprised of three indicators and was assigned the name “product store enhancements”. The indicators were as follows: “in-store lighting facilitates customer shopping experience” (MP 18), “price tags visible” (MP 1) and “point-of-sale materials are noticeable” (MP 14).

Validity of the general management/leadership construct was done through the factorial analysis procedure (see Appendix B). The correlation matrix shows that 10 of the 14 statements all have a positive correlation coefficient greater than .3. Most correlations make the factor analysis appropriate.

The sample adequacy measure KMO reports a good value (KMO = .799). The Bartlett sphericity test shows significant results (X^2= 1491.357, *df* = 91, *p* = .000). A look at the anti-image covariance matrix reveals that all the values on the diagonal are significantly greater than zero (greater than .672).

Regarding the extraction statistics by main components, it is seen that commonality values (Com_{min} =.424; Com_{max} = .881) are all superior to the extraction criteria (*Com* = .300) for all 14 items. Upon investigation of the total variance explained, a confirmatory analysis was carried out with three factors explaining 69.127% of the total variance. The criterion is 50%, so the result seen for this construct is met.

The Varimax method was used for the rotated factorial solution. The three factors for the construct general management/leadership are shown in Table 4. The relative factor for each indicator is seen here.

The first factor comprised of seven indicators and was assigned the name “logistics management”. The indicators were as follows: “warehouse management system/inventory control system to improve cost reduction” (ML 13), “effective integrated warehouse management/inventory control system” (ML 1), “automated tools for order processing” (ML 10), “compatible communication information system” (ML 11), “information exchanges between our store and our supplies are accurate” (ML 12) and “communicate future strategic needs with our suppliers” (ML 2).

Table 4

Rotated Matrix for General Management/Leadership

Indicators	Factor 1	2	3
Warehouse management system/inventory control system to improve cost reduction.	**.912**		
Effective integrated warehouse management/inventory control system	**.889**		
Automated tools for order processing	**.870**		
Compatible communication information system	**.770**		
Information exchanges between our store and our supplies are accurate	**.585**		
Communicate future strategic needs with our suppliers.	**.563**		
Personnel are always eager to provide service		**.905**	
Personnel highly trained in customer service		**.858**	
Personnel are always courteous		**.811**	
Satisfactory level of trust among supply chain members			**.906**
Various ways to improve the supply chain function in our stores			**.883**
Building the company's brand.			**.654**
Customers view the brand of our company in an unfavourable way		.525	**-.565**
We have a structured approach in dealing with customer complaints.	.465		**.471**

The second factor comprised of three indicators and was assigned the name "customer service". The indicators were as follows: "personnel are always eager to provide service" (ML 7), "personnel highly trained in customer service" (ML 5) and "personnel are always courteous" (ML 6).

The third factor comprised of four indicators and was assigned the name "building positive company name". The indicators were as follows: "customers view the brand of our company in an unfavourable way" (ML 9), "satisfactory level of trust among supply chain members" (ML 3), "various ways to improve the supply chain function in our

stores” (ML 4), “building the company’s brand” (ML 8) and “we have a structured approach in dealing with customer complaints” (ML 14).

Economy

The economy instrument was made up of two dimensions: (a) changes in consumer behaviour (E1 to E5) and (b) retailer adaptation (E7 to E12).

Validity of the economy construct was done through the factorial analysis procedure (see Appendix B). The correlation matrix shows that 8 of the 9 statements all have a positive correlation coefficient greater than .3. Most correlations therefore make the factor analysis appropriate.

The sample adequacy measure KMO reports an outstanding value (KMO = .848). The Bartlett sphericity test shows significant results (X^2 = 745.633, df = 36, p = .000). A look at the anti-image covariance matrix reveals that all the values on the diagonal are significantly greater than zero (greater than .760).

Regarding the extraction statistics by main components, it is seen that commonality values (Com_{min} =.518; Com_{max} = .824) are all superior to the extraction criteria (Com = .300) except for one. Upon investigation of the total variance explained, a confirmatory analysis was carried out with three factors explaining 71.76% of the total variance. The criterion is 50%, so the result seen for this construct is met.

The Varimax method was used for the rotated factorial solution. The two factors for the construct economy and the relative factor for each indicator are shown in Table 5.

The first factor comprised of five indicators and was assigned the name “customer behaviour within my business operation”. The indicators were as follows:

“consumer spending in my store has not been affected” (E1), “the frequency of shopping trips has remained unchanged” (E5), “my business operation was not affected at all” (E7), “customers shopping carts have tremendously reduced” (E4) and “customers focus only on value for money only” (E3).

Table 5

Rotated Matrix for Economy

Indicators	Factor 1	2
Consumer spending in my store has not been affected.	**.875**	
The frequency of shopping trips has remained unchanged.	**.866**	
My business operation was not affected at all.	**.864**	
Customers shopping carts have tremendously reduced.	**.811**	
Customers focus only on value for money only.	**.678**	
Increased our marketing activities to retain customers		**.900**
New business opportunities that never existed before		**.856**
Modified product lines to help our customers cope with the recession		**.836**
Tried to cut costs as effectively as possible		**.758**

The second factor comprised of four indicators and maintains the name “retailer adaptation”. The indicators were as follows: “increased our marketing activities to retain customers” (E12), “new business opportunities that never existed before” (E11), “modified product lines to help our customers cope with the recession” (E8) and “tried to cut costs as effectively as possible” (E9).

Supermarket Performance

The supermarket performance instrument was made up of five dimensions: (a) continuous improvement and renewal (S1 to S4), (b) openness and action orientation

(S5 to S9), (c) management quality (S10 to S13), (d) employee quality (S10 to S16) and (e) long term orientation (S18 to S21).

Validity of the supermarket performance construct was done through the factorial analysis procedure (see Appendix B). The correlation matrix shows that 16 of the 20 statements all have a positive correlation coefficient greater than .3. Many correlations make the factor analysis appropriate.

The sample adequacy measure KMO reports an outstanding value (KMO = .880). The Bartlett sphericity test shows significant results (X^2 = 1697.526, *df* = 190, *p* = .000). A look at the anti-image covariance matrix reveals that all the values on the diagonal are significantly greater than zero (greater than .555).

Regarding the extraction statistics by main components, it is seen that commonality values (Com_{min} =.512; Com_{max} = .786) are all superior to the extraction criteria (*Com* = .300) for all items except for one. Upon investigation of the total variance explained, a confirmatory analysis was carried out with three factors explaining 66.705% of the total variance. The criterion is 50%, so the result seen for this construct is met.

The Varimax method was used for the rotated factorial solution. The four factors for the construct supermarket performance are shown in Table 6. The relative factor for each indicator is seen here.

The first factor comprised of six indicators and was assigned the name “improvement in performance”. The indicators were as follows: “continuously innovates its core competencies” (S4), “in the supermarket, processes are continuously improved” (S 2),“adopted a strategy that sets it clearly apart from other supermarkets” (S1), “the supermarket is performance driven” (S9), “dialogue with employees” (S5) and “everything

Table 6

Rotated Matrix for Supermarket Performance

Indicators	Factor 1	2	3	4
Continuously innovates its core competencies	**.847**			
In the supermarket, processes are continuously improved	**.836**			
Adopted a strategy that sets it clearly apart from other supermarkets.	**.787**			
The supermarket is performance driven	**.771**			
Dialogue with employees.	**.754**			
Everything that matters to performance is explicitly reported	**.716**			
Management welcomes change		**.780**		
Management allows employees to make mistakes		**.778**		
Employees want to be held responsible for their results		**.739**		
Maintains good and long-term relationships with all stakeholders		**.696**		
Management is trusted by all employees		**.661**		
Employees look up to management		**.653**		
Employees are always involved in important processes	.516	**.605**		
Employees want to be inspired to accomplish extraordinary results	.446	**.580**		
New management is promoted from within the supermarket			**.840**	
Management has been with the company for a long time			**.728**	
The supermarket is a secure workplace for employees.			**.566**	
Management applies fast decision making				**.875**
Management is decisive with regards to non-performers				**.771**
There is a consistent coaching of employees	.449			**.566**

that matters to performance is explicitly reported" (S3).

The second factor comprised of eight indicators and was assigned the name "internal and external relationships". The indicators were as follows: "management allows employees to make mistakes" (S7), "management welcomes change" (S8),

“employees want to be held responsible for their results” (S 15), “maintains good and long-term relationships with all stakeholders” (S21), “management is trusted by all employees” (S10), “employees look up to management” (S14), “employees are always involved in important processes” (S6) and “employees want to be inspired to accomplish extraordinary results” (S16).

The third factor comprised of three indicators and was assigned the name “employee growth and development”. The indicators were as follows: “new management is promoted from within the supermarket” (S19), “management has been with the company for a long time” (S18) and “the supermarket is a secure workplace for employees” (S20).

The fourth factor comprised of three indicators and was assigned the name “management processes”. The indicators were as follows: “management applies fast decision making” (S11), “management is decisive with regards to non-performers” (S13) and “there is a consistent coaching of employees” (S12).

Reliability of Instrument

Reliability of the instruments was done through the Cronbach alpha test (See Appendix C). This sought to determine the internal consistency. The Cronbach alpha coefficient for the variables is as follows: (a) marketing performance, .889, general management/leadership, .852, economy, .857 and supermarket performance, .875. All variables have desirable results as all scores are over .8.

Operationalization of the Variables

Table 7 illustrates just an example of the operationalization of the demographic

Table 7

Operationalization of the Demographic Variables

Variables	Conceptual definition	Instrumental definition	Operational definition
Type of Supermarket	The type of supermarket in relation to ownership structure. Other included Chinese owned supermarkets so as to not overtly appear to isolate a specific race	The variable was determined by the response seen under the item: Type of Supermarket: - Chain- Independent - Other	The data was classified into the following categories:1 = Chain2 = Independent 3 = Other the scale of measurement is nominal
Square footage of store	The relative size of the supermarket in terms in square footage	The variable was determined by the response seen under the item: Square footage of store: - < 10,000 sf - 10,000 to 30,000 sf - > 30,000 sf	The data was classified into the following categories:1 = < 10,000 sf2 = 10,000 to 30,000 sf3 = > 30,000 sf the scale of measurement is ordinal

variables presented in the second section of the final instrument. A conceptual, instrument and operational definitions were presented. The balance of variables is presented in Appendix D.

Null Hypotheses

The null hypothesis is a statement that stands in opposition to the main hypothesis established for the research. The main hypothesis in itself aims to fully explain the phenomenon of the research. The intentions are to therefore nullify or reject the null hypothesis (Hernández Sampieri et al., 2014).

Main Null Hypothesis

H_{01}: The empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which does not have an acceptable goodness of fit with the theoretical model.

Complementary Null Hypothesis

H_{02}: Management/leadership influences, economic factors and marketing performance are not predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.

Operationalization of Null Hypotheses

Below in Table 8 the operationalization of the null hypotheses is shown. The balance of null hypotheses will be found in Appendix E.

Goodness of Fit Indices

Adjustment indexes for structural models through goodness-of-fit measures, incremental measures of adjustment and measures of parsimony adjustment were presented by Huerta Wong and Espinoza Montiel (2013) and De la Fuente Mella, Marzo Navarro, and Reyes Riquelme (2010). They are summarized below.

Absolute Adjustment Measures

The degree to which the model predicts the matrix of initial data is determined by the absolute adjustment measures. The following indicators were selected for the model:

Table 8

Example of the Operationalization of the Null Hypothesis

Hypothesis	Variables	Level of measurement	Statistical test
H_{01}. Management/leadership influences, economic factors and marketing performance are not predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.	Independent: Management/leadership Economic factors Marketing performance Dependent: Supermarket performance	Metric Metric Metric Metric	The statistical technique of multiple linear regression was used for the analysis of the null hypothesis. The method of successive steps was applied. Values of significance $p \leq .05$ determined the rejection of the null hypothesis

1. Chi square: corresponds to the best-known index of the maximum method verisimilitude. The model will have a better fit the smaller the value.

2. Chi square/degrees of freedom: compares models with different degrees of freedom. A quotient of 5 is considered a reasonable adjustment while 2 represents an excellent fit.

3. Goodness of fit index (GFI): this analyses the adjustment in all cases which is independent of the size of the sample and establishes firm deviations from normality. Its value is between 0 (poor adjustment) and 1 (perfect adjustment).

4. Tucker-Lewis Index (TLI): must be equal to or greater than .90.

5. Mean square approximation error (RMSEA): values less than .05 are ideal; however, values less than .10 are also considered favourable. For this investigation, values less than or equal to .08 will be taken as parameters.

Incremental Adjustment Measures

The incremental adjustment measures seek to compare the proposed model with a null model to determine if there is a direct association between the variables. Below are the indicators:

1. Normative index of adjustment (NFI): seeks to compare the incremental adjustment with the null model. Its range is between 0 and 1. An NFI score equal to .9 indicates that the model proposed is 90% superior the null model.

2. Tucker-Lewis Index (TLI): the assumption made is that the best model is not the one for which the chi square is equal to zero, but the one for which the value expected from the chi square, divided by its degrees of freedom is equal to one. The formula follows: TLI = [(chi square null / zero degrees of freedom) - (chi square model/ model degrees of freedom)] / [(chi square null / degrees of freedom null) -1].

3. Index of incremental adjustment (IFI): acts as a relative comparison of the proposed model to the null model. It considers the degrees of freedom becoming less sensitive to the sample size when compared to other measures of incremental adjustment such as NFI. If the model exposed is as bad as the worst possible model, the value presented will be 0; however, if the model is good, it will be 1.

Measures of Adjustment of Parsimony

This measure allows estimating the degree to which adjustment is achieved for each coefficient or estimated parameter. The indicators are presented below for each adjustment:

1. General index of parsimony (PGFI): this index ranges between 0 and 1. High values establish greater goodness of fit and parsimony. Despite this, there are no

criteria regarding how high each index should be to establish the best parsimonial adjustment. The measure becomes useful as it allows for the comparison of models.

2. Akaike comparative index (AIC): allows comparison between two models to determine which fits with greater parsimony. While this is the case, neither a scale nor guide criteria is established. Its interpretation lies with investigating the mode with the lower value.

Adjustment Criteria

The below indices were criteria to evaluate the goodness of fit used to test the model. (a) likelihood ratio of the chi square (χ^2), as small as possible and its significance level p greater or equal to .05, (b) standardized chi square (X^2/df) less than 3, (c) goodness of fit index (GFI) equal to or greater than .90, (d) goodness of comparison index (CFI) equal or greater than .90, (e) root of the average quadratic residual (RMSEA) equal to or less than .08, (f) (NFI) greater than or equal to .90 and (g) (TLI) greater than or equal to .90.

Complementary Question

The question below arose from the problem of this research and was answered during the process.

1. What is the extent to which management/leadership capabilities, economic factors and marketing performance affect retail supermarket performance in Trinidad?

Data Collection

The below steps were taken regarding the collection of data for this study as the researcher was unable to personally issue the instruments.

1. A research assistant who is familiar with the various geographic locations in Trinidad was hired to manage the issuance and collection of instruments.

2. The research assistant targeted key supermarkets in all geographic locations in Trinidad. In depth interviews were conducted with supermarket owners/managers and the instruments were filled out as required. A letter was given to the research assistant on my behalf to present to the supermarket owners to request permission to conduct the interviews (see Appendix F). Instruments were filled out immediately in the presence of supermarket management. None were left for collection later.

3. The instruments were pooled on a weekly basis and entered the statistical software for data processing.

Data Analysis

Statistical Package for Social Sciences (SPSS) for Windows version 22 was used for the formulation of a database and the processing of the variables for this study. The processes outlined in the operationalization of variables above were utilized to determine the scores of each of the variables. Descriptive statistics were then applied to clean the database, obtain demographic data and further evaluation of the behaviour of the variables. The theoretical framework for this study was considered and the good-ness of fit was considered.

CHAPTER IV

ANALYSIS OF THE RESULTS

Introduction

The extent of this research focused on the supermarket industry and was to specifically explore the causal relationship between the latent variables management/leadership capabilities, marketing performance, economic factors and supermarket performance for supermarkets in Trinidad in accordance to the theoretical model identified in chapter one.

Furthermore, as outlined in chapter three, the research conducted was quantitative, exploratory, transversal, descriptive and field.

The outline of this chapter is as follows: (a) population and sample, (b) demographic description of the subjects, (c) arithmetic means, (d) frequency of constructs, (e) validation of latent constructs, (f) null hypotheses of the structural models, (g) complementary null hypothesis and (h) summary of the chapter.

Population and Sample

The population that was observed for this research was estimated to be 851 supermarkets in Trinidad. The research was targeted at the management of supermarkets in different geographic areas in Trinidad. In depth interviews were conducted with supermarket management which included owners, managers and supervisors. The field work was conducted by a research assistant during the months of April and May

of 2018 that engaged 151 supermarkets which made up the sample. This represented 18% of the population.

Demographic Description

This section contains the demographic information regarding the subjects for this research. The results presented are for the variables: type of supermarket, square footage of supermarket, location of supermarket, number of cash registers, no of years in existence, respondent's role and respondent's experience in the supermarket industry (statistical tables are shown in Appendix H).

Type of Supermarket

Table 9 shows the distribution of supermarkets based on supermarket type. It is seen that the highest percentage of supermarkets who answered the survey are independent supermarkets with represented 49% (*n* = 74) of the sample.

Square Footage of Supermarket

Table 10 shows the distribution of supermarkets based on square footage of supermarket. It is seen that small supermarkets less than 10,000 square feet were most

Table 9

Distribution of Participants for Type of Supermarket

Type of supermarket	*n*	%
Chain	36	23.8
Independent	74	49.0
Chinese	41	27.2
Total	151	100.0

Table 10

Distribution of Supermarkets for Square Footage of Supermarket

Square footage of supermarket	*n*	%
< 10,000 ft	71	47.0
10,000 ft to 20,000 ft	62	41.1
> 20,000 ft	18	11.9
Total	151	100.0

included in the survey comprising of 47% (*n* = 71) of the sample.

Location of Supermarket

Table 11 shows the distribution of supermarkets by geographic location within Trinidad. It is seen that the largest quantity of supermarkets surveyed came from Central Trinidad comprising of 41.7% (*n* = 63) of the sample.

Number of Cash Registers

Table 12 shows the distribution of supermarkets by number of cash registers. It is seen that supermarkets with one to three cash registers make up the highest number with 72.2% (*n* = 109) of the sample.

Table 11

Distribution of Supermarkets by Location

Location of Supermarket	*n*	%
West	19	12.6
East	57	37.7
Central	63	41.7
South	12	7.9
Total	151	100.0

Table 12

Distribution of Supermarkets by Number of Cash Registers

Number of cash registers	*n*	%
1 to 3	109	72.2
4 to 6	21	13.9
7 to 9	10	6.6
10 to 12	4	2.6
>12	7	4.6
Total	151	100.0

Number of Years in Existence

Table 13 shows the distribution of supermarkets based on the number of years in existence. It is seen that supermarkets operating between 1 to 10 years comprise of the greatest quantity which is 47% (*n* = 71).

Table 13

Distribution of Supermarkets by Number of Years in Existence

No of years in existence	*n*	%
1 to 10	71	47.0
11 to 20	34	22.5
21 to 30	22	14.6
31 to 40	12	7.9
41 to 50	6	4.0
51 to 60	5	3.3
61 to 70	1	0.7
Total	151	100.0

Respondent's Role

Table 14 shows the distribution of supermarkets based on respondent's role. It is seen that the highest number of respondents answering the survey were mangers at 55% (*n* = 83).

Table 14

Distribution of Supermarkets by Respondent's Role

Respondent's role	*n*	%
Supervisor	34	22.5
Manager	83	55.0
Owner	34	22.5
Total	151	100.0

Respondent's Experience in the Supermarket Industry

Table 15 shows the distribution of supermarkets based on the number of years the respondent has been working in the supermarket industry. It is seen that the highest number of respondents has between one to 10 years' experience in the supermarket industry which lies at 40% (*n* = 60).

Arithmetic Means

This section presents the results of the three highest arithmetic means, the three lowest arithmetic means, and the arithmetic mean of each construct (see Appendix N).

Management/Leadership

Regarding the management/leadership construct, Table 16 shows that the three

Table 15

Distribution of Supermarkets Based on Respondent's Experience in the Supermarket Industry

No of years respondent is working in the supermarket Industry	*n*	%
1 to 10	60	39.7
11 to 20	47	31.1
21 to 30	26	17.2
31 to 40	10	6.6
41 to 50	3	2.0
51 to 60	5	3.3
Total	151	100.0

Table 16

Mean and Standard Deviation for the Construct Management/Leadership

Declaration	*n*	*M*	*SD*
ML6	121	4.11	.893
ML2	121	4.06	.505
ML12	121	4.05	.617
ML3	121	1.86	1.280
ML4	121	1.80	1.200
ML9	121	1.47	.659
ML Total	121	2.95	.533

highest means correspond to the following statements: "personnel are always courteous" (ML6), "communicate future strategic needs with our suppliers" (ML2) and "information exchanges between our store and our supplies are accurate" (ML12). Likewise, the three lowest means correspond to the following statements: "customers view the brand of our company in an unfavourable way" (ML9), "satisfactory level of trust among supply chain members" (ML3), "various ways to improve the supply chain function in our stores" (ML4).

It is observed that the average mean of the construct is equal to 2.95.

Economic Factors

Regarding the economic factors construct, Table 17 shows that the three highest means correspond to the following statements: “staff members have been sensitized about the recession” (E10), “customers have left my store all together” (E6) and “customers focus only on value for money” (E3). Likewise, the three lowest means correspond to the following statements: “my business operation was not affected at all” (E7), “the frequency of shopping trips has remained unchanged” (E5) and “consumer spending in my store has not been affected” (E1). It is observed that the average mean of the construct is equal to 3.15.

Marketing Performance

Regarding the marketing performance construct, Table 18 shows that the three highest means correspond to the following statements: “prices are comparable to other

Table 17

Mean and Standard Deviation for the Construct Economic Factors

Declaration	*n*	*M*	*SD*
E10	121	4.26	.639
E6	121	3.89	1.040
E3	121	4.33	.746
E7	121	1.79	.784
E5	121	2.00	1.040
E1	121	2.01	1.200
E Total	121	3.15	.442

Table 18

Mean and Standard Deviation for the Construct Marketing Performance

Declaration	*n*	*M*	*SD*
MP2	121	4.02	.836
MP7	121	4.09	.548
MP18	121	4.17	1.170
MP4	121	1.45	.904
MP5	121	1.67	1.170
MP6	121	1.87	1.270
MP Total	121	3.17	.528

stores" (MP2), "promotional offers are important to customers" (MP7) and "in-store lighting facilitates customer shopping experience" (MP18). Likewise, the three lowest means corresponds to the following statements: "ability to hear in store announcements" (MP4), "loyalty of programs are important to customers" (MP5) and "advertising through ATL" (MP6). It is observed that the average mean of the construct is equal to 3.18.

Supermarket Performance

Regarding the supermarket performance construct, Table 19 shows that the three highest means correspond to the following statements: "continuously innovates its core competencies" (S4), "dialogue with employees" (S5) and "employees want to be inspired to accomplish extraordinary results" (S16). Likewise, the three lowest means correspond to the following statements: "new management is promoted from within the supermarket" (S19), "management is trusted by all employees" (S10) and "employees are always involved in important processes" (S6). It is observed that the average mean of the construct is equal to 3.40.

Table 19

Mean and Standard Deviation for the Construct Supermarket Performance

Declaration	*n*	*M*	*SD*
S4	121	3.75	.745
S5	121	3.63	1.009
S16	121	3.74	.844
S19	121	3.04	1.380
S10	121	2.93	.892
S6	121	3.06	1.150
ML Total	121	3.40	.517

Frequency Tables for Constructs

Table 20 shows an average of the distribution of responses for the marketing construct. It is seen that the highest number of respondents scored either a three or four for this construct which comprised of 60.3% (*n* = 91) and 23.8% (*n* = 36) respectively of the respondents. This means that 84.1% of the sample was uncertain or agreed about the performance of marketing factors for supermarkets in Trinidad.

Table 20

Distribution of Responses for the Marketing Construct

Scale	*n*	%
Disagree	9	6.0
Uncertain	91	60.3
Agree	36	23.8
Strongly agree	15	9.9
Total	151	100.0

Table 21 shows an average of the distribution of responses for the economy construct. It is seen that the highest number of respondents scored either a three or four for this construct which comprised of 64.9% (*n* = 98) and 29.1% (*n* = 44) respectively of the respondents. This means that 94% of the sample was uncertain or agreed about the influences of economic factors in Trinidad.

Table 21

Distribution of Responses for the Economy Construct

Scale	*n*	%
Disagree	8	5.3
Uncertain	98	64.9
Agree	44	29.1
Strongly agree	1	0.7
Total	151	100.0

Table 22 shows an average of the distribution of responses for the management/leadership construct. It is seen that the highest number of respondents scored either a three or four for this construct which comprised of 45% (*n* = 68) and 28.5% (*n* = 43) respectively of the respondents. This means that 73.5% of the sample was uncertain or agreed with the impact of management or leadership influences on supermarkets in Trinidad.

Table 23 shows an average of the distribution of responses for the supermarket performance construct. It is seen that the highest number of respondents scored either a three or four for this construct which comprised of 46.4% (*n* = 70) and 43.7% (*n* = 66) respectively of the respondents. This means that 90.1% of the sample was uncertain

Table 22

Distribution of Responses for the Management/Leadership Construct

Scale	*n*	%
Disagree	26	17.2
Uncertain	68	45.0
Agree	43	28.5
Strongly agree	14	9.3
Total	151	100.0

Table 23

Distribution of Responses for the Supermarket Performance Construct

Scale	*n*	%
Disagree	3	2.0
Uncertain	70	46.4
Agree	66	43.7
Strongly agree	12	7.9
Total	151	100.0

or agreed with the performance indicators mentioned in supermarkets within Trinidad.

Validation of Constructs and Reliability

Structural equation modelling was used to evaluate the validity of each construct with the use of AMOS 22. The below steps were followed:

1. For each construct or latent variable, the diagram of the measurement model was constructed in which variables or indicators were seen.

2. Regarding the measurement models, the relationships between the indicators and the latent variables were established for the determination of the representative equations of each relation.

3. The identification of the measurement model was evaluated prior to the estimation of the parameters to solve the system of equations corresponding to the measurement model. It had to comply with the principle of linear algebra to have more equations than unknowns, to be able determine a solution of the system.

4. Considering the identified measurement model, the next step was to estimate the parameters of the model using the maximum likelihood method (MLE).

5. The model was evaluated using the goodness of fit indexes that were selected as criteria for an appropriate adjustment. The appropriate adjustment criteria selected to evaluate the model were the following: (a) likelihood ratio of the chi square (χ^2), significance level p greater than .05 (b) standardized chi square (χ^2/df) less than 3, (c) Goodness of fit index (GFI) equal or greater than .90, (d) comparative fit goodness index (CFI) equal to or greater than .90, (e) Tucker Lewis index (TLI) equal to or greater than .90, (f) Normed index of adjustment (NFI) equal to or greater than .90 and (g) root of the average quadratic residual (RMSEA) equal or less than .08.

Each of the latent variables followed the before mentioned steps for the investigation. Appendix J shows the tables containing the values of the parameters, goodness-of-fit criteria and full estimated models for each one of the constructs marketing performance, management/leadership capabilities, economic influences and supermarket performance.

Marketing Performance

Based on the methodology presented in Chapter III, this section provides relevant information in determining if the latent variable marketing performance met construct validity. This would mean that the data explain the theoretical empirical model

that underlies the variable of interest. In addition, information is presented to determine if this variable met the reliability required to determine that the instrument that is measured produces consistent and reliable results.

The proposed measurement model for the latent variable marketing performance was made up of 19 observed variables for the database which had 151 respondents. When applying Mahalanobis distance, it was reduced to 121 data points, thereby eliminating 30 atypical data. Of the 19 variables observed, those whose probability values were not significant were eliminated and then the variables with the highest score in the modification of indexes were eliminated, obtaining five indicators with which the measurement model presents goodness of fit. Based on the causal relationships between the indicators and the latent variable, 10 moments and five parameters were estimated, resulting in five degrees of freedom.

The measurement model for marketing performance contains the results corresponding to the standardized values of the regression coefficients.

The non-standardized coefficients of the five regressions were significant at p less than .01. All the standardized beta coefficients (β_{min}= .524 and β_{max} = .689) were lower than 1, so no infringing values were estimated in these coefficients. All the variances (σ^2_{min} = .340 and σ^2_{max} = 1.036) were greater than 0, so no infringing values were estimated in them and they were significant at p less than .01.

The proposed measurement model for the latent variable marketing performance (see Figure 5) presents acceptable goodness-of-fit indices (χ^2= 10.703, p= .058, χ^2/df= 2.141, NFI = .919, GFI =.963, CFI = .954, RMSEA = .102). These results, which fulfilled most of the specified adjustment criteria, are indicators of an acceptable

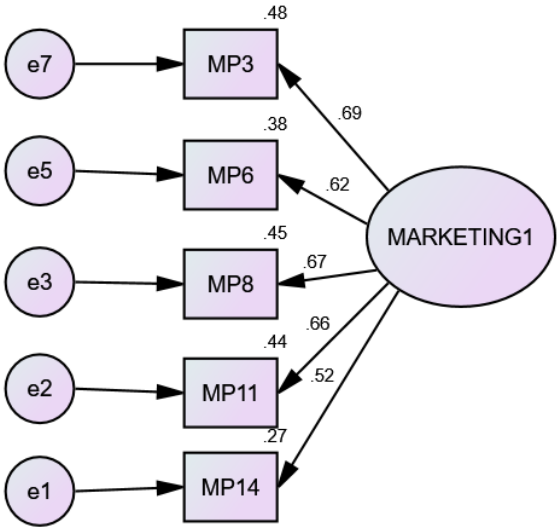


Figure 5. Marketing performance measurement model, which the following goodness of fit indexes: NFI = .919, CFI = .954, GFI = .963, RMSEA = .102, χ^2/df = 2.141, p = .058.

goodness of fit for the model of measurement of the construct marketing performance.

Based on the previous results, it was considered that the model of measure for the construct marketing performance had an acceptable validity.

Management/Leadership Influences

This section provides relevant information in determining if the latent variable management/leadership met construct validity. This would mean that the data explain the theoretical empirical model that underlies the variable of interest. In addition, information is presented to determine if this variable met the reliability required to determine that the instrument that is measured produces consistent and reliable results.

The proposed measurement model for the latent variable management/leadership was made up of 14 observed variables for the database which had 151 respondents.

When applying Mahalanobis distance, it was reduced to 121 data points, thereby eliminating 30 atypical data. Of the 14 variables observed, those whose probability values were not significant were eliminated and then the variables with the highest score in the modification of indexes were eliminated, obtaining five indicators with which the measurement model presents goodness of fit. Based on the causal relationships between the indicators and the latent variable, 15 moments and 10 parameters were estimated, resulting in five degrees of freedom.

The measurement model for management/leadership influences contains the results corresponding to the standardized values of the regression coefficients.

The non-standardized coefficients of the five regressions were significant at p less than .05. Four of the standardized beta coefficients (β_{min}= .224 and β_{max} = 1.000) were lower than 1, so no infringing values were estimated in those coefficients. Four of the variances (σ^2_{min} = -.001 and σ^2_{max} = 1.673) were greater than 0, so no infringing values were estimated in those which were significant at p less than .01.

The proposed measurement model for the latent variable management/leadership (see Figure 6) presents acceptable goodness-of-fit indices (χ^2= 3.229, p= .665, χ^2/df= .646, NFI = .990, GFI = .988, CFI = 1.000, RMSEA = .000). These results, which fulfilled the specified adjustment criteria, are indicators of an acceptable goodness of fit for the model of measurement of the construct management/leadership influences.

Based on the previous results, it was considered that the model of measure for the construct management/leadership influences had an acceptable validity.

Economic Factors

This section provides relevant information in determining if the latent variable

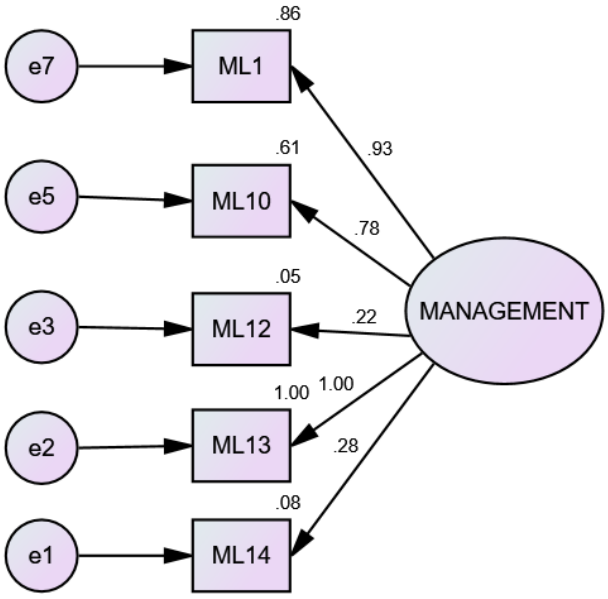


Figure 6. Management/leadership influences measurement model, which the following goodness of fit indexes: NFI = .990, CFI = 1.000, GFI = .988, RMSEA = .000, χ^2/df = .646, p = .665.

economic factors met construct validity. This would mean that the data explain the theoretical empirical model that underlies the variable of interest. In addition, information is presented to determine if this variable met the reliability required to determine that the instrument that is measured produces consistent and reliable results.

The proposed measurement model for the latent variable economic factors was made up of 12 observed variables for the database which had 151 respondents. When applying Mahalanobis distance, it was reduced to 121 data points, thereby eliminating 30 atypical data. Of the 12 variables observed, those whose probability values were not significant were eliminated and then the variables with the highest score in the modification of indexes were eliminated, obtaining four indicators with which the measurement model presents goodness of fit. Based on the causal relationships

between the indicators and the latent variable, 10 moments and eight parameters were estimated, resulting in two degrees of freedom.

The measurement model for economic factors contains the results corresponding to the standardized values of the regression coefficients.

The non-standardized coefficients of the four regressions were significant at *p* less than .01. Three of the standardized beta coefficients (β_{min}= .315 and β_{max} = 1.005) were lower than 1, so no infringing values were estimated in those coefficients. Three of the variances (σ^2_{min} = -.016 and σ^2_{max} = 1.515) were greater than 0, so no infringing values were estimated in those which were significant at *p* less than .01.

The proposed measurement model for the latent variable economic factors (see Figure 7), presents acceptable goodness-of-fit indices (χ^2= .091, *p*= .956, χ^2/df= .045, NFI = 1.000, GFI = 1.000, CFI = 1.000, RMSEA = .000). These results, which fulfilled all the specified adjustment criteria, are indicators of an acceptable goodness of fit for the model of measurement of the construct economic factors.

Based on the previous results, it was considered that the model of measure for the construct economic factors had an acceptable validity.

Supermarket Performance

This section provides relevant information in determining if the latent variable supermarket performance met construct validity. This would mean that the data explain the theoretical empirical model that underlies the variable of interest. In addition, information is presented to determine if this variable met the reliability required to determine that the instrument that is measured produces consistent and reliable results.

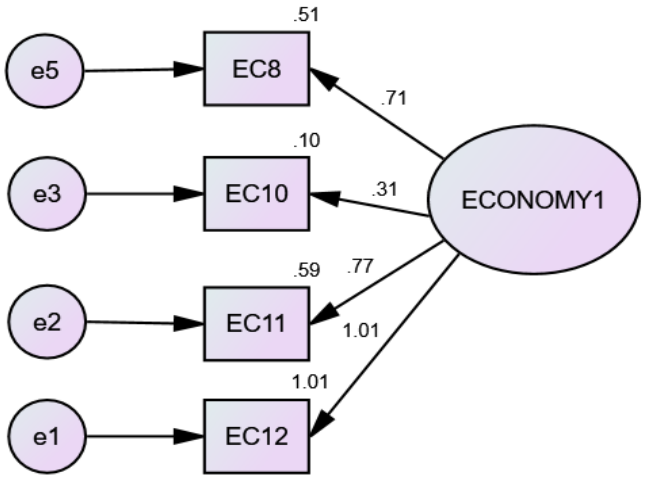


Figure 7. Economic factors measurement model, which the following goodness of fit indexes: NFI = 1.000, CFI = 1.000, GFI = 1.000, RMSEA = .000, χ^2/df = .045, p = .956.

The proposed measurement model for the latent variable supermarket performance was made up of 21 observed variables for the database which had 151 respondents. When applying Mahalanobis distance, it was reduced to 121 data points, thereby eliminating 30 atypical data. Of the 21 variables observed, those whose probability values were not significant were eliminated and then the variables with the highest score in the modification of indexes were eliminated, obtaining five indicators with which the measurement model presents goodness of fit. Based on the causal relationships between the indicators and the latent variable, 15 moments and 10 parameters were estimated, resulting in five degrees of freedom.

The measurement model for supermarket performance contains the results corresponding to the standardized values of the regression coefficients.

The non-standardized coefficients of the five regressions were significant at p less than .01. All of the standardized beta coefficients (β_{min}= .333 and β_{max} = .910) were

lower than 1, so no infringing values were estimated in those coefficients. All the variances (σ^2_{min} = .135 and σ^2_{max} = .901) were greater than 0, so no infringing values were estimated in those which were significant at *p* less than .01.

The proposed measurement model for the latent variable supermarket performance (see Figure 8) presents acceptable goodness-of-fit indices (χ^2= 4.424, *p*=.490, χ^2/df=.885, NFI =.983, GFI =.983, CFI =1.000, RMSEA = .000). These results, which fulfilled all the specified adjustment criteria, are indicators of an acceptable goodness of fit for the model of measurement of the construct supermarket performance.

Based on the previous results, it was considered that the model of measure for the construct supermarket performance had an acceptable validity.

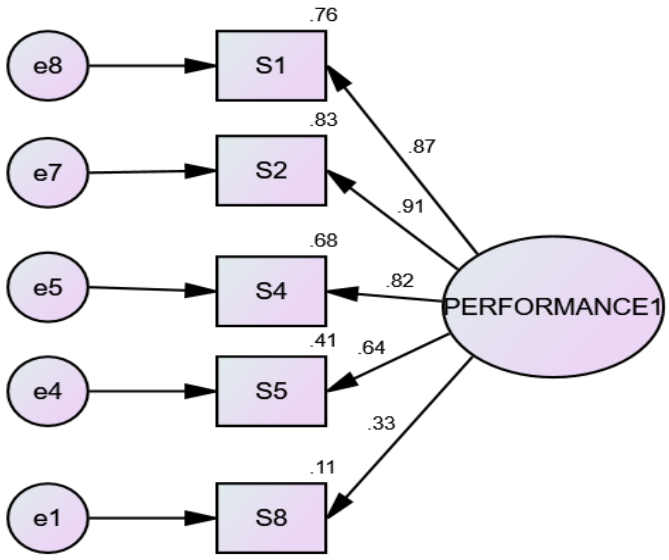


Figure 8. Supermarket performance measurement model, which the following goodness of fit indexes: NFI = .983, CFI = 1.000, GFI = .983, RMSEA = .000, χ^2/df = .885, *p* = .490.

Null Hypothesis

This section seeks to present the results from testing the null hypothesis through multivariate analysis. The hypothesis was subjected to selected indicators.

The null hypothesis of the confirmatory model follows: The empirical model in which general management/leadership is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which does not have an acceptable goodness of fit with the theoretical model.

For the confirmatory model, one equation was identified for each of the endogenous variables. The equation for management/leadership is as follows: [ηML = (γ EC, ML * ξEC)]. The equation for marketing performance is as follows: [ηMP = (*β* ML, MP * ξML)]. Finally, the equation for supermarket performance is as follows: [ηSP = (*β* MP, SP * ξ MP) + (*β* ML, SP * ξML) + (γ EC, SP * ξEC)].

Evaluation with Selected Indicators

After many alterations, selective indicators were used for all constructs to derive a desirable model. The final model had four indicators for supermarket performance, four indicators for marketing performance, three indicators for management/leadership capabilities and four indicators for economic factors which all derived the highest standardized regression coefficient.

Tables 24, 25, 26 and 27 shows the final indicators selected for all the constructs.

Figure 9 shows the confirmatory model with the selected indicators. It shows 120 moments and 33 parameters were estimated, resulting in 87 degrees of freedom. The

following statistically significant correlations are observed: management/leadership and marketing (r^2 = .25), marketing performance and supermarket performance (r^2 = .36) and economic factors and management/leadership (r^2 = .12). It should be noted that the final model did not have a statistically significant coefficient between economic factors and supermarket performance. Therefore, it was omitted from the original theoretical model.

Statistically significant standardized coefficients were observed in the following correlations: management/leadership with marketing performance (β ML, MP = .50, p

Table 24

Indicators for Marketing Performance

Code	Indicators
MP1	Price tags of merchandise in store are visible at all times.
MP3	Prices are a good reflection of quality.
MP5	Loyalty programs are an important part of our marketing program.
MP14	Point-of-sale materials are easily noticeable from anywhere in-store.

Table 25

Indicators for Management/Leadership

Code	Indicators
ML4	We look for various ways to improve the supply chain function in our stores.
ML10	The use of automated tools for order processing in our store enhances timely delivery.
ML13	The store has ensured that there is a warehouse management system/inventory control system to improve cost reduction.

Table 26

Indicators for Economic Factors

Code	Indicators
EC1	Consumer spending in my store has not been affected.
EC2	Customers continue to buy products they like.
EC3	Customers focus only on value for money.
EC8	We have modified product lines to help our customers cope with the recession.

Table 27

Indicators for Supermarket Performance

Code	Indicators
SP1	The supermarket has adopted a strategy that sets it clearly apart from other supermarkets.
SP2	In the supermarket, processes are continuously improved.
SP5	Management frequently engages in a dialogue with employees.

= .000), marketing performance with supermarket performance (*β* MP, SP = .32, *p* = .011), economic factors with management/leadership (*γ* EC, ML = .34, *p* = .000) and management/leadership with supermarket performance (*β* ML, SP = .37, *p* = .002).

The confirmatory model with the selected indicators showed the following values of the adjustment indices used as criteria: (a) χ^2 equal to 105.631 and *p* equal to .085, (b) χ^2/df equal to 1.214, (c) NFI equal to .853, (d) GFI equal to .894, (e) TLI equal to .963, (f) CFI equal to .970 and (g) RMSEA equal to .044.

Of the seven measures of goodness of fit used, five complied with the criterion (χ^2, χ^2/df, TLI, CFI, and RMSEA) and two were very approximate (NFI and GFI). Based on the parameters established for this research, the model has goodness of fit when

satisfies the seven proposed criteria. Based on the results presented, it was considered that the revised empirical model had the goodness of adjustment with the theoretical model required by the selected criteria. Based on the satisfactory findings, the model presented in Figure 9 is the best model.

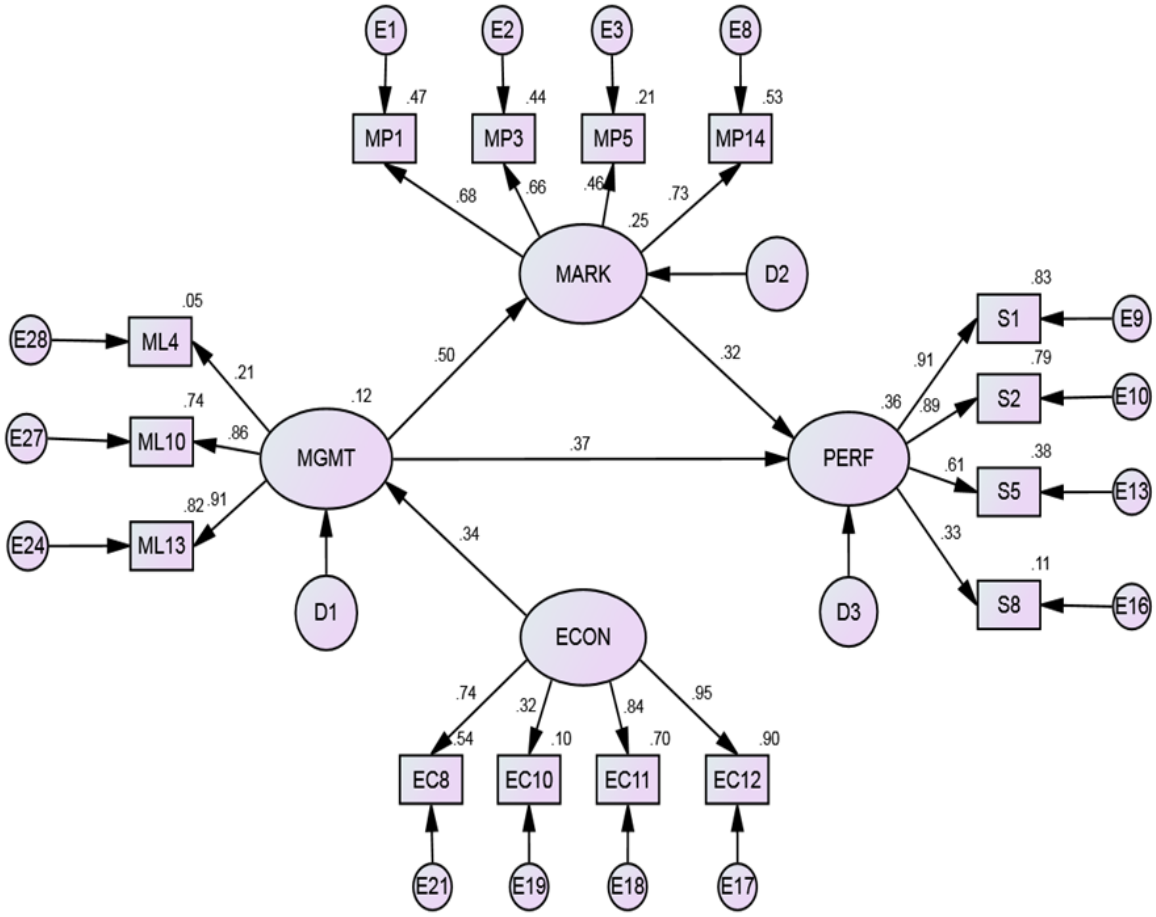


Figure 9. Confirmatory model with selected indicators, which obtained the following indexes of goodness of fit: NFI = .853, TLI = .963, CFI = .970, GFI = .894, RMSEA = .044, χ^2/df = 1.214,p = .085.

Complementary Null Hypothesis

This section presents the complementary null hypothesis to which the supporting statistical tables are seen in Appendix M.

For this investigation, the first criterion that was analysed was linearity through the graphs. The second criterion proved the normality (see Appendix K) of errors using the Kolmogorov-Smirnov statistic ($p > .05$) whereby thirty atypical data were deleted. In the third criterion, the independence of the errors was proved, using the Durbin-Watson test whose value is very close to two this indicates that the errors are not correlated and are independent. Finally, the homocesticity was analysed and it was proved that the errors have equal variances.

H_{01}: Management/leadership influences, economic factors and marketing performance are not predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.

In the analysis of this hypothesis, the technique of simple linear regression was used by the method of stepwise regression. The independent variables were management/leadership influences, economic factors and marketing performance while the dependent variable was supermarket performance.

The variables management/leadership, economy and marketing performance are all good predictors of supermarket performance. The value of R^2 corrected was equal to .614, which indicates that these three variables account for 61.4% of the variance of the dependent variable supermarket performance. In the same regard, the F is equal to 68.788 and the value of p equal to .000. Since the level of significance is less than .05, it is indicated that there is a positive and significant linear influence. Considering

the above, the null hypothesis is rejected.

The value of the standardized coefficient for management (β = .444), economy (β = .239) and marketing (β = .248).

Summary of Chapter

The chapter was quite extensive as it presented the results of the investigation. It showed the demographic data and the extent of its behaviour, frequency distribution and measurement models. All the respective tests relevant to the confirmatory model were presented and the complementary question was answered with descriptive statistics.

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

Introduction

This study purposed to explore the causal relationship between the latent variables' management/leadership, economic factors, marketing performance and supermarket performance according to the aforementioned theoretical model.

This research was considered quantitative empirical, explanatory, transversal, descriptive, exploratory and field.

The exogenous variables were management/leadership, economic factors and marketing performance, while the endogenous variable was supermarket performance. The demographic variables were type of supermarket, square footage of supermarket, location of supermarket, number of cash registers, no of years in existence, respondent's role and respondent's experience in the supermarket industry.

The sample that was used in this research consisted of 151 respondents from supermarket management throughout the country of Trinidad. The following parameters were established to evaluate the goodness of fit of the model presented: chi square (χ^2) with p greater than .05, standardized chi square (X^2/df) less than 3, NFI, CFI, TLI, GFI greater than .90 and the value of RMSEA less than or equal to .08. The complementary null hypothesis was tested by significance values of p less than or equal to .05.

Conclusions

This section provided the conclusions documented for this paper. It includes conclusions made on the arithmetic means, frequency distribution, the confirmatory model, the complementary hypothesis and the complementary question.

On Arithmetic Means and Frequency Distribution

This section shows the conclusions regarding the arithmetic means and distribution frequencies for each construct.

Management/Leadership

The highest arithmetic means corresponds to the following statements from the management/leadership construct: “personnel are always courteous”, “communicate future strategic needs with our suppliers” and “information exchanges between our store and our supplies are accurate”. Meanwhile, the three lowest means corresponds to the following statements: “customers view the brand of our company in an unfavourable way”, “satisfactory level of trust among supply chain members”, “various ways to improve the supply chain function in our stores”. In the frequency distribution of the management/leadership construct, it can be noted that 73.5% of respondents were uncertain or agreed. This suggests that this percentage was uncertain or agreed to the influences of management in supermarkets in Trinidad and roughly 25% were in disagreement that solid management/leadership influences the performance of supermarkets positively.

Considering the cross tabulations analysis in Appendix O, it should also be noted that 65 respondents (43%) who were uncertain to management/leadership influences

were also uncertain or agreed to the impact of marketing performance. A further 65 respondents (43%) who were uncertain to management/leadership influences were also uncertain or agreed to economic influences. Finally, it was found that 66 respondents (43%) who were uncertain about management/leadership influences were uncertain or agreed to supermarket performance variables.

Considering key demographic variables, it was seen that 59 respondents (39%) from independent supermarkets were either uncertain or agreed to the management/leadership influences. Also, it was seen that small supermarkets (< 10,000 square feet) had 51 respondents (33%) who were either uncertain or agreed to the management/leadership influences.

Economic Factors

The highest arithmetic means corresponds to the following statements from the economic factors construct: “staff members have been sensitized about the recession”, “customers have left my store all together” and “customers focus only on value for money only”. Likewise, the three lowest means corresponds to the following statements: “my business operation was not affected at all”, “the frequency of shopping trips has remained unchanged” and “consumer spending in my store has not been affected”. In the frequency distribution of the economic factors construct, it can be noted that 94% of respondents were uncertain or agreed. This suggests that this percentage was uncertain or agreed to the influences of economic factors in supermarkets in Trinidad and 6% disagreed that economic factors can impact supermarket performance.

Considering the cross tabulations analysis in Appendix O, it should also be noted that 72 respondents (47%) who were uncertain to economic factors were also uncertain

or agreed to the impact of management/leadership influences. A further 93 respondents (61%) who were uncertain of economic factors were also uncertain or agreed to supermarket performance factors. Finally, it was found that 87 respondents (57%) who were uncertain of economic factors were also uncertain or agreed to marketing performance.

Considering key demographic variables, it was seen that 69 respondents (45%) from independent supermarkets were either uncertain or agreed to the economic factors. Also, it was seen that small supermarkets (< 10,000 square feet) had 66 respondents (43%) who were either uncertain or agreed to the economic factors.

Marketing Performance

The highest arithmetic means corresponds to the following statements from the economic factors construct: “prices are comparable to other stores”, “promotional offers are important to customers” and “in-store lighting facilitates customer shopping experience”. Meanwhile, the three lowest means corresponds to the following statements: “ability to hear in store announcements”, “loyalty programs are important to customers” and “advertising through ATL”. In the frequency distribution of the management performance construct, it can be noted that 84.1% of respondents were uncertain or agreed. This suggests that this percentage was uncertain or agreed to the performance of marketing factors in supermarkets in Trinidad.

Considering the cross tabulations analysis in Appendix O, it should also be noted that 87 respondents (57%) who were uncertain to marketing performance were also uncertain or agreed to the impact of economic factors. A further 73 respondents (48%) who were uncertain of marketing performance were also uncertain or disagreed to

management/leadership influences. Finally, it was found that 88 respondents (58%) who were uncertain of marketing performance were also uncertain or agreed to supermarket performance.

Considering key demographic variables, it was seen that 64 respondents (42%) from independent supermarkets were either uncertain or agreed to the marketing performance. Also, it was seen that small supermarkets (<10,000 square feet) had 59 respondents (39%) who were uncertain to marketing performance.

Supermarket Performance

The highest arithmetic means corresponds to the following statements from the economic factors construct: “continuously innovates its core competencies”, “dialogue with employees” and “employees wants to be inspired to accomplish extraordinary results”. Likewise, the three lowest means corresponds to the following statements: “new management is promoted from within the supermarket”, “management is trusted by all employees” and “employees are always involved in important processes”. In the frequency distribution of the supermarket performance construct, it can be noted that 90.1% of respondents were uncertain or agreed. This suggests that this percentage was uncertain or agreed to the performance indicators mentioned for supermarkets in Trinidad.

Considering the cross tabulations analysis in Appendix O, it should also be noted that 55 respondents (36%) who were uncertain about supermarket performance were also uncertain about marketing performance. A further 65 respondents (43%) who agreed on supermarket performance were also uncertain or agreed to economic factors. Finally, it was found that 54 respondents (35%) who agreed to supermarket

performance were also uncertain or agreed to management/leadership capabilities.

Considering key demographic variables, it was seen that 70 respondents (46%) from independent supermarkets were either uncertain or agreed to the supermarket performance. Also, it was seen that small supermarkets (<10,000 square feet) had 67 respondents (44%) who were uncertain about supermarket performance.

On the Confirmatory Model

The results of the confirmatory model are described below in this section. After much trial and error, the model was tested using selected indicators for each construct. This proved to be successful as the model adjusted satisfactorily.

The declaration of the confirmatory model was expressed as follows: the empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which has an acceptable goodness of fit with the theoretical model.

The measures used to evaluate the confirmatory model were as follows: (*p* of χ^2, χ^2/df, NFI, TLI, GFI, CFI, RMSEA). Overall a slight adjustment was made to the original confirmatory model and there were acceptable margin levels as of the seven measures of goodness of fit used, five complied with the criterion (χ^2, χ^2/df, TLI, CFI, RMSEA) and two were very approximate (NFI and GFI). Additionally, the weights of the indicators of each construct were statistically significant.

Predictions with statistically significant standardized coefficients were observed in the following correlations: management/leadership with marketing performance (β ML, MP = .50, p = .000), marketing performance with supermarket performance (β MP,

SP = .32, p = .011), economic factors with management/leadership (γ EC, ML = .34, p = .000) and management/leadership with supermarket performance (β ML, SP = .37, p = .002).

Casual relationships linked two of the three exogenous variables (management/leadership and marketing performance) to having a statistically significant relationship with the endogenous variable, supermarket performance. Economic factors did not have a statistically significant relationship with endogenous variable supermarket performance. For this reason, the final model observed was modified slightly. The final model had a desirable explained variance and quadratic multiple correlation (R^2) for the endogenous variable.

Based on the previous analyses made, the subsequent conclusion can be made on the empirical model. According to the perceptions of management for supermarkets in Trinidad, general management is a predictor for supermarket performance, having marketing factors as a mediating variable; however, economic factors do not act as a moderating variable, having an acceptable goodness of fit with the theoretical model.

While there is no direct causal relationship between economic factors and supermarket performance, there is one indirectly. This could have been deduced since there is a causal relationship between supermarket management/leadership and supermarket performance. There is also a causal relationship between management/leadership and economic factors. This therefore suggests an indirect relationship between economic factors and supermarket performance through that of management/leadership influences.

It can therefore finally be concluded that all efforts by the management of supermarkets to effectively enhance their management or leadership capabilities and increase marketing efforts will directly improve their performance as a supermarket. Efforts to manage economic factors will also increase the performance of their supermarkets indirectly since their management or leadership capabilities needs to be enhanced.

Considering the constructs individually, there are specific implications for the management of supermarkets in Trinidad. Regarding the management/leadership construct, the management of supermarkets in Trinidad must pay attention to their supply chain effort in order to boost supermarket performance. When considering the marketing performance, factor such as pricing, loyalty programs and point-of-sale materials are significant importance which will impact supermarket performance but must be driven by management. Finally, they must be reactive to consumer behaviours during economic downturns.

About the Complementary Hypothesis

This section presents the conclusions made on the complementary hypothesis for the investigation and thereby answers the complementary question.

The declaration of the complementary null hypothesis was expressed as follows: management/leadership influences, economic factors and marketing performance are not predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.

Linear regression was used by the method of stepwise regression. This revealed that these three variables account for 61.4% of the variance of the dependent variable,

supermarket performance.

It can therefore be affirmed that the management of supermarkets in Trinidad must pay attention to marketing factors, their management or leadership capabilities and prevailing economic factors when considering the performance of their respective establishments. The empirical evidence therefore supports the confirmatory hypothesis in that management/leadership influences, economic factors and marketing performance are predictors of supermarket performance as perceived by managers of supermarkets in Trinidad.

Discussions

In this section, the results are discussed and answers to the questions and initial objectives of the research by construct are presented.

Management/Leadership

Waal et al. (2017) reaffirmed that quality management was a prerequisite for favourable supermarket performance through the HPO framework presented. Wang (2017) also alluded to total quality management being a driving factor for supermarket performance. While Thomas (2013) would have attributed the success of supermarkets to marketing factors, the extent of such executions and implementations would have been as a result of the quality management which Waal et al. (2017) and Wang (2017) spoke about.

Consistent with the theorists presented above, the model presented similar findings. Managerial efforts are a predictor of supermarket performance and marketing factors. Superior marketing efforts ultimately drive supermarket performance. This of course

must be driven by management. Marketing can therefore be just one element of managerial efforts.

A glance at the arithmetic mean suggested that the majority was uncertain or agreed to the influences of management and its outcomes in supermarkets within Trinidad. This was consistent with the model, suggesting that supermarket management in Trinidad have an appreciation of their efforts and the extent to which their efforts can influence their performance.

The items with the three highest scores were: “personnel are always courteous”, “communicate future strategic needs with our suppliers” and “information exchanges between our store and our supplies are accurate”. The first item speaks to superior customer service from staff members within supermarkets. The other two items refer to interactions around supply chain management. The latter two are partially like the first one whereby it all speaks to a degree of courteousness from supermarket staff and its external agents, being customers and suppliers.

The items with the three lowest scores were: “customers view the brand of our company in an unfavourable way”, “satisfactory level of trust among supply chain members”, “various ways to improve the supply chain function in our stores”. The first item speaks to supermarket management’s perception of their establishment. This suggests that there is some degree of pride around their respective establishments.

The latter two point to a higher of degree supply chain management. While in the previous paragraph there seems to be good relationships between supply chain members, the extent of the practices are not sophisticated. The literature referenced from Banerjee and Mishra (2017) regarding supply chain management and its best

practices were referenced from developed markets. Considering that the majority of the supermarkets were small, it could very well suggest that these smaller players are not aligned to such best practices.

Economic Factors

Gilani (2014) reiterated that all corporate entities experience decreased performance and thereby decreased profits during recessions. Birkeland (2014) reinforced that the economic circumstances will drive managerial efforts as they must take both a proactive and reactive stance.

The findings from the model in fact show that the economic factors do not impact supermarket performance directly. The outcome of the model brings the findings of Minseuk (2015) to the forefront which stated that consumers shop more at supermarkets but less at restaurants. Supermarkets do in fact benefit from economic circumstances since consumers are directed towards them in an effort to save funds. The demand for food is inelastic so regardless of the state of the economy, people need to eat. With that said, during a recession, consumers will be price sensitive (Valášková & Klieštik, 2015) and will attempt to save funds by seeking low cost items. The function of sourcing low cost items, decreasing prices etc. is a managerial function. This then points back to Birkeland (2014) which was proven in the model that economic factors are a predictor of managerial efforts.

Regarding the arithmetic mean, it was seen that the majority of the supermarkets were uncertain or in agreement of with the effects of economic factors within their supermarkets. It shows that the management of supermarkets are very sensitive to the economic conditions within the country.

The items with the three lowest scores were: “my business operation was not affected at all”, “the frequency of shopping trips has remained unchanged” and “consumer spending in my store has not been affected”. They all point to the devastating effects that the economic situation is having on supermarkets as perceived by management.

The items with the three highest scores were: “staff members have been sensitized about the recession”, “customers have left my store all together” and “customers focus only on value for money only”. These items again align to the previous points made whereby there is high sensitivity of economic circumstances and its negative outcomes.

Marketing Performance

Kuhlman (2016) identified that the primary objective of institutions spending money on marketing is to maximize sales and enhance overall performance. Garg (2014) established that strategic marketing mix elements such as positioning, and targeting are instrumental in retaining customers. Customer retention and satisfaction are then drivers of profitability in the long run. Bushey (2014), Chaudhry (2014), Klementschitz (2014), Lyle (2014) and Prasad Kotni (2016) all proved that marketing mix factors relating to price, promotion, place, services and product all contribute successfully to the performance of supermarkets. Also Rajic and Dado (2013) established that service quality does predict customer satisfaction which ultimately drives repeat purchases and sales.

Davidov (2014) argued that the managerial effort of a supermarket is instrumental in driving success. The authors in the previous paragraph all spoke at length

about the marketing mix elements being the catalyst for success. According to Davidov (2014), these initiatives are all captured under the managerial efforts that he defined.

Consistent with the models it was seen that marketing factors are a predictor of supermarket performance. The marketing efforts however are in fact a subset of the managerial efforts extended by a company. The model therefore validates the literature presented for Trinidad.

With that said a look at the results reveals that most of the supermarket management was uncertain or agreed to the effectiveness of the performance of marketing factors in supermarkets in Trinidad. While the model demonstrates that marketing has an impact on supermarket performance, the uncertainty by supermarket management could have been as a result of the lack of experience by supermarket management. It was seen that 40% of the respondents had less than ten years' experience. It could very well be that they were unaware of the effectiveness of marketing as a result of limited experience in the industry.

The items with the three lowest scores were: "ability to hear in store announcements", "loyalty programs are important to customers" and 'advertising through ATL". There is a possibility that the management of supermarkets do not have an appreciation for making such marketing investments. Additionally, 72% of the supermarkets were deemed small with between one to three cash registers. It could be that the smaller supermarkets are not inclined to allocate funds to such marketing efforts.

The items with the three highest scores were "prices are comparable to other stores", "promotional offers are important to customers" and "in-store lighting facilitates customer shopping experience". This is a clear indicator that given the competitive

nature of the supermarket industry in Trinidad that basic marketing mix elements such as competitive pricing, in store promotional offers and atmospherics play an important role to the success of supermarkets in Trinidad.

Supermarket Performance

Waal et al. (2017) confirmed through the HPO framework that management quality and long-term orientation have the highest score in terms of the dimensions identified. The study does not demonstrate this as the three highest scores came from other dimensions. These were continuous improvement and renewal, openness and action orientation and employee quality. Overall most of the respondents are uncertain or agree with the performance indicators. This demonstrates that non-financial indicators mentioned by Waal et al. (2017) are indeed relevant.

The items with the highest scores are: “continuously innovates its core competencies”, “dialogue with employees” and “employees want to be inspired to accomplish extraordinary results”. These all point to the management function. The first one aligns to business strategic thinking and executions while the second two addresses employee engagements. Regarding the issue of employee engagements, managements’ perceptions are very positive and aspirational around employee engagements.

The items with the lowest scores are: “new management is promoted from within the supermarket”, “management is trusted by all employees” and “employees are always involved in important processes”. All three items speak to employee engagements as with above. The difference here is that there appears to be a very wide gap and misalignment with employees and management. While management all have positive expectations of employees, there may be gaps in managing them properly.

Recommendations

The results of the investigation lead to some recommendations:

To Supermarket Management

1. Considering depressed economic conditions, it is important for management of supermarkets to understand that to maintain a positive performance, that they must alter their managerial efforts.

2. Non-financial measures of supermarket performance are equally as important as financial since the latter is an outcome of the former.

3. There is a greater need to develop strategic supply chain management within supermarkets.

4. There is a greater need to focus on engaging employees of supermarkets as this will ultimately drive supermarket performance.

5. There is a greater need to enhance the marketing function within supermarkets as this a direct predictor of supermarket performance since it was seen that management did not fully appreciate the outcomes of effective marketing strategy.

To Distributors and Manufacturers

While this model did not consider variables targeting distributors and manufacturers, it is noteworthy to consider these players since they play an important role in the supermarket channel. The products that supermarkets sell would have been purchased from either a distributing company or a manufacturer. It is in the interest of these two parties that supermarkets perform well as it means that their respective products will be sold through to the end customer. Supermarkets act as a very important middleman

for distributors and manufacturers of products and it is critical that strategic partnerships are fostered. Considering the model the below considerations must follow for these two independent parties:

1. During economic downturns supermarket management must alter their managerial efforts to sustain high performance. Distributors and managers can assist in this process by discounting their products sold to supermarkets. In doing this, the supermarkets now can further pass on discounts to their consumers. An approach like this will ensure that both parties share the burden during unfavourable economic conditions and also ensure a competitive stance.

2. The model reveals that marketing boosts supermarket performance. Once again, it is in the interest of distributors and manufacturers to support supermarkets with marketing initiatives such as category management and category captaincy. In doing this, not only will their products flourish, but so too will the supermarkets. It will provide a balanced win-win situation.

To the Government

The government of Trinidad and Tobago cannot neglect the supermarket industry given its magnitude regarding its contributions to GDP, employment and food availability. It is in the interest the government for supermarkets to perform well not only as a result of the above factors, but also due to the tax revenues received from this industry altogether.

Given the above consideration, the government of Trinidad and Tobago should craft policies that could support the supermarket industry during economic downturns. These may include:

1. Incentives for tax breaks when supermarkets invest in marketing spend during recessionary periods.

2. Financial grants which must be spent on marketing.

3. Training and development programs directed at supermarket management regarding strategies to survive within a recession.

The above actions by supermarkets and other key stakeholders in the industry will ultimately contribute positively to the performance of supermarkets in Trinidad.

For Future Research

This section presents recommendations for future studies**.**

1. Replicate the study to include the island of Tobago since it is the sister island of Trinidad. The culture, business practices and norms in Tobago are quite different from those of Trinidad. It is important to consider the perceptions of the management of supermarkets of the single twin island state.

2. Conduct a similar study but relook the supermarket performance construct to include financial indicators. The literature did in fact indicate that nonfinancial indicators are predictors of financial performance; however, the extent of the responses to the nonfinancial indicators could have been subjective. There is no uncertainty or subjectivity with direct financial measures.

3. Formulate a new structural model that includes more variables that can possibly affect supermarket performance such as government influences and competitive strategy since such variables are in fact relevant.

4. Conduct a similar study that considers the impact of consumer perceptions

on the performance of supermarkets. Ultimately, the success of supermarkets is determined by the patronage of its customers. It would therefore be important to understand fully the perceptions and reasons why customers select a supermarket.

5. Replicate this study but focus on other channels that are significant. The pharmacy channel, down trade retailers and restaurants all play a major role in society, so it is crucial to understand what the variables that affect these channel members are.

APPENDIX A

INSTRUMENT APPLIED

Survey Instrument

To different supermarkets in Trinidad & Tobago.

General Instructions

This research is intended to examine performance indicators for the supermarket industry within Small Island Developing States (SIDS) like Trinidad & Tobago through the use of different variables. It explores the extent, to which marketing performance, management & leadership, prevailing economic conditions, competitive strategy and government influences affect supermarket performance.

You are required to sincerely respond to the statements within each section of this instrument, following all relevant instructions.

All information collected in this exercise will be treated with utmost confidentiality as your views and opinions are highly valuable and appreciated. Please fill out the survey instrument in full and return to the person who issued to you.

Your assistance in any way is greatly appreciated.

General Information

INSTRUCTIONS: Select the answer for each category that applies to you and your supermarket.

Type of Supermarket	O Chain O Independent O Other	**Square footage of store**	O <10,000 sf O 10,000 to 30,000sf O >30,000 sf
Location of Supermarket	O West O East O Central O South O Tobago	**Number of cash registers**	
		No of years in existence	
Respondent's role	O Supervisor O Manager O Owner	**No of years respondent is working in the supermarket industry**	

After analyzing each statement below, place a "✓"in the box that demonstrates your perception using the below scale:

Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	2	3	4	5

Marketing Performance

To what extent to you agree with the following…?	1	2	3	4	5
1. Price tags of merchandise in store are visible at all times.					
2. Prices in this store are comparable to other stores.					
3. Prices are a good reflection of quality.					
4. In-store announcements of any type can be heard anywhere within the store.					
5. Loyalty programs are an important part of our marketing program.					
6. Advertising of discounts through various medium e.g. newspapers are important to our customers.					
7. Promotional offers are important to our customers.					
8. The location of this store is a key reason for its success compared to our competitors.					
9. This store is strategically located near to the customers we target.					
10. Great emphasis is placed on grouping products into similar categories throughout the store.					
11. Certain brands are intentionally given premium placements over others within product categories.'					
12. Our suppliers believe that our product category groupings are beneficial to them.					
13. Product category groupings are beneficial to our customers.					
14. Point-of-sale materials are easily noticeable from anywhere in-store.					
15. The store layout allows customers to move around without challenges.					
16. Merchandise is displayed to allow customers to get everything they need.					
17. Parking area is insufficient.					
18. In-store lighting facilitates customer shopping experience in this store.					
19. In-store music facilitates customer shopping experience in this store.					

Economy

Given the economic climate I can comfortably say that …?	1	2	3	4	5
1. Consumer spending in my store has not been affected.					
2. Customers continue to buy products they like.					
3. Customers focus only on value for money.					
4. Customers shopping carts have tremendously reduced.					
5. The frequency of shopping trips has remained unchanged.					
6. My customer base has decreased.					
7. My business operation was not affected at all.					
8. We have modified product lines to help our customers cope with the recession.					
9. We have tried to cut costs as effectively as possible.					
10. Our staff members have been sensitized about the recession.					
11. We have tried to seek out new business opportunities that never existed before.					
12. We have increased our marketing activities to retain customers.					

Management & Leadership

Within my organization…?	1	2	3	4	5
1. There is an effective integrated warehouse management/inventory control system.					
2. We do communicate future strategic needs with our suppliers.					
3. We have developed a satisfactory level of trust among supply chain members.					
4. We look for various ways to improve the supply chain function in our stores.					
5. Our personnel who interact with customers are highly trained in customer service.					
6. Our personnel who interact with customers are always courteous.					
7. Our personnel who interact with customers are always eager to provide service.					
8. Top management is solely responsible for building the company's brand.					
9. Customers view the brand of our company in an unfavorable way.					
10. The use of automated tools for order processing in our store enhances timely delivery.					
11.We have created a compatible communication information system across the company.					
12.Information exchanges between our store and our supplies are accurate.					
13. The store has ensured that there is a warehouse management system/inventory control system to improve cost reduction.					
14. We have a structured approach in dealing with customer complaints.					

Supermarket Performance

To what extent to you agree with the below statements within your store…?	1	2	3	4	5
1. The supermarket has adopted a strategy that sets it clearly apart from other supermarkets.					
2. In the supermarket, processes are continuously improved.					
3. In the supermarket, everything that matters to performance is explicitly reported.					
4. The supermarket continuously improves the things it does well.					
5. Management frequently engages in a dialogue with employees.					
6. Employees are always involved in important processes.					
7. Management allows employees to make mistakes.					
8. Management welcomes change.					
9. The supermarket is performance driven.					
10. Management is trusted by all employees.					
11. Management applies fast decision making.					
12. There is consistent coaching of employees.					
13. Management is decisive with regards to non-performers.					
14. Employees look up to management.					
15. Employees want to be held responsible for their results.					
16. Employees want to be inspired to accomplish extraordinary results.					
17. Employees are trained to be flexible with their working arrangements.					
18. Management has been with the company for a long time.					
19. New management is promoted from within the supermarket.					
20. The supermarket is a secure workplace for employees.					
21. The supermarket maintains good and long-term relationships with all stakeholders.					

APPENDIX B

ANALYSIS OF THE FOUR CONSTRUCTS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.857
Bartlett's Test of Sphericity	Approx. Chi-Square	1259.190
	Df	171
	Sig.	.000

Communalities

	Initial	Extraction
Price tags visible	1.000	.665
Prices are comparable to other stores	1.000	.626
Prices are a good reflection of quality	1.000	.688
Ability to hear in store announcements	1.000	.731
Loyalty of programs are important to customers	1.000	.456
Advertising through ATL	1.000	.661
Promotional offers are important to customers	1.000	.630
Location of store is important	1.000	.818
Customers shop where is nearest to them	1.000	.784
Grouping of similar products	1.000	.777
Intentional premium placements for products	1.000	.612
Suppliers believe that category placements are important	1.000	.463
Product category groupings are beneficial to our customers	1.000	.645
Point-of-sale materials are noticeable	1.000	.517
Store layout allows customers to move around without challenges.	1.000	.694
Merchandise displayed to allow customers to get around	1.000	.730
Parking area is insufficient.	1.000	.406
In-store lighting facilitates customer shopping experience	1.000	.638
In-store music facilitates customer shopping experience	1.000	.767

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.049	37.101	37.101	7.049	37.101	37.101	2.926	15.398	15.398
2	1.563	8.225	45.326	1.563	8.225	45.326	2.655	13.973	29.370
3	1.462	7.696	53.022	1.462	7.696	53.022	2.567	13.513	42.883
4	1.162	6.118	59.139	1.162	6.118	59.139	2.127	11.194	54.077
5	1.071	5.636	64.776	1.071	5.636	64.776	2.033	10.698	64.776
6	.936	4.928	69.704						
7	.835	4.396	74.100						
8	.791	4.162	78.262						
9	.614	3.232	81.495						
10	.588	3.093	84.588						
11	.546	2.873	87.460						
12	.468	2.465	89.925						
13	.369	1.944	91.869						
14	.336	1.771	93.640						
15	.318	1.675	95.315						
16	.285	1.498	96.812						
17	.262	1.379	98.191						
18	.231	1.214	99.405						
19	.113	.595	100.000						

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
Location of store is important	.805				
Customers shop where is nearest to them	.727				
Prices are comparable to other stores	.712				
Prices are a good reflection of quality	.631				.412
Suppliers believe that category placements are important	.434				
Grouping of similar products		.806			
Product category groupings are beneficial to our customers		.742			
Promotional offers are important to customers		.703			
Intentional premium placements for products		.479	.406		
Merchandise displayed to allow customers to get around			.812		
Store layout allows customers to move around without challenges.			.722		
Parking area is insufficient.			.594		
Loyalty of programs are important to customers			.477		
In-store music facilitates customer shopping experience				.860	
Ability to hear in store announcements				.824	
Advertising through ATL			.422	.496	
In-store lighting facilitates customer shopping experience					.764
Price tags visible					.704
Point-of-sale materials are noticeable					.456

General management/leadership

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.799
Bartlett's Test of Sphericity	Approx. Chi-Square	1491.357
	Df	91
	Sig.	.000

Communalities

	Initial	Extraction
Effective integrated warehouse management/inventory control system	1.000	.836
Communicate future strategic needs with our suppliers.	1.000	.424
Satisfactory level of trust among supply chain members	1.000	.865
Various ways to improve the supply chain function in our stores	1.000	.844
Personnel highly trained in customer service	1.000	.740
Personnel are always courteous	1.000	.710
Personnel are always eager to provide service	1.000	.822
Building the company's brand.	1.000	.481
Customers view the brand of our company in an unfavourable way	1.000	.612
Automated tools for order processing	1.000	.790
Compatible communication information system	1.000	.656
Information exchanges between our store and our supplies are accurate	1.000	.466
Warehouse management system/inventory control system to improve cost reduction.	1.000	.881
We have a structured approach in dealing with customer complaints.	1.000	.552

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.210	37.212	37.212	5.210	37.212	37.212	4.056	28.970	28.970
2	2.954	21.103	58.314	2.954	21.103	58.314	2.872	20.513	49.484
3	1.514	10.813	69.127	1.514	10.813	69.127	2.750	19.643	69.127
4	.928	6.627	75.754						
5	.686	4.903	80.657						
6	.615	4.392	85.049						
7	.541	3.861	88.910						
8	.399	2.847	91.757						
9	.359	2.567	94.324						
10	.330	2.358	96.681						
11	.193	1.382	98.063						
12	.174	1.245	99.308						
13	.056	.400	99.708						
14	.041	.292	100.000						

Rotated Component Matrix[a]

	Component		
	1	2	3
Warehouse management system/inventory control system to improve cost reduction.	.912		
Effective integrated warehouse management/inventory control system	.889		
Automated tools for order processing	.870		
Compatible communication information system	.770		
Information exchanges between our store and our supplies are accurate	.585		
Communicate future strategic needs with our suppliers.	.563		
Personnel are always eager to provide service		.905	
Personnel highly trained in customer service		.858	
Personnel are always courteous		.811	
Satisfactory level of trust among supply chain members			.906
Various ways to improve the supply chain function in our stores			.883
Building the company's brand.			.654
Customers view the brand of our company in an unfavourable way		.525	-.565
We have a structured approach in dealing with customer complaints.	.465		.471

Economy

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.848
Bartlett's Test of Sphericity	Approx. Chi-Square	745.633
	Df	36
	Sig.	.000

Communalities

	Initial	Extraction
Consumer spending in my store has not been affected.	1.000	.817
Customers focus only on value for money only.	1.000	.518
Customers shopping carts have tremendously reduced.	1.000	.669
The frequency of shopping trips has remained unchanged.	1.000	.754
My business operation was not affected at all.	1.000	.751
Modified product lines to help our customers cope with the recession	1.000	.716
Tried to cut costs as effectively as possible	1.000	.677
New business opportunities that never existed before	1.000	.734
Increased our marketing activities to retain customers	1.000	.824

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.322	48.018	48.018	4.322	48.018	48.018	3.513	39.037	39.037
2	2.137	23.745	71.763	2.137	23.745	71.763	2.945	32.727	71.763
3	.599	6.657	78.420						
4	.512	5.685	84.106						
5	.397	4.413	88.519						
6	.339	3.768	92.287						
7	.286	3.180	95.467						
8	.213	2.371	97.838						
9	.195	2.162	100.000						

Rotated Component Matrix[a]

	Component	
	1	2
Consumer spending in my store has not been affected.	.875	
The frequency of shopping trips has remained un-changed.	.866	
My business operation was not affected at all.	.864	
Customers shopping carts have tremendously reduced.	.811	
Customers focus only on value for money only.	.678	
Increased our marketing ac-tivities to retain customers		.900
New business opportunities that never existed before		.856
Modified product lines to help our customers cope with the recession		.836
Tried to cut costs as effec-tively as possible		.758

Supermarket performance

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.880
Bartlett's Test of Sphericity	Approx. Chi-Square	1697.526
	Df	190
	Sig.	.000

Communalities

	Initial	Extraction
Adopted a strategy that sets it clearly apart from other supermarkets.	1.000	.740
In the supermarket, processes are continuously improved	1.000	.786
Everything that matters to performance is explicitly reported	1.000	.640
Continuously innovates its core competencies	1.000	.763
Dialogue with employees.	1.000	.647
Employees are always involved in important processes	1.000	.702
Management allows employees to make mistakes	1.000	.773
Management welcomes change	1.000	.706
The supermarket is performance driven	1.000	.663
Management is trusted by all employees	1.000	.512
Management applies fast decision making	1.000	.770
There is a consistent coaching of employees	1.000	.554
Management is decisive with regards to non-performers	1.000	.730
Employees look up to management	1.000	.649
Employees want to be held responsible for their results	1.000	.662
Employees want to be inspired to accomplish extraordinary results	1.000	.595
Management has been with the company for a long time	1.000	.661
New management is promoted from within the supermarket	1.000	.708
The supermarket is a secure workplace for employees.	1.000	.401
Maintains good and long-term relationships with all stakeholders	1.000	.679

Total Variance Explained

Com-ponent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumula-tive %	Total	% of Variance	Cumula-tive %	Total	% of Variance	Cumula-tive %
1	7.989	39.946	39.946	7.989	39.946	39.946	4.839	24.195	24.195
2	2.197	10.984	50.930	2.197	10.984	50.930	4.379	21.896	46.090
3	1.815	9.076	60.006	1.815	9.076	60.006	2.188	10.942	57.033
4	1.340	6.698	66.705	1.340	6.698	66.705	1.934	9.672	66.705
5	.877	4.385	71.090						
6	.791	3.955	75.044						
7	.686	3.430	78.475						
8	.612	3.060	81.534						
9	.539	2.697	84.231						
10	.486	2.430	86.661						
11	.412	2.061	88.722						
12	.399	1.996	90.718						
13	.336	1.681	92.400						
14	.272	1.362	93.761						
15	.267	1.335	95.097						
16	.254	1.270	96.367						
17	.229	1.144	97.510						
18	.210	1.051	98.561						
19	.153	.765	99.326						
20	.135	.674	100.000						

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Continuously innovates its core competencies	.847			
In the supermarket, processes are continuously improved	.836			
Adopted a strategy that sets it clearly apart from other supermarkets.	.787			
The supermarket is performance driven	.771			
Dialogue with employees.	.754			
Everything that matters to performance is explicitly reported	.716			
Management welcomes change		.780		
Management allows employees to make mistakes		.778		
Employees want to be held responsible for their results		.739		
Maintains good and long-term relationships with all stakeholders		.696		
Management is trusted by all employees		.661		
Employees look up to management		.653		
Employees are always involved in important processes	.516	.605		
Employees want to be inspired to accomplish extraordinary results	.446	.580		
New management is promoted from within the supermarket			.840	
Management has been with the company for a long time			.728	
The supermarket is a secure workplace for employees.			.566	
Management applies fast decision making				.875
Management is decisive with regards to non-performers				.771
There is a consistent coaching of employees	.449			.566

APPENDIX C

ANALYSIS OF RELIABILITY

CRONBACH ALPHA TEST OF THE FINAL INSTRUMENT

MARKETING PERFORMANCE

Case Processing Summary

		N	%
Cases	Valid	143	100.0
	Excluded[a]	0	.0
	Total	143	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.889	19

GENERAL MANAGEMMENT/LEADERSHIP

Case Processing Summary

		N	%
Cases	Valid	143	100.0
	Excluded[a]	0	.0
	Total	143	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.852	14

ECONOMY

Case Processing Summary

		N	%
Cases	Valid	143	100.0
	Excluded[a]	0	.0
	Total	143	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.857	9

SUPERMARKET PERFORMANCE

Case Processing Summary

		N	%
Cases	Valid	143	100.0
	Excluded[a]	0	.0
	Total	143	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.875	20

APPENDIX D

OPERATIONALIZATION OF VARIABLES

Operationalization of the demographic variables

Variables	Conceptual definition	Instrumental definition	Operational definition
Type of Supermarket	The type of supermarket in relation to ownership structure. Other included Chinese owned supermarkets so as to not overtly appear to isolate specific race	The variable was determined by the response seen under the item: Type of Supermarket:- Chain- Independent- Other	The data was classified into the following categories:1 = Chain2 = Independent3 = Other The scale of measurement is nominal
Square footage of store	The relative size of the supermarket in terms in square footage	The variable was determined by the response seen under the item: Square footage of store:- < 10,000 sf- 10,000 to 30,000 sf- > 30,000 sf	The data was classified into the following categories:1 = < 10,000 sf2 = 10,000 to 30,000 sf3 = > 30,000 sf. The scale of measurement is ordinal
Location of Supermarket	The general location of the supermarket as per cardinal points within the country	The variable was determined by the response seen under the item: Location of Supermarket:- West- East- Central- South- Tobago	The data was classified into the following categories:1 = West2 = East3 = Central4 = South5 = Tobago The scale of measurement is nominal
Number of cash registers	The number of cash registers in a supermarket is also an indicator of the size of its operations	The variable was determined by the quantitative response seen under the item: Number of cash registers: open ended numeric response	The scale of measurement is metric
No of years in existence	The number of years in existence is a gauge of the amount of experience the supermarket has which will be an indictor of the supermarket performance	The variable was determined by the quantitative response seen under the item: No of years in existence: open ended numeric response	The scale of measurement is metric

No of years respondent is working in the supermarket industry	The number of years in existence is a gauge of the amount of experience the respondent and will be suggestive of the accuracy of responses	The variable was determined by the quantitative response seen under the item: No of years in existence: open ended numeric response	The scale of measurement is metric
Respondent's role	The respondents role in the supermarket will be a gauge of the accuracy of the responses based on knowledge of the supermarket operations	The variable was determined by the response seen under the item: Respondent's role:- Supervisor- Manager- Owner	The data was classified into the following categories:1 = Supervisor2 = Manager3 = Owner The scale of measurement is nominal

Operationalization of the marketing performance variable

Variable	Conceptual definition	Instrumental definition	Operational definition
Marketing performance	The extent of marketing executions within the supermarket under consideration	The degree of marketing performance within the supermarket as reported by the respondent through the following 19 items under the scale:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree	To measure the degree of marketing performance within the supermarket. The variable was considered metric. The data was classified into the following categories:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree
		1. Price tags visible 2. Prices are comparable to other stores 3. Prices are a good reflection of quality 4. Ability to hear instore announcements 5. Loyalty of programs are important to customers 6. Advertising through ATL 7. Promotional offers are important to customers 8. Location of store is important 9. Customers shop where is nearest to them 10. Grouping of similar products 11. Intentional premium placements for products 12. Suppliers believe that category placements are important 13. Product category groupings are beneficial to our customers 14. Point-of-sale materials are noticeable 15. Store layout allows customers to move around without challenges.	

		16. Merchandise displayed to allow customers to get around 17. Parking area is insufficient. 18. In-store lighting facilitates customer shopping experience 19. In-store music facilitates customer shopping experience

Operationalization of the economy variable

Variable	Conceptual definition	Instrumental definition	Operational definition
Economy	The prevailing economic conditions that currently affect the supermarket under consideration	The degree of economic factors that affect the supermarket as reported by the respondent through the following 12 items under the scale:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree 1. Consumer spending in my store has not been affected. 2. Customers continue to buy products they like. 3. Customers focus only on value for money only. 4. Customers shopping carts have tremendously reduced. 5. The frequency of shopping trips has remained unchanged. 6. Customers have left my store all together. 7. My business operation was not affected at all.	To measure the degree of economic factors that affect the supermarket. The variable was considered metric. The data was classified into the following categories:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree

		8. Modified product lines to help our customers cope with the recession 9. Tried to cut costs as effectively as possible 10. Staff members have been sensitized about the recession 11. New business opportunities that never existed before 12. Increased our marketing activities to retain customers

Operationalization of the management & leadership

Variable	Conceptual definition	Instrumental definition	Operational definition
Management & leadership	Managerial or leadership factors that will influence the operations of the supermarket under consideration	The degree of management & leadership within the supermarket as reported by the respondent through the following 14 items under the scale:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree 1. Effective integrated warehouse management/inventory control system 2. Communicate future strategic needs with our suppliers. 3. Satisfactory level of trust among supply chain members 4. Various ways to improve the supply chain function in our stores 5. Personnel highly trained in customer service	To measure the degree of management & leadership within the supermarket. The variable was considered metric. The data was classified into the following categories:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree

	6. Personnel are always courteous 7. Personnel are always eager to provide service 8. Building the company's brand. 9. Customers view the brand of our company in an unfavourable way 10. Automated tools for order processing 11. Compatible communication information system 12. Information exchanges between our store and our supplies are accurate 13. Warehouse management system/inventory control system to improve cost reduction. 14. We have a structured approach in dealing with customer complaints.

Operationalization of the supermarket performance variable

Variable	Conceptual definition	Instrumental definition	Operational definition
Supermarket performance	Non-financial performance indicators for supermarkets	The degree of supermarket performance as reported by the respondent through the following 21 items under the scale:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree 1. Adopted a strategy that sets it clearly apart from other supermarkets. 2. In the supermarket, processes are continuously improved 3. Everything that matters to performance is explicitly reported 4. Continuously innovates its core competencies	To measure the degree of supermarket performance within the supermarket. The variable was considered metric. The data was classified into the following categories:1 = Strongly disagree2 = Disagree3 = Uncertain4 = Agree5 = Strongly agree

5. Continuously innovates its core competencies
6. Dialogue with employees.
7. Employees are always involved in important processes
8. Management allows employees to make mistakes
9. Management welcomes change
10. The supermarket is performance driven
11. Management is trusted by all employees
12. Management applies fast decision making
13. There is a consistent coaching of employees
14. Management is decisive with regards to non-performers
15. Employees look up to management
16. Employees want to be held responsible for their results
17. Employees want to be inspired to accomplish extraordinary results
18. Employees are trained to be flexible.
19. Management has been with the company for a long time
20. New management is promoted from within the supermarket
21. The supermarket is a secure workplace for employees.

APPENDIX E

OPERATIONALIZATION OF NULL HYPOTHESIS

OPERATIONALIZATION OF THE CONFIRMATORY NULL HYPOSTHESIS

Hypothesis	Variables	Level of measurement	Statistical test
The empirical model in which general management is a predictor for supermarket performance, having economic factors as a moderating variable and marketing factors as a mediating variable as perceived by management for supermarkets in Trinidad, which has an acceptable goodness of fit with the theoretical model.	Exogenous: A. Marketing factors Endogenous: B. Supermarket performance C. General management D. Economic factors	Metric Metric Metric Metric	The technique used for the validation of the model corresponding to the null hypothesis was multivariate structural equation modelling. It is considered that the model would have reached the kindness of adjustment required for this investigation when at least fit four of the seven criteria proposed. The rejection criterion was: 1. GFI, equal or greater than .90. 2. CFI, equal or greater than .90. 3. RMSEA, equal or less .08. 4. $\chi 2$ / gl, less than 3. 5. p of $\chi 2$ greater than .05. 6. NFI, equal or greater than .90. 7. TLI, equal or greater than .90.

APPENDIX F

LETTER ISSUED TO SUPERMARKET CHANNEL FOR PERMISSON

3.4.18

Research within the Supermarket Channel

Dear Sir/Madame,

I am a PhD candidate at the University of Montemorelos in Mexico and I am currently conducting research within the Supermarket channel in Trinidad & Tobago for a project. This project is necessary for the completion of my programme at the university. I have recruited the services of Mrs. Carol Quow-Lovell to conduct interviews on my behalf for this purpose.

Your assistance in this matter will be greatly appreciated.

Thank you and best wishes

Keston Quow

APPENDIX G

LETTER SENT TO INDUSTRY EXPERT FOR CONTENT VALIDITY

Dear Dr. Zameer,

I would first like to begin by thanking you so much for your continued assistance in my academic journey.

My topic is "FACTORS AFFECTING THE PERFORMANCE OF RETAIL DISTRIBUTION (SUPERMARKET CHANNEL) IN SMALL ISLAND DEVELOPING STATES". This topic has been inspired by my exposure and experiences to retail distribution over the past decade. As a developing country, T&T is very much aligning to the trends seen in the US & UK. With that said, the industry is neither properly regulated nor understood. Upon completion of this paper, I would like to investigate other distribution channels.

The literature identified six independent variables which I am going to test through multiple regression analysis to determine its impact on the dependent variable (supermarket performance). The instrument is intended to be issued to supermarket owners/management. One thing to note is that supermarket performance will not be measured by financial measures, but more so by non-financial measures. Of course, the literature lead me to adopting this approach.

My research instrument has been approved by my advisors. The next step is to further validate the instrument by seeking advice from external industry and academic experts which is where you come in.

Attached are two documents. The actual instrument and a list of literature sources that were adapted to develop the instrument that I have presented.

Awaiting your feedback.

Thanks again.

APPENDIX H

STATISTICS OF DEMOGRAPHIC DATA

Statistics

		Type of Supermarket	Square footage of store	Location of Supermarket	Number of cash registers	No of years in existence	Respondent's role	No of years respondent is working in the supermarket industry
N	Valid	151	151	151	151	151	151	151
	Missing	0	0	0	0	0	0	0

Type of Supermarket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	chain	35	23.2	23.2	23.2
	independent	74	49.0	49.0	72.8
	chinese	41	27.2	27.2	100.0
	Total	151	100.0	100.0	

Square footage of store

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 10,000 ft	71	47.0	47.0	47.0
	10,000 ft to 20,000 ft	62	41.1	41.1	88.1
	> 20,000 ft	18	11.9	11.9	100.0
	Total	151	100.0	100.0	

Location of Supermarket

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	West	19	12.6	12.6	12.6
	East	57	37.7	37.7	50.3
	Central	63	41.7	41.7	92.1
	South	12	7.9	7.9	100.0
	Total	151	100.0	100.0	

Number of cash registers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	42	27.8	27.8	27.8
	2	49	32.5	32.5	60.3
	3	18	11.9	11.9	72.2
	4	7	4.6	4.6	76.8
	5	7	4.6	4.6	81.5
	6	7	4.6	4.6	86.1
	7	5	3.3	3.3	89.4
	8	3	2.0	2.0	91.4
	9	2	1.3	1.3	92.7
	10	2	1.3	1.3	94.0
	12	2	1.3	1.3	95.4
	13	2	1.3	1.3	96.7
	14	2	1.3	1.3	98.0
	16	2	1.3	1.3	99.3
	22	1	.7	.7	100.0
	Total	151	100.0	100.0	

No of years in existence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	5.3	5.3	5.3
	2	7	4.6	4.6	9.9
	3	9	6.0	6.0	15.9
	4	7	4.6	4.6	20.5
	5	6	4.0	4.0	24.5
	6	4	2.6	2.6	27.2
	7	9	6.0	6.0	33.1
	8	8	5.3	5.3	38.4
	9	7	4.6	4.6	43.0
	10	6	4.0	4.0	47.0
	11	3	2.0	2.0	49.0
	12	8	5.3	5.3	54.3
	13	2	1.3	1.3	55.6
	14	1	.7	.7	56.3
	15	7	4.6	4.6	60.9
	16	2	1.3	1.3	62.3
	17	2	1.3	1.3	63.6
	18	3	2.0	2.0	65.6
	19	1	.7	.7	66.2
	20	5	3.3	3.3	69.5
	21	1	.7	.7	70.2
	22	1	.7	.7	70.9
	23	1	.7	.7	71.5
	24	3	2.0	2.0	73.5
	25	5	3.3	3.3	76.8

	27	9	6.0	6.0	82.8
	30	2	1.3	1.3	84.1
	31	2	1.3	1.3	85.4
	32	2	1.3	1.3	86.8
	33	1	.7	.7	87.4
	35	5	3.3	3.3	90.7
	40	2	1.3	1.3	92.1
	42	1	.7	.7	92.7
	43	1	.7	.7	93.4
	45	1	.7	.7	94.0
	47	2	1.3	1.3	95.4
	50	1	.7	.7	96.0
	53	1	.7	.7	96.7
	55	1	.7	.7	97.4
	57	2	1.3	1.3	98.7
	60	1	.7	.7	99.3
	70	1	.7	.7	100.0
	Total	151	100.0	100.0	

Respondent's role

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Supervisor	34	22.5	22.5	22.5
	Manager	83	55.0	55.0	77.5
	Owner	33	21.9	21.9	100.0
	Total	151	100.0	100.0	

No of years respondent is working in the supermarket industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	4.0	4.0	4.0
	2	3	2.0	2.0	6.0
	3	3	2.0	2.0	7.9
	4	7	4.6	4.6	12.6
	5	14	9.3	9.3	21.9
	6	3	2.0	2.0	23.8
	7	12	7.9	7.9	31.8
	8	4	2.6	2.6	34.4
	9	1	.7	.7	35.1
	10	7	4.6	4.6	39.7
	11	4	2.6	2.6	42.4
	12	6	4.0	4.0	46.4
	13	4	2.6	2.6	49.0
	15	13	8.6	8.6	57.6
	17	9	6.0	6.0	63.6
	18	1	.7	.7	64.2
	19	2	1.3	1.3	65.6

	20	8	5.3	5.3	70.9
	21	4	2.6	2.6	73.5
	22	3	2.0	2.0	75.5
	23	1	.7	.7	76.2
	24	3	2.0	2.0	78.1
	25	4	2.6	2.6	80.8
	27	3	2.0	2.0	82.8
	30	8	5.3	5.3	88.1
	31	1	.7	.7	88.7
	33	2	1.3	1.3	90.1
	35	3	2.0	2.0	92.1
	40	4	2.6	2.6	94.7
	45	1	.7	.7	95.4
	49	1	.7	.7	96.0
	50	1	.7	.7	96.7
	51	1	.7	.7	97.4
	60	4	2.6	2.6	100.0
	Total	151	100.0	100.0	

APPENDIX I

FREQUENCY DISTRIBTIONS FOR CONSTRUCTS

Marketing1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	9	6.0	6.0	6.0
	3.00	91	60.3	60.3	66.2
	4.00	36	23.8	23.8	90.1
	5.00	15	9.9	9.9	100.0
	Total	151	100.0	100.0	

Economy1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	8	5.3	5.3	5.3
	3.00	98	64.9	64.9	70.2
	4.00	44	29.1	29.1	99.3
	5.00	1	.7	.7	100.0
	Total	151	100.0	100.0	

Management1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	26	17.2	17.2	17.2
	3.00	68	45.0	45.0	62.3
	4.00	43	28.5	28.5	90.7
	5.00	14	9.3	9.3	100.0
	Total	151	100.0	100.0	

Performance1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	2.0	2.0	2.0
	3.00	70	46.4	46.4	48.3
	4.00	66	43.7	43.7	92.1
	5.00	12	7.9	7.9	100.0
	Total	151	100.0	100.0	

APPENDIX J

CONSTRUCTION MEASUREMENT MODELS

MARKETING PERFORMANCE

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
MP14	<---	MARKETING1	1.000				
MP11	<---	MARKETING1	1.283	.290	4.430	***	
MP8	<---	MARKETING1	.846	.189	4.474	***	
MP6	<---	MARKETING1	1.376	.321	4.289	***	
MP3	<---	MARKETING1	1.100	.244	4.516	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
MP14	<---	MARKETING1	.524
MP11	<---	MARKETING1	.660
MP8	<---	MARKETING1	.674
MP6	<---	MARKETING1	.619
MP3	<---	MARKETING1	.689

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
MARKETING1	.340	.131	2.590	.010	
e1	.900	.137	6.575	***	
e2	.724	.127	5.705	***	
e3	.291	.052	5.567	***	
e5	1.036	.171	6.040	***	
e7	.454	.084	5.409	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
MP3	.475
MP6	.383
MP8	.455
MP11	.436
MP14	.274

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	10.703	5	.058	2.141
Saturated model	15	.000	0		
Independence model	5	132.885	10	.000	13.288

RMR, GFI

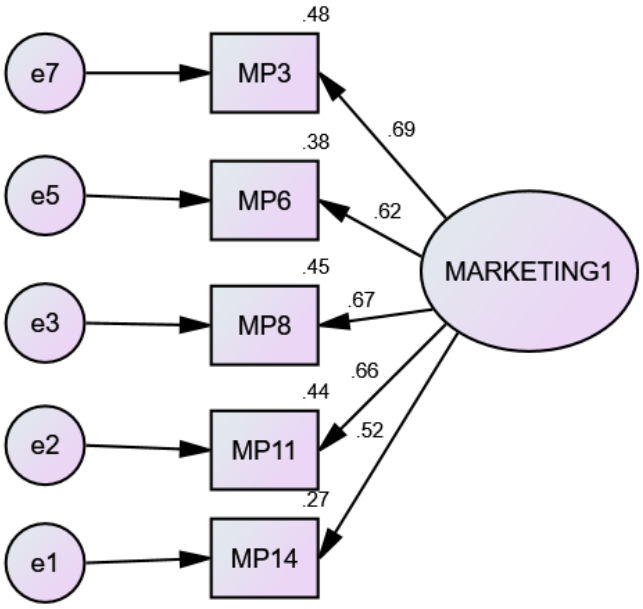
Model	RMR	GFI	AGFI	PGFI
Default model	.056	.963	.890	.321
Saturated model	.000	1.000		
Independence model	.364	.601	.402	.401

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.919	.839	.955	.907	.954
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.102	.000	.188	.132
Independence model	.336	.286	.388	.000



NFI = .919 CFI = .954 GFI = .963 RMSEA = .102

CHI/DF = 2.141 p = .058

Non-standardized parameters for the marketing factors model

MANAGEMENT/LEADERSHIP

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ML14	<---	MANAGEMENT	.278	.093	2.977	.003	
ML13	<---	MANAGEMENT	1.000				
ML12	<---	MANAGEMENT	.093	.039	2.395	.017	
ML10	<---	MANAGEMENT	.785	.064	12.316	***	
ML1	<---	MANAGEMENT	.880	.042	20.746	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ML14	<---	MANAGEMENT	.275
ML13	<---	MANAGEMENT	1.000
ML12	<---	MANAGEMENT	.224

			Estimate
ML10	<---	MANAGEMENT	.784
ML1	<---	MANAGEMENT	.928

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
MANAGEMENT	1.673	.232	7.223	***	
e1	1.574	.213	7.382	***	
e2	-.001	.048	-.020	.984	
e3	.273	.037	7.382	***	
e5	.648	.093	6.988	***	
e7	.210	.047	4.461	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
ML1	.860
ML10	.615
ML12	.050
ML13	1.001
ML14	.076

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	3.229	5	.665	.646
Saturated model	15	.000	0		
Independence model	5	336.457	10	.000	33.646

RMR, GFI

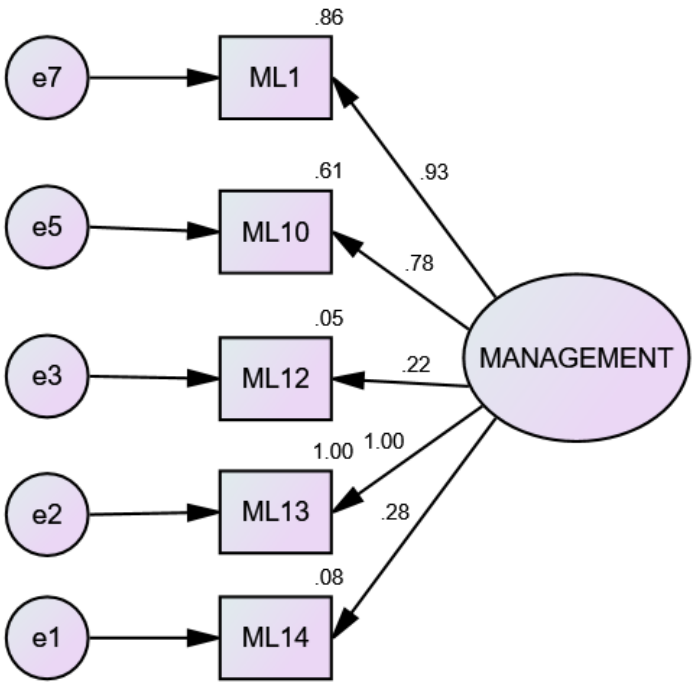
Model	RMR	GFI	AGFI	PGFI
Default model	.028	.988	.965	.329
Saturated model	.000	1.000		
Independence model	.624	.514	.271	.343

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.990	.981	1.005	1.011	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.105	.778
Independence model	.547	.498	.598	.000



NFI = .990 CFI = 1.000 GFI = .988 RMSEA = .000

CHI/DF = .646 p = .665

Non-standardized parameters for the management/leadership model

ECONOMY

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
EC12	<---	ECONOMY1	1.000				
EC11	<---	ECONOMY1	.769	.082	9.362	***	
EC10	<---	ECONOMY1	.152	.045	3.374	***	
EC8	<---	ECONOMY1	.674	.079	8.508	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
EC12	<---	ECONOMY1	1.005
EC11	<---	ECONOMY1	.767
EC10	<---	ECONOMY1	.315
EC8	<---	ECONOMY1	.715

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ECONOMY1	1.515	.230	6.593	***	
e1	-.016	.108	-.148	.883	
e2	.625	.106	5.908	***	
e3	.318	.043	7.378	***	
e5	.660	.102	6.483	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
EC8	.511
EC10	.099
EC11	.589
EC12	1.011

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	.091	2	.956	.045
Saturated model	10	.000	0		
Independence model	4	189.219	6	.000	31.537

RMR, GFI

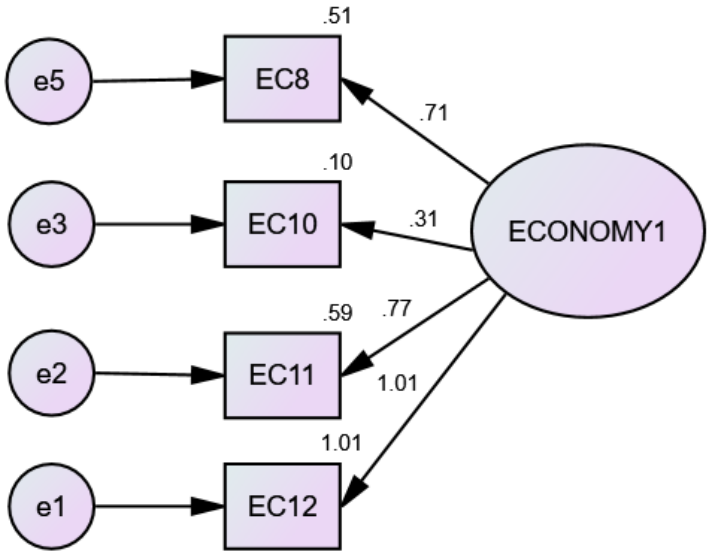
Model	RMR	GFI	AGFI	PGFI
Default model	.004	1.000	.998	.200
Saturated model	.000	1.000		
Independence model	.559	.552	.254	.331

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	1.000	.999	1.010	1.031	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.000	.966
Independence model	.529	.466	.595	.000



NFI = 1.000CFI = 1.000 GFI = 1.000 RMSEA = .000

CMI/DF = .045 p = .956

Non-standardized parameters for the economic factors model

SUPERMARKET PERFORMANCE

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
S8	<---	PERFORMANCE1	.385	.112	3.453	***	
S5	<---	PERFORMANCE1	.707	.095	7.466	***	
S4	<---	PERFORMANCE1	.669	.061	10.915	***	
S2	<---	PERFORMANCE1	.928	.074	12.571	***	
S1	<---	PERFORMANCE1	1.000				

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
S8	<---	PERFORMANCE1	.333
S5	<---	PERFORMANCE1	.641
S4	<---	PERFORMANCE1	.825
S2	<---	PERFORMANCE1	.910
S1	<---	PERFORMANCE1	.874

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
PERFORMANCE1	.756	.135	5.602	***	
e1	.901	.123	7.299	***	
e4	.542	.078	6.904	***	
e5	.159	.027	5.844	***	
e7	.135	.035	3.869	***	
e8	.234	.047	4.926	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
S1	.764
S2	.828
S4	.681
S5	.411
S8	.111

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	10	4.424	5	.490	.885
Saturated model	15	.000	0		
Independence model	5	201.469	10	.000	20.147

RMR, GFI

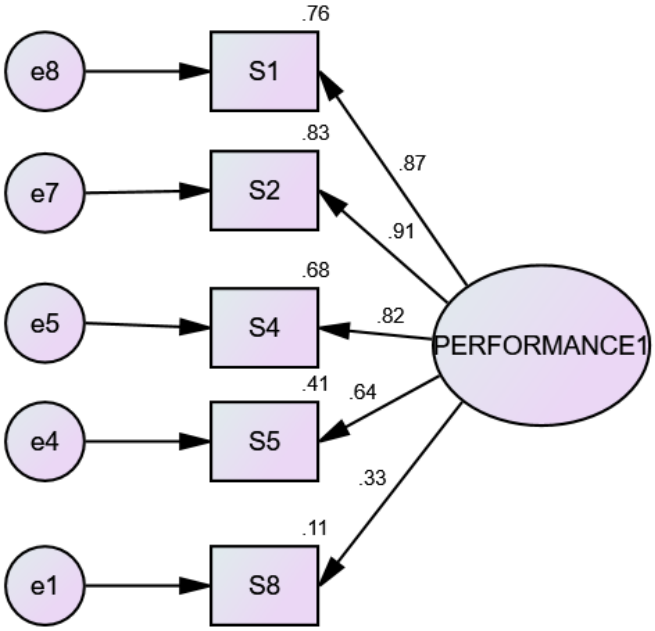
Model	RMR	GFI	AGFI	PGFI
Default model	.016	.983	.948	.328
Saturated model	.000	1.000		
Independence model	.353	.457	.185	.304

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.983	.965	1.000	1.001	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.131	.581
Independence model	.496	.447	.547	.000



NFI = .983CFI = 1.000 GFI = .983

CMI/DF = .885 p = .490

Non-standardized parameters for the supermarket performance model

APPPENDIX K

NORMALITY TESTS FOR CONSTRUCTS

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
MARKETING	121	100.0%	0	0.0%	121	100.0%
ECONOMY	121	100.0%	0	0.0%	121	100.0%
MANAGEMENT	121	100.0%	0	0.0%	121	100.0%
PERFORMANCE	121	100.0%	0	0.0%	121	100.0%

Descriptives

			Statistic	Std. Error
MARKETING	Mean		3.1844	.04808
	95% Confidence Interval for Mean	Lower Bound	3.0892	
		Upper Bound	3.2796	
	5% Trimmed Mean		3.1666	
	Median		3.1053	
	Variance		.280	
	Std. Deviation		.52886	
	Minimum		2.11	
	Maximum		4.79	
	Range		2.68	
	Interquartile Range		.63	
	Skewness		.559	.220
	Kurtosis		.749	.437
ECONOMY	Mean		3.1579	.04019
	95% Confidence Interval for Mean	Lower Bound	3.0783	
		Upper Bound	3.2374	
	5% Trimmed Mean		3.1588	
	Median		3.1000	
	Variance		.195	
	Std. Deviation		.44211	
	Minimum		2.20	
	Maximum		4.50	
	Range		2.30	
	Interquartile Range		.50	
	Skewness		.072	.220
	Kurtosis		-.169	.437
MANAGEMENT	Mean		2.9569	.04850
	95% Confidence Interval for Mean	Lower Bound	2.8609	
		Upper Bound	3.0529	
	5% Trimmed Mean		2.9614	
	Median		2.9286	
	Variance		.285	
	Std. Deviation		.53345	

	Minimum		1.79	
	Maximum		3.93	
	Range		2.14	
	Interquartile Range		.86	
	Skewness		.016	.220
	Kurtosis		-.850	.437
PERFORMANCE	Mean		3.4077	.04701
	95% Confidence Interval for Mean	Lower Bound	3.3146	
		Upper Bound	3.5008	
	5% Trimmed Mean		3.3922	
	Median		3.4286	
	Variance		.267	
	Std. Deviation		.51713	
	Minimum		2.00	
	Maximum		4.90	
	Range		2.90	
	Interquartile Range		.67	
	Skewness		.421	.220
	Kurtosis		.666	.437

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
MARKETING	.079	121	.062	.971	121	.011
ECONOMY	.069	121	.200*	.983	121	.137
MANAGEMENT	.075	121	.092	.972	121	.013
PERFORMANCE	.073	121	.170	.980	121	.073

APPENDIX L

MODEL OF STRUCTURAL EQUATIONS

CONFIRMATORY MODEL WITH SELECTED INDICATORS

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	120
Number of distinct parameters to be estimated:	33
Degrees of freedom (120 - 33):	87

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
MGMT	<---	ECON	.356	.106	3.373	***	
MARK	<---	MGMT	.396	.099	4.005	***	
PERF	<---	MGMT	.284	.090	3.166	.002	
PERF	<---	MARK	.315	.123	2.551	.011	
MP1	<---	MARK	1.000				
MP3	<---	MARK	.659	.122	5.401	***	
MP5	<---	MARK	.602	.149	4.043	***	
MP14	<---	MARK	.872	.153	5.700	***	
EC12	<---	ECON	1.000				
EC11	<---	ECON	1.000				
EC10	<---	ECON	.168	.050	3.371	***	
EC8	<---	ECON	.756	.076	9.913	***	
ML13	<---	MGMT	1.000				
ML10	<---	MGMT	.951	.110	8.652	***	
ML4	<---	MGMT	.227	.106	2.132	.033	
S1	<---	PERF	1.000				
S2	<---	PERF	.870	.078	11.115	***	
S5	<---	PERF	.650	.093	6.993	***	
S8	<---	PERF	.363	.108	3.357	***	

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	33	105.631	87	.085	1.214 (χ2 / gl)
Saturated model	120	.000	0		
Independence model	15	720.483	105	.000	6.862

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.099	.894	.854	.648
Saturated model	.000	1.000		
Independence model	.350	.456	.378	.399

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.853	.823	.971	.963	.970
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.829	.707	.803
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	18.631	.000	48.721
Saturated model	.000	.000	.000
Independence model	615.483	534.160	704.286

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.969	.171	.000	.447
Saturated model	.000	.000	.000	.000
Independence model	6.610	5.647	4.901	6.461

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.044	.000	.072	.605
Independence model	.232	.216	.248	.000

AIC

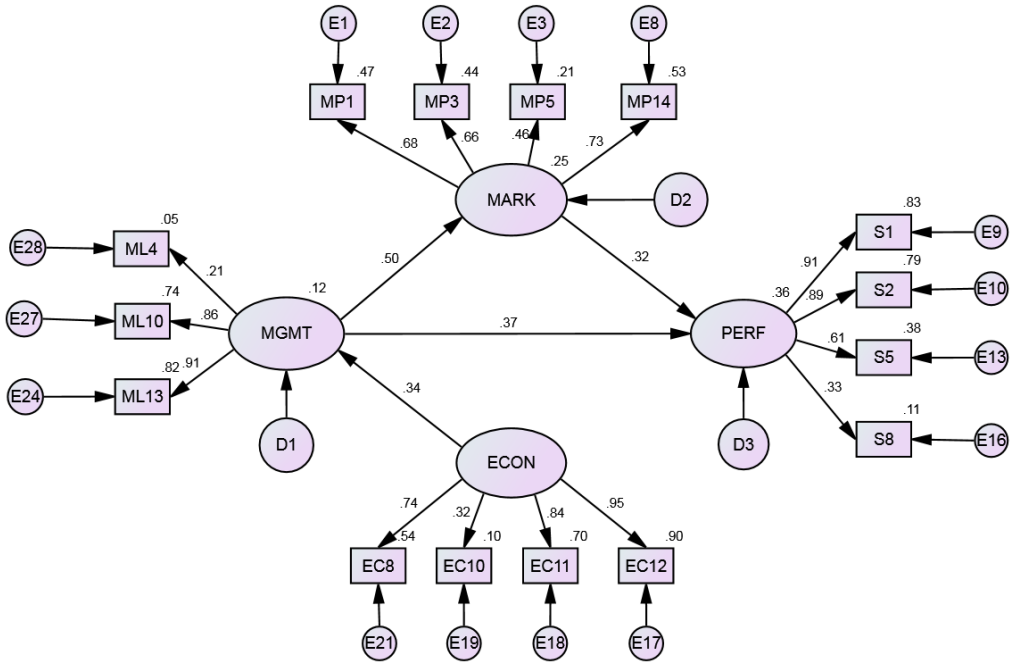
Model	AIC	BCC	BIC	CAIC
Default model	171.631	182.986	260.747	293.747
Saturated model	240.000	281.290	564.058	684.058
Independence model	750.483	755.645	790.990	805.990

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.575	1.404	1.851	1.679
Saturated model	2.202	2.202	2.202	2.581
Independence model	6.885	6.139	7.700	6.933

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	114	125
Independence model	20	22



NFI = .853 TLI = .963 CFI = .970 GFI = .894

RMR = .099 CMI/DF = 1.214 p = .085

APPENDIX M

STATISTICAL TABLES FOR COMPLEMENTARY HYPOTHESES

REGRESSION TABLES FOR COMPLEMENTARY NULL HYPOTHESIS

Resumen del modelo[d]

Modelo	R	R cuadrado	R cuadrado corregida	Error típ. de la estimación	Durbin-Watson
1	.723[a]	.523	.519	.41241	
2	.770[b]	.593	.587	.38211	
3	.789[c]	.623	.614	.36955	1.856

a. Variables predictoras: (Constante), Management

b. Variables predictoras: (Constante), Management, Economy

c. Variables predictoras: (Constante), Management, Economy, Marketing

d. Variable dependiente: Performance

ANOVA[a]

Modelo		Suma de cuadrados	Gl	Media cuadrática	F	Sig.
1	Regresión	23.653	1	23.653	139.073	.000[b]
	Residual	21.600	127	.170		
	Total	45.254	128			
2	Regresión	26.857	2	13.428	91.971	.000[c]
	Residual	18.397	126	.146		
	Total	45.254	128			
3	Regresión	28.183	3	9.394	68.788	.000[d]
	Residual	17.071	125	.137		
	Total	45.254	128			

a. Variable dependiente: Performance

b. Variables predictoras: (Constante), Management

c. Variables predictoras: (Constante), Management, Economy

d. Variables predictoras: (Constante), Management, Economy, Marketing

Coeficientes[a]

Modelo		Coeficientes no estandarizados		Coeficientes tipificados	t	Sig.
		B	Error típ.	Beta		
1	(Constante)	1.796	.159		11.321	.000
	Management	.559	.047	.723	11.793	.000
2	(Constante)	.621	.291		2.136	.035
	Management	.456	.049	.589	9.268	.000
	Economy	.473	.101	.298	4.684	.000
3	(Constante)	.551	.282		1.952	.053
	Management	.344	.060	.444	5.755	.000
	Economy	.380	.102	.239	3.720	.000
	Marketing	.213	.068	.248	3.116	.002

a. Variable dependiente: Performance

APPENDIX N

ARITHMATIC MEANS OF THE FOUR CONSTRUCTS

ECONOMY

Descriptive Statistics

	N	Mean	Std. Deviation
ECONOMY	121	3.1579	.44211
Valid N (listwise)	121		

Descriptive Statistics

	N	Mean	Std. Deviation
E1 Consumer spending in my store has not been affected.	121	2.01	1.201
E2 Customers continue to buy products they like.	121	2.29	1.274
E3 Customers focus only on value for money only.	121	4.33	.746
E4 Customers shopping carts have tremendously reduced.	121	3.67	1.193
E5 The frequency of shopping trips has remained unchanged.	121	2.00	1.041
E6 Customers have left my store all together.	121	3.89	1.047
E7 My business operation was not affected at all.	121	1.79	.784
E8 Modified product lines to help our customers cope with the re-cession	121	3.18	1.190
E9 Tried to cut costs as effectively as possible	121	3.76	.983
E10 Staff members have been sensitized about the recession	121	4.26	.639
E11 New business opportunities that never existed before	121	3.35	1.283
E12 Increased our marketing activities to retain customers	121	3.23	1.263
Valid N (listwise)	121		

MARKETING

Descriptive Statistics

	N	Mean	Std. Deviation
MARKETING	121	3.1844	.52886
Valid N (listwise)	121		

Descriptive Statistics

	N	Mean	Std. Deviation
MP1 Price tags visible	121	3.49	1.355
MP2 Prices are comparable to other stires	121	4.02	.836
MP3 Prices are a good reflection of quality	121	3.58	.955
MP4 Ability to hear instore announcements	121	1.45	.904
MP5 Loyalty of programs are important to customers	121	1.67	1.172
MP6 Advertising through ATL	121	1.87	1.271
MP7 Promotional offers are important to customers	121	4.09	.548
MP8 Location of store is important	121	3.74	.770
MP9 Customers shop where is nearest to them	121	3.78	.689
MP10 Grouping of similar products	121	3.79	.884
MP11 Intentional premium placements for products	121	3.32	1.163

MP12 Suppliers believe that category placements are important	121	3.09	1.197
MP13 Product category groupings are beneficial to our customers	121	3.91	.683
MP14 Point-of-sale materials are noticeable	121	3.17	1.128
MP15 Store layout allows customers to move around without challenges.	121	2.77	1.153
MP16 Merchndise displayed to allow customers to get around	121	2.60	1.107
MP17 Parking area is insufficient.	121	3.87	1.533
MP18 In-store lighting facilitates customer shopping experience	121	4.17	1.179
MP19 In-store music facilitates customer shopping experience	121	2.14	1.439
Valid N (listwise)	121		

MANAGEMENT

Descriptive Statistics

	N	Mean	Std. Deviation
MANGEMENT	121	2.9569	.53345
Valid N (listwise)	121		

Descriptive Statistics

	N	Mean	Std. Deviation
ML1 Effective integrated warehouse management/inventory control system	121	3.02	1.255
ML2 Communicate future strategic needs with our suppliers.	121	4.06	.505
ML3 Satisfactory level of trust among supply chain members	121	1.86	1.280
ML4 Various ways to improve the supply chain function in our stores	121	1.80	1.208
ML5 Personnel highly trained in customer service	121	3.90	1.114
ML6 Personnel are always courteous	121	4.11	.893
ML7 Personnel are always eager to provide service	121	4.04	.943
ML8 Building the company's brand.	121	2.02	1.281
ML9 Customers view the brand of our company in an unfavorable way	121	1.47	.659
ML10 Automated tools for order processing	121	2.71	1.319
ML11 Compatible communication information system	121	2.95	1.309
ML12 Information exchanges between our store and our supplies are accurate	121	4.05	.617
ML13 Warehouse management system/inventory control system to improve cost reduction.	121	2.95	1.341
ML14 We have a structured approach in dealing with customer complaints.	121	2.45	1.297
Valid N (listwise)	121		

PERFORMANCE

Descriptive Statistics

	N	Mean	Std. Deviation

PERFORMANCE	121	3.4077	.51713
Valid N (listwise)	121		

Descriptive Statistics

	N	Mean	Std. Deviation
S1 Adopted a strategy that sets it clearly apart from other supermarkets.	121	3.28	1.002
S2 In the supermarket, processes are continuously improved	121	3.59	.882
S3 Everything that matters to performance is explicitly reported	121	3.29	.917
S4 Continuously innovates its core competencies	121	3.75	.745
S5 Dialogue with employees.	121	3.63	1.009
S6 Employees are always involved in important processes	121	3.06	1.157
S7 Management allows employees to make mistakes	121	3.14	1.192
S8 Management welcomes change	121	3.45	1.057
S9 The supermarket is performance driven	121	3.61	.779
S10 Management is trusted by all employees	121	2.93	.892
S11 Management applies fast decision making	121	3.60	1.122
S12 There is a consistent coaching of employees	121	3.21	1.185
S13 Management is decisive with regards to non-performers	121	3.21	1.286
S14 Employees look up to management	121	3.37	.993
S15 Employees want to be held responsible for their results	121	3.44	.999
S16 Employees want to be inspired to accomplish extraordinary results	121	3.74	.844
S17 Employees are trained to be flexible.	121	3.93	.588
S18 Management has been with the company for a long time	121	3.27	1.342
S19 New management is promoted from within the supermarket	121	3.04	1.381
S20 The supermarket is a secure workplace for employees.	121	3.23	1.309
Valid N (listwise)	121		

APPENDIX O

CROSSTABULATIONS ANALYSIS

CROSSTABULATIONS MARKETING

MAR * ECO Crosstabulation

Count

		ECO				
		2.00	3.00	4.00	5.00	Total
MAR	2.00	4	5	0	0	9
	3.00	4	69	18	0	91
	4.00	0	18	18	0	36
	5.00	0	6	8	1	15
Total		8	98	44	1	151

MAR * MAN Crosstabulation

Count

		MAN				
		2.00	3.00	4.00	5.00	Total
MAR	2.00	6	3	0	0	9
	3.00	20	53	16	2	91
	4.00	0	12	19	5	36
	5.00	0	0	8	7	15
Total		26	68	43	14	151

MAR * PER Crosstabulation

Count

		PER				
		2.00	3.00	4.00	5.00	Total
MAR	2.00	2	7	0	0	9
	3.00	1	55	33	2	91
	4.00	0	8	23	5	36
	5.00	0	0	10	5	15
Total		3	70	66	12	151

CROSSTABULATIONS ECONOMY

ECO * MAN Crosstabulation

Count

		MAN				
		2.00	3.00	4.00	5.00	Total
ECO	2.00	4	3	1	0	8
	3.00	19	50	22	7	98
	4.00	3	15	19	7	44
	5.00	0	0	1	0	1
Total		26	68	43	14	151

ECO * PER Crosstabulation

Count

		PER				
		2.00	3.00	4.00	5.00	Total
ECO	2.00	1	6	1	0	8
	3.00	2	54	39	3	98
	4.00	0	10	26	8	44
	5.00	0	0	0	1	1
Total		3	70	66	12	151

ECO * MAR Crosstabulation

Count

		MAR				
		2.00	3.00	4.00	5.00	Total
ECO	2.00	4	4	0	0	8
	3.00	5	69	18	6	98
	4.00	0	18	18	8	44
	5.00	0	0	0	1	1
Total		9	91	36	15	151

CROSSTABULATIONS MANAGEMENT

MAN * MAR Crosstabulation

Count

		MAR				
		2.00	3.00	4.00	5.00	Total
MAN	2.00	6	20	0	0	26
	3.00	3	53	12	0	68
	4.00	0	16	19	8	43
	5.00	0	2	5	7	14
Total		9	91	36	15	151

MAN * ECO Crosstabulation

Count

		ECO				
		2.00	3.00	4.00	5.00	Total
MAN	2.00	4	19	3	0	26
	3.00	3	50	15	0	68
	4.00	1	22	19	1	43
	5.00	0	7	7	0	14
Total		8	98	44	1	151

MAN * PER Crosstabulation

Count

		PER				
		2.00	3.00	4.00	5.00	Total
MAN	2.00	2	20	4	0	26
	3.00	1	41	25	1	68
	4.00	0	8	29	6	43
	5.00	0	1	8	5	14
Total		3	70	66	12	151

CROSSTABULATIONS SUPERMARKET PERFORMANCE

PER * MAR Crosstabulation

Count

		MAR				
		2.00	3.00	4.00	5.00	Total
PER	2.00	2	1	0	0	3
	3.00	7	55	8	0	70
	4.00	0	33	23	10	66
	5.00	0	2	5	5	12
Total		9	91	36	15	151

PER * ECO Crosstabulation

Count

		ECO				
		2.00	3.00	4.00	5.00	Total
PER	2.00	1	2	0	0	3
	3.00	6	54	10	0	70
	4.00	1	39	26	0	66
	5.00	0	3	8	1	12
Total		8	98	44	1	151

PER * MAN Crosstabulation

Count

		MAN				
		2.00	3.00	4.00	5.00	Total
PER	2.00	2	1	0	0	3
	3.00	20	41	8	1	70
	4.00	4	25	29	8	66
	5.00	0	1	6	5	12
Total		26	68	43	14	151

CROSSTABULATIONS TYPE OF SUPERMARKET

Type of Supermarket * MAR Crosstabulation

Count

		MAR				
		2.00	3.00	4.00	5.00	Total
Type of Supermarket	Chain	0	15	15	6	35
	Independent	6	51	13	4	74
	Chinese	3	25	8	5	41
Total		9	91	36	15	151

Type of Supermarket * ECO Crosstabulation

Count

		ECO				
		2.00	3.00	4.00	5.00	Total
Type of Supermarket	Chain	0	22	13	1	35
	independent	5	48	21	0	74
	Chinese	3	28	10	0	41
Total		8	98	44	1	151

Type of Supermarket * MAN Crosstabulation

Count

		MAN				
		2.00	3.00	4.00	5.00	Total
Type of Supermarket	Chain	1	11	15	9	35
	independent	15	42	17	0	74
	Chinese	10	15	11	5	41
Total		26	68	43	14	151

Type of Supermarket * PER Crosstabulation

Count

		PER				
		2.00	3.00	4.00	5.00	Total
Type of Supermarket	Chain	0	16	15	5	35
	independent	1	31	39	3	74
	Chinese	2	23	12	4	41
Total		3	70	66	12	151

CROSSTABULATION SIZE OF SUPERMARKET

Square footage of store * MAR Crosstabulation

Count

		MAR				
		2.00	3.00	4.00	5.00	Total
Square footage of store	< 10,000 ft	8	59	4	0	71
	10,000 ft to 20,000 ft	1	31	23	7	62
	> 20,000 ft	0	1	9	8	18
Total		9	91	36	15	151

Square footage of store * ECO Crosstabulation

Count

		ECO				
		2.00	3.00	4.00	5.00	Total
Square footage of store	< 10,000 ft	5	54	12	0	71
	10,000 ft to 20,000 ft	3	39	20	0	62
	> 20,000 ft	0	5	12	1	18
Total		8	98	44	1	151

Square footage of store * MAN Crosstabulation

Count

		MAN				
		2.00	3.00	4.00	5.00	Total
Square footage of store	< 10,000 ft	19	40	11	1	71
	10,000 ft to 20,000 ft	7	27	22	6	62
	> 20,000 ft	0	1	10	7	18
Total		26	68	43	14	151

Square footage of store * PER Crosstabulation

Count

		PER				
		2.00	3.00	4.00	5.00	Total
Square footage of store	< 10,000 ft	1	48	19	3	71
	10,000 ft to 20,000 ft	2	19	38	3	62
	> 20,000 ft	0	3	9	6	18
Total		3	70	66	12	151

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CURRICULUM VITAE

KESTON QUOW

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OBJECTIVE

To make valuable contributions to the world of academia through extensive research, while motivating and empowering students to achieve their career goals in the field of business.

AREAS OF EXPERTISE

- Trade Marketing
- Research
- Business Process Management
- Sales Training
- Sales Management
- Brand Management
- Down Trade Distribution
- Brand Training

KEY ACHIEVEMENTS

- AS Brydens & Sons
- Restructuring of the vans business unit with new policies, procedures and processes which increased profitability.
- Implementation of a fleet policy which drove major cost savings.
- Carib Brewery
- Successful turnaround in a declining three-year sales trend for the Carib Brand.
- Successful launch of an integrated marketing plan for the Carib Great Race 2012 & 2013.
- Red Bull

- A member of the team that executed the first ever Red Bull Flugtag in Trinidad.
- Academic - First Class Honours & Distinction achiever at the B.Sc. and M.Sc. levels.

CAREER SUMMARY
School of Accounting and Management - September 2009 to present
Part-Time Marketing Lecturer

- B.Sc. Anglia Ruskin - International Marketing, Retail Management, Managing Marketing, Economics for Business & Management.
- M.Sc. Anglia Ruskin - Internet Marketing

A.S. Brydens & Sons - 2014 to present
Business Unit Manager – Vans
Key Responsibilities

- Oversee and manage the P&Ls for a business unit through sales, distribution and marketing of a range of categories including, Food, Cold Storage Items, Beverages, and Confections (staff inclusive of salesmen, administrative staff, supervisors, van sales managers and brand managers).
- Manage profitability and efficiency of van routes through strategic route analyses, minimization of leakages and trade specials/promotions.
- Establishing and maintaining key relationships with trade partners to enhance profitability and efficiency of operations.
- Oversee the preparation and execution of strategic brand plans for the Mondelez portfolio of products (Cadbury, Oreo, Tang).

Carib Brewery Ltd - 2011 to 2014
Brand Manager – Carib
Key Responsibilities

- Growing and development of the Company's flagship brand Carib Lager Beer through the implementation of marketing plans and strategies.
- Working with agencies and third party suppliers to ensure the successful advertising, public relations and promotional campaigns
- Directing and interpretation of market research to understand consumption trends, determining the appropriate action necessary to capitalize on findings.

Red Bull International – 2010 to 2011
Distribution Partner Manager – Trinidad & Tobago and Barbados
Key Responsibilities

- Detailed analysis of current market and distributor trends
- Training, motivating and coaching of sales team to ensure the achievement of targets
- Management of pricing and market execution goals in the off premise
- Supervision of sales, merchandising and distribution

West Indian Tobacco (WITCO) - 2006 to 2010

Trade Marketing Executive – Key Accounts (Premium Executive and South Region), Central Territory, Tobago, Acting Duty Free and Ware House Manager

Key Responsibilities

- Developing and implementing territory trade marketing plans.
- Training and motivating the Distributor's sales teams.
- Fostering and maintaining relationships with key customers aimed at adding superior service to their businesses.

Research Analyst (Acting for various periods of 2009)

EDUCATION

University of Montemorelos – Mexico – 2015 to 2019

- PhD. Business Management (Bilingual program)
- Specialization in Retail Management

Arthur Lok Jack, School of Continuing Studies Institute of Business - 2007 to 2009

- M.Sc. Marketing

University of the West Indies - 2003 to 2006

- B.Sc. Management Studies and Economics (Double Major)

Fatima College - 1995-2002

LANGUAGES

- English – Native Language
- Spanish – (Intermediate-lower)

REFERENCES

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