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Abstract

In 2012, South Africans began to experience a revolution in terms of the way they think about food. Respected sports scientist, Professor Tim Noakes came out championing the low carbohydrate high fat (LCHF) diet, also known as the Banting diet, which saw thousands of South Africans converting to an eating lifestyle which promotes high protein consumption and avoidance of carbohydrates.

The main concept and purpose of this particular research study is to investigate the effect on Cape Town's retail environment produced by the Banting diet and the purchasing patterns of those who follow it. The researcher looks at patterns in which carbohydrate consumption has decreased and protein consumption has increased. The study further aimed to examine what effect the Banting diet has had and continues to have on consumer behavior in the grocery sector and how the food retail industry has reacted to the Banting phenomenon.

This study adopts a mixed method research approach. Qualitative and quantitative data will be collected through online questionnaires with individuals currently on the Banting diet and personal interviews with industry professionals from local retailers in Cape Town.

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Research title

The effect on Cape Town's retail environment produced by the Banting diet and the purchasing patterns of those who follow it: a mixed method study.

Background and context of the study

According to Staff (2012), the "Banting" diet has had a profound impact on the South African culture, it in fact became popular in the 19th century by William Banting, who was a well-known English coffin maker and a man of high standing in the community.

He was obese and had tried unsuccessfully to lose weight many times. He then met a Doctor named William Harvey, who recommended a low carbohydrate high fat (LCHF) diet which had amazing results. Hence the "Banting" name has become synonymous with a low carbohydrate high fat diet.

This diet was then rediscovered and "re-invented" by Dr Robert Atkins in 1974 which saw people all over the world converting to the Atkins diet according to Holford (2015).

In 2012, South Africans began to experience a revolution in terms of the way they think about food. Respected sports scientist at the Sports Science Institute of South Africa, Professor Tim Noakes, came out championing the controversial Banting (LCHF) diet. Tim Noakes is a medical doctor who qualified at the University of Cape Town (UCT) and then specialised in exercise science and sports medicine. He is the co-founder of the Sports Science Institute of South Africa. He is an author of seven books, as well as an author or co-author of more than 500 scientific publications in peer reviewed journals (University of Cape Town, 2016). On 1 November 2013 he published his book, *The Real Meal Revolution*, with co-authors Sally-Ann Creed, Jonno Proudfoot and David Grier, which has had a tremendous impact on the South African eating culture with over 200 000 thousand copies being sold. It was the fastest selling cookbook in South African history and was number 1 on the best sellers list for 12 weeks.

The Banting diet has become so popular among South Africans because people lose weight with very little effort required. They can eat a high fat diet, including butter, cream and fatty

red meat as well as a wide variety of other foods as long as they do not eat carbohydrates or sugar. This high fat diet makes food tasty, reduces your appetite, but most importantly people lose weight.

However, according to Sboros (2015) the diet is considered controversial with many opposing voices especially the Dietetics Association of South Africa who has laid charges of unprofessional conduct against Professor Noakes with the Health Professions Council of South Africa over remarks he made on Twitter.

This research study aims to investigate the effect that the Banting diet has had on Capetonians' grocery purchasing patterns in the food industry and determine how this has affected local retailers.

Throughout this research study the terms LCHF (Low Carbs High Fat) and Banting will be used interchangeably.

Problem statement

Based on evidence from my immediate environment and other sources, this problem is worth investigating because the Banting diet has become a very popular way of eating, which has seen thousands of South Africans converting to this way of eating lifestyle. There has also been a surge of Banting-friendly food appearing on restaurant menus and in supermarket chains like Woolworths, Checkers, Spar and Pick 'n Pay. For example, two years ago, consumers would have never seen cauliflower rice or baby marrow spaghetti on supermarket shelves now it is ubiquitous. The outcome of this research study will reveal insights for brands, especially in the FMCG (fast moving consumer goods) industry. The results of this study could potentially inform food produced for the purpose of retail.

If in fact, the results of this research study reveal that Banting has influenced consumer buying patterns, this new way of eating that is growing exponentially around the world and for the purpose of this study in Cape Town.

This could also influence major food producers as they may need to decrease the amount of carbohydrate products they produce every year, and rather deploy resources into more protein- based foods.

Research questions

1. Primary research question

What is the effect of the Tim Noakes Banting diet on Capetonians purchasing patterns?

2. Secondary research questions

To be able to answer the primary research question above, the following secondary questions need to be asked:

- What is the effect that the Banting diet has had and continues to have on consumer behaviour in the grocery sector?
- How has the food retail industry reacted to the Banting phenomenon?

Objectives of this research study

Taking the above into consideration, the following objectives will be explored in this research study:

1. To evaluate the impact that the Banting diet has had on the food industry
2. To explore whether consumers are forcing retailers to provide Banting food
3. Explore the Banting diet and reasons as to why it has become so popular among South Africans

If the outcome of this research study proves that consumer buying patterns have changed due to the Banting diet brands could plan for the future direction with regards to general buying in supermarkets. It will also help plan in the design and preparation of ready-made meals.

Conceptualisation

1. LCHF

Low carbohydrate high fat (preferred term: Banting)

2. Banting

Banting is a low carbohydrate high fat diet named after William Banting. In South Africa Professor Tim Noakes is its biggest champion. Banting philosophy is about a long term sustainable lifestyle, which will lead to steady weight loss as well as increased health benefits.

3. Insulin resistance

A condition in which the body produces insulin but does not use it effectively. According to Professor Tim Noakes (Medicalbrief, 2015) the majority of people are insulin resistant, which is a precursor to diabetes.

4. Diabetes type 2

A nutritional and lifestyle disease associated with insulin resistance. This is the most common form of diabetes. According to Leontis and Hes-Fischl (2015) Type 2 diabetes is linked to lifestyle choices, especially the food that you eat. The person who develops type 2 diabetes is generally overweight (BMI greater than 25) due to unhealthy eating choices. This would be a diet with a high carbohydrate and fat intake.

5. Retail purchasing patterns

The typical manner in which consumers purchase retail goods (Business dictionary, 2016).

6. Carbohydrate resistance

According to Gangemi (2012) carbohydrate intolerance is when a person is unable to metabolise carbohydrates effectively which usually includes gluten containing products or simple sugars.

Research methodology

A mixed method approach was utilised in this research study to determine the effect of the Banting diet on Capetonians grocery purchasing patterns. This was established through the opinions of individuals on the Banting diet and various stakeholders within the food industry to discover whether there is a causal relationship between the Banting diet and Capetonians purchasing patterns.

Brief chapter outline

Chapter 1: Introduction and background to the study

Chapter 2: A discussion and review of relevant literature

Chapter 3: Research design and methodologies

Chapter 4: Research findings, analysis and interpretation

Chapter 5: Conclusion and future recommendations

Conclusion

This chapter discussed the relevance and background to this research topic as well as explained the research problem, research questions and objectives made in order to conduct this research. The following chapter will include various literature relating to the Banting diet and consumer purchasing patterns.

CHAPTER 2: LITERATURE REVIEW

Introduction

This chapter presents current and relevant literature that relates to the Banting diet and consumer purchasing patterns. It focuses on understanding the debate around the diet as a whole as well as provides information about factors affecting consumer behaviour.

Research paradigm and tradition

The research study that will be conducted conforms to a positivist research tradition. Positivism is used to discover casual relationships in order to predict and control events according to du Plooy-Cilliers et al (2014:24). In the case of this research study it will be used to discover whether there is a causal relationship between the Banting diet and consumer grocery purchasing patterns.

Ontologically this study will be approaching a realist view. This means that this study will look at quantitative data i.e. how many people are on the Banting diet? However a nominalist view will be undertaken to understand why this has affected Capetonians grocery purchasing patterns.

Epistemologically this study will look at the hard facts and quantitative data surrounding the Banting phenomenon.

Therefore, because of the stance taken in ontology and epistemologically, the researcher methodologically will be approaching this research with a mixed method study.

Literature review

The primary interest of this literature review will determine the effect of the LCHF Banting diet on Capetonian grocery purchasing patterns.

Overview of the Banting diet

According to Noakes et al (2013, p.15) the Banting philosophy is about a long term sustainable lifestyle, which will lead to steady weight loss as well as increased health benefits. This LCHF diet advocates foods such as meats and poultry, full cream milk, butter, certain nuts and seeds along with green leafy vegetables. Foods that should be avoided are all baked goods and grain based foods (e.g. bread and pasta), seed oils and fats.

It is also worth noting that the Banting revolution in Cape Town has prompted many restaurants to now offer Banting friendly breakfasts, pizzas and desserts. Lewis (2014) claims that since 2014 well known pizza outlets Butlers and Col'cacchio now offer carb free pizzas, where they offer pumpkin and zucchini pizza bases. Another chain to buy into the Banting idea is Kauai which has introduced cauliflower rice to accompany its meals.

However, local retailers took longer to follow this trend, simply by nature of the time required for the product development process. Woolworths, for example, has recently launched the CarbClever range which includes prepared meals with conventional starches replaced with cauliflower or vegetables, cauliflower wraps, Banting crackers and low carb pizzas.

Carbohydrate purchasing trends

Stanford (2015) claimed that the consumer trends indicated a definite decline in purchases across the carbohydrate spectrum. However, this may not be directly linked to the Banting diet.

Between 2011 and 2014 the decline in the carbohydrate purchasing trends are unequivocal. Pasta purchases have decreased by 1.5%, bread purchases have decreased by 0.9%, mealie meal purchases have decreased by 2%, rice purchases have decreased by 1.7% and frozen potato product purchases have decreased by 6%. The graph below (refer to figure 1) illustrates this trend.

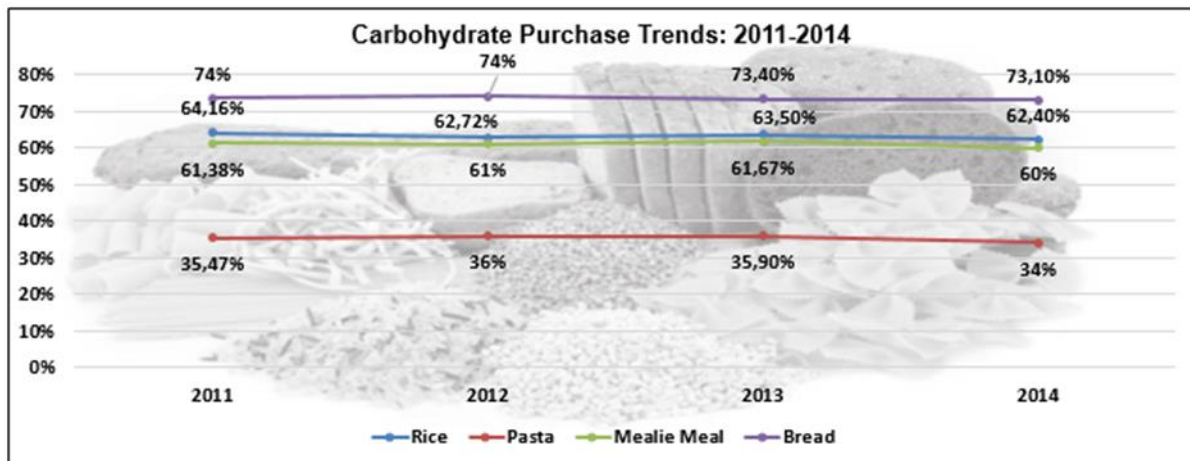


Figure 1: Carbohydrate purchase trends: 2011-2014

According to Stanford (2015), the answer requires more understanding of the industry and market dynamics. Since December 2013 there has been a significant price increase in the domestic grain market. The main factors behind these increases have been the exchange rate as well as the weather conditions in South Africa.

Wheat is the second most important grain crop in South Africa. It is mainly used for human consumption in the form of bread, biscuits, breakfast cereals and pasta.

South Africa's wheat production fell to a 4 year low in 2015, as the lowest rainfall in more than a century damaged the harvest (Mokhema, 2016). Local farmers reaped 18% less wheat than in 2014 which is the smallest harvest since 2011. Local wheat prices have soared to the highest on record, driving up food prices. The most recent GDP figures revealed that the whole agricultural sector had contracted by more than 17% largely because of the effect of the drought. This has already been seen with consumer price inflation of bread and cereals increasing by 4.86 year on year.

The overall decline in sales volumes can be attributed to market dynamics at a production level. The input costs of local producers have increased, which has made South Africa more dependent on imported wheat. From January 2014 to January 2015, there has been a 36% increase in domestic wheat prices, which has had a knock on effect. Brown bread has increased by 8% and white bread by 8%. However, it appears that the Banting trend has mainly had an effect on the higher LSM's.

Debate around the Banting diet

According to Creed (2014), an integrative functional nutritional therapist and author of the best-selling book *“Let Food Be Your Medicine”* and co-author of *The Real Meal Revolution*. She believes that the Banting diet is not a fad and is showing no signs of slowing down. She believes that the Banting diet is the safest and the only way to achieve lasting weight loss and excellent health. It has been studied for 40 years and been ‘around’ for over 200 years as a healthy lifestyle.

However, according to Holford (2015) the Banting diet is dangerous and he believes this diet is not designed for the average South African. He claims it is a specific eating plan, intended for diabetics and those at risk of developing type 2 diabetes whose bodies have lost the ability to control their blood sugar levels. Holford promotes a low Glycaemic Index (GI) approach to healthy eating, where slow releasing carbohydrates are eaten together with nuts and seeds, proteins, fresh fruit and vegetables. He believes the Banting diet is not sustainable in the long term. He cautioned that the Banting diet is extreme and only advised for a short period of time under strict medical supervision.

In support of Holford’s view, a study conducted by the University of Stellenbosch claims that there is no difference between weight loss in people who follow the Banting diet, and those who follow a balanced weight loss diet (Stassen, 2014). 3200 participants were placed either on a LCHF diet or a balanced weight loss diet. The study found that the Banting diet resulted in weight loss by restricting caloric intake. It also showed that the amount of energy consumed by people on the LCHF and balanced diet were similar, and that there was no difference in weight loss. Based on these findings, the Heart and Stroke Foundation of South Africa, the Association for Dietetics in South Africa and other health groups warned the public about the possible health risks associated with Banting.

Professor Tim Noakes conducted his own uncontrolled study where he analysed feedback from 127 individuals who self-reported their weight change following the adoption of a LCHF eating plan according to the South African Medical Journal (2013).

The total combined weight loss was 1900 kg. Despite not being a random controlled clinical trial, successful weight loss was achieved without expensive medical support. Subjects lost weight by following a diet that is opposite of that currently promoted for health, weight loss

and the management of Type 2 diabetes mellitus. 16 subjects reported that the LCHF diet cured one or more of their medical conditions. Another 9 subjects with either Type 1 diabetes mellitus or T2DM reduced medications. 7 subjects reduced their hypertension medication. 8 no longer suffered from irritable bowel syndrome. 27 subjects reported that systems of hunger were reduced or absent. 6 asserted that their results were either “life changing” or “lifesaving”. This data shows that significant and rapid weight loss is possible on an unsupervised eating plan that severely restricts daily carbohydrate intake.

In support of Professor Noakes, in 2015 the Swedish National Board of Health and Welfare concluded that LCHF diets can be seen as compatible with scientific evidence and best practice for weight reduction in overweight patients.

Despite these dramatically opposing views above, in his defence, Tim Noakes himself agrees that this diet is not for everyone and that he has been miss-quoted by the media and misinterpreted by many people. In an interview with health journalist Marika Sboros on 18 February 2015, he states quite clearly that the diet will benefit you if you are insulin resistant, which he believes a lot of people are. Also, if you avoid processed foods, focus on fats and eat real food, your health will benefit.

However, Professor Noakes’ defence is falling on deaf ears as the Banting diet is increasing in popularity.

Consumer psychology

Why has there been this surge in low carbohydrate eating? What is changing consumers buying patterns? To determine the effect of the Banting diet on consumers purchasing patterns the researcher needs to examine the underlying consumer psychology.

There are two major perspectives in consumer psychology that helps one understand consumer behaviour. The first perspective is behaviourism. According to Cummins (2015) this argues that people’s actions, thoughts and feelings are driven by external stimuli i.e. we are convinced to do things because of some outside influence.

The second perspective is the cognitive approach which suggests that people’s behaviours are caused by their own mental processing. Cummins (2015) states that cognitivists do appreciate that external stimuli plays a role, but don’t view it as the most important thing.

From the cognitive perspective, it's the interaction between the external stimuli and your own rational thinking and mental processing that leads one to buying something.

In the case of the Tim Noakes Banting diet Professor Tim Noakes, as a well-known sports scientist in Cape Town would represent the behavioural perspective or the external stimuli. Following the publishing of his very own successful book, the Real Meal Revolution, people were able to read the theory behind the LCHF diet and draw their own conclusions. This would be the cognitive perspective where the rational thinking and mental processing leads one to adopt the diet, and change their way of eating.

Buying behaviour varies from person to person. At different stages of life, preferences change because of age, needs, lifestyle, earning and psychological factors. These factors according to Cummins (2015) can be internal (way of thinking) or external (media or word of mouth publicity)

Ahmed, Seedani, Ahuja and Paryani (2015) claim that there are several factors which pressure buying behaviour namely, cultural, social and psychological influences.

Consumers are also influenced by the broader economic climate. For example, during a recession, consumers tend to shop less or buy fewer luxury goods. However, in the case of the Banting wave, consumers are buying more expensive commodities like butter and bacon, rather than the cheaper alternatives like bread and pasta.

Other sources of influence can be psychological, which can be influenced by different factors, for example, perception, society, beliefs, personality, information choices and communication.

Despite the negativity and warnings from the medical fraternity, Capetonians continue to "Bant", experience health benefits, lose weight and the sales of carbohydrates continue to fall, albeit slowly. With all the recent "hype" around Tim Noakes and the Banting diet, controversial or not, it ensures that the diet remains topical.

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this research study is to explore the Banting diet phenomenon and the influence it has had on consumer buying trends. It is relevant to the branding industry, specifically to dieticians and local grocery retailers in the food industry, so that they can respond to this change in consumer needs.

In order to determine how the Banting diet has affected consumer buying patterns the researcher will need to adopt a mixed method approach. The quantitative data will be used to compare statistics and numerical data, while the qualitative data will be used to interpret the data as well as gather opinions from various consumers on the Banting diet as well as professionals from the food industry.

In this chapter, the following elements will be discussed. The research problem, questions and objectives as well as the methodological process particularly pertaining to the population and sample, research design, data collection and data analysis of this research study.

Research problem

This research study aims to investigate if there is a correlation between the Banting diet and consumer purchasing patterns. In the last couple of years there has been a marked increase in Banting friendly food appearing on supermarket shelves and on restaurant menus. This has been in response to the “Banting fever” that has seen thousands of South Africans changing their way of eating.

The research problem to be investigated is to determine the effect of the Banting diet on Capetonians grocery purchasing patterns.

Research questions

The following are the primary research questions:

- What is the effect of the Tim Noakes Banting diet on Capetonians purchasing patterns?

The following are the secondary research questions:

- What is the effect that the Banting diet has had and continues to have on consumer behaviour in the grocery sector?
- How has the food retail industry reacted to the Banting phenomenon?

Research objectives

Taking the above into consideration, the following objectives will be explored in this research study:

- To evaluate the impact that the Banting diet has had on the food industry
- To explore whether consumers are forcing retailers to provide Banting food
- Explore the Banting diet and reasons as to why it has become so popular among South Africans

Methodology

Methodological orientation

Qualitative research involves researching people's interpretation, understanding and unique points of view on a particular issue. The emphasis is on the quality of information gained to create an in-depth understanding of the research topic.

Qualitative research makes it easier for the researcher to gain a clearer understanding about the research topic, both in more depth and detail. It can also provide the researcher with details about human behaviour, emotion and personality characteristics, which quantitative data cannot. When it comes to data collection, rather than performing a statistical analysis, the researcher will need to look for trends in the data. However, it is not possible to automate qualitative data as effectively as you can automate quantitative therefore making it more time consuming and expensive.

Quantitative research involves research which can be converted into quantifiable data and which can be analysed, predicted and explained to describe trends or the relationship between variables.

Quantitative research allows the researcher to measure and analyse data, where there is a relationship between an independent and a dependent variable. This is advantageous to the researcher because they are more objective about the findings. It is useful for studying large numbers of people and provides precise, quantitative, numerical data. Data collection methods are relatively quick and data analysis is less time consuming than qualitative research.

Therefore, this research study will adopt a mixed method approach with emphasis on the quantitative data. According to Maree (2016:313) a mixed method research can be defined as a procedure for collecting, analysing and combining both qualitative and quantitative data to understand a research problem more completely. In this study, a mixed method approach can be helpful in gaining an in-depth understanding of trends and personal view points. This will explain the relationship among the variables. It will also help in measuring and explaining outcomes in a research study.

Population and sample

Population can be defined as the total group of people from which information is required according to du Plooy-Cilliers et al (2014:132).

Population

i. Unit of analysis

According to du Plooy-Cilliers et al (2009, p. 56) the units of analysis are the smallest elements that can be investigated in order to gather data for your research study.

Therefore, the unit of analysis in this research study would be individuals. This study will look at individuals on the Banting diet.

ii. Target and accessible population

The target population in this research study would be all individuals following the Banting diet that live in Cape Town. However, the accessible population would be individuals following the Banting diet that live in the Southern Suburbs in Cape Town between the ages of 18 and 74.

iii. Population parameters

Du Plooy-Cilliers et al (2014, p.133) states that the population parameters/ characteristics refer to the 'nature, size, and unique characteristics of the population' of your research study, which will be unique to your suggested research study.

Population parameters/ characteristics for this research study include:

- Individuals following the Banting diet
- Individuals living in the Southern Suburbs in Cape Town
- Individuals between the ages of 18 - 74

Sampling

A sample can be defined as a subset of a population that is considered to be representative of the population according to du Plooy-Cilliers et al (2014:135).

i. Type of Sample

There are two main types of sampling, probability and non-probability sampling. Probability sampling refers to whether or not each unit in the population has an equal opportunity to be part of the sample and is most commonly used in quantitative studies. Therefore probability sampling lends itself more to research situations where the researcher wants to draw a sample that fits within the parameters of the research, is drawn randomly from the population, requires little influence from the researcher and leads to generalisable findings.

Non probability sampling is often used when it is nearly impossible to determine who the entire population is or when it is difficult to gain access to the entire population (du Plooy-Cilliers et al, 2014:137).

The type of sampling used in this research study is non probability sampling. Non probability sampling is where the researcher will select their sample from an accessible population according to du Plooy-Cilliers et al (2014: 136). The sample will meet the population parameters of the study and will be selected using the researcher's judgement.

This type of sampling is the most appropriate for this research study because the researcher will select a sample of individuals who are currently on the Banting diet, living in the Southern Suburbs in Cape Town, and aged between 18 - 74 years old. Through this sample, the researcher will be able to make contact with other participants who fit into the parameters.

ii. Sampling method

This research study will make use of purposive and snowball sampling.

Purposive sampling is where the researcher selects the people that they wish to include in their sample, based on a set list of characteristics according to du Plooy-Cilliers et al (2014: 142). They would then look at the population and the research question and determine what characteristics are important for the research. A sample of the population that have these characteristics is then chosen.

The characteristics from the population that are important in this research study would be individuals following the Banting diet, living in the southern suburbs in Cape Town between the ages of 18 - 74. The researcher will select a sample from this population and disregard individuals that do not have these characteristics. The advantage of this sampling method is that the researcher can ensure that each element of the sample will assist with the research because each element fits with the population parameters.

Snowball sampling makes use of referrals to increase the sample size. Participants in the study provide suggestions of others who also fit the population parameters of this study and who could participate in this research. In this research study, in order to gain an in depth understanding of how the Banting diet effects Capetonians grocery purchasing patterns, the researcher would need to make contact with

individuals on the Banting diet that are known to the researcher and gain referrals from those individuals.

iii. Sample size

According to the target and accessible population of this research study, it refers to the accessible population as being individuals following the Banting diet that live in the Southern Suburbs in Cape Town between the ages of 18-74. The sample size of this research study is 164.

Data collection

A short questionnaire will be compiled on google docs containing ten questions and posted on various Southern Suburbs community groups as well as Banting Facebook groups. Before the recipient fills out the questionnaire, the purpose of the study will be clearly explained in the participant consent form. It will be reiterated that this study is purely voluntary, and that those who do not wish to take part, may withdraw. It is also stated that the answers obtained from the participants are held in strict confidence.

An online questionnaire is the most appropriate data collection method for this research because it is relatively quick to collect information and also cost effective according to du Plooy-Cilliers et al (2014:152). In this case, online questionnaires can be useful to researchers as they simplify and quantify responses from participants.

This data collection method will be useful in this research study because researchers can obtain accurate numerical figures to draw conclusions directly from participants.

The types of questions that will appear in this questionnaire are close ended questions as well as open ended questions.

Close ended questions are used in this questionnaire to get specific and well defined responses from respondents i.e. How long have you been on the Banting diet?

Open ended questions will be asked to invite respondents to answer in their own words and give their opinion regarding the topic i.e. how has the Banting diet changed your grocery purchasing patterns? Please refer to Addendum A for an example of the questionnaire.

The researcher also plans to conduct personal interviews with industry professionals from local retailers in Cape Town to determine from their perspectives if consumer buying patterns have changed. The researcher will communicate via telephone or email correspondence to set up an exact time and date when each interview will be conducted.

This data collection method will allow the researcher to pose questions to participants and gain a better understanding about their views and opinions regarding the Banting phenomenon. It will allow the researcher to understand the meaning of participants answers or ask for a more detailed explanation about a certain answer to a specific question.

Reliability, validity and trustworthiness

The terms reliability, validity and trustworthiness are useful terms in a mixed method research study. According to du Plooy-Cilliers et al (2014: 254) the researcher must ensure that the research is reliable, so that other researchers are able to perform the research, under the same conditions and arrive at the same findings. Therefore reliability is about the credibility of the research. If for example, another researcher had to conduct research on consumers regarding the Banting diet, they should find similar findings or trends related to this study.

Research is valid when it measures what it was supposed to measure while also achieving the purpose for which it was designed according to du Plooy-Cilliers et al (2014:256). In order to determine the validity of the research in this study, the researcher can ask, “Do the findings reflect what is happening in the given situation?”

However, because this is a mixed method study, the researcher must make use of trustworthiness. This refers to credibility, transferability, dependability and confirmability of the research.

Conclusion

This chapter discussed the population and sampling techniques that will be used in this research study, highlighting that it was purposive and snowball sampling. It also explained the various research methodologies and explained why a mixed method research approach will be adopted. The next chapter will involve the analysis of the collected data and highlight key findings.

CHAPTER 4: DATA ANALYSIS AND RESEARCH FINDINGS

Introduction

In this chapter the qualitative as well as the quantitative data was analysed in order to determine trends or themes from the research findings. It summarises the research findings and develops key insights into the Banting phenomenon and how that affects consumers grocery purchasing patterns in relation to the research questions discussed in chapter 1:

- What is the effect of the Tim Noakes Banting diet on Capetonians purchasing patterns?
- What is the effect that the Banting diet has had and continues to have on consumer behaviour in the grocery sector?
- How has the food retail industry reacted to the Banting phenomenon?

Data collection

For the purpose of this study, the researcher made use of questionnaires as well as in-depth personal interviews. 164 questionnaires were filled out by various individuals currently on the Banting diet. The link to the questionnaire was posted on various Facebook pages. This included Pinelands 531, Constantia Society, Tokai Community, Sleek Geek SA and Banting Support.

Three personal interviews were also conducted with individuals currently working in the food industry and local retailers that have had first-hand experience with the Banting diet.

The interview lasted approximately 30 minutes and was conducted at a coffee shop in Cape Town and two were done via email correspondence.

Both the questionnaires as well as the in-depth interviews were extremely insightful as they provided diverse and interesting opinions regarding this research study.

Data analysis

Data Analysis techniques

In this study, the researcher will code the data provided by the various participants, as this will make it easier to understand and analyse the content. This allows the researcher to identify all the relevant and meaningful sections and order the information into areas that can be referred to when analysing the data (du Plooy-Cilliers et al, 2014:240).

For this research study, the researcher will make use of selective and thematic coding. Selective coding involves selecting the core or essential codes that closely correspond with the behaviour of individuals currently on the Banting diet. These core codes or concepts could include: individuals living in Cape Town, between the ages of 18 – 74, who are currently on the Banting diet. These parameters can be used as a guiding principle in selecting related concepts.

According to du Plooy-Cilliers et al (2014:241) thematic coding is a process of data reduction by means of identifying common themes. This allows for a common theme to stand out from the data collected, specifically from the literature review, online questionnaire and personal interviews. For this study, thematic coding will be used to highlight themes in the answers given from participants. The researcher will therefore be able to identify the themes and reduce the data collected.

In addition, conversation analysis has been used in this study as another data analysis method. It has been used in interviews with open ended questions. This will provide subjective ideas and opinions on the research topic which will also contribute to a general theory. This qualitative data will be gathered in order to gain a better understanding of the Banting phenomenon and how this has affected consumer's grocery purchasing patterns.

Analysis and interpretation of data

Quantitative study

Table 1: Quantitative data obtained from participants that answered the questionnaire

Question	Category	Number of participants	Percentage (%)
Gender	Male	32	19.5%
	Female	132	80.5%
Age	18 – 24	6	3.7%
	25 – 34	29	17.7%
	35 – 44	37	22.6%
	45 – 54	40	24.4%
	55 – 64	40	24.4%
	65 – 74	10	6.1%
Are you Diabetic?	Yes	10	6.1%
	No	154	93.9%
Have you heard of The Real Meal Revolution?	Yes	160	97.6%
	No	4	2.4%
Have you purchased The Real Meal Revolution?	Yes	122	74.4%
	No	42	25.6%

Qualitative study

Data obtained from the questionnaire

Throughout the questionnaire there were various questions that required the respondents to provide their opinion/ explanation and to expand on their answers. Of the ten questions that were asked, five of them were open ended questions that required a personal response from the participant. According to du Plooy-Cilliers et al (2014:153) open ended questions invite the respondents to answer the question in any way they wish. This can elicit underlying opinions or ideas which the research might not have considered.

Question three asked the respondents if they think the Banting diet is here to stay, and were then asked to explain their view point. Out of 164 respondents, 153 (93%) respondents said 'yes' the Banting diet is here to stay, while 11 (7%) responded 'no'.

The most common themes regarding their reason for their 'yes' answer included:

- It is not a diet, but a lifestyle/ way of life for many
- It is a sustainable lifestyle that can be maintained; other fad diets are very harsh and difficult to follow
- It has a positive effect on weight loss and general health
- The Banting diet relies on real food as it is not a diet where calories are counted or food is weighed.
- It works and has stimulated entrepreneurship

The most common themes regarding their reason for disagreeing with this question included:

- It is currently a fad/ trend for many and will lose its popularity over time
- People enjoy carbohydrates a lot and trying to cut that out of your diet seems unrealistic
- Diets change all the time according to new research and findings
- Not sustainable in the long run
- It is a quick fix and eventually people succumb to carbohydrate pressure
- There is no balance

Question four asked the respondents what made them try the Banting diet. The most common answers for this question included:

- Weight loss
- Health benefits
- Sports and endurance benefits
- Family and friends (word of mouth)
- Doctor
- Easy to follow
- Media coverage
- Popular

Question six asked the respondents how successful has the Banting diet been for you. Out of 164 respondents, 147 (90%) of them said that the Banting diet had been very successful, while 17 (10%) of them said it had been unsuccessful.

The most common reasons for the Banting diet being successful included:

- It resulted in weight loss
- While being on the Banting diet, many respondents have experienced increased health benefits. This included benefits such as reversal of allergies, increased energy levels, quality of sleep and better concentration and productivity

The most common reasons for the Banting diet being unsuccessful included:

- The body starts to crave carbohydrates
- The amount of fat in the diet was too much, resulting in nausea.
- Lost weight, but then gained it all back

Question seven asked the respondents for how long they had been on the Banting diet. The most common answers for this question included:

- A few months
- 1 year
- 2 years
- 3 years

Question ten asked the respondents how the Banting diet has changed their grocery purchasing behaviour. Almost all of the respondents said that the Banting diet had changed their grocery purchasing pattern in some way.

The most common answers to this question included:

- Avoid processed food and anything artificial
- A decrease in carbohydrates (bread, pasta, rice, potatoes)
- Purchase more fresh foods
- Increase in nuts, seeds, olive oil and coconut oil

Data obtained from the personal interviews

The personal interviews that were conducted were qualitative in nature, and required detailed responses from each participant to get their thoughts, feelings and opinions on the research topic. Please refer to addendum B for interview transcripts.

The information below highlights the common themes between the responses.

Question one asked the participants if they think the Banting diet is here to stay. It was noted by two participants that they think the Banting diet is not a fad and is here to stay. They believe that the Banting has started a movement that has changed people's mind-sets in terms of the food they eat and their diet. It was noted by one of the participants that the Banting trend is starting to fade, but she believes that the low carbohydrate trend has become more permanent with regards to health and diet focus.

Question two asked participants whether the Banting diet is still having an impact on certain products. The participants agreed that initially the diet affected certain things like bread and baked goods. Fat free yoghurt and milk sales dropped and according to participant A, it has not actually recovered to where it was before. They have also seen more consumers buying full cream and double cream and believe the Banting diet has introduced more customers to fuller fat variants. It was also noted that from July 2014 to July 2015 cauliflower sales increased by 18.2%.

Question three asked participants whether there is still a demand for Banting options from their customers. The participants agreed that there are more Banting "friendly" options

available in-store and that more and more customers are asking for it specifically, or are just asking for lower carbohydrate options. They believe that Banting has opened consumers eyes and there is now a demand for more health focused options - reduced sugar, carb free, reduced salt, reduced fat. It was also noted that product development is moving towards decreasing the amount of sugar in products as it is healthier and the responsible thing to do as a retailer. It was also highlighted by one of the participants that between March 2015 to February 2016, around 2.6% of the queries received via the Pick 'n Pay Health Hotline were Banting related. Of these, some were requesting more clarity on what the diet entailed, some requested a list of Banting friendly products and a few requested that all Banting products be allocated a specific area in store for ease of shopping.

The next question that was asked, asked participants what Banting ranges their stores offer. The responses included the Carb Clever range which has a broader appeal and is aimed at those on the Banting diet, diabetics or carbohydrate conscious consumers. Then there are products like courgette noodles or cauliflower rice that does not fall into a specific range or brand, but offers an alternative to the customer. It was also noted that Pick 'n Pay does not offer any Banting ranges specifically, but do offer gluten free, lactose free, vegetarian and low fat product ranges to cater to these specific needs.

Question five asked participants whether the Banting diet has influenced how they market their products in store. The participants said that the Banting diet has not had an effect on their marketing communications. It was highlighted in one of the responses that the Banting diet is a very controversial topic, consumers either love it or hate it. When launching a new product or range there always needs to be a balance. Retailers don't want to exclude people by only making it for "banters", they want to try and include as many people as possible.

Question six asked participants how they think the Banting diet has changed people's purchasing patterns with regards to food. It was noted that initially when the diet came out, no one bought bread or fat free products. However, consumers are now selectively cutting out sugar and carbohydrates.

The next question asked one of the participants, in terms of product development, how you decide which trends are going to be around for the long term. In the response it was highlighted that a lot of local retailers look at international trends to see what is happening

in terms of trends i.e. reduced sugar, reduced carbohydrates. Woolworths overseas suppliers that produce their frozen vegetables, have recently launched healthier alternatives like cauliflower rice, cauliflower mash and sweet potato mash.

Findings and insights

Once the data from the questionnaires and personal interviews have been collected, analysed and captured, the researcher can now generate findings that relate and correlate to the research questions which were highlighted in the beginning of this chapter. This is a summary of the key findings noted through the researcher's data collection.

Finding: 93% of the respondents said that they believe the Banting diet is here to stay for the long term.

Insight: The insight gained according to these findings is that the current trends in terms of carbohydrate and protein purchases are here to stay; and that it is going to reconfigure the way local retailers organise their retail space.

Finding: from the data collected from the questionnaire, it was made evident that 93.9% of the respondents currently on the Banting diet are not diabetic.

Insight: there will be a decrease in high sugar products and consequently an increase in sugar free substitutes.

Finding: Almost all of the respondents (95%) said that their purchasing patterns have changed since following/ hearing about the Banting diet.

Insight: local retailers will have to pay attention to the above finding to keep up to date with consumer trends and how their demands are changing.

Finding: retailers are hesitant to market their products explicitly for the Banting diet, however they have evolved their product range to include Banting friendly products.

Insight: the Banting diet might still be too controversial for retailers. However, there is nothing wrong with making Banting friendly food available.

Conclusion

Coding and conversational analysis was used by the researcher to analyse the data. The researcher also made use of an online questionnaire and personal interviews that gathered important findings and insights to answer the research questions set out in chapter 1. In the next chapter, the researcher concludes the study and identifies any limitations and ethical considerations with regard to this study.

CHAPTER 5: CONCLUSIONS

Introduction

In this chapter, concluding remarks will be made about the research in its entirety. The research questions will be answered based on the previously mentioned findings and literature, enabling a beneficial platform for concluding remarks. This chapter will also focus on providing ethical considerations and limitations with regard to this study.

According to the literature review, there are many opposing views regarding the diet. Creed believes that the Banting diet is not a fad, as it has been around for over 200 years as a way to achieve and maintain a healthy lifestyle. According to the research, 93% of the respondents agreed with Creed and believe that the Banting diet is here to stay for the long term. Consumers believe it is not a diet, but rather a healthy lifestyle that is sustainable. It relies on real food, it is easy to follow and has a positive effect on weight loss. According to the personal interviews, all respondents believe that the diet has started a movement that has changed people's mind-sets in terms of the food that they eat.

However, Holford maintains that the diet is dangerous and extreme and is not sustainable for the average South African. From the research it was made evident that 7% of respondents believe that the Banting diet is a fad and is not sustainable for the long term. Many believe it will lose its popularity and cutting out carbohydrates completely from ones diet seems unrealistic.

According to the research obtained from the online questionnaire, almost all of the respondents said that the Banting diet had changed their grocery purchasing patterns in some way. From the questionnaire it was made clear that consumers now avoid processed foods, carbohydrates and anything seen to be 'artificial'. There also seems to be an increase in the purchasing of fresh produce, nuts, seeds and coconut oil. It was also highlighted by the personal interviews, that when the Banting diet initially was launched, there was a definite decrease in the purchases of bread, baked goods and low fat products. However, consumers are now selectively cutting out sugar and carbohydrates.

Based on the literature review it can be seen that the Banting diet has prompted many restaurants to now offer foods that cater for consumers on the Banting diet. Popular pizza outlets, Butlers and Col'cacchio, now offer carb free pizza, such as pumpkin and zucchini

pizza bases. Another chain to buy into the Banting idea was Kauai which has introduced cauliflower rice to accompany its meals.

However, according to the data collected from the personal interviews, all respondents said that their respective stores do not carry Banting specific ranges. This is because a Banting specific range is too limiting, and when launching a new product or range into the market, there needs to be a balance, retailers want to include as many people as possible. The Banting way of eating is also a very controversial topic among many consumers who either support the eating plan or don't.

While local retailers do not have any Banting specific ranges, they do carry products that would be suitable for an individual on the diet like cauliflower, kale and full cream products.

Woolworths has a CarbClever range which is aimed at diabetics and carbohydrate conscious consumers. This range is not directly aimed at individuals on the Banting diet, but would be suitable for them to eat.

It is also worth noting that both respondents agreed that the diet did not influence their marketing communication efforts in-store.

Ethical considerations

The importance of ethical guidelines in educational research is imperative since the research study at hand involves individuals. The researcher will adhere to the following ethical guidelines, to ensure that the participants of this study are not placed at risk in any way by participating in this study:

- Voluntary participants must be obtained from the outset. Participants in this study will know what they are taking part in, and will be formally informed about what this research study entails. Before participants can take part in the study, a consent form will be provided before they can proceed with either answering the online questionnaire or participating in the personal interview. Participants will understand what is required from them during their participation, how their identities will be protected and how the results will be used.
- When collecting data from participants, the researcher will prioritise their physical and psychological comfort. This implies that the researcher will inform all participants how

their individual identities will remain anonymous, or sensitive personal information will be protected.

- Transparency will be provided by the researcher in terms of informing participants of the purpose of the research study, the procedures that will be followed and their rights in terms of their participation.
- The researcher will avoid personal bias.
- The researcher will not falsify any information, distort results, or use any inappropriate research methods.
- Adhere to the ethical guidelines specified by the IIE.

Please refer to addendum D to see Ethical Clearance documentation

Limitations and delimitations

According to du Plooy-Cilliers (2014: 275) limitations can be described as constraints or limits in the research study that are out of the researcher's control, or are just not feasible. Clearly identified limitations guide the researcher in the reporting of findings, and supports the reliability and validity of research findings within the scope of the study. One of the limitations encountered in this research study is accessibility. This study is based in Cape Town so therefore it only looks at 164 Capetonians that are on the Banting diet and how it has affected their purchasing patterns.

According to du Plooy-Cilliers (2014: 276) delimitations can result from very specific and definite choices the researcher makes, when he or she decides on the scope of a particular research study. Delimitations are the parameters that the researcher sets. In this study the researcher chose to only obtain data, attitudes and opinions from consumers that live in Cape Town, who are currently on the Banting diet, and between the ages of 18 – 74. Additionally, this study did not focus on other theories previously recognised by Tim Noakes i.e. carbo-loading

Reliability, validity and trustworthiness

Reliability is another important aspect of a quantitative research study. This is because it is imperative that the same results would be achieved by a different researcher, in order for the study to be considered accurate. Reliability will be obtained throughout this study through continuous data scrutiny, so that there is an elimination of any potential errors in analysis. Through ensuring the study is as impartial and precise as possible, reliability will be evident throughout. This research study will be reliable because the researcher would have interviewed highly relevant stakeholders and agents i.e. those doing the Banting diet.

Validity will be present within this research study. The focus of the research design and question, will ensure that all information collected and measured is relevant in terms of the aim of the study. Through constructing and undertaking the study with consistent consideration of the final aims, the purpose and outcomes will remain effective and valid, so that conclusions will be useful. Validity is crucial when utilising a quantitative research study, as results cannot be accurately concluded without cogency of data collected and analysed, according to du Plooy-Cilliers (2014:256). When this research study is complete, it will be of great value for any person who is in the retail grocery environment in South Africa. It will also benefit those with an interest in consumer behaviour in South Africa. This research study adds great value and is very valid, as it will give very revealing insights into the way the Banting trend is affecting consumer purchasing decisions in the South African retail context.

Due to this research study making use of both quantitative and qualitative research methods, a consideration of trustworthiness also needs to occur, according to du Plooy-Cilliers et al (2014, p: 258). Trustworthiness refers to the integrity of the research study in terms of its credibility, transferability, dependability and confirmability. These aspects are relevant to the proposed research study with regards to the answers given by participants, which will be analysed in order to reach conclusions. Due to the fickleness of consumer trends, some trends become permanent, and others, not. According to the research conducted, the Banting trend is here to stay, because it is a rising trend among consumers in

South Africa and it has become more socially acceptable among individuals. The researcher can therefore deem this study trustworthy.

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ANNEXURE A: EXAMPLE OF QUESTIONNAIRE

1. Gender:
 - ☐ Male
 - ☐ female
 - ☐ Other

2. Age
 - ☐ 18 – 24
 - ☐ 25 – 34
 - ☐ 35 – 44
 - ☐ 45 – 54
 - ☐ 65 – 74
 - ☐ 75 and older

3. Do you think the Banting diet is here to stay?

4. What made you try the Banting diet?

5. Are you diabetic:
 - ☐ Yes
 - ☐ No

6. How successful has the Banting diet been for you?

7. How long have you been on the Banting diet?

8. Have you heard of The Real Meal Revolution?
 - ☐ Yes
 - ☐ No

9. Have you purchased The Real Meal Revolution?
 - ☐ Yes
 - ☐ No

10. How has the Banting diet changed your purchasing behaviour?

ANNEXURE B: INTERVIEW TRANSCRIPT

Interviewer: Michaela Batchelor

Interviewee: Respondent A

Interview setting: Coffee shop in Cape Town

(Start of interview)

Interviewer: So the first question I have is in your opinion do you think the Banting diet is here to stay?

Interviewee: I think, maybe not necessarily strict Banting, but I think it it's kind of started a movement that is more permanent. So, I think its changed peoples mind sets a little bit. I think when it initially came out it was a like massive thing, it wasn't a fad in that it was going to disappear quickly, um, but I think in some form or another whether it's Banting whether its low carb, whether its reduced sugar or no sugar, I think it's definitely here to stay for a long time.

Interviewer: I know when it came out it affected sales of certain products, is it still having an impact on products?

Interviewee: when it came out it affected bread it obviously affected bread and all of that. I think it may have tapered off a little bit and people have gone back so when it originally came out there was definitely a decrease in things like bread especially, the bakery struggled and also think things like yoghurt and milk. Fat free yoghurt sales dropped and fat free milk and I don't think it has actually ever recovered to where it was before. So fat free kind of dropped off, but has come back a little bit, but at the same time there are more people that are buying full cream and double cream. So it has stabilised a bit, but I think it has introduced more customers to the fuller fat variants.

Interviewer: Has the Banting diet affected sales of certain products?

Interviewee: I think things like cilium husk and coconut flour that is definitely still popular. I think especially in retail a lot of retailers are scared when something comes out like Banting. They don't want to commit because they might think it's a fad. So a lot of them will wait a little longer to see if it sticks around. So you are seeing a lot more of it now where smaller

companies are launching seed crackers and low carb bread. So I think they actually do see that it is here to stay. Your bigger retailers are now also moving and venturing into that and there are more and more options like coconut flour, coconut oil, cilium husk and all of that.

Interviewer: Is there still a demand for Banting options from your customers?

Interviewee: Yes, absolutely. There is more and more available and more customers asking for it. We get a lot of customer feedback, we do a lot of focus groups and research with customers and it's still a thing that a lot of customers are specifically asking for or are just asking for lower carb options. What Banting has done is, it has opened everyone's eyes to sugar specifically, whereas not everyone is completely 100 percent Banting they might be looking for lower sugar options. A lot of product development is going that way also because it is healthier and it is the responsible thing to do as a retailer to decrease the amount of sugar in products. I think the Banting trend has kick started that and customers are now kind of asking for it more and more.

Interviewer: what Banting friendly Ranges do Woolworths offer?

Interviewee: there is Carb Clever which is specifically aimed at Banting or carb conscious consumers as they say. There is also reduced sugar ranges or sugar free ranges. So recently there has been a launch of sugar-free chocolate and if I'm not mistaken I don't think they are branded under Carb Clever. Some people may also find that they don't want to be associated with that brand but they also want to cut out sugar so it will just be marketed as a no added sugar chocolate. The Carb Clever range has a broader appeal, it can appeal to diabetics, because legally you can't really market something as diabetic friendly as it goes against the food labelling laws. But diabetics know what to look out for and they know if there is not a lot of carbohydrates there won't be a lot of sugar so they know what ranges to look out for. There is no added sugar products, Carb Clever and there are lot of products that don't sit in a brand or a sub brand but they will have reduced sugar. This is easier for consumers to identify in-store as Woolworths now put flash stickers on their products saying 25% less sugar. Then there are products like the courgette noodles that don't fall under any brand but would offer an alternative to that customer. There are more and more product launches, it does not look like it is slowing down it is becoming more and more

available. For example you now get the mixes of cauliflower rice and broccoli rice. Even things like kale, it has always been around, it is not like a special product that was formulated for Banting or Tim Noakes but it is flying off the shelves and you will see the price has increased because there is a higher demand for it from consumers.

Interview: Has Banting influenced how you market your products in store?

Interviewee: With regards to labelling, there is always a big discussion around whether it should just be marketed at just Banting or not. Banting is a very polarizing subject as people either love it or hate it and have very strong opinions about it either way. I think the idea is not to polarize. So that's why I think the Carb Clever range is a clever brand because it's not just for people on the Banting diet. For example if you go to Dis-Chem or the Wellness Warehouse they have products made by the "Banting food Company", which is very specific whereas Carb Clever is just saying it is a cleverer way of replacing your carbs and it is not aimed directly at Banters. I know a lot of people especially mothers and people who are health conscious that do not believe in the fat side of Banting so the animal fats, saturated fats but do you believe in low carbs and the no sugar side of it. So they don't want to associate with all the brand values of Banting but only with certain parts of it. There always needs to be a balance when launching a new product. You don't want to exclude people you want to try and include as many people as possible.

Interviewer: In your opinion how do you think the Banting diet has changed people's purchasing patterns with regards to food?

Interviewee: I think initially there was a big reaction and no one bought bread, and no one bought fat free things and now people are more selectively Banting. People are selectively cutting out sugar and carbs and I think it also depends on your family environment because some people still want carbohydrates and the regular chips and the regular crackers and some people want the Banting crackers. I actually just saw an interesting thing today I don't know if it has been launched yet, but it is a selection pack of crackers I think it's for Christmas and it has like regular cream crackers and there is also Banting seed crackers so it caters for everyone. I have only seen strictly Carb Clever by itself and this is the first time that I have seen it actually included in a selection pack. Generally if you are going to have a party there is going to be someone in your crowd of friends that is Banting or that isn't

eating carbs so that is quite a smart thing and it is becoming more socially acceptable when you go out to dinner one of your friends is going to not want carbs so people are changing. It is interesting to see how the Banting diet has changed and developed and how different people catch on to it differently. Just in terms of product development in retail it takes a long time, up to 1 year to develop a product, you have to be quick to catch on but there is also a whole lot of money that goes into new processes and sometimes new equipment and ingredients is needed. So it is an expensive thing to do. People are sometimes hesitant that it is just going to be a fad for example like the grapefruit diet people don't want to put too much into it but at the same time they want to be quick to react and they don't want to be the last people to launch a cracker or whatever it might be. I think it's tricky to be able to tell which fads are here to stay and which are not.

Interviewer: In terms of product development how do you decide which trends are going to stick around?

Interviewee: I think a lot of the time we look at international trends, I think the whole Tim Noakes thing is very specific to Cape Town and originally it was just Cape Town like people in Durban did not know what Banting was and then obviously it expanded. if you look at international trends they are also moving in to reduce sugar, reduced carbs maybe not in the same way, But even looking at some of our overseas suppliers that do some of our frozen vegetables and things they launched a cauliflower rice and they launched a cauliflower mash or a sweet potato mash so alternatives So I think you can kind of see that it's not just an isolated thing. I think you have to wait around long enough, you can't take a risk upfront you need to see how much legs it's got basically.

Interview transcript

Interviewer: Michaela Batchelor

Interviewee: Respondent B

Interviewer: In your opinion do you think the Banting diet is here to stay?

Interviewee: There will always be a number of different fad diets that the public will follow and the high protein, high fat diet has been popular for a long time. I think that the South African public enjoys the high protein, high fat way of eating, so yes, it is probably here to stay, perhaps until people realise the negative impact it is likely to have on their long term health.

Interviewer: Has the Banting diet affected sales of certain products?

Interviewee: As a prominent Banting product, we have received similar queries on cauliflower specifically in the past. From July 2014 to July 2015 our cauliflower sales increased by 18.2%.

Interviewer: Is there a demand for more Banting friendly options from your consumers?

Interviewee: Pick n Pay employs the services of a registered dietician to provide nutrition and health advice to customers via the health hotline. Between the period of 1 March 2015 to 28 Feb 2016, around 2.6% of the queries received via the Pick n Pay Health Hotline were Banting related. Of these, some were requesting more clarity on what the diet entailed, some requested a list of Banting-friendly products from Pick n Pay and a few requested that all Banting products be allocated a specific area in store for ease of shopping.

Interviewer: Does Pick n Pay offer any Banting friendly ranges?

Interviewee: Pick n Pay offers a wide range of products to suit a variety of people and their individual needs. Our gluten free, lactose free, vegetarian and low fat product ranges are examples of how we cater for specific needs. Pick n Pay also sells products which can be included as part of typical High Fat Low Carb (HFLC) eating plans for customers who choose to follow these diets. Examples include free-range meat, fish, eggs, vegetables, nuts as well as nut butter, nut oil, as well as a wide range of organic products.

Interviewer: Has the Banting diet influenced how you market your products?

Interviewer: This trend has not influenced our marketing communications

Interview transcript

Interviewer: Michaela Batchelor

Interviewee: Respondent C

Interviewer: In your opinion do you think the Banting diet is here to stay?

Interviewee: The Banting trend is starting to fade and I do not believe it is here to stay. I do believe the low carb trend has become more permanent with regards to health and diet focus but the Banting has declined and we don't hear much about it anymore- like we use to.

Interviewer: Has the Banting diet affected sales of certain products?

Interviewee: Yes, when we launched Banting, the trend was huge and sales all round were good on Banting, creating more of a Demand for more Banting/ carb free options. The trend has defiantly made shoppers more aware of what they are buying and eating. Sales on carb free products really improved.

Interviewer: Is there a demand for more Banting friendly options from your consumers?

Interviewee: There is now a demand on more health focused options, not so much Banting but health conscious- reduced sugar, carb free, reduced salt, reduced fat

Interviewer: Has the Banting diet influenced how you market your products?

Interviewee: Yes, to a point. We flash the fact that it is carb clever and it is also branded in on the label

Interviewer: In your opinion what effect has the Banting diet had on consumer purchasing patterns?

Interviewee: Consumers are a lot healthier or health focused. They read the back of labels more carefully and are more aware of how they shop. They plan their shop ahead with their weekly meals. They really purchase or buy into the health options available.

ANNEXURE C: PARTICIPANT CONSENT FORM

Participant consent form

Title of study: To determine the effect of the Tim Noakes Banting diet on Capetonians grocery purchasing patterns: a mixed method study.

Name of researcher: Michaela Batchelor

Dear participant,

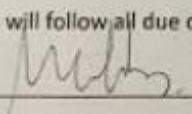
This study is conducted by Michaela Batchelor, a BA honours student, studying at Vega School of Brand Leadership. The purpose of this study is to investigate whether consumer purchasing patterns have changed due to the Banting diet.

As an ethical researcher, I am mindful that all participants need to be ethically protected. Personal identities will remain anonymous and personal opinions will only be used for the purpose of this research study. All information gathered in this study will be held in strict confidence and only the researcher will have access to the original data. The results will only be retained for as long as required for the purpose of this research study

I have read the information presented to me in a language that I understand and I understand the implications of participating in this study. The context and meaning of this information has been explained to me. I understand that I am under no obligation to participate in this study and that I can withdraw from this study at any stage without having to provide an explanation. I hereby volunteer to take part in this study.

Please fill in the following below:

I, Megan Gibbons give my consent that the researcher may use my responses/ opinions as part of his/ her data. I understand that the researcher will follow all due diligence in protecting this agreement.

Signature: 

Date: 07/10/16

ANNEXURE D: ETHICAL CLEARANCE DOCUMENTATION



ETHICAL CLEARANCE CONSENT FORM

No research may be carried out by any student or staff member; or independent contractor or person associated with The Independent Institute of Education (The IIE) that will be associated with The Independent Institute of Education; or that involves in any way, The Independent Institute of Education; without formal ethical clearance to conduct the research having been obtained.

The process is similar for students registered on IIE qualifications or for researchers wishing to conduct research on, or at The IIE.

In order to get consent to do research associated with or on or at The IIE the following need to be submitted to the R&D Manager via the appropriate academic (normally your supervisor for internal students) or the designated academic manager at your brand if you are associated with a site and not a registered student of The IIE or the Academic Manager if you are employed in the Central Academic Team (CAT).

Please submit the following:

	Please tick
Proposal — select one:	
IIE and other registered students: Proposal as approved by supervisor with a declaration in relation to the status of the proposal at your institution where you are a student, if you are a student.	X
Research by internal people who are not students: Proposal as approved by your designated academic manager or the CAT Academic Manager if you are not a student but are directly associated with The IIE.	
External researchers who are not students: Formal research proposal plus full details of the sponsoring body.	
Ethical clearance application form: Please check that all sections are complete and that the form has been signed by the person who will supervise your research and by the designated academic manager where required. If you are a student <u>and</u> you are working or you are otherwise associated with The IIE and its campuses; your form needs to be signed by both the designated manager and your institutional supervisor. If you are an external researcher the form also needs to be signed by a senior manager at the sponsoring organisation.	
Participant consent form: Example of participant consent form (where applicable). The original signed forms have to be provided to the supervisor after permission is granted.	

1. Identifying information

Name:	Michaela
Surname:	Batchelor
Student number:	12021392
Institution where registered:	Vega (Cape Town)
Qualification:	BA Honours in Strategic Brand Communication
Year in which you would like to conduct research:	2016
Year in which you aim to graduate:	2016
Contact Number:	078 99 38 114
E-Mail Address:	Michaela.batchelor21@gmail.com

2. Supervisor's Name and Contact Details

Name and surname and designation:	Alexander Sudheim
Contact telephone number:	
Contact e-mail address:	alexandersudheim@googlemail.com
Signature confirming that this form is being submitted with Supervisor's consent and signifying that the information submitted is accurate:	
Date of signature:	24 October 2016

3. Designated academic manager's details (if applicable)

Name and surname and designation:	
Contact telephone number:	
Contact e-mail address:	
Signature confirming that this form is being submitted with Academic Manager's consent and signifying that the information submitted is accurate:	
Date of signature:	

4. Designated manager of sponsoring organisation (if applicable)

Name and surname and designation:	
Contact telephone number:	
Contact e-mail address:	
Signature confirming that this form is being submitted with Manager's consent and signifying that the information submitted is accurate:	
Date of signature:	

5. Title of Research

The effect on cape town's retail environment produced by the banting diet and the purchasing patterns of those who follow it: a mixed method study.

6. Proposal:

If this information is contained in your attached research proposal please reference the page; if not please provide full detail.

6.1 Abstract – no more than 250 words

The topic of this research proposal is to determine the effect of the Banting diet on Capetonians buying patterns in the food industry from January 2011 to January 2016 and determine how this has affected local retailers.

The following objectives will be explored in this research study:

1. To evaluate the impact the banting diet has had on the food industry
2. To explore whether consumers are forcing retailers to provide banting food
3. Explore the banting diet and reasons as to why it has become so popular among South Africans

6.2 Research Aims/ Goals/ Objectives

When I have figured out what the answer would be, the objective of this research study would be to explore the effect that the Banting diet has had on Capetonians buying patterns in the food industry from January 2011 to January 2016 and determine how this has affected local retailers.

The following objectives will be explored in this research study:

1. To evaluate the impact the banting diet has had on the food industry
2. To explore whether consumers are forcing retailers to provide banting food
3. Explore the banting diet and reasons as to why it has become so popular among South Africans

From the answers of the objectives above, I will be able to determine whether the Banting has indeed had an affect or not.

The results of this study could have profound effects on the retail food production and supply sector. If in fact, the results of this research study reveal that "banting"

has influenced Capetonians buying patterns, this new way of eating, that is growing exponentially could be here to stay.

This could also influence major food producers as they may need to decrease the amount of carbohydrate products they produce every year, and rather deploy resources into more protein based foods.

6.3 Methodology

A short questionnaire will be compiled on google docs containing ten questions and posted on various Southern Suburbs community groups as well as Banting Facebook groups. Before the recipient fills out the questionnaire, the purpose of the study will be clearly explained in the participant consent form. It will be reiterated that this study is purely voluntary, and that those who do not wish to take part, may withdraw. It is also stated that the answers obtained from the participants are held in strict confidence.

An online questionnaire is the most appropriate data collection method for this research because it is relatively quick to collect information and also cost effective according to du Plooy-Cilliers et al (2014:152). In this case, online questionnaires can be useful to researchers as they simplify and quantify responses from participants.

This data collection method will be useful in this research study because researchers can obtain accurate numerical figures to draw conclusions directly from participants.

The types of questions that will appear in this questionnaire are close ended questions as well as open ended questions.

Close ended questions are used in this questionnaire to get specific and well defined responses from respondents i.e. How long have you been on the Banting diet?

Open ended questions will be asked to invite respondents to answer in their own words and give their opinion regarding the topic i.e. How has the Banting diet changed your grocery purchasing patterns? Please see addendum A for the question outline.

The researcher also plans to conduct personal interviews with industry professionals from local retailers in Cape Town to determine from their perspectives if consumer buying patterns have changed. The researcher will communicate via telephone or email correspondence to set up an exact time and date when each interview will be conducted.

This data collection method will allow the researcher to pose questions to participants and gain a better understanding about their views and opinions regarding the Banting phenomenon. It will allow the researcher to understand the meaning of participants answers or ask for a more detailed explanation about a certain answer to a specific question.

6.4 Ethical considerations

Ethical considerations

The importance of ethical guidelines in educational research is important since the research study at hand involves individuals. The researcher, will adhere to the following ethical guidelines to ensure that the participants of this study are not placed at risk in any way by participating in this study:

- Voluntary participants must be obtained from the outset. Participants in this study will know what they are taking part in and will be formally informed about what this research study entails. Before participants can take part in the study, a consent form will be provided before they can proceed with either answering the online questionnaire or participating in the personal interview. Participants will understand what is required from them during their participation, how their identities will be protected and how the results will be used.
- When collecting data from participants, the researcher will prioritise their physical and psychological comfort. This implies that the researcher will inform all participants how their individual identities will remain anonymous or sensitive personal information will be protected.

- Transparency will be provided by the researcher in terms of informing participants of the purpose of the research study, the procedures that will be followed and their rights in terms of their participation.
- The researcher will avoid personal bias
- The researcher will not falsify any information, distort results or use any inappropriate research methods.
- Adhere to the ethical guidelines specified by the IIE.

6.5 Research impact on people and or brand/IIE CAT (directly as participants or in terms of the use of their data or conducting research in their environment):

If your research involves anything other than investigation of publicly available information or data or documents please detail this and the steps you are taking or will take to protect the rights of people involved. Please detail measures to avoid harm and to gain informed consent.

None

7. Particular elements of study:

Please indicate which of these apply.	Yes	No
Literature survey of an environment with no interaction with participants. Use of artefacts for data collection.		
Observation of an environment with no interaction with participants and no manipulation of the environment.		
Observation of an environment with no interaction with participants and with manipulation of the environment.		
Data is collected about individual participants but they are taken from existing available records (e.g. an existing report or student record).		
Data is collected about groups but they are taken from available records (e.g. an existing report) and will only be reported at the group level.		
General and/ or personal information required to be collected <i>de novo</i> from participants through interviews, surveys, questionnaires, observation, etc.	Yes	
Collecting information from participants via an existing validated and approved test instruments (e.g. an approved psychometric test).		
Collecting information from participants via an invalidated test instrument.		

8. Description of participants:

Please detail the age, demographics and context of the participants. The IIE will not normally give consent for the involvement of persons who are under the age of 18 or who are vulnerable (physically, socially, mentally or psychologically) unless you are an experienced researcher with a proven track record of conducting research involving participants from these groups. You are thus encouraged to provide such evidence if your participants could be deemed to be vulnerable or under the age of 18.

In all instances informed consent would be required:

This study will look at individuals (male and female) living in Cape Town between the ages of 18 – 74.

9. Please describe the impact that your research may have on participants and or the brand/IIE CAT – positive or negative and the measures you will have in place to reduce the risk of harm.

None

10. **Only Masters and Doctoral students need to complete Section 10**

You will need to carry out a SABINET and NRF search to check that your topic has not been registered previously. You must confirm that such a search has been carried out by providing the following information.

I have conducted a SABINET and NRF Search

Yes

No

Date of search conducted:

Keywords used:

11. **Declaration on Ethical Conduct in Research**

I have read and understand the requirements laid out in the ethical clearance form as well as the Code of Ethics (see below) as extracted from The IIE Research Policy (IIE007) and commit to observe and uphold the principles of this Code in all aspects of the research work carried out in association with The IIE.

I confirm that all the information I have provided to enable The IIE to make a decision about my research is honest, complete and accurate and that I have not withheld any information that may adversely influence the decision.

I confirm that I will not hold The IIE liable for any action taken against me in relation to this research and its impacts and I take full legal and moral responsibility for the research and its impact.

Research Code of Ethics:

Researchers are required to:

- Familiarise themselves with ethics guidelines and observe such guidelines throughout their projects;
- Accept that they are ethically accountable for honesty, objectivity and integrity of carrying out and reporting on their research;
- Strive to conduct research of a high standard;
- Always clearly indicate the limitations of their work to provide perspective of the validity of their data and reports;
- Ensure that data is not falsified, misinterpreted, fabricating, misrepresented or changed;
- Ensure that data is collected in a manner that will not affect its validity and make known any aspects of their project that might have affected such validity of their data;
- Disclose their methodologies and processes in a transparent manner to uphold its integrity;
- Keep data safely and securely for a period of three years and produce this in support of other researchers' work or to confirm the authenticity of a project, in consideration of any agreement(s) with individuals who were part of the sample group;
- Recognise sources of information by accurately and appropriately referencing such sources and respecting the copyrights of all reference work and sources;
- Recognise fellow workers and co-workers who are part of the project;
- Be considerate and professional in dealing with individuals and sample groups, respecting their right to refuse to participate and the rights to their privacy;
- Accept responsibility to ensure that data with personal particulars of individuals and sample groups must be secured, in particular, when it is in digital format;
- Avoid placing the safety or security of participants at risk through any research that is conducted;

- Demonstrate commitment to sharing knowledge, disseminating the results of research work in an appropriate manner;
- Retain objectivity to prevent bias throughout any research project;
- Adhere to the conventions associated with publication which includes only submitting to one publisher at a time and always citing where papers have been used before.

RESEARCHER

Full name: Michaela Batchelor

Identity number: 9406210080081

Signature:

Date: 24 October 2016

WITNESS

Full name: Alison Cohen

Identity number: 5903060016086

Signature:

Date: 24 October 2016

WITNESS

Full name: Len Cohen

Identity number: 4811035039086

Signature:

Date: 24 October 2016

Please note: You may not proceed with the research until you have written confirmation of approval of your study from the Postgraduate Committee of the IIE.