**Student Name:** James Matthews  
**Student Number:** St20005200

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module Number &amp; Title:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSP6050 Independent Project</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Original Submission Date:</th>
<th>19 March 2015</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date extension requested:</th>
<th>13th March 2015</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Programme Director:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Greg Dainty</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date agreed by PD:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>13th March 2015</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New Submission Date:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16th April 2015</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** A completed copy of this form must be attached to your dissertation. Both dissertation and form must be submitted by the ‘new submission date’. Failure to do so will result in a maximum mark of 40% as a second attempt.

Cardiff School of Sport
**Dissertation Assessment Proforma:**

<table>
<thead>
<tr>
<th>Section</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title and Abstract (5%)</strong></td>
<td></td>
</tr>
<tr>
<td>Title to include: A concise indication of the research question/problem.</td>
<td></td>
</tr>
<tr>
<td>Abstract to include: A concise summary of the empirical study undertaken.</td>
<td></td>
</tr>
<tr>
<td><strong>Introduction and literature review (25%)</strong></td>
<td></td>
</tr>
<tr>
<td>To include: outline of context (theoretical/conceptual/applied) for the question; analysis of findings of previous related research including gaps in the literature and relevant contributions; logical flow to, and clear presentation of the research problem/question; an indication of any research expectations, (i.e., hypotheses if applicable).</td>
<td></td>
</tr>
<tr>
<td><strong>Methods and Research Design (15%)</strong></td>
<td></td>
</tr>
<tr>
<td>To include: details of the research design and justification for the methods applied; participant details; comprehensive replicable protocol.</td>
<td></td>
</tr>
<tr>
<td><strong>Results and Analysis (15%)</strong></td>
<td></td>
</tr>
<tr>
<td>To include: description and justification of data treatment/data analysis procedures; appropriate presentation of analysed data within text and in tables or figures; description of critical findings.</td>
<td></td>
</tr>
<tr>
<td><strong>Discussion and Conclusions (30%)</strong></td>
<td></td>
</tr>
<tr>
<td>To include: collation of information and ideas and evaluation of those ideas relative to the extant literature/concept/theory and research question/problem; adoption of a personal position on the study by linking and combining different elements of the data reported; discussion of the real-life impact of your research findings for coaches and/or practitioners (i.e. practical implications); discussion of the limitations and a critical reflection of the approach/process adopted; and indication of potential improvements and future developments building on the study; and a conclusion which summarises the relationship between the research question and the major findings.</td>
<td></td>
</tr>
</tbody>
</table>

---

1 There is scope within qualitative dissertations for the RESULTS and DISCUSSION sections to be presented as a combined section followed by an appropriate CONCLUSION. The mark distribution and criteria across these two sections should be aggregated in those circumstances.
Empirical ²

² This form should be used for both quantitative and qualitative dissertations. The descriptors associated with both quantitative and qualitative dissertations should be referred to by both students and markers.
CARDIFF METROPOLITAN UNIVERSITY
Prifysgol Fetropolitan Caerdydd

CARDIFF SCHOOL OF SPORT

DEGREE OF BACHELOR OF SCIENCE
(HONOURS)

SPORT MANAGEMENT

CONSUMER LOYALTY OF SPORTS SUPPLEMENTS

Dissertation submitted under the discipline of Management & Development

James Matthews

20005200
A quantitative study of factors effecting consumer loyalty of undergraduate students based on the purchasing of sports supplementation
Cardiff Metropolitan University
Prifysgol Fetropolitan Caerdydd

Certificate of student

By submitting this document, I certify that the whole of this work is the result of my individual effort, that all quotations from books and journals have been acknowledged, and that the word count given below is a true and accurate record of the words contained (omitting contents pages, acknowledgements, indices, tables, figures, plates, reference list and appendices).

Ethical Approval Code: ________________________ (enter code or 'exempt')
Word count: 11684
Name: James Matthews
Date: 15/04/2015

Certificate of Dissertation Supervisor responsible

I am satisfied that this work is the result of the student's own effort.
I have received dissertation verification information from this student

Name: ________________________
Date: ________________________

Notes:
The University owns the right to reprint all or part of this document.
# Contents

## Tables

*Acknowledgements*  
*Abstract*  

## CHAPTER 1 – INTRODUCTION

1.1 Introduction  

## CHAPTER 2 – LITERATURE REVIEW

2.1 Introduction  
2.2 Marketing  
2.3 Branding  
2.4 Consumer Loyalty  
  2.4.1 One-Dimensional Loyalty  
  2.4.2 Two-Dimensional Loyalty  
  2.4.3 Three-Dimensional Loyalty  
2.5 Factors Affecting Consumer Loyalty  
  2.5.1 Satisfaction  
  2.5.2 Brand Image  
  2.5.3 Trust  
  2.5.4 Word of Mouth  
  2.5.5 Commitment  
  2.5.6 Importance of Relationship  
2.6 Sports supplementation
CHAPTER 3 – METHODOLOGY

3.1 Introduction 20
3.2 Research design 20
3.3 Participants 20
3.4 Measures 21
    3.4.1 Validity and Reliability 22
3.5 Procedure 22
3.6 Data Analysis 23

CHAPTER 4 – RESULTS

4.1 Reliability Analysis 26
4.2 Descriptive Statistics 27
    4.2.1 Consumer Loyalty Descriptive Statistics 27
    4.4.2 Factors Effecting Customer Loyalty Descriptive Statistics 27
4.3 Independent samples T-test Analysis 28
    4.3.1 Confirming Underlying Assumptions 28
    4.3.2 T-test results on consumer loyalty 29
    4.3.3 T-test results on factors effecting customer loyalty 30

CHAPTER 5 – DISCUSSION

5.1 Introduction 32
5.2 Factors affecting Consumer Loyalty 32
5.3 Differences Between Sport & Non Sport Students 35
CHAPTER 6 – CONCLUSION

6.1 Overview 39
6.2 Review of Aims and Objectives 39
6.3 Strengths and Limitations 40
6.4 Practical Implications 41
6.5 Recommendations for Future Research 41
6.6 Summary 43

REFERENCE LIST 44
APPENDICES

Appendix A – Participants demographics information for sport
Appendix B – Participants demographics information for non-sport
Appendix C – Consumer loyalty Questionnaire
Appendix D – Factors affecting Consumer Loyalty Questionnaire
Appendix E – Participant Information sheet
Appendix F – Written Consent form
Appendix G – Ethical Approval Form
Appendix H – Skewness and Kurtosis test of normality
Appendix I - Levene’s test of homogeneity results for all variables.
Tables

Table 1
Demographic information for sports students within sample.

Table 2
Demographic information for non-sports students within sample

Table 3
The Final Cronbach alphas for the Customer Loyalty subscales.

Table 4
Descriptive statistics for consumer loyalty

Table 5
Descriptive statistics for factors effecting customer loyalty

Table 6
Skewness and Kurtosis test of normality Z-scores of all variables.

Table 7
Levene’s test of homogeneity results for all vairables.

Table 8
Independent Sample T-test results for consumer loyalty.

Table 9
Independent Sample T-test results for each subscale of customer loyalty.
Figures

Figure 1
Marketing information system (Adapted from Boddy, 2009)

Figure 2
Elements of two-dimensional definition of loyalty (Adapted from Khan, 2009)

Figure 3
The Behaviour/attitude matrix (Adapted from Baldinger & Rubinson, 1996)

Figure 4
A tri-dimensional approach to brand loyalty (Adapted from Worthington, Russell-Bennett & Hartel, 2009)

Figure 5
A summary of the factors affecting brand loyalty (Adapted from Kuusik, 2007)

Figure 6
A model to summarise present the present studies results
Acknowledgments

Firstly I would like to acknowledge the role of my dissertation tutor Greg Dainty, who has provided constant support and assistance throughout the entire dissertation process and throughout my 4 years at Cardiff Met (UWIC). Secondly, a huge thank you must go to my family, girlfriend and friends for the constant support and encouragement throughout a tough year of having to both work a full time job and complete this dissertation. I came close to giving up many times, but they pushed me through to the end, for which I am very grateful.
Abstract

The purpose of the present study was to assess the factors affecting undergraduate’s levels of brand loyalty in relation to sports supplementation. Furthermore the study aimed to explore the differences between sports students and non-sport students in relation to the levels of consumer loyalty and the factors affecting the level of loyalty within the two samples. Participants \( n = 60 \) from both sport \( n = 30 \) and non-sport \( n = 30 \) degrees were asked to complete two questionnaires, firstly an assessment of consumer loyalty (adapted from Burton et al., 1998) was completed, a second questionnaire was completed to assess factors affecting brand loyalty, this was developed based on Kuusik’s (2007) identification of the six key factors affecting brand loyalty. The results of the study revealed that from all 60 participants trust was shown to be the most important factor in increasing brand loyalty. The results also showed there to be a significant difference \( (t = 4.48, p = .000) \) in levels of consumer loyalty between sports and non sports students, with sports students showing a higher level of loyalty. Furthermore results revealed that trust \( (t = 9.13, p = .000) \), commitment \( (t = 6.19, p = .000) \) and importance of relationship \( (t = 7.17, p = .000) \) were significantly more influential factors upon brand loyalty within sports students than non-sports students, while brand image \( (t = -2.82, p = .007) \) was significantly more important to non-sports students in relation to brand loyalty. These findings suggest there are significant differences between sport students and non-sport students in relation to factors affecting brand loyalty within the sports supplementation market. Further research however is needed from a qualitative approach in order to understand and explain why these differences are present.
CHAPTER 1

INTRODUCTION
1.1 Introduction

The sports market within the United Kingdom (UK) has shown significant growth within the past two decades, with sport participation levels showing a significant increase throughout England (Sports England, 2013). This therefore has lead to increased opportunity for new and existing business’s to exploit the influx of new consumers within the market (BBC, 2013). Euromonitor figures show that sport related supplement products saw an increase in the UK sales from £73m in 2007 to £170m in 2012 and expect sales to reach £358m by 2017 (Euromonitor, 2014). One of the most significant factors on the profit and success of a business is consumer loyalty, especially within a growing and highly competitive market such as sport supplementation. Consumer loyalty is defined as an emotional and behavioural attachment to a brand that leads to the re-purchase of products (Chegini, 2010). Research into brand loyalty has outlined that by obtaining consumer loyalty a business can reduce costs of up too five times or more, as it costs a substantial amount to gain new customers and less to maintain them (Kotler and Keller, 2008). If companies within the sport’s supplementation market were able to exploit this concept, it could lead to a large increase in profit.

Therefore the aim of this research is to assess the level of brand loyalty within undergraduate students and explore the factors affecting brand loyalty to nutritional supplementation brands. With the knowledge of which factors increase consumer loyalty within this population, business’s can aim to produce and advertise their products in accordance to the results. This will in turn lead to higher loyalty to their brand and therefore reduced costs and increased profits. Five main objectives have been produced to ensure the aim of the study is reached:

1. To complete a review of the literature pertaining to customer loyalty and branding in order to provide an academic theoretical underpinning for the project.
2. To design a research project to investigate the loyalty of students in their purchases of sport supplements.
3. To conduct primary research and collect data from students.
4. To analyse the data collected to discover patterns in behaviour and attitude towards the purchase of sport supplements.
5. To discuss the results of the research and present best practice advice for those
marketing sport supplements to consumers from this demographic.
CHAPTER 2
LITERATURE REVIEW
2.0 Literature Review

2.1 Introduction

Many organisations focus their research into aligning marketing strategy and maximising consumer satisfaction, with the common aim of attaining consumer loyalty. Researchers have further considered consumer loyalty to be a vital element in the success and profit of organisations (Oliver, 1997). Consumers who remain loyal towards a product tend to spend more money with a same brand when repurchasing (Yooshik and Uysal 2005). This fact alone illustrates how important consumer loyalty can be to a brand. Buchanan (1974), defined loyalty as a feeling of affection and attachment towards a certain brand. This definition was developed by Oliver (1999) who believed loyalty should be defined as a deep commitment to repurchase a preferred product or service consistently therefore causing repetitive purchasing. There has been a great deal of academic interest in the factors encouraging consumers to purchase certain brands (Keller, 2013; Russell and Taylor, 2006; Kotler and Armstrong, 2008). Research by these authors has recognised that certain factors have more of an influence over different populations, however most research has been conducted in relation to a general population sample.

This chapter begins with a brief overview of the literature relating to marketing as a whole before moving into looking at research specifically on branding and consumer loyalty. The chapter will then look into sport as a market and how consumer loyalty is affected within a sports branding, specifically the branding of sports supplementation, finishing with a justification of the rationale and purpose of this study.

2.2 Marketing

Business is a highly competitive environment that is dominated by marketing strategies. Development of consumer loyalty is an essential component within a marketing strategy to ensure the success of an organisation. Boddy (2009) indicate that to have a successful business strategy you must acknowledge marketing as the process to develop consumer loyalty. Previously, Kotler et al. (2009, p.43) has defined marketing as ‘an organised effort, activity and expenditure designed first to acquire a customer and second to maintain and grow a customer at a profit’, combined with Boddy (2009) work this shows how marketing
is the first step towards customer loyalty and maintenance. Druker's (1999) work maintained that a company with a strong marketing strategy has the ability to understand the target market in enough depth that the product sold fits perfectly into the market. This therefore makes the product exactly what the consumers are looking for, and consequently consumers are more likely to purchase the product. Shilbury (2009) has defined this stage as the exchange process, whereby consumers purchase a specific product to receive specific benefits the product has to offer.

Armstrong and Kotler (2008) believe that a manager’s ability to constantly analyse the micro (internally controlled) and macro (externally controlled) environment has a direct link to building and maintaining a successful relationship with the target market. To stay ahead of these changes and respond appropriately, managers can implement marketing information systems demonstrated in Figure 1. Boddy (2009) describes it as a set process, purposely created to analyse data in a given marketing environment. This process involves identifying what influences a consumer to buy a product in the first place, and then exploiting this information to create brand loyalty, which in turn leads to consumer loyalty. This is fundamental to creating a successful business.

![Marketing Information System](image)

Figure 1 –Marketing Information System (Adapted from Boddy, 2009)
Organisations will initially employ Pestal (Political, economic, social, technological, environment and legal) and SWOT (Strengths, weaknesses, opportunities and threats) analysis to establish direct and indirect influences upon the company (Jeffs, 2008). This will then build a basis on which an organisation can re-evaluate its micro and macro environments. When the marketing environment has been examined it can then be utilised to develop a product life cycle. Beech and Chadwick (2007) explain that products pass through different stages within their lifetime including introduction of the product, growth, maturity, saturation and decline. All stages have different challenges where goal setting and marketing is vital to exploit the current situation of a product. A marketing department of an organisation should take these conditions into account and look to capitalise. It is crucial for an organisation to have a strong brand image, which can then exploit consumer loyalty to gain and maintain customers within a competitive and saturated market. Brand image is an essential part of marketing and therefore branding is essential to companies success.

2.3 Branding

Branding is a fundamental component of any business’ future. A brand is defined by Kotler and Armstrong (2008, p.115) as “a name, term, sign, symbol or a combination of these, which is used to identify the products in order to differentiate them from their competitors”. Branding is related to gaining trust within business prospects so that they see the brand as the only company or business that provides the correct service to them (Holt, 2004). It is not only related to encouraging a target market to choose a certain brand, but also at convincing the target audience that there is only one option from where to purchase products. A strong brand identity is invaluable in the daily battle between competitors over customers (Phillips, McQuarrie & Griffin, 2014). Analysis of the literature suggests that it is important to invest time into researching, defining and building brands. After brands have grown and gained customer loyalty, they become the foundational piece of marketing communication to the consumer, ensuring them they are guaranteed a top quality product or service that they believe only that brand can provide.

To succeed in branding, companies must understand the needs and wants of their
customers and prospects (Baldinger & Rubinson, 1996). This is done by integrating brand strategies through companies at every point of public contact, through doing this companies gain exposure to their target market. Brands are used to trigger a number of images to flash into a consumer’s mind; they help consumer’s identify the products on offer and encourage a purchase from a specific company due to recognition of its brand (Blakey, 2011). This suggests that successful branding would need to be more memorable than other companies and needs to trigger positive images for customers in order to inspire a purchase of their product. Kotler et al. (2008) suggests that a brand should transfer an individual significance within its market; its image should become an identity and a label.

A high quality brand will not only signify a physical product but also a relationship between brand and customer (Mcdonald, 2000), it is the strength of this brand-customer relationship that is key to the success of the product and service. Many different factors affect the brand-customer relationship, including brand equality, brand awareness, brand image, perceived quality, brand trust and brand loyalty (Vigneron and Johnson, 1999, Phau and Prendergast, 2000). Randall (2000) proposes that in order to achieve an effective brand-customer relationship, the company must offer a service or product that is high in quality and consistent to levels that are equal to or surpass their competitors. Of all components of the brand-consumer relationship, high consumer loyalty is viewed as the most significant factor in a successful branding campaign. Kotler and Keller (2006) imply that brand loyalty is the most important factor of branding, as having a loyal customer can reduce a company’s cost as it costs up to five times as much to obtain a new customer through advertising costs than to retain an old one, showing financial benefit for developing consumer loyalty within a brand.

2.4 Consumer Loyalty

Consumer loyalty is a relatively contemporary research topic, however loyalty research dates back as far as the 1900’s, such as Copeland’s work in 1923, which also highlights several earlier papers (Fournier & Yao, 1997). The notion of consumer loyalty comes from literature focusing on customer behaviour (Chegini, 2010); this literature explores loyalty as complex in nature, therefore leading to a number of definitions (Morgan, 1999). One of the oldest and possibly the most widely referred to definition of loyalty was given by
Jacoby and Kyner (1973) who explained loyalty as a bias or non random behavioural response or purchase expressed over time to one or more specific brands, arguing that it was a function of the psychological decision making process.

This explanation was developed further by Pritchard and Howard (1997, p.3) who defined brand loyalty as:

“A network where the construct’s root tendency, resistant to change, is maximized by the extent to which individuals are motivated to seek informational complexity and consistency in the cognitive schema behind their preference, able to freely initiate choices that are meaningful and willing to identify with important values and self-images that are associated with that preference”.

They added further depth to the concept of loyalty by introducing four degree’s of loyalty: undivided loyalty (those who only buy from one brand), divided loyalty (those who buy from two or three brands), unstable loyalty (those who move from brand to brand) and no loyalty (those who purchase purely on their needs and show no loyalty to a brand). Earlier work by Jacob and Kyner (1973) and Pritchard and Howard (1997) viewed consumer loyalty as a simple re-purchase behaviour however, more recent work has begun to view it is a multi-dimensional construct (Worthington, Russell-Bennett & Hartel, 2009).

One of the most recent explanations of brand loyalty comes from Chegini (2010) who describes product loyalty as not just the repurchase of a brand but the emotional attachment to the brand. Literature now produces two main approaches to consumer loyalty; attitudinal loyalty and behavioural loyalty. Attitudinal loyalty is defined as the expression of preference for a brand, also referred to as the emotional attachment consumers gain with a brand (Morgan, 1999). Behavioural loyalty on the other hand infers the loyalty status of a consumer based upon the observation of repeated purchase behaviour (Morgan, 1999). Kuusik (2007) states mere repeated purchase behaviour is not enough to define a consumer as loyal, and that some customers only chose to buy the same brand due to being in a state of inertia where they are unsatisfied with the product or brand but feel they have no other option. Therefore they are not emotionally loyal to the brand, but still appear to show repeat purchase behaviour (Reichheld, 2001). This is
caused by a lack of information about alternative products or characteristics within different brands (Kuusik, 2007).

Customer loyalty has become increasingly important to companies and businesses (Reichheld & Sasser, 1990) and its influence is continuing to grow. Competition between brands is now so strong that customer growth and maintenance is a primary goal for many companies (Chegini, 2010), and success within businesses is a result of loyal customers (Tripathi, 2009). Morgan (1999) identified that the process of controlling consumers purchase behaviour is becoming more dominant within the industry. There is a need to know the factors which control customers’ purchasing behaviour in terms of reasons why customers become disloyal through no longer purchasing from the same brand, when these factors can be identified changes can be made in order to increase the efficiency of a company’s marketing.

Consumer loyalty has been shown to have a direct relationship with the profitability of a company, with an increase in consumer loyalty leading to an increase in profitability (Reichheld and Sasser, 1990). Due to this, it would seem businesses should focus a proportion of their marketing efforts on the development and maintenance of customer loyalty (Dick and Basu, 1994). Specifically Rosenberg and Czepiel (1984), showed that it can cost up to six times as much to gain a new customer than it does to maintain an existing one, showing maintenance of loyalty can reduce additional costs. This evidence is summarised by Reicheld (2001) who states five key benefits of creating a loyal customer base; firstly there are lowered customer acquisition costs, secondly loyal customers frequently buy more and at a higher price, thirdly loyal customers spread positive word of mouth about the company, additionally the ability to resist marketing efforts from competitors becomes easier and finally there are lower marketing costs in general.

There are a number of critics of the theories relating to the profitability of consumer loyalty. Reinartz & Kumar (2002) have found results that show there is not a significant relationship between profitability and customer loyalty. They claim that generalising long-term customers to be more profitable is incorrect as there is contradicting evidence, especially in a non-contractual environment. They believe that this is due to low switching costs and a lack of competition. They portray the need for deeper examination of customer profitability as some customers can be very profitable in the beginning, but gradually the
profitability begins to decrease in the long run (Reinartz & Kumar, 2002). Kumar & Rajan (2009) state that loyal customers recognise their value and demand better service and spread positive word of mouth only if they feel well treated. Chegini (2010) also addresses that producing loyalty within all customers is impossible. For a company to fully utilise their profitable customers, they need to find a system to screen all customers to only invest in the most profitable relationships.

Nonetheless, there is still a need for managers to understand the importance of building a strong customer relationship to maintain loyalty. The development of a long-term customer relationship can still produce a number of benefits and therefore should be a priority in the development of business strategies (Reichheld and Schefter, 2000). Marketing gains customers, however it is the loyalty and keeping customers happy with the product or service which often needs investment. The following section will provide a closer analysis of the construct of consumer loyalty, and will look to provide an in-depth understanding of the different dimensions of the concept.

**2.4.1 One Dimensional Loyalty**

As previously mentioned there are different approaches to customer loyalty within the academic literature. Until the 1970’s behavioural loyalty theories were dominant and portrayed loyalty as a simple construct based on total purchases of a brand. Harary and Lipstein (1962) define loyalty in this sense as the frequency or repeatability of a purchase. These approaches looked at brand loyalty in terms of consequences (repeat purchase behaviour) rather than reasons behind loyalty. Strength within this behavioural response is the objectivity of its measure; it is easy to track purchases of a particular product. However, even though it can be measured, it does not provide explanation for the existence of loyalty (Hallowell, 1996).

Although early researchers considered frequent buying as loyalty, as mentioned more recent research shows that repeat purchasing is no longer an accurate indicator of loyalty (Reichheld, 2001). The buyer could be caught in inertia, which can be described as a reluctance to change, due to circumstances or lack of information (Reichheld, 2003). Based on alternative types of repeat purchase behaviour, Kuusik (2007) implies that loyal consumers can be divided into three groups: forced to be loyal, loyal due to inertia or functionally loyal. Whereas Jones and Sasser (1995) propose that behavioural loyalty can
occur in alternative varieties of behaviour and that the frequency and quantity of purchases can be known as primary behaviour. The secondary loyalty behaviour consists of word of mouth and praise for a brand. Thirdly, is the consumer’s intent to repurchase – whether or not the consumer is ready to repurchase the brand. Due to the overwhelming amount of literature relating to the concept of loyalty as more than just repeat purchase behaviour the concept of two-dimensional loyalty was introduced.

2.4.2 Two Dimensional Loyalty

The concept of two-dimension loyalty was introduced in 1969 by Day; it showed loyalty not only as a repeated purchase behaviour but as an emotional attachment to a brand. Although literature offers plenty of definitions of loyalty, there seems to be two basic approaches to the customer loyalty concept. These are explained as the behavioural approach and the attitude-based approach. Morgan (1999) describes these two approaches as follows, those who believe that loyalty is what a customer feels, i.e. an emotional attachment that a customer feels for a brand or, those who believe that it is what a customer does - i.e. repeated purchase behaviour. This is known as two-dimensional loyalty and is demonstrated within Figure 2.

![Figure 2: Elements of two-dimensional definition of loyalty (Adapted from Khan, 2009)](image)

Jones and Sasser (1995) refer to the two dimensions of loyalty as one being false and the other true long-term loyalty, meaning behavioural loyalty was not true loyalty. Similarly Reichheld (2003) states that compared to behavioural loyalty, emotional loyalty is much stronger and longer lasting. Emotional loyalty creates a relationship of desire between brand and consumer that becomes so strong it is imperative for the customer to make maximum efforts to maintain purchase of the brand (Morgan & Hunt, 1995). Highly emotionally attached customers will constantly use the brand, strongly defend the brand
and recommend the brand to others (Butz & Goodstein, 1996).

A further analysis was conducted by Baldinger and Rubinson (1996), who divided consumers into different loyal groups according to their level of attitudinal and behavioural loyalty. The framework produced by Baldinger and Rubinson (1996) is demonstrated below in Figure 3. It shows that ‘real loyals’ have a high level of behavioural and attitudinal loyalty towards a certain brand. It further demonstrates that when a consumer shows behavioural loyalty but no attitudinal loyalty, they are vulnerable, and therefore unlikely to be loyal to the brand for a pro-longer period of time. Furthermore, Baldinger and Rubinson (1996) propose that vulnerable consumers who have highly favourable attitudes toward particular competitive brands are called prospects, and are likely to become ‘real loyals’ in the future. These frameworks underline the significance of studying both attitudinal and behavioural aspects when investigating a consumer’s loyalty to a brand.

![Figure 3: The behaviour / attitude matrix (Adapted from Baldinger & Rubinson 1996)](image)

2.4.3 Three Dimensional Loyalty

The two-dimensional model has been useful in terms of conceptualizing and measuring loyalty however, the research is inconclusive and there are many variations, leading to debate within marketing literature (Worthington, Russell-Bennett and Hartel, 2009). Furthermore, Worthington et al. (2009) believe there is another concept within loyalty that needs to be explored, making it a three-dimensional theory. They believe that all human
behaviour is a product of cognitive, emotional and behavioural responses. This therefore suggests a consumer's loyalty is a combination of a consumer’s thoughts and feelings about a brand that are then expressed as an action. Cognitive loyalty is defined by Oliver (1999) as loyalty based on information consumers have about a brand, such as price and features of the product. It relates to psychological preference based on positive beliefs and thoughts about repurchasing a brand on the next occasion (Worthington et al., 2009). Figure 4 represents the circular nature of the three-dimensional approach to brand loyalty, which shows a continuous pattern of the affects of each loyalty upon eachother.

![Diagram of three-dimensional approach to brand loyalty](image)

**Figure 4:** A tri-dimensional approach to brand loyalty (Adapted from Worthington, Russell-Bennett & Hartel 2009).

This three dimensional approach gives understanding and measurement to the concept of consumer loyalty though does not explain the reasons for an increase or decrease within a customer’s level of loyalty. Therefore, further research has been conducted into specific factors that affect the level of cognitive loyalty consumers have for a brand.

### 2.5 Factors affecting Consumer Loyalty

There are wide ranges of factors that contribute to the level of brand loyalty a consumer possess (Kuusik, 2007). To increase consumer loyalty, it is important to understand and evaluate the factors that influence consumer behaviour (Oliver, 1999). The main contributors to an increase or decrease in brand loyalty are outlined by Kuusik (2007) within Figure 5 below. A more in-depth explanation of each source is then provided.
2.5.1 Satisfaction

The first of the factors affecting brand loyalty is satisfaction. Satisfaction is explained by the European Customer Satisfaction Index (ECSI) and is broken down into two segments: product related and human related. Satisfaction relates to how well the product fits the needs of the consumer and how happy the consumer is with the purchase of the product. Several studies have revealed that there is a direct connection between satisfaction and loyalty (Heskett and Schlesinger 1994), with an increase in satisfaction from the customer leading to an increase in consumer loyalty. Furthermore Kuusik (2007) states that when customer satisfaction is low, consumers are more likely to turn to purchase from a competitor and therefore companies will lose custom.
2.5.2 Brand Image

Another factor that contributes to the level of consumer loyalty within customers is brand image. Brand image is the establishment of a brand identity or an image that represents an organisation. Prestigious brand names and images can entice consumers to purchase a known brand due to reputation and quality of product that can lead towards consumer loyalty. Woodruff (1997) reasons that an iconic brand image can reduce consumer behavioural changes related with rising prices; and instead help to influence repeat purchasing. A strong brand image is therefore important to an organisation in influencing re-purchasing behaviour. Similarly, Sharp (2009) suggests there is a direct link between a brand name and a brand's emotional and self-expressive benefits.

Another way brand image can affect loyalty is when consumers want to express their own identity through their brand. Aaker (1999) demonstrates how consumers tend to use brands that they feel mirror their own traits and characteristics. Also the brand image can be used to classify themselves into different social categories in relation to a given brand. This causes consumers to evaluate the social values of other brand symbols and compare them to their own (Kuusik, 2007). Fournier (1998) feels that brands do not just supply a purpose, but also help consumers give significance to their lives. The brand needs to play a significant part in the consumers’ self-identity for them to be loyal (Oliver 1999).

2.5.3 Trust

Trust in the product and brand is also essential to maintaining customer loyalty. Singh and Sabol (2002) defined consumer trust as level of dependability of a consumer has on a given brand or product to deliver on its promises. Chaudhuri and Holbrook (2001) argued that consumer trust can lead to both behavioural and attitudinal loyalty causing the repeat purchase of a product and consumer commitment to purchasing a product at a higher price. Trust must be built over a period of time supplying the consumer with confidence in
the product and service to create a relationship, as the relationship becomes stronger consumer loyalty will inevitably improve.

2.5.4 Word-of-mouth

Reichheld (2001) states that the customer’s willingness to recommend a brand or product to others is a dominant sign of loyalty; also be referred to as promoting via word of mouth. Recommending a product or brand is not only putting the reputation of the brand on the line but also the individuals reputation, which can be seen as a good indicator to the quality of a product or brand. According to Sirdeshmukh et al. (2002), it is not only repeated purchase of a product which demonstrates true loyalty, but also promoting the product to others via word of mouth. As stated by Alhabeeb (2007), positive word of mouth plays a vital part in strengthening brand loyalty with a customer, as well as advertising the brand to further populations. Word of mouth is free advertisement for brands, by a consumer demonstrating their satisfaction to others, they are providing confidence in the brand. This can lead to new consumers, who may also have good experiences with the brand or product and therefore further promote the product via word of mouth.

2.5.5 Commitment

Commitment to a brand or product has been defined as the desire of the consumer to maintain a relationship with the product and company (Morgan and Hunt, 1994). The bond that commitment creates preserves customer loyalty even if satisfaction with the brand or product is low (Gustafsson et al. 2005). Gustafsson et al. (2005) clarifies the difference between both satisfaction and commitment as satisfaction refers to the past experience with a brand, whereas commitment represents a strong relationship with a brand, leading to the commitment of a consumer to continue being loyal to a brand. Commitment to brands means that companies do not need to input money into products in order to advertise them as committed loyal customers will re-purchase the brand irrelevant of price, quality or other options available within the market (Kuusik, 2007).

2.5.6 Importance of Relationship
The final factor identified by Kuusik (2007) as fundamental to brand and consumer loyalty was importance of relationship. This refers to how important the brand or product is to a consumer. Positive relationships create strong consumer loyalty due to the consumer feeling the product is essential to them (Morgan and Hunt 1994). Kuusik (2007) demonstrates that the greater the importance of the relationship to the consumer, the more prepared customers would be to accept dissatisfying aspects such as cost or quality. It further showed that customers might be willing to risk re-purchasing from the same brand even if they have been previously dissatisfied as they feel the product is so important to them.

2.6 Sport Supplementation

Sport supplementation can be defined as products that have a nutritional make up that are scientifically designed to give ergogenic benefits to athletes at all levels of participation (Mason and Lavallee, 2012). Throughout competitive sport athletes have looked to improve their performance in anyway possible, including consuming substances that have been shown to aid performance (Bishop, 2010). This has lead to the development of a multi-billion-dollar industry, which is continuing to grow within today’s economy. As a result of the growth within the market there are now several companies that are claiming to product the best performance enhancing supplements on the market.

The United Kingdoms (UK) sports market has been structurally transformed throughout the past two decades due to the increased interest combined with the globalisation of sport (Mintel, 2010). UK industry was worth £70.2m in 2004 and this figure raised to over £91m by 2009 (Walker, 2013). Sports supplementation has developed from a niche market of professional sportsmen and women who used supplements within elite sport for recovery and performance enhancement, to an international market that is continuing to grow. With the influence of media and an increase in globalisation; the products sold and how they are being sold has transformed. The target market now covers people throughout all levels of sports and exercise, from people looking to improve physique within a casual gym environment to people looking to gain the edge over others within their chosen sports. In the society in which we live we are surrounded by sport supplementation brands (e.g Maxi-nutrition, Redbull and Lucozade). An example of a successful supplementation brand is
Maxi-nutrition. A British company formerly known as Maxi-muscle was founded in 1995 and is now the best selling brand in the UK (Euromonitor, 2014). Maxi-nutrition has seen revenue growth from £8.6m in 2003 to £65m in 2010, with an ambition to surpass £100m in 2015.

Science plays a huge role in positioning a product or brand in the sports nutrition market. Kreider et al. (2010) found that there needs to be significant evidence that a product works and has the beneficial factors it claims in order to be successful within the highly competitive market. Furthermore the safety and legality of sports supplements are essential to creating a strong brand image; and a brand that is known to be safe and legal within sport creates a relationship of trust between business and consumer.

As mentioned the sports nutrition market is a growing market not only in the UK but also globally. However although this has been recognised within sports marketing literature, academic research has not studied the market in great depth. This paper will look to explore the sports supplementation market in relation to consumer loyalty. Specifically the paper will focus on undergraduate’s levels of loyalty to sports supplementation and the reasons behind this loyalty, with references to the differences between sport’s students and non-sports students.
CHAPTER 3
METHODOLOGY
3.0 Methods

3.1 Introduction

The following chapter will look to explore the reasoning behind the design given to this study. It will consider how the sample population was chosen, the measures used to assess consumer loyalty, the procedure of the research and analysis of its data.

3.2 Research Design

The study was undertaken in a systemic rigorous, ethically appropriate fashion (Sharp 2009). It was designed to examine the effects of consumer loyalty and its importance within the sports nutrition supplement market with a comparison between sports students and non-sports students. The research will show what factors effects consumer loyalty in relation to undergraduates purchasing of sport supplementation, and also identify whether there are any differences between students studying a sport degree and those who are not. The research will follow a quantitative research design in order to provide a large amount of data that can be scientifically analysed to produce generalised findings (Wasterman and Yanchar, 2011). Due to the quantitative nature of the research design a large sample size \((n = 60)\) was selected, again increasing the generalisability of the data (Wasterman and Yanchar, 2011). Data was collected via questionnaires, these were chosen as they have been shown to be a reliable way of collecting large amounts of organised data (Gratton & Jones, 2010). This data can then be statistically analysed to produce results which answer the given research question, and with the use of previous literature, this quantitative data can be underpinned with theoretical understanding.

3.3 Participants

The sample was gained by selecting participants based on a number of set criteria; Thomas (2009) refers to this as purposeful sampling. Purposeful sampling has been viewed as an effective way to ensure justification can be given to theoretical generalisations made, as the sample is representative (Boeje, 2002). The sample targeted was selected from a number of universities where both sports students and non-sports students were asked to participate; this was in order to allow any differences between the two populations to be noted. Further specific criteria needed to be met in order to partake;
they must have competed for their university within BUCS in order to be considered for the research and use sports supplementation regularly to either improve performance or help recovery.

It is suggested as an absolute minimum within quantitative research that a sample size of 30 participants is used in order to produce enough data (Gratton and Jones, 2010). Therefore a sample of \( n = 60 \) participants were used, of this sample there were a range of male’s \( n = 35 \) and female’s \( n = 25 \). The sample was split between sport students \( n = 30 \) and non-sport students \( n = 30 \), a further explanation of participants’ demographics can be found within table 1 and 2 (Appendix A&B).

3.4 Measures

Small-scale surveys or questionnaires are identified as a good measure for individual research projects (Sharp 2009). Denscombe (2007) believes questionnaires are the most efficient means of collecting data from a large specific sample population. Firstly a demographics sheet was designed to provide information on the participants such as age, sport and university course. Secondly a questionnaire (Appendix C) was adapted from Burton et al. (1998), to test consumer loyalty within the sample. Relating to whether they felt they were attached to certain brands and whether that affected their choice of sport supplementation. The questionnaire was measured on a Likert scale, this assigns a value to how much a participant agrees or disagrees with a given statement (Berg & Latin, 2008), the questions are closed in nature and therefore standardised making the data easier to analyse. Within Burton et al.’s (1998) research the questionnaire proved internally consistent, with a Chronbach alpha score of .92.

Within the main questionnaire (Appendix D), a Likert scale structure will also be used. It is quick to see patterns and relationships throughout the data and easy to statistically analyse. The questionnaire comprised of 27 statements split into six subscales, each one linking to the six factors affecting brand loyalty as defined by Kuusik (2007), Brand Image \( n = 6 \), Trust \( n = 4 \), Commitment \( n = 4 \), Importance of relationship \( n = 4 \), Word of mouth \( n = 4 \), satisfaction \( n = 5 \). The participants were asked to answer each statement in relation to the amount they agreed or disagreed with the statement on a scale of 0 (completely disagree) to 6 (strongly agree), the 0 option was offered as it was noted certain variables would not influence peoples choice of sports nutrition at all, therefore a 0
option was necessary. Each of the statements begun with the phrase “I usually purchase products from a specific brand because…”

### 3.4.1 Validity and Reliability

Within research it has been noted that perfect reliability is virtually impossible, and instead every attempt should be made to minimize errors and bias (Yin, 2003). Reliability refers to the independent repeatability of reason; Evans (2009) believes that this reliability comes from the trustworthiness and rigour of the researcher, which have both been consistent and appropriately addressed within this research. Reliability was also gained through checks of each of the questionnaires to ensure internal consistency before further analysis was conducted. A Cronbachs alpha score was calculated for each of the six variables addressed in the second questionnaire, where any result over 0.7 was identified as having good internal consistency (Nunnally, 1978; Collican, 2009). The first questionnaire was previously assessed and recorded scores of .92 (Burton et al, 1998), however it was still checked again within this research to ensure reliability.

Evans (2009) states how external validity (transferability of findings) is difficult within research as the approach to the research is compartmentalised by the context, however internal validity can be achieved by a clear understanding of the topic in question which means any data collection is appropriately suited to answering the research objectives. Attempts were made within this study to be systematic and critical and remain as objective as possible throughout.

### 3.5 Procedure

Following the selection of participants as outlined above, the participants were approached by email or face to face and provided with a brief explanation of the study before being asked to take part. If the participants were interested in taking part in the study they were provided with an information sheet, which explained the research in more depth (Appendix E). It was explained to the participants that if they had any questions they should ask. It was also made clear that their participation was voluntary and they did not have to take part in the study. Following this, written consent was gained from all participants who wanted to take part (Appendix F). The British Educational Research Association (BERA, 2011) stated that this voluntary informed consent should be gained from all participants
and recommended that participants should be made aware they had a right to withdraw from the study at any time.

Further ethical considerations were taken into account such as confidentially and anonymity, it was advised all information received from questionnaires would be kept in a safe and secure location and no one else would have access to this information, furthermore, it was made clear that no names would be used within the research itself. By following all ethical procedures, more truthful and honest answers are expected and therefore the results of this study are deemed as more valid and reliable (Cohen et al. 2007, Willman, 2006). After gaining consent from the participants they were presented with the questionnaire and asked to fill it out at a time convenient for them. It was further emphasised at this point that there were no wrong answers and that their answers needed to be truthful. When completed, the questionnaires were collected from participants in order for data analysis.

3.6 Data Analysis

As aforementioned, internal consistency scores were calculated for each subscale of the questionnaire used before analysis took place. Chronbachs alpha scores were recorded for each on the computer program SPSS version 22.0 for MAC. In order to be accepted as internally consistent and therefore reliable, each subscale must score above .7 (Nunnally, 1978), if a subscale did not reach this value they would then be individually assessed in order to determine whether it was a particular item causing the low consistency level, and if this was the case, that item was removed from the research. Chronbachs alpha would then be re-assessed in order to produce a score higher than .7 and therefore be included within the results of this research.

The results of the first questionnaire (consumer loyalty) will be analysed by using independent t-tests to show if loyalty is different between sports students and non-sports students. Following this the main questionnaire will be firstly analysed by creating a mean for each of the subscales, with the highest mean showing that factor to be the most influential in terms of creasing customer loyalty within the entire sample. Following the calculations of general brand loyalty throughout the sample, it was split into the two different types of degree, sports degrees \((n = 30)\) and non-sport degree’s \((n = 30)\). To show any differences between the two populations an Independent Sample T-test was
conducted on SPSS for each of the subscales, the results from this test were concluded as significantly different if the $p$ value was below $p > 0.05$ (Fields 2009). Before this test was conducted, all underlying assumption tests took place to ensure the results were valid (Fields 2013).
CHAPTER 4
RESULTS
4.0 Results

4.1 Reliability Analysis

An internal reliability score was calculated for the consumer loyalty scale using Cronbach’s alpha, the result was .96, showing high reliability above the suggested .7 value (Nunnally, 1978). As the result was acceptable no items were deleted from the scale.

Internal reliability scores were also calculated for each of the sub-scales of the customer loyalty scale using Cronbach’s alpha, the results of this analysis is shown in table 3. All subscales provided acceptable alpha values about .7, ranging from .74 to .89. As all subscales met the acceptable alpha value no individual items were removed.

*Table 3.* The Final Cronbach alphas for the Customer Loyalty subscales.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Final α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td>.89</td>
</tr>
<tr>
<td>Trust</td>
<td>.74</td>
</tr>
<tr>
<td>Commitment</td>
<td>.84</td>
</tr>
<tr>
<td>Importance of relationship</td>
<td>.86</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>.83</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.80</td>
</tr>
</tbody>
</table>
4.2 Descriptive Statistics

4.2.1 Consumer loyalty Descriptive Statistics

Prior to conducting independent sample t-tests, descriptive statistics were calculated to show the results of consumer loyalty within the entire sample, within only sports students and within only non-sports student. Results are shown within table 4. The results show that sports students had a higher average level of consumer loyalty than non-sports students.

Table 4. Descriptive statistics for consumer loyalty

<table>
<thead>
<tr>
<th></th>
<th>mean ± s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Sample (N=60)</td>
<td>4.66 ± 1.75</td>
</tr>
<tr>
<td>Sports (N=30)</td>
<td>5.55 ± 1.45</td>
</tr>
<tr>
<td>Non-Sports (N=30)</td>
<td>3.78 ± 1.56</td>
</tr>
</tbody>
</table>

4.2.2 Factors Effecting Customer Loyalty Descriptive Statistics

Descriptive statistics were also produced for each of the factors effecting consumer loyalty. The results of the entire population and also sports and non-sports students are displayed in table 5. The results indicate that over the entire sample trust and satisfaction were recognised as the strongest factors effecting brand loyalty. Within the sporting population trust was then recognised as most important, while satisfaction was recognised as most important for non-sports students.
Table 5. Descriptive statistics for factors effecting customer loyalty

<table>
<thead>
<tr>
<th></th>
<th>Whole Sample (n = 60)</th>
<th>Sport (n = 30)</th>
<th>Non-sport (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td>4.43 ± 1.42</td>
<td>3.94 ± 1.06</td>
<td>4.93 ± 1.56</td>
</tr>
<tr>
<td>Trust</td>
<td>5.42 ± 1.16</td>
<td>6.32 ± 0.61</td>
<td>4.54 ± 0.85</td>
</tr>
<tr>
<td>Commitment</td>
<td>3.63 ± 1.70</td>
<td>4.70 ± 1.40</td>
<td>2.56 ± 1.23</td>
</tr>
<tr>
<td>Importance of</td>
<td>3.47 ± 1.93</td>
<td>4.79 ± 1.43</td>
<td>2.12 ± 1.37</td>
</tr>
<tr>
<td>Relationship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word of Mouth</td>
<td>4.48 ± 1.39</td>
<td>4.49 ± 1.18</td>
<td>4.48 ± 1.57</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>5.32 ± 0.98</td>
<td>5.56 ± 0.80</td>
<td>5.07 ± 1.07</td>
</tr>
</tbody>
</table>

4.3 Independent Samples T-Test Analysis

Independent sample t-tests analysis was conducted on each of the factors affecting customer loyalty to highlight differences between sport students and non-sport students within the sample. This analysis was chosen as it identifies the level of difference within each of the factors according to whether they are a sport or non-sport student. The results of the independent sample t-tests firstly revealed a significant difference ($p < .01$) within consumer loyalty between each of the populations outlined ($t = 4.48, p = .00$). Of the factors effecting customer loyalty four out of six were shown to be significantly different ($p < .01$). These factors were brand image, trust, commitment and importance of relationship, while word of mouth and satisfaction showed no significant differences between sport students and non-sport students.

4.3.1 Confirming Underlying Assumptions

Prior to performing independent T-tests on each of the dependent variables several underlying assumption tests were conducted to ensure the data was acceptable for analysis and would therefore be valid (Field, 2009). Independent T-tests automatically presume the assumption of independence, normality and homogeneity of variance (Fields, 2013). Firstly independence can be assumed as the research design used meant data
was randomly and independently sampled. The assumption of normality was then assessed visually using histograms, however results showed several variables to appear non-normally distributed. Therefore skewness and kurtosis values were produced for each of the variables and then converted to z-scores, all variables with the exception of brand image and trust showed values outside the suggested values of -1.96 to 1.96 for either kurtosis or skewness (Appendix H, Table 6) suggesting normality has failed to be met. Therefore it is advised all variables other than brand image and trust are treated with caution when reporting significance values, as the normality assumption has not been met (Field, 2009). Finally homogeneity of variance was tested via Levene’s test (Appendix I, table 7) results were shown to be non-significant ($p > .05$) for all variables other than brand image and word of mouth. Due to these results homogeneity was also visually assessed using a Q-Q plot graph, the graph showed errors were consistent across all the variables and therefore data was homoscedastic and acceptable for analysis, therefore homogeneity of variance can be assumed. The failed assumptions within this research could be due to the small sample size ($n = 60$) reducing the power of the statistical tests (Field, 2013).

### 4.3.2 T-test Results on Consumer Loyalty

An Independent sample t-test was conducted to compare consumer loyalty in sports students and non-sport students; the results are shown within table 8. Results showed significant variance between sport student’s loyalty (5.55) and non-sports student’s loyalty (3.78) at $p < .01$ level ($t = 4.48$, $p = .000$).

<table>
<thead>
<tr>
<th></th>
<th>T-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
</tr>
<tr>
<td><strong>Consumer loyalty</strong></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>4.48</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>4.48</td>
</tr>
</tbody>
</table>

*Note. * = Significant at $p < .01$
4.3.3 T-test Results on Factors Effecting Customer Loyalty

Independent sample t-tests were conducted on each of the factors affecting customer loyalty, to show the difference between scores from students studying a sport degree and students studying non-sports degrees. Results (table 9) show four significant differences (between sport and non-sport; \( p < .01 \)) out of the six variables; brand image (\( t = -2.82, p = .007 \)), trust (\( t = 9.13, p = .000 \)), commitment (\( t = 6.19, p = .000 \)) and importance of relationship (\( t = 7.17, p = .000 \)). Trust was the factor showing the greatest variance between populations, while word of mouth and satisfaction did not show a significant difference between sports and non-sports students.

Table 9. Independent Sample T-test results for each subscale of customer loyalty.

<table>
<thead>
<tr>
<th>T-test for Equality of Means</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-2.82</td>
<td>58</td>
<td>.007*</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.82</td>
<td>51.06</td>
<td>.007*</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>9.13</td>
<td>58</td>
<td>.000*</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>9.13</td>
<td>52.50</td>
<td>.000*</td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>6.19</td>
<td>58</td>
<td>.000*</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>6.19</td>
<td>57.07</td>
<td>.000*</td>
</tr>
<tr>
<td>Importance of Relationship</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>7.17</td>
<td>58</td>
<td>.000*</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>7.17</td>
<td>57.90</td>
<td>.000*</td>
</tr>
<tr>
<td>Word of Mouth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.046</td>
<td>58</td>
<td>.964</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.046</td>
<td>53.95</td>
<td>.964</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.96</td>
<td>58</td>
<td>.055</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>1.96</td>
<td>53.86</td>
<td>.055</td>
</tr>
</tbody>
</table>

Note. * = Significant at \( p < .01 \)
CHAPTER 5
DISCUSSION
5:0 Discussion

5.1 Introduction

The aim of the current study was to examine the factors affecting consumer loyalty within the sport supplementation market. The study looked to explore whether there was a significant difference in the level of consumer loyalty between students studying a sport degree and students studying non-sport degrees, and the factors affecting their level of loyalty. The findings of the present research firstly revealed that overall the factor with most influence upon consumer loyalty within undergraduate degree students was trust, closely followed by satisfaction. The results further revealed a significant difference in the level of consumer loyalty within sports and non-sports students. In relation to the factors affecting brand loyalty, there were significant differences shown within four of the six variables assessed; brand image, trust, commitment and importance of relationship. No significant differences were seen between sports students and non-sports students in relation to word of mouth or satisfaction.

The following chapter will explore the results of this study in relation to the factors affecting customer loyalty overall, then will specifically focus upon the differences between sports and non-sports students. The chapter will then provide a discussion of the strengths and limitations of the present research and practical implications associated with the results. Finally the chapter will conclude with recommendations for future research and a summary of the findings.

5.2 Factors Affecting Customer Loyalty

The most dominant factor affecting consumer loyalty over the entire sample was trust, as shown in table 5. Previous research by Chaudhuri and Holbrook (2001) and Singh & Sabol (2002) acknowledges that trust of a brand or product is a dominant factor when acquiring consumer loyalty. Trust between the consumer and product is a slow process that requires a faithful bond to be formed behind the science and quality of the supplement brand, leading to the customer having trust in the ability of a brand to perform it’s stated function (Chaudhuri and Holbrook, 2001). Due to the importance placed on health and fitness within today’s society, consumers are beginning to care more about the quality of products they are ingesting. Therefore trust of the sports supplementation brand they are using is
vital, as shown in the results of the present study (table 5). Consumers place importance on knowing the brand they are using contains no substances that could cause them harm, furthermore due to certain supplementation brands using illegal performance enhancing drugs in the past, athletes have suffered bans and disqualifications, therefore particularly for athletes, knowing they can trust their brand to contain no illegal substances is vital. These results give companies crucial information, allowing business plans for new or existing products to be altered to better suit the needs of the market (Oliver, 1999). For example, when advertising a brand certain factors such as trustworthiness of the product would need to be the focus of the campaign (Chaudhuri and Holbrook, 2001). An example within sports supplementation would be to use batch testing (via informed sport), to show that the product is safe and legal within sport. The brand can then advertise and promote the legality and safety of the product to increase trustworthiness and consequently increase brand loyalty.

Table 5 further shows satisfaction to be the second most important factor in affecting the samples brand loyalty; indicating satisfaction will need to be high along side trustworthiness to increase consumer loyalty. Hallowell (1996) revealed there was a direct connection between satisfaction and loyalty, showing similar results to the present study. If a consumer is satisfied with the quality, price, taste and image of a brand there is no need for him or her to change to another and therefore loyalty is increased. Research by Kuusik (2007) further stated that satisfaction has a strong relationship with levels of consumer loyalty. Specifically Kuusik (2007) indicated that when a customer’s satisfaction with a product is low, they are more likely to lose loyalty to the brand and therefore turn to purchase from a competitor. On the contrary, a mass of research has shown if satisfaction is high consumers become less worried about price and competitors and loyalty to the company lasts longer (Dimitriades, 2006). As satisfaction has been shown so frequently to be important to customers it is essential companies assess how high satisfaction levels are. Through feedback mechanisms such as post-purchase questionnaires, focus groups and product reviews, companies can gain an understanding of the consumer’s level of satisfaction with the products. Based on this feedback companies can then implement changes to their marketing strategies or the products themselves in order to ensure complete satisfaction is gained from all customers (Barlow and Moller 2008). Which according to the present study will lead to greater levels of brand loyalty.
The results signified that brand image and word of mouth were not as relevant as satisfaction and trust within the results. This is surprising, as previous research has revealed that brand image is one of the strongest predictors of repurchase behaviour (Woodfuff, 1997). Aaker (1999) demonstrated how consumer’s re-used brands they felt mirrored their own beliefs and traits, therefore showing that the brands image was important. However within this study the brand image was not recognised as the most important factor, this may be due to the type of products the sport supplement industry represents. As the brands are not displayed when you’re in the public eye this factor probably may have less of an impact on the loyalty. Word of mouth also had a lower impact on undergraduates consumer loyalty than expected, Alhabeeb (2007) stated word of mouth plays a vital role in strengthening brand loyalty, however within the present study it was not shown to be one of the highest predictors. This could be due to undergraduate students not being committed enough to the brand of their choice to advertise it to other students. Furthermore sports supplements are not products which people are likely to recommend to others as the decision on which supplementation to use is an individual process and depends on the individual wants and needs of each consumer.

Finally the overall results revealed that importance of relationship and commitment showed the lowest scores on the questionnaire. Gutstafsson and colleagues (2005) believed that commitment creates and preserves customer loyalty, even when other factors are low, for example even if a customer is not satisfied with the product, they are committed to the brand and therefore rebuy the product. It is therefore surprising that commitment was not recognized as an important factor in maintaining customer loyalty within undergraduates in relation to the sports supplementation brand they purchased from. Furthermore importance of relationship has also been shown to have strong links with brand loyalty (Morgan and Hunt, 1995). Kuusik (2007) explains the greater the importance of the relationship the consumer feels they have with a brand the more likely they are to repurchase the brand despite the cost or quality of the product. Within this study a reason for the low levels of consumer loyalty based on these factors could be due to the vast amount of different brands available, especially in relation to importance of relationship. The sports supplementation market is a very saturated market and there are a number of products at different prices which offer the same qualities, therefore people are likely to not show commitment to a brand or believe a particular brand is important to them unless all other factors such as trust, satisfaction and brand image are appealing to them.
5.3 Differences Between Sport & Non-Sport Students

The present study revealed that sports students were more loyal to certain sports supplementation brands than non-sports students, with a significant difference between the two samples (table 8). The results of the present study also highlighted different factors affecting the different level of consumer loyalty within sports students and non-sports students. The results showed there was significant difference between the following factors effects on the two different populations; trust, importance of relationship, commitment and brand image, whereas satisfaction and word of mouth showed no significant differences (table 9). Figure 6 demonstrates the differences between reasons for brand loyalty within sports and non-sports students, this academic model looks to demonstrate to future researchers the results of the current study, in order to promote future qualitative research into the area to give explanation as to why the results are as they are. Furthermore the model provides some explanation of previous research for businesses; to show how to improve each of the six factors of brand loyalty, as well as showing which factors are seen to be most important to each sample.

Figure 6: A model to summarise present the present studies results
Of the differences demonstrated by the model the most significant level of variance observed was within the importance of trusting a specific sports supplementation brand. It was observed that trust was significantly more influential upon which brands a sport student choose as oppose to a non-sport student. With the lack of previous literature within this area it is hard to find a justified reason for the differences observed, however it could be assumed that trust is more important to sports students for a number of reasons. Firstly sports students could be more likely to hope for a future career within professional sport, making trust a fundamental factor within choosing a sports supplementation brand. Trust is essential in this case as previously, sporting professionals have been banned due to substance abuse they claim to be unaware of, therefore finding a brand you can trust has become very important to people making a career or sport (Bean, 2015). Secondly sports students are likely to receive scientific information in relation to sports supplementation as part of their degree programs, and therefore are more likely to be educated in the dangers of both un-ethical and un-safe sports supplements, again making trust in the brand they use very important.

Importance of relationship was observed to be the second highest significant difference, showing it to be more important to sports students than non-sports students. Similarly commitment was shown to be a significantly more prominent factor affecting brand loyalty within sports students than non-sport students. Brand image was the final factor shown to have a significant difference, although the results revealed this to be more important to non-sports students. These results demonstrate a clear difference between the populations in relation to show their brand loyalty is affected. Therefore, companies looking to target a student population will need to cater for the different types of degrees within this population when advertising, creating and promoting their product. However, as this research is quantitative in nature it is hard to give explanation with any degree of certainty as to why the results are as they are in relation to the differences between sports and non-sports students. Previous research fails to explore the populations noted within this study and therefore no assumptions can be made based on theoretical underpinning. It is therefore clear that although the current paper has provided a foundation for future qualitative research, no assumptions can be made as to why the results are as they are. Research will need to focus on explaining why the differences exist between sports and non-sports students.
The above results show that sport students do not choose their products on the basis of price and looks of a brand. Due to this companies need to focus their budgets on increasing the effectiveness of products rather than the look of products when trying to sell to sporting individuals. Furthermore, it shows that the quality and scientific advancement of the product should not be jeopardised in order to decrease the retail price, as sport students were willing to pay more for a better quality product. The results also demonstrated that brand image was significantly more important to non-sports students implying that non-sporting individuals care more about the image of the brands they use rather than the actual scientific build up of the brands product range. Therefore companies can focus on an expensive and relevant advertisement campaign to make a brand appealing and fashionable.

To conclude, its important to realise this academic model is an assumption based on the results identified within this study. This model could be taken to companies and implemented to help them achieve consumer loyalty within either a sport or non-sport student market. However, this model only demonstrates which factors affected the populations loyalty, to truly understand these results and give a reason as to why they are as so, qualitative research should be conducted to allow for more meaning and depth to be given to the current results. This could then lead to a further modification of the above model, which will look to provide business’ with the reasons why the differences exist which will further help them specifically tailor their marketing approach for new supplementation products.
CHAPTER 6
CONCLUSION
6.0 Conclusion

6.1 Overview

This chapter will look to conclude the current study by firstly reviewing the aim and ensuring all objectives have been met. The research will then be analysed to show strengths and weaknesses of the way in which it was conducted, before summarising the practical implications of the results generated. Finally several recommendations for future research will be produced before summarising and concluding the entire project.

6.2 Review of Aim and Objectives

Before beginning the current research a clear aim was produced: to assess the level of brand loyalty within undergraduate students and explore the factors affecting brand loyalty to nutritional supplementation brands with sports and non-sports students. To reach this aim five objectives were outlined to shape the project. Firstly previous literature was thoroughly reviewed in order to gain an academic and theoretical understanding of consumer loyalty and branding. This then lead to a quantitative research design, which would investigate the loyalty of students through questionnaires. The questionnaires were then handed to 60 willing participants who were currently at university studying and competing within a BUCS team. Data from the questionnaires was then analysed using the computer programme SPSS (22.0 for mac), in which t-tests were conducted to highlight significant differences between the two populations in relation to both level of brand loyalty and the different factors affecting each. These results showed not only a significant difference in the level of brand loyalty but also significant differences in relation to the factors, which lead to this level of loyalty. Finally these results will now be practically applied in order to provide advice for companies who are marketing sports supplementation to consumers from the demographic outlined.
6.3 Strengths and Limitations

This study addressed an area of sport marketing that has previously not been researched. By including two variables within the study, (sports students and non-sports students) the study has addressed areas that had not been focused on previously. In order to make the study generalisable to all universities a heterogeneous sample was used, which comprised of different genders, sports, ages, degrees and also a range of difference universities. Another strength within the sample used was its objectivity. Purposeful sampling was used meaning only participants who fitted the necessary criteria (either, sports student or non-sports student, play at a BUCS level and regularly use sports supplementation products) were asked to take part within the study, this allowed generalisations to be made (Boejie, 2010). However, the sample used for this study also has limitations due to its size. Quantitative analysis requires large sample sizes, specifically t-tests work more effectively with a large amount of data to analyse. If the sample was larger the underlying assumptions of independent sample t-tests are more likely to be met, increasing validity and reliability of the research (Field, 2013).

The questionnaire used within the present study was created specifically for the purpose of the research. This can be seen as both a strength and a limitation. The questions used were specifically designed to provide the necessary information needed in order to meet the aim of the study, adding strength to the study. Furthermore all variables within the study showed acceptable internal reliability scores with Chronbach alpha scores above .7 (Nunnally, 1978), dictating the questionnaires addressed the different factors of brand loyalty effectively. Nonetheless, the use of a questionnaire that has never previously been used could reduce validity within the current study. Another limitation within the questionnaire was it only addressed the six factors of brand loyalty shown to be most important by Kuusik (2007), whereas other researchers have shown there are a number of other influential factors on consumer loyalty, which were not addressed.

Although this research has revealed numerous strengths, there are still a few limitations that restrain the study. Firstly and most significantly is the data collection process. By collecting data through a quantitative process, the results failed to show individual opinions of the participants and also removed meaning and understanding from the study. More detailed results would be shown from qualitative research; specifically within this study we have found which factors affect loyalty levels of undergraduate students, however we do
not know why these factors affecting loyalty levels more than others. Within this study the sample was mixed between males and females. While this increases generalisability of the findings it also means that differences in terms of gender could not be identified within the results. This is a limitation as it is likely females and males will be loyal to sports supplementation brands for different reasons. This is also applicable in relation to the levels and types of sport played by participants, this study covered a range of participants from all levels and from a range of different sports, however brand loyalty could also be affected by both of these factors.

6.4 Practical Implications

From the results within the present study a number of practical implications can be identified to aid companies to increase and maintain consumer loyalty. This study has shown which factors have greatest influence on a consumer’s loyalty towards a brand. This information can then be utilised by businesses within the sports supplementation market to increase their brands desirability and produce an appealing product for the target market.

The results of the study showed firstly that sports students were more loyal than non-sports students. Therefore businesses that are looking to bring sports supplements to a new target market should focus on advertising to sports students, as they have been shown to be more loyal to particular brands. As they are more loyal future costs will decrease for companies as highlighted by previous research (Reicheld, 2001). In relation to the differences shown between the two populations results indicated that companies should target their advertising campaigns differently according to whether they wish to attain loyalty from sports or non-sporting students. Sports students were shown to be affected more by the factors related to quality of the product, whereas non-sports students loyalty was seen to be influenced more by the image the brand portrayed. Meaning companies looking to promote to sports students should invest more money into the product, whereas non-sports students are likely to be enticed by strong advertising campaigns.

The practical implementations should be treated with a level of caution, specifically the results in relation to satisfaction, commitment and importance of relationship, as the data related to these variables showed non-normality, this could have slight implications of the
significance levels generated (Field, 2009). Brand Image also showed a lack of homogeneity and should therefore be treated with caution when making observations from the results (Field, 2013).

6.5 Recommendations for Future Research

Due to the limitations within this study, there are a number of areas which require further research in relation to the factors affecting brand loyalty of both sports and non-sports students. The present study was conducted in a quantitative manner, producing a large amount of statistical data which could be analysed, however this numerical data fails to provide meaning and understanding. Qualitative research is needed in order to understand the reasoning behind the differences between sports and non-sports students. The meaning and depth behind qualitative data will allow business managers to understand why different populations become more loyal to a brand for different reasons (Nielson, 2011).

Furthermore further research is needed in order to assess a wider range of factors affecting brand loyalty, as the measure used in the currently study only included the six main factors as advised by Kuusik (2007), there are a number of other variables identified by other researchers which have significant influence upon brand loyalty, meaning future studies should look to apply the present research in relation to a higher range of factors. The sample size within the current study (n = 60) was also relatively small for quantitative data; therefore the data violated normality and homoscedasity within a number of variables, removing validity from the significance values shown by the t-test analysis. Future research should consequently look to employ a higher sample size in order to make statistical tests more powerful (Field, 2013).

Finally within the current paper only sports and non-sports students were assessed. Although this was useful as it can be applied easily to these populations, it was also a very specific sample and therefore the results could be questionable if applied to wider populations outside of university. Future research should conduct similar research but into other populations, for example; people of different ages, genders and different types and levels of sport. As these populations could show different factors to be the most influential in relation to consumer loyalty, consequently companies will need to advertise differently to cater for these different types of people.
6.6 Summary

To conclude, this paper primarily aimed to show which factors influenced undergraduate students level of loyalty to a particular brand of sport supplementation. The secondary aim of the paper was to assess if there were differences between the reasoning for being loyal to a particular brand based on which type of degree the students studied (sport/non-sport). The initial analysis showed that trust and satisfaction were the factors which demonstrated most influence on undergraduate students choice of sports supplementation, showing that business’s should promote the safety, research advancements and efficacy of their products in order to increase consumers trust within the product, to encourage their consumers to be loyal. Also the students showed if the product satisfied them they would be more likely to re-purchase from the same brand, good tasting and good quality products are important to students, meaning the products should fit this criteria. In relation to the differences between students studying sports and non-sports degrees there were a number of significant differences shown. The most significantly different factor between sports and non-sports students was trust, showing that trust in the product was more important to sport students than non-sport students. Importance of relationship and commitment as factors were also shown to be significantly more important to sports students, while non-sport students found brand image to be more important than sports students. These results allow companies to use the information to advertise their supplements to the different populations differently, in order to increase loyalty to their brand and decrease costs through not having to advertise to a new customer base. Overall this study successfully fulfilled its aims, though further research is still needed to support the results of the current study. Quantitative research is required with a larger sample size to increase validity and reliability; qualitative research is also required in order to give meaning and explanation to the results found with this study and other quantitative research.
REFERENCE LIST
References


Sharp, J (2009) *Study skills in education: Success with your education research project.*
Sharp, J (2009) *Study skills in education: Success with your education research project.* Exeter, Learning Matters Ltd.


Appendix A

Participants Demographics Information for Sport
Table 1. Demographic information for sports students within sample.

<table>
<thead>
<tr>
<th>Sport Students (n =30)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sport</strong></td>
<td></td>
</tr>
<tr>
<td>Netball</td>
<td>2</td>
</tr>
<tr>
<td>Athletics</td>
<td>3</td>
</tr>
<tr>
<td>Rugby</td>
<td>18</td>
</tr>
<tr>
<td>Football</td>
<td>2</td>
</tr>
<tr>
<td>Hockey</td>
<td>2</td>
</tr>
<tr>
<td>Basketball</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subjects</strong></td>
<td></td>
</tr>
<tr>
<td>SCRAM</td>
<td>6</td>
</tr>
<tr>
<td>Sport Exercise Science</td>
<td>10</td>
</tr>
<tr>
<td>Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>Sport &amp; PE</td>
<td>7</td>
</tr>
<tr>
<td>Biomechanics</td>
<td>1</td>
</tr>
<tr>
<td>Sport Coaching</td>
<td>3</td>
</tr>
<tr>
<td><strong>Supplements</strong></td>
<td></td>
</tr>
<tr>
<td>BSN</td>
<td>2</td>
</tr>
<tr>
<td>Maxi-Muscle</td>
<td>2</td>
</tr>
<tr>
<td>Maxi-Raw</td>
<td>5</td>
</tr>
<tr>
<td>Reflex</td>
<td>3</td>
</tr>
<tr>
<td>PAS</td>
<td>9</td>
</tr>
<tr>
<td>Maxi-tone</td>
<td>2</td>
</tr>
<tr>
<td>Iron Science</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix B

Participants Demographics Information for Non-sport
Table 2. Demographic information for non-sports students within sample.

<table>
<thead>
<tr>
<th>Sport</th>
<th>Non-sport Students (n =30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics</td>
<td>2</td>
</tr>
<tr>
<td>Netball</td>
<td>3</td>
</tr>
<tr>
<td>Rugby</td>
<td>4</td>
</tr>
<tr>
<td>Football</td>
<td>3</td>
</tr>
<tr>
<td>Hockey</td>
<td>3</td>
</tr>
<tr>
<td>Basketball</td>
<td>2</td>
</tr>
<tr>
<td>Swimming</td>
<td>2</td>
</tr>
<tr>
<td>Rowing</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Non-sport Students (n =30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astro-physics</td>
<td>2</td>
</tr>
<tr>
<td>Economics</td>
<td>6</td>
</tr>
<tr>
<td>International business</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>Law LLB</td>
<td>4</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>2</td>
</tr>
<tr>
<td>Business Management</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supplements</th>
<th>Non-sport Students (n =30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSN</td>
<td>5</td>
</tr>
<tr>
<td>Maxi-Raw</td>
<td>2</td>
</tr>
<tr>
<td>Reflex</td>
<td>12</td>
</tr>
<tr>
<td>Optimum</td>
<td>2</td>
</tr>
<tr>
<td>My protein</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>
Appendix C

Consumer loyalty Questionnaire
A Questionnaire to assess Consumer loyalty

Please answer each of the below statements in relation to how much you agree or disagree with them by circling the number on the scale which best represents you.

1. I generally buy the same sports supplement brand I have always bought

   Completely disagree 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 Completely agree

2. Once I have made a choice on which sport supplement brand to purchase, I am likely to continue to buy it without considering other brands

   Completely disagree 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 Completely agree

3. Once I get used to a sport supplementation brand, I hate to switch

   Completely disagree 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 Completely agree

4. If I like a sport supplementation brand, I rarely switch from it just to try something different

   Completely disagree 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 Completely agree

5. Even though there are number of different sport supplementation brands, I always tend to buy the same brand

   Completely disagree 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 Completely agree
Appendix D

Factors affecting Consumer Loyalty Questionnaire
A Questionnaire to assess factors affecting consumer loyalty

I am interested in learning about things that encourage you to buy a certain brand. Below are a number of statements in relation to several factors which could persuade you to buy the brands you do. Please circle the extent to which each statement reflects the reason you buy products from the brand you do. Please respond to each statement honestly even though they may seem repetitive. Be aware there are no right or wrong answers and any answers given will remain confidential.

**I usually purchase products from a specific brand because**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all</th>
<th>Sometimes</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It is a well-known brand</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>There is no other brands I feel suit me</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>There is only one product on the market I feel works for me</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>It is well advertised and therefore caught my eye</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>It is backed by scientific research to be effective</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I don’t have any reason to look for other brands</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>It is a cheap price for the quality</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>It is a brand that is used by my role models</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Everyone in my team uses a certain brand</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I have heard the brand and products have good reviews</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I trust that the products by the brand do what is advertised</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I like the way the brand makes me look</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I am willing to pay higher prices than normal for my certain product</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I know the product is doing what I need it too</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>It is a well known company name</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>People at my gym use the same brand</td>
<td>0</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>There is no other brand available for the product I</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>I don't need any other products as this one works for me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>I feel the product works for me</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I like the flavour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>I am willing to pay higher prices than normal for my certain product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>It is of high quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>It is a fashionable brand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>No other brands produce a product with as good quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>My friends/teammates use the product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>The product has been tested to show it is safe and legal within sport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I feel like I can't do without a certain product</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Participant Information sheet
Participant Information Sheet

Researcher Name: James Matthews

Title of project
A quantitative study of factors effecting consumer loyalty within undergraduate students from both sports degrees and non-sports degrees, in the context of sports supplementation

Purpose of the study
The purpose of this study is to examine the market of sports supplementation and gain a clear understanding of the factors that contribute to people’s loyalty to particular brands of sports nutrition supplementation. The research will look to provide information for companies looking to promote new brands and allow them to see the factors that affect people’s loyalty.

Background information
Sports supplementation has developed from a niche market of professional sportsmen and women who used supplements within elite sport for recovery and performance enhancement, to an international market that is continuing to grow. It can benefit people within all levels of performance and many people use supplementation for a variety of reasons. Many factors affect the ways in which products are marketed within this growing market, the aim of this research is to analyse how people become attached to certain brands, and for what reasons this loyalty is developed.

Participation in the study
The study you are being asked to participate in is entirely voluntary and as a participant you have the right to withdraw from the study at anytime and without reason. Your participation in the study will however be greatly appreciated and be a key contribution to this study. You have been chosen to partake in this study as you are a university student who competes within the BUCS leagues within your chosen sport.
What will my participation in the study entail?
Once you have been confirmed as a participant by signing a consent form you will be asked to complete a questionnaire which relates to the branding of sports supplements and how you personally are attracted to different brands. The questionnaire has instructions however if you have any problems do not hesitate to ask any questions.

How is my information kept confidential?
All completed questionnaires will be kept in a secure place and names will not be used within any official written research. All data will be stored and used in line with the data protection act (1998).

What are the possible benefits and disadvantages of taking part?
Although you may not feel like you are directly benefitting from the study you are taking part in a piece of official research which could help to further develop research within the field of marketing, it will help both future researchers and companies to brand their products effectively. There are no direct disadvantages of taking part in this study apart from a small amount of your time. It is however advised that you should not complete the questionnaire while feeling unwell. It is also important to again mention that if at any point you wish to withdraw from the study that is fine. Also if you do not wish to answer certain questions then do not feel pressured to do so and simply skip that question.

Further information
If you have any questions regarding any of the above please do not hesitate to contact me, contact information is provided below.

James Matthews
St20005200@outlook.cardiffmet.ac.uk
jamesmatthews3@icloud.com

You can also contact my supervisor for this research (Dr G Dainty) if required on gdanity@cardiffmet.ac.uk
Appendix F

Written Consent form
Cardiff Metropolitan University

INFORMED CONSENT FORM

Title of Project: Identification and critical analysis of factors affecting brand loyalty within the nutrition supplementation market with a focus on undergraduate sports students who compete at a minimum of a BUCS standard level

Name of Researcher: James Matthews

Participant to complete this section:

Please initial each box.

1. I confirm that I have read and understand the information sheet for this study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that it is possible to stop taking part at any time, without giving a reason.

3. I also understand that if it happens, our relationships with Cardiff Metropolitan University, or our legal rights will not be affected.

4. I understand that information from the study may be used for reporting purposes, but I will not be identified.

5. I agree to take part in this study on Identification and analysis of factors affecting brand loyalty in relation to nutrition supplementation.

________________________________________
Name of Participant

________________________________________  _________________
Signature of Participant                        Date
Appendix G

Ethical Approval Form
When undertaking a research or enterprise project, Cardiff Met staff and students are obliged to complete this form in order that the ethics implications of that project may be considered.

**If the project requires ethics approval from an external agency such as the NHS or MoD,** you will not need to seek additional ethics approval from Cardiff Met. You should however complete Part One of this form and attach a copy of your NHS application in order that your School is aware of the project.

The document *Guidelines for obtaining ethics approval* will help you complete this form. It is available from the [Cardiff Met website.](#)

Once you have completed the form, sign the declaration and forward to your School Research Ethics Committee.

**PLEASE NOTE:**

Participant recruitment or data collection must not commence until ethics approval has been obtained.

### PART ONE

<table>
<thead>
<tr>
<th>Name of applicant:</th>
<th>James Matthews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor (if student project):</td>
<td>Greg Dainty</td>
</tr>
<tr>
<td>School:</td>
<td>Cardiff School of Sport</td>
</tr>
<tr>
<td>Student number (if applicable):</td>
<td>ST20005200</td>
</tr>
<tr>
<td>Programme enrolled on (if applicable):</td>
<td>Sport Management</td>
</tr>
<tr>
<td>Project Title:</td>
<td>A quantitative study of factors effecting consumer loyalty within undergraduate students from both sports degrees and non-sports degrees, in the context of sports supplementation</td>
</tr>
<tr>
<td>Expected Start Date:</td>
<td>01/10/2014</td>
</tr>
<tr>
<td>Approximate Duration:</td>
<td>6 months</td>
</tr>
<tr>
<td>Funding Body (if applicable):</td>
<td>n/a</td>
</tr>
<tr>
<td>Other researcher(s) working on the project:</td>
<td>none</td>
</tr>
<tr>
<td>Will the study involve NHS patients or staff?</td>
<td>no</td>
</tr>
<tr>
<td>Will the study involve taking samples of human origin from participants?</td>
<td>no</td>
</tr>
</tbody>
</table>
In no more than 150 words, give a non technical summary of the project

The sports market is an ever-expanding environment, specifically the sports supplementation market has shown year on year growth. In order to fully exploit this growth within the market business’s need to develop marketing strategies that create maximum profit, including considerations regarding increasing consumer loyalty. This is an area that academically has received little research attention. Therefore the purpose of this research is to identify the level of brand loyalty within undergraduate students in relation sport supplementation brands, and to then identify any differences between sports and non-sports students. Participants will complete two questionnaires; firstly an assessment of consumer loyalty (adapted from Burton et al, 1998) and secondly a questionnaire assessing the factors affecting brand loyalty, based on the six main factors identified by Kuusik (2007). Results will then be analysed via independent sample T-tests to show results of difference between the two populations.

<table>
<thead>
<tr>
<th>Does your project fall entirely within one of the following categories:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper based, involving only documents in the public domain</td>
<td>No</td>
</tr>
<tr>
<td>Laboratory based, not involving human participants or human tissue samples</td>
<td>No</td>
</tr>
<tr>
<td>Practice based not involving human participants (eg curatorial, practice audit)</td>
<td>No</td>
</tr>
<tr>
<td>Compulsory projects in professional practice (eg Initial Teacher Education)</td>
<td>No</td>
</tr>
</tbody>
</table>

If you have answered YES to any of these questions, no further information regarding your project is required.

If you have answered NO to all of these questions, you must complete Part 2 of this form

---

**DECLARATION:**

I confirm that this project conforms with the Cardiff Met Research Governance Framework

Signature of the applicant: J Matthews

Date: 10/11/2014

---

**FOR STUDENT PROJECTS ONLY**

Name of supervisor: Greg Dainty

Date: 10/11/2014

---

Signature of supervisor:
PART TWO

A RESEARCH DESIGN

A1 Will you be using an approved protocol in your project?  No

A2 If yes, please state the name and code of the approved protocol to be used

A3 Describe the research design to be used in your project

Contact will be made with participants upon ethical clearing from the university; this contact will be via email and face to face. Consent will be given by all participants prior to them being given a questionnaire.

The initial questionnaire is a modified version of Burton et al.’s (1998) consumer loyalty questionnaire. The questionnaire comprises of five questions which each give a score out of seven on a likert scale, with 1 = completely disagree and 7 = completely agree. The second questionnaire is a questionnaire designed to assess which factors have the greatest contribution to a customer loyalty level, the question was based on the six main factors influencing consumer loyalty, identified by Kuusik (2007). The questionnaire included 27 questions and was again measured on a likert scale from 0= Not at all, to 7 = Always.

The aim is for 60 students of both genders to complete the questionnaires, 30 from a sport degree and 30 from a non-sport degree. Within the questionnaire will be a participant information sheet and an informed consent form. The participants will be allowed to complete the questionnaires in a comfortable environment and take as long as necessary to give their answers within one sitting.

A4 Will the project involve deceptive or covert research?  No

A5 If yes, give a rationale for the use of deceptive or covert research

____________________________
### B PREVIOUS EXPERIENCE

<table>
<thead>
<tr>
<th>B1</th>
<th>What previous experience of research involving human participants relevant to this project do you have?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Research methods at both level 1 and 2. Participation in dissertation studies for 3 other students.</td>
</tr>
<tr>
<td></td>
<td>Attended and completed the tasks for both qualitative and quantitative research seminars involving the use of methods such as interviews, questionnaires and t-tests.</td>
</tr>
<tr>
<td></td>
<td>Fitness testing in relation to training programme progressions</td>
</tr>
</tbody>
</table>

#### B2 Student project only

<table>
<thead>
<tr>
<th>What previous experience of research involving human participants relevant to this project does your supervisor have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research in and around sport marketing. Several research papers published in relation to sport marketing.</td>
</tr>
</tbody>
</table>

### C POTENTIAL RISKS

<table>
<thead>
<tr>
<th>C1</th>
<th>What potential risks do you foresee?</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C2</th>
<th>How will you deal with the potential risks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/a</td>
<td></td>
</tr>
</tbody>
</table>

When submitting your application you **MUST** attach a copy of the following:

- All information sheets
- Consent/assent form(s)

Refer to the document *Guidelines for obtaining ethics approval* for further details on what format these documents should take.
Appendix H

Skewness and Kurtosis test of normality
Table 6. Skewness and Kurtosis test of normality Z-scores of all variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td>0.31</td>
<td>-1.82</td>
</tr>
<tr>
<td>Trust</td>
<td>-1.17</td>
<td>-1.54</td>
</tr>
<tr>
<td>Commitment</td>
<td>-0.03</td>
<td>-2.24*</td>
</tr>
<tr>
<td>Importance of Relationship</td>
<td>-0.01</td>
<td>-2.50*</td>
</tr>
<tr>
<td>Word of mouth</td>
<td>-3.09*</td>
<td>0.88</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>-4.73*</td>
<td>4.42*</td>
</tr>
<tr>
<td>Consumer loyalty</td>
<td>-0.56</td>
<td>-2.35*</td>
</tr>
</tbody>
</table>

Note. * = Unacceptable result at either $z > 1.96$ or $z < -1.96$. 
Appendix I

Levene’s test of homogeneity results for all variables.
Table 7. Levene’s test of homogeneity results for all variables.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand Image</strong></td>
<td>13.601</td>
<td>.000*</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
<td>1.261</td>
<td>.266</td>
</tr>
<tr>
<td><strong>Commitment</strong></td>
<td>.537</td>
<td>.467</td>
</tr>
<tr>
<td><strong>Importance of Relationship</strong></td>
<td>.002</td>
<td>.968</td>
</tr>
<tr>
<td><strong>Word of mouth</strong></td>
<td>5.728</td>
<td>.020*</td>
</tr>
<tr>
<td><strong>Satisfaction</strong></td>
<td>2.043</td>
<td>.158</td>
</tr>
<tr>
<td><strong>Consumer loyalty</strong></td>
<td>.679</td>
<td>.413</td>
</tr>
</tbody>
</table>

Note. * = Unacceptable at significant $p < .05$. 