The Effects of Sponsorship on Brand Sentiment; A Case Study

Erasmus School of Economics
Bachelor Economie & Bedrijfseconomie

Marlin Roeleven
Bachelor Thesis
July 2023

Bachelor Thesis Marketing:
The effects of sponsorship on brand sentiment; a case study

Student number: 580446

Name: Marlin Roeleven

Supervisor: Schelte Beltman

Date: 18-07-2023

Word count: 10181

Executive Summary

Sponsorship has become a very prominent form of advertising over the past few decades. Through sponsorship of events, brands, and people, businesses aim to expose their brand to a targeted audience. However, it hasn't always been easy to accurately predict the value of sponsorship and its return on investment (Cornwell & Maignan, 1998). Recent developments of data analytics and AI provide us with new ways to research and analyse the effectiveness of sponsorship. The introduction of a statistical approach to Natural Language Processing (NLP) and machine learning has given us the opportunity to analyse language more objectively, which can be very useful to measure something that is reminiscent of emotions.

This thesis will discuss two cases of firms that have engaged in event sponsorship, which are analysed to determine the effectiveness of these sponsorships. The cases that are discussed are Coca Cola, with the Coca Cola 600, and Red Bull, with Red Bull Stratos. These cases were chosen because of their rich history with advertising and sponsorship.

This thesis seeks to answer the question: *How does sponsoring affect brand sentiment, and how does this differ between the two selected cases: The Coca Cola 600, and Red Bull Stratos?*

In order to answer this question, sub-questions are established:

1.   What are the characteristics of brand equity?
2.   How can sponsorship be operationalized?
3.   How can the value of sponsorship be evaluated?
4.   What is the brand sentiment in the cases of Coca Cola and Red Bull?
5.   How does the brand sentiment change with regard to sponsorships by these firms?

From the literature review, I concluded that sponsorship creates brand equity through (1) establishing brand identity, (2) creating brand meaning, (3) evoking positive brand responses, and (4) developing brand relationships. Sponsorships differ from traditional advertising, because people see them as beneficial, as opposed to rather selfish traditional advertising. Therefore, people have a lower defence mechanism, and are more easily persuaded. Furthermore, sponsorships are a great way for firms to target involved audiences of events, as these audiences are known to have a grateful and affinitive attitude towards sponsors. Lastly, firms can benefit from associating themselves with the sponsored event and the values it is associated with. This process is called Image transfer. The value of sponsorships can be evaluated by analysing if image transfer happens, if the audience of the event is involved, and if goodwill towards the event exists.

As both Red Bull Stratos and the Coca Cola 600 satisfy the three concepts of goodwill, involvement, and image transfer, a consumer response is expected.

I chose to analyse brand sentiment in tweets about Red Bull and Coca Cola, and their sponsored events; Red Bull Stratos and the Coca Cola 600. The sentiment of the tweets can be seen as the consumer response. The tweets are analysed using the roBERTa model, which is a natural language processing (NLP) model that learns contextual representations of words through extensive training. The model gives three variables as output: negative intensity, neutral intensity, and positive intensity of the tweet. This method was chosen because it allows tweets to be positive and negative at the same time, which is something that is also the case in practice. The scores for positive and negative intensity can explain the emotion of a tweet, where neutral sentiment intensity explains the lack thereof.

From the empirical analysis, I concluded that tweets about both sponsorships are both significantly less intensely negative and more intensely positive than tweets about the firms themselves. Thus, my findings support existing literature, which state that sponsorship, when done right, generates a positive consumer response, and thus, brand equity. Furthermore, tweets about the Red Bull Stratos event were more intensely neutral than tweets about Red Bull itself, whereas the Coca Cola 600 event was less intensely neutral than the tweets about Coca Cola. This might be due to the age of the event, as Red Bull Stratos took place 11 years ago, whereas the Coca Cola 600 took place 2 days prior to data collection. It could also be that this is due to the nature of the event, as the Coca Cola 600 is a race, and Red Bull Stratos was simply the attempt at a record. There are many variables that can influence people's emotions and perceptions, which are beyond the scope of this paper.

Further research could be conducted on variables that determine changes in sentiment, such as the nature, frequency, attendance, revenue, cost, and engagement of the event. In this paper, no distinction was made between positive and negative feelings that are evoked as a result of sponsorship. Pin-pointing what feelings are evoked with a specific sponsorship could be beneficial to research what measures can be taken to get desirable consumer responses. This could be part of further research.

Contents

1. Introduction

1.1 Problem Statement

Sponsorship has become a very prominent form of advertising over the past few decades. Through sponsorship of events, brands, and people, businesses aim to expose their brand to a targeted audience. Typically, the sponsoring party supplies the sponsored party with some sort of support, which is often financial. In exchange, the sponsoring party receives the opportunity to associate themselves with the sponsored entity and create awareness of their own brand (Aaker, 1992).

A great example of such advertising is the sponsorship of Michael Jordan by Nike. When Michael Jordan entered the NBA in 1984, the rookie was approached by several brands such as Adidas, Converse, and Nike to sponsor Jordan, and provide him with custom shoes. Nike offered Jordan the opportunity to be their star and allowed Jordan to adjust the shoe to fit his identity. A 5-year 2.5-million-dollar deal was signed with Jordan, which by far exceeded any other deal in the NBA at the time. Allegedly, Nike aimed for a profit of 3 million dollars in the first three years of the contract, which was exceeded already in the first year, by earning no less than 126 million dollars (Benson, 2022).

The example of Michael Jordan and Nike goes to show the power of association that can be achieved through sponsorship. At the time, the preferred brand of basketball shoe that was worn in the majority of the NBA was Converse. Converse did sponsor athletes but made little adjustments or tweaks to the shoes based on individual athletes. This might have been a factor that caused Converse to be overshadowed by brands such as Nike, which did offer consumers shoes that stood out and were worn by their favourite athletes.

Over the past few decades, it has become apparent that sponsorships can be a very effective form of advertising. However, it hasn't always been easy to accurately predict the value of sponsorship and its return on investment (Cornwell & Maignan, 1998).

Recent developments of data analytics and AI provide us with new ways to research and analyse the effectiveness of sponsorship. The introduction of a statistical approach to Natural Language Processing (NLP) and machine learning has given us the opportunity to analyse language more objectively, which can be very useful to measure something that is reminiscent of emotions.

This thesis will discuss two cases of firms that have engaged in event sponsorship, which are analysed to determine the effectiveness of these sponsorships. The cases that are discussed are Coca Cola,

with the Coca Cola 600, and Red Bull, with Red Bull Stratos. These cases were chosen because of their rich history with advertising and sponsorship.

1.2 Research Objectives
In this thesis, the research objective comes in twofold: gaining an insight into the use of Natural Language Processing (NLP) to analyse brand sentiment (1), in order to draw conclusions about how sponsorship affects this sentiment (2).

1.3 Central Question
From the problem statement and the research objectives we can derive the following central question; *How does sponsoring affect brand sentiment, and how does this differ between the two selected cases: The Coca Cola 600, and Red Bull Stratos?*

1.4 Sub Questions
Theoretical Questions:

1. What are the characteristics of brand equity?
2. How can sponsorship be operationalized?
3. How can the value of sponsorship be evaluated?

Empirical Questions:

4. What is the brand sentiment in the cases of Coca Cola and Red Bull?
5. How does the brand sentiment change with regard to sponsorships by these firms?

1.5 Structure of the Thesis

In chapter one the subject of the thesis is introduced, and its relevance is justified (1.1). Then, from the introduction, the research objectives are stated (1.2), and these objectives are then summarized in the central research question (1.3). The central question can then be answered using the theoretical and empirical questions named in the following paragraph (1.4) Lastly, the structure of the thesis is described (1.5).

In chapter two existing literature is reviewed with respect to brand equity (2.1), and sponsorship (2.2). From this existing literature a theoretical framework is developed (2.3) to analyse the different ways Red Bull (2.4) and Coca Cola (2.5) try to create an effective event sponsorship.

In chapter three the research methodology is stated. Firstly, the research design is explained (3.1) to distinguish between the different methods of research needed for each research question. Then, the data collection methods are explained (3.2), followed by the explanation of the methods of analysis (3.3). Lastly, potential quality concerns are stated (3.4).

Chapter four covers the results from the analysis (4.1).

Chapter five contains a thorough discussion of the results (5.1), and conclusions are drawn (5.2).

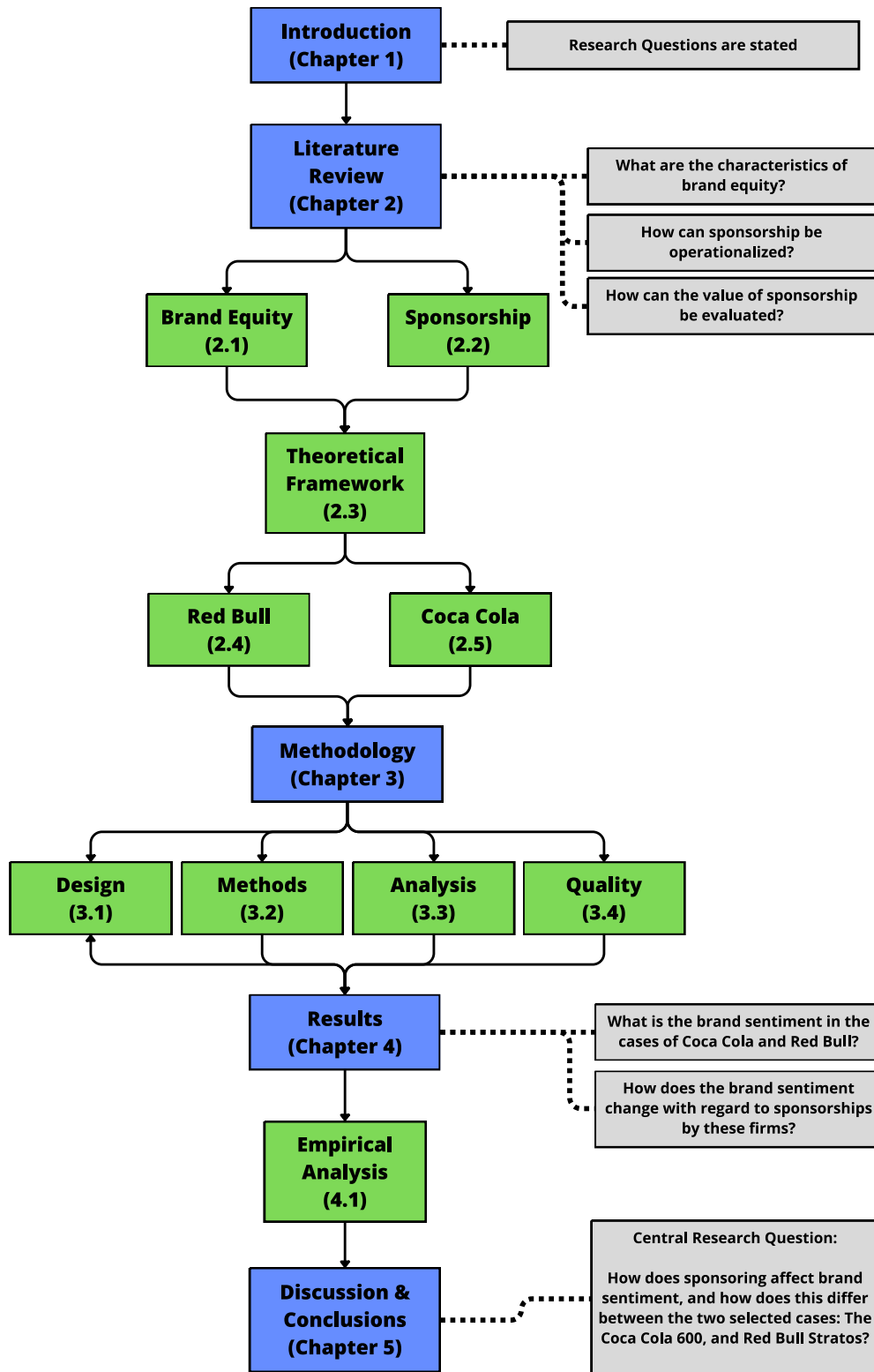Figure 1.1 shows a research navigator which helps explain the structure of the thesis.

Figure 1.1 Research Navigator, Introduction

2. Literature Review

In this paragraph the theoretical questions are covered. Firstly, the creation of brand equity and its value is discussed (2.1). This section tries to answer the question: "What are the characteristics of brand equity?". Secondly, sponsorship as a marketing strategy is discussed (2.2), answering the questions: "How can sponsorship be operationalized?", and "How can the value of sponsorship be evaluated?". From this existing literature a theoretical framework is developed (2.3) to analyse the different ways Red Bull (2.4) and Coca Cola (2.5) try to create an effective event sponsorship. Figure 2.1 shows the contents of this chapter.
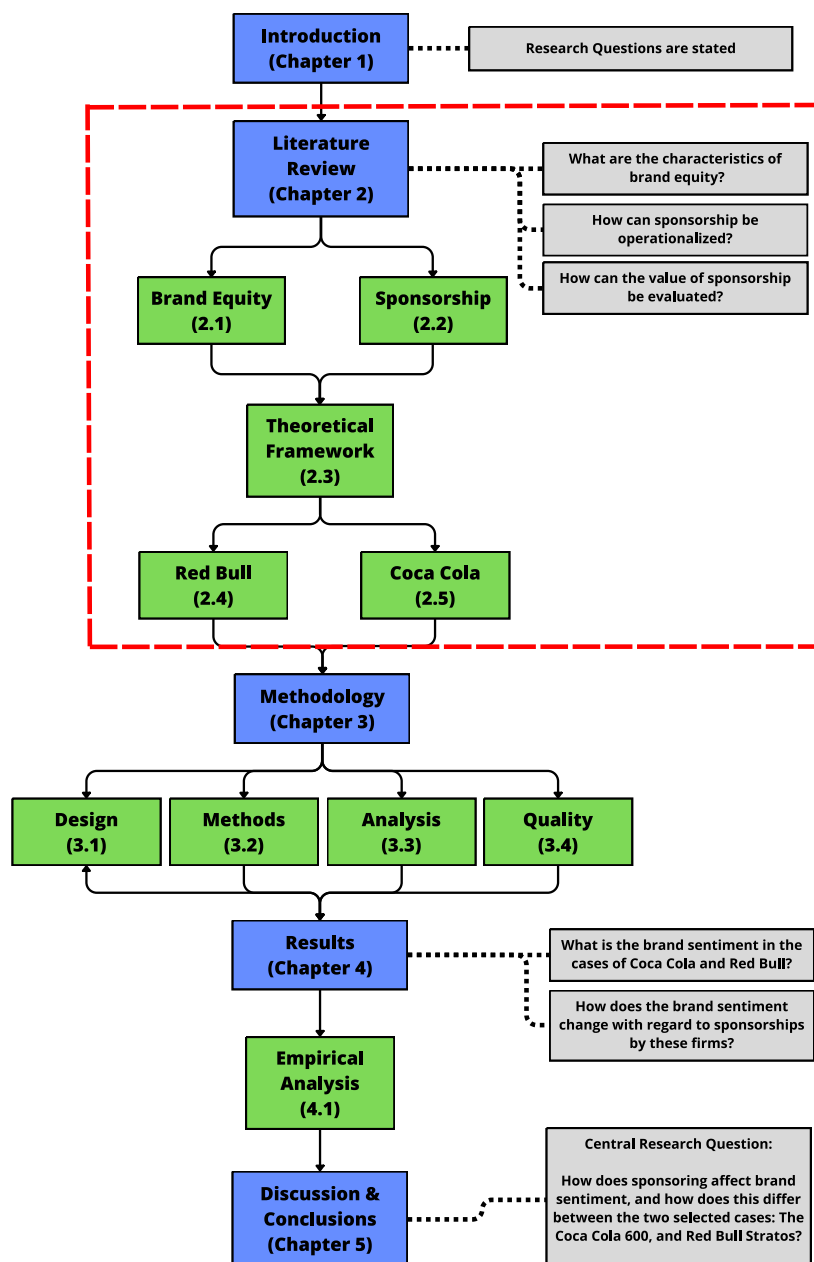
Figure 2.1 Research Navigator, Literature Review

2.1 Brand Equity

In this section the significance of brand equity and the creation of it is discussed with existing literature, answering the theoretical question:

- How does a sponsorship create brand equity?

2.1.1 The Value of Brand Equity

Aaker (1992) identifies brand equity as a set of brand assets and liabilities that can subtract from, as well as add to, the value provided by a product or service. Brand equity is linked to the brand's name and symbol, and provides value to the customer as well as the firm. Brand Equity is built up from five brand assets: Brand loyalty, Brand name awareness, perceived brand quality, brand associations (in addition to perceived quality), and other proprietary brand assets like patents and trademarks (which are not relevant to this paper).

Brand equity and the five major brand assets are shown in blue, whilst the value they create for the firm and the customer are shown in green (Figure 2.2).
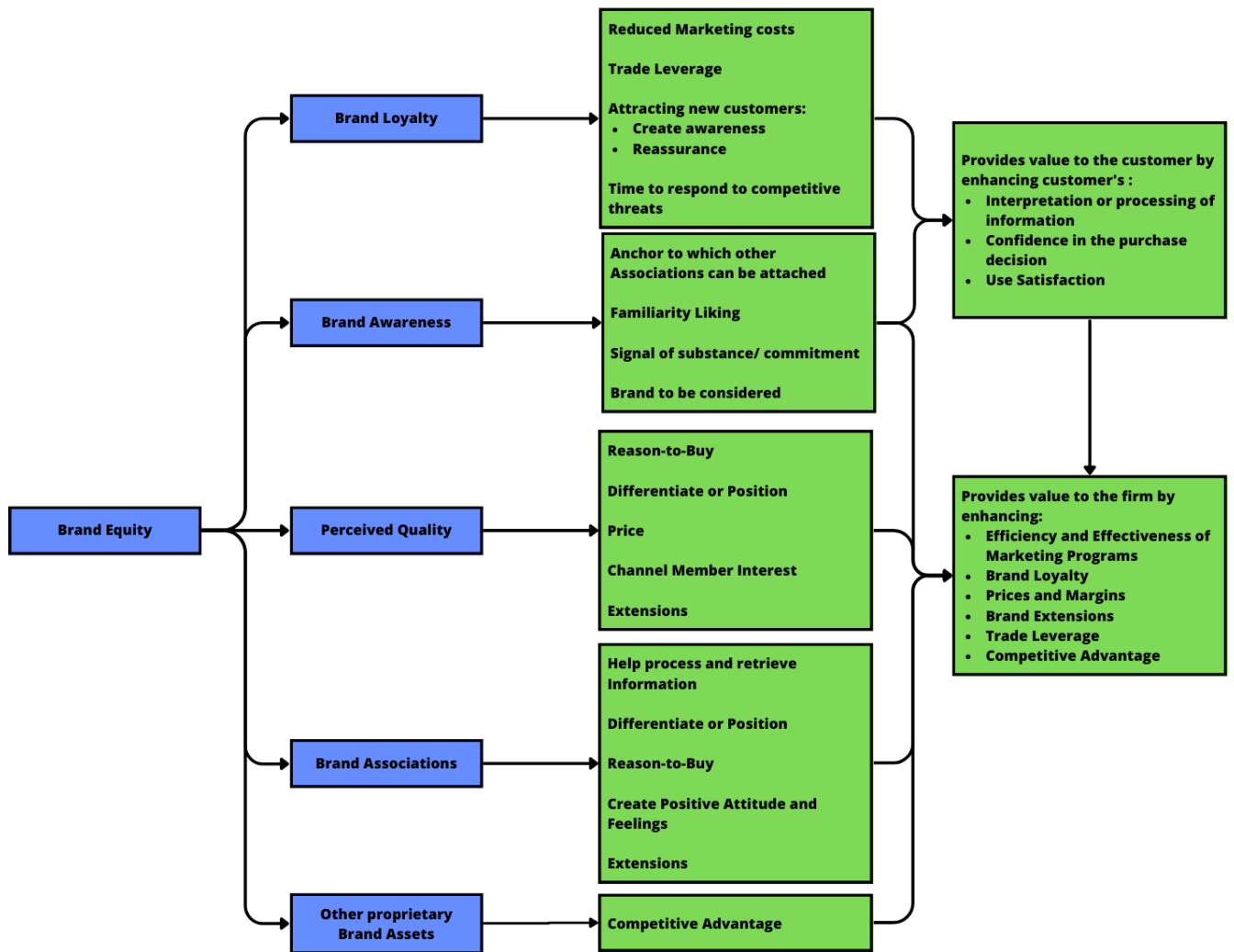
Brand Equity

Brand Loyalty
- Reduced Marketing costs
- Trade Leverage
- Attracting new customers:
  - Create awareness
  - Reassurance
- Time to respond to competitive threats

Brand Awareness
- Anchor to which other Associations can be attached
- Familiarity Liking
- Signal of substance/ commitment
- Brand to be considered

Perceived Quality
- Reason-to-Buy
- Differentiate or Position
- Price
- Channel Member Interest
- Extensions

Brand Associations
- Help process and retrieve Information
- Differentiate or Position
- Reason-to-Buy
- Create Positive Attitude and Feelings
- Extensions

Other proprietary Brand Assets
- Competitive Advantage

Provides value to the customer by enhancing customer's :
- Interpretation or processing of information
- Confidence in the purchase decision
- Use Satisfaction

Provides value to the firm by enhancing:
- Efficiency and Effectiveness of Marketing Programs
- Brand Loyalty
- Prices and Margins
- Brand Extensions
- Trade Leverage
- Competitive Advantage

Figure 2.2 How Brand Equity Generates Value

2.1.1.1 Brand Loyalty

Brand loyalty is a key component of brand equity that must be addressed in the evaluation of a brand, as a loyal costumer base generates more predictable sales and profit streams. Customer satisfaction and repeat buying are indicators of a healthy brand and can help build a stronger brand. Brand loyalty mainly generates value by decreasing marketing costs. It has been stated many times that attracting new customers is generally much more costly than retaining existing customers. Additionally, truly loyal customers aren't actively seeking alternatives, which can be a threshold for competitors.

2.1.1.2 Perceived Quality

In a preceding study by Jacobson and Aaker (1987), the perceived quality of products and services was identified as the most important contributor to return on investment among the variables that were measured. Perceived quality is what gives consumers a reason-to-buy in the first place, it differentiates the brand from others, it attracts channel member interest, it is the basis for line extensions, and it justifies a higher price. A price premium can increase profits or provide resources to reinvest in the brand.

2.1.1.3 Brand Awareness

Brand awareness, even at the recognition level, can provide a brand with a sense of familiarity and a signal of substance and commitment. It has been shown that merely being a known brand can drastically alter evaluations. Even in high-involvement decision making, it is reassuring to buy the well-known alternative. Awareness at a recall level affects the decision-making process further by influencing the consideration set of the consumer. Generally, it is thought that the consideration set is rationally formed, as it reflects a benefit versus cost trade-off; it is not worth the time collecting information about all alternative brands (Hauser, 2014). Thus, it is key to create such brand awareness to become part of the consideration set of consumers.

2.1.1.4 Brand Associations

Brand associations are mental connections that consumers make between a brand and certain product characteristics, uses, users, experiences, images, lifestyles, competitors, etc. Firstly, brand associations help costumers retrieve and process information. Inside the mind of the costumer, information is stored in the memory in a complex set of linked packages, a so-called associative network (Anderson, 1993). It can therefore be beneficial for a firm to employ marketing strategies that try to stimulate the creation of associations to induce positive attitude and feelings toward the brand. Strong brand associations can also yield great opportunity for brand extensions. For example, Mars' strong association with chocolate through their candy bar could be exploited by introducing a line extension, such as Mars' chocolate milk.

2.1.2 Consumer Based Brand Equity

In "Building Customer Based Brand Equity", Kevin Lane Keller (2001) presents his approach to brand equity in which he establishes '6 brand-building blocks', as presented in figure 2.3.
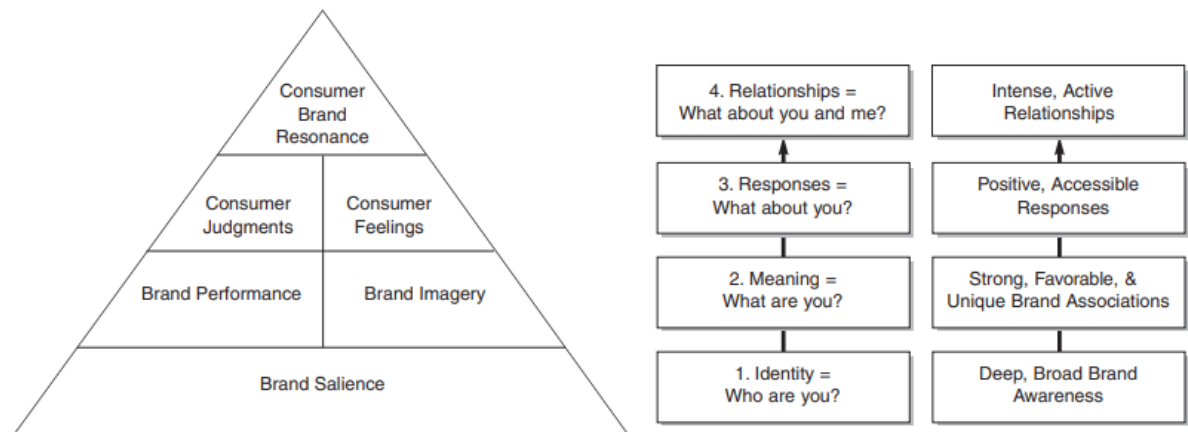
Figure 1. Customer-Based Brand Equity Pyramid

Figure 2.3 Customer-Based Brand Equity Pyramid
Source: Keller, 2001

2.1.2.1 Brand Awareness

The difference between Keller's approach (Figure 2.3) and Aaker's model is that Keller establishes a clear hierarchy between the building blocks of brand equity, wheras Aaker doesn't mention such. The Customer Based Brand Equity (CBBE) model follows the logical order in which customers interact with a brand. According to Keller, building brand equity starts with brand salience; to what extent customers are aware of the brand, but also to what extent customers can recall the brand and link it to associations in their mind. Logically, brands need to be known first to be included in the consideration set. Especially in low-involvement decisions, customers might make decisions based on brand salience alone.

2.1.2.2 Brand Meaning

However, brand salience is not sufficient by itself. Most customers also consider brand meaning when choosing between alternatives. The CCBE model distinguishes between two concepts that determine brand meaning; brand performance and brand imagery. Brand performance is at the heart of brand equity, because the product will be the main influence of the customers experience, and it will be what the firm communicates to the outside world. Brand imagery is the way people see the brand abstractly in their mind. Customers will think what kind of people might be using the brand, in what situation the brand's products can be bought, the personality of the brand, what values are attached to the brand, and the history of the brand. It is important that a brand establishes strong, favorable, and unique brand associations to create positive responses.

2.1.2.3 Brand Responses

Brand responses entail how the costumers perceive the brand and respond to its marketing activities. Keller distinguishes between brand judgements, which are responses that are rationally formed, and brand feelings, which are emotional responses. The most important types of brand judgements are judgements with respect to the quality, credibilty, relevancy, and uniqueness of the brand. Brand feelings entail a wide range of emotions that customers feel when they engage with the brand. Keller identifies six types of brand-building feelings; warmth, fun, excitement, security, social approval, and self-respect or pride. Although there are many different responses to a brand, both rational and emotional, what ultimately matters is how positive the responses are.

2.1.2.4 Brand Relationships

The last building block of the pyramid, brand relationships, describes instances in which customers are 'in synch' with the brand. There is a psychological bond, and often the brand doesn't have to make great effort to reach these customers, because they will look for information of the brand themselves. Customers become loyal and make repeat purchases. However, merely loyalty is not sufficient for complete brand resonance to occur, customers must have an attitudanal attachment to the brand. This goes beyond merely a positive attitude, as customers may state they 'love' a brand and may be able to describe their favorite possesions or look forward to their next purchase. Furthermore, customers might be involved in a brand community, connecting with others through their admiration of the brand. This may include telling others stories about experiences with the brand, telling the history of the brand, or even the practice of rituals. For example, Apple had a ritualistic unveiling of new products by Steve Jobs at huge conferences with great media attention and consumer interest (Szmigin & Piacentini, 2022). Finally, the strongest affinity towards a brand excists when consumers are willing to turn their already intense relationship with the brand into an active relationship. Costumers may spend their time and money to visit events, engage in clubs, and communicate with fellow enthousiasts. At this point, the customer has effectively become a brand evangelist.

2.1.2.5 Implications

To create a strong brand, a firm has to take a logical series of steps: (1) Establishing the proper brand identity, (2) creating the appropriate brand meaning, (3) engender the right brand responses and (4) creating intense and active relationships with customers. In order to go through these steps the six building blocks previously mentioned are required.

The subdimensions of the brand-building blocks previously mentioned are summarized in figure 2.4.

Figure 2.4 Subdimensions of Brand-Building Blocks
Source: Keller, 2001

2.2 Sponsorship

In "Understanding Sponsorship" (Meenaghan, 2001), four tenets are used to create an understanding of how sponsorship works: (1) Goodwill, (2) Image, (3) Fan Involvement and the resultant Consumer Response. This answers the following research questions:

- How does a sponsorship compare to other marketing strategies?
- How can we evaluate the value of sponsorship?

2.2.1 Goodwill in Sponsorship

Firstly, through a focus group experiment, Meenaghan finds that the consumer perception of sponsorship largely differs from the perception of traditional advertising (Figure 2.5).

Table 2.5 Sponsorship/advertising---alternative communications compared.

Comparative Factors	Sponsorship	Advertising
Goodwill	Beneficial	Selfish
Focus	Indirect/Subtle	Direct/Forceful
Intent to Persuade	Disguised	Overt
Defence Mechanisms	Low State of Alertness	High State of Alertness

Commercial sponsorship is seen as beneficial for society. Due to its indirect and subtle focus, the intent to persuade the consumer is disguised, lowering the state of alertness. Traditional advertising is seen as quite the opposite. Advertising is perceived as only being beneficial to the advertiser and being direct and forceful. Thus, there is a very clear intention to persuade consumers, which evokes a high state of alertness. Due to the difference in perception between sponsorship and advertising, sponsorship communications are received in a so called 'halo of goodwill'. Furthermore, the study concludes that the intensity of goodwill differs between different levels of sponsorship. Sponsoring at a *generic level* (as an activity), generates a more abstract level of goodwill which is not felt very deeply. This is most likely the case because sponsorship at the generic level doesn't really engage with the consumer in a deep and meaningful way. At the *category level* (sports, arts, etc.), the goodwill effect was also apparent, although different categories showed varying levels of goodwill. For example, sponsorship of social causes was deemed to have goodwill effects that were very intensely felt, much more so than other categories. Lastly, the effects of goodwill and the perception of benefit were greatest among *sponsorships of individual activities* with which the consumers are involved. Goodwill effects are most apparent in this category due to the intense involvement of the consumer with that activity. A football fan might think that the sponsorship of a football league is beneficial, but the sponsorship of the team he supports will obviously benefit him/her more, thus evoking even stronger goodwill effects.

2.2.2 Image in Sponsorship

The second tenet of understanding sponsorship is image, or more particularly, *image transfer*. The focus group research concluded that different categories of sponsorship were associated with different image values.
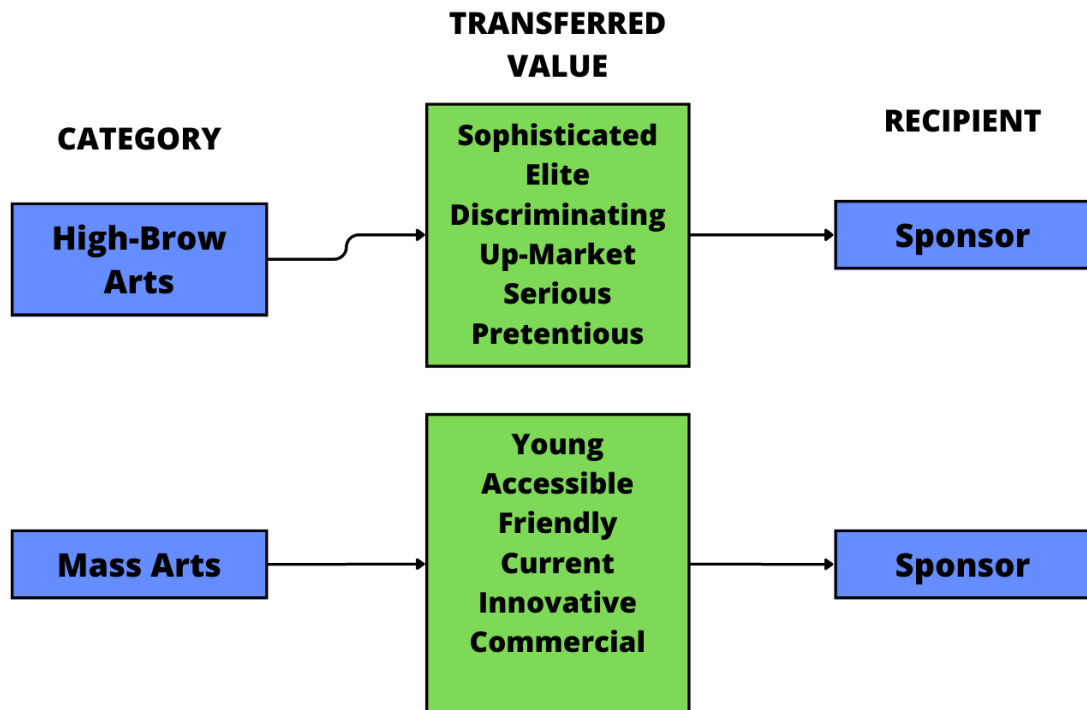
Figure 2.6 Image Values derived from various categories of sponsorship.

Figure 2.6 shows that High-Brow Arts is perceived as sophisticated, up-market, serious, elite, discriminating and pretentious, whereas the associated values with Mass Arts are very different. As aforementioned, Keller (2001) states that brand perceptions are reflected by associations that are held in memory, which is also supported by Anderson's associative network theory (1993). When a brand is combined with a sponsorship activity, this association process occurs, and some of the associations linked with the activity, like the image values in the figure, will be linked in memory with the brand. The concept of image transfer is also consistent with findings in the celebrity endorsement process. It isn't the credibility or attractiveness of the celebrity endorser that explains the effectiveness of the endorsement. The effectiveness of the endorsement is better explained by the "meanings" that consumers relate to the celebrities that transfer onto the brand (McCracken, 1989). Furthermore, there are many other factors that influence the extent of image transfer, such as the exclusivity and frequency of the event, and how similar the event is to the brand (Gwinner, 1997).

2.2.3 Fan Involvement

Fan involvement is detrimental to the strength of sponsorship effects. An uninvolved audience doesn't create a strong sense of goodwill and doesn't know enough about the entity that is being sponsored to transfer the values onto the sponsor (Meenaghan, 2001). In involved audiences,

gratitude and affinity can lead to the purchase of the sponsor's brand. This is especially the case with low-involvement purchases (e.g., candy bars), where brand image plays a large role in the consumption process. In high-involvement purchases on the other hand, sponsorship doesn't positively affect purchases, even for the most committed fans.

2.3 Theoretical Framework

This section summarizes the existing literature used in the previous two sections into one theoretical framework (Figure 2.7). The four stages of "Creating Customer Based Brand Equity", colored blue, are linked with the three key concepts that define sponsorship, colored green.
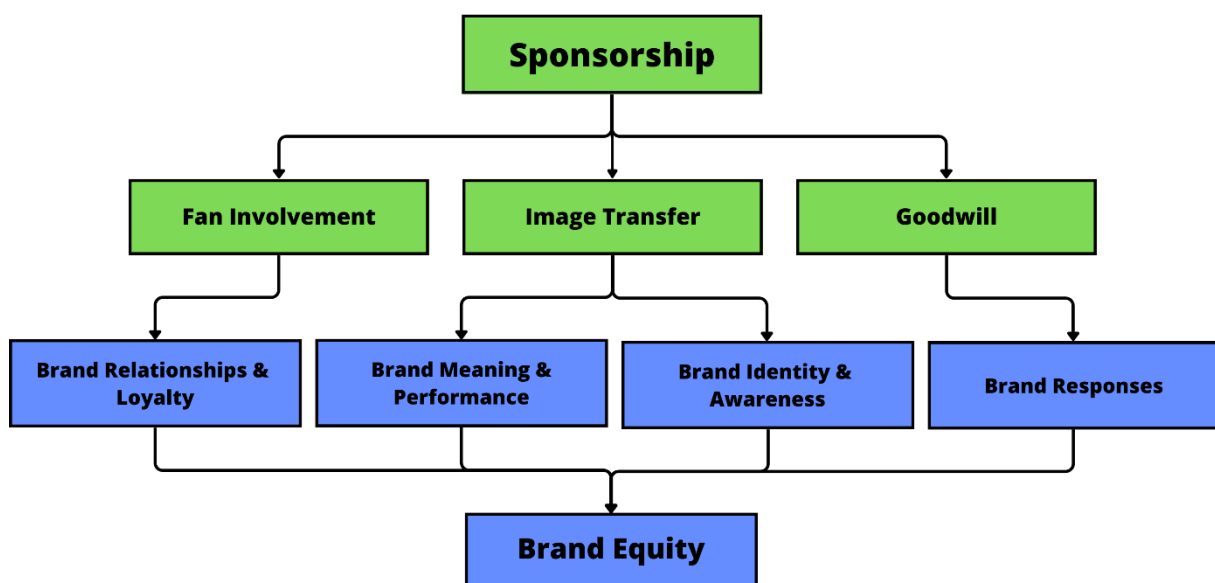
```
                        ┌──────────────────┐
                        │   Sponsorship    │
                        └──────────────────┘

┌──────────────┐   ┌──────────────────┐   ┌──────────────┐
│ Fan Involvement │  │  Image Transfer  │   │   Goodwill   │
└──────────────┘   └──────────────────┘   └──────────────┘

┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
│ Brand        │ │ Brand        │ │ Brand        │ │ Brand        │
│ Relationships│ │ Meaning &    │ │ Identity &   │ │ Responses    │
│ & Loyalty    │ │ Performance  │ │ Awareness    │ │              │
└──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘

                        ┌──────────────────┐
                        │   Brand Equity   │
                        └──────────────────┘
```

Figure 2.7 Theoretical Framework

Firstly, sponsorship provides the customers and the firm with value through the concept of goodwill. Because customers have the feeling that a sponsorship is beneficial to them, they do not have the feeling that they are persuaded by a firm, lowering their guard. As a result, customers have more positive feelings towards the brand, compared to when the are persuaded with traditional advertising, creating more favourable brand responses.

Secondly, image transfer makes people create associations between the sponsored event and the sponsor in their minds. If these associations are favourable, this helps consumers recall the brand in their mind, raising brand awareness, and causes a brand to gain meaning. Hence, image transfer is connected to brand meaning and brand identity/awareness.

Thirdly, fan involvement with the sponsored event causes people to create relationships with sponsors of the event. Especially in low-involvement purchases, customers will be loyal towards these sponsors out of gratitude and affinity.

2.4 Red Bull

Red Bull is an energy drinks company founded by Dietrich Mateschitz and Chaleo Yoovidhya in 1984. Red Bull is based on the South-East-Asian drink 'Krating Daeng', which was invented by Yoovidhya 8 years earlier. Due to its energy kick, Krating Daeng was mostly consumed by workers and truckdrivers. Allegedly, while on a business trip, it also cured Mateschitz' jetlag, which is why he invested half a million dollars to introduce the drink to the European market. Red Bull rapidly became a household name all over the world. In 2019, Red Bull sold 7.5 billion cans of its drinks, which were more cans than there were people on earth at the time (Forbes Media LLC, 2023).

2.4.1 History of Advertising

In terms of its marketing strategy, Red Bull wants to create buzz and excitement. One of the ways Red Bull tries to do so is through traditional advertising, the 'Red Bull Gives You Wiiiings' campaign. Red Bull's short advertisements tell humorous stories in which the consumption of its energy drink enables people to unlock their full potential and achieve the most extraordinary goals, ending with its iconic slogan. These segments demonstrate the capability of a can of Red Bull to replenish energy and increase concentration.

Additionally, Red Bull owns many sports clubs all over the world. Red Bull owns four football clubs (Red Bull Salzburg, New York Red Bulls, RB Leipzig, and Red Bull Bragantino), two Formula 1 teams (Red Bull Racing and Scuderia AlphaTauri), and two ice hockey teams (EC Red Bull Salzburg and Red Bull München). This allows Red Bull to expose a wider audience to their brand and create integrated marketing campaigns that combine various sports and disciplines. Furthermore, these sports clubs have become more than simply marketing expenses, as they are very successful on their own.

Another way Red Bull tries to reach its audience, that is relevant in this paper, is through sponsorship of events, sports teams, and people. Some athletes that Red Bull sponsors include Paul Rabil (Lacrosse player), Dominick Thiem (Tennis player), Beauden Barrett (Rugby player) and Neymar Jr. (Football player) (Red Bull, 2023). These athletes have varying levels of endorsing agreements, as some athletes may simply receive funding for their athletic endeavours without any requirement of endorsement, whilst others are contracted to promote the Red Bull brand. Most sponsored athletes are active in extreme or action sports. However, Red Bull has started to enter other scenes as well, such as the chess scene, by sponsoring professional chess player Hikaru Nakamura.

2.4.2 Red Bull Stratos

In terms of event sponsorship, one of the most memorable events Red Bull has sponsored is the Red Bull Stratos project. On October 14th, 2012, Felix Baumgartner flew to a height of approximately 39 kilometres in a stratosphere balloon. He would then proceed to jump down and freefall for 4 minutes and 20 seconds before opening his parachute and safely landing on earth. Baumgartner was supersonic for about 30 seconds, becoming the first human to ever break the sound barrier without any kind of engine power (Red Bull, 2023). The event was watched live by millions of viewers, and as of today the video has reached more than 1 billion views on YouTube. The Red Bull Media House owns all footage of the event.

2.4.3 Goodwill

By using the theoretical framework, it becomes clear why Red Bull Stratos became a success in terms of views. In terms of goodwill, the project might not necessarily be seen as beneficial by consumers, but it isn't perceived as forceful advertising either. Red Bull sponsors the event, and its logo can be seen on Felix Baumgartner's helmet and the stratosphere balloon, but the energy drink itself is never really mentioned. This is a trick Red Bull uses all the time. Aside from its traditional advertising, which always mentions the drink itself, in instances of sponsorship the energy drink itself is deliberately not shown to not come across as too direct or forceful.

2.4.4 Image Transfer

To understand the concept of image transfer in the case of Red Bull Stratos, 4 major transferred values were identified, shown in figure 2.8.
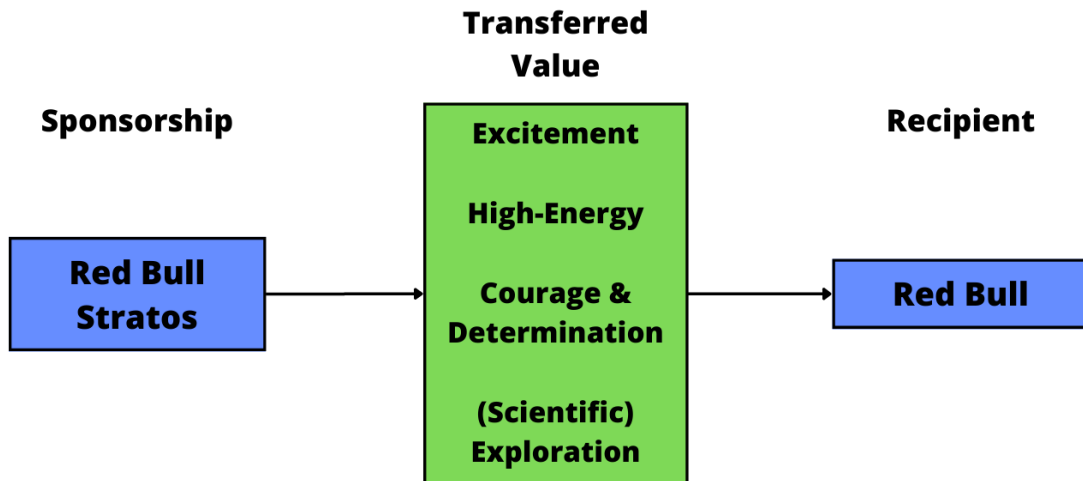

Figure 2.8 Image Values derived from Red Bull Stratos Sponsorship

Courage & determination, excitement, and high-energy are all values that are already embedded in Red Bull's brand equity, suggesting that reinforcing existing brand values is part of Red Bull's marketing strategy. Scientific exploration is unique in that aspect, as it generally doesn't play such a large role in other Red Bull marketing activities. However, Red Bull has done collaborations with universities in the past to explore sports performance. In collaboration with the University of Salzburg, Red Bull built its "Red Bull Athlete Performance Center" where athletes can be evaluated, and experiments can be conducted (Rawlings, 2020). Red Bull's mission is to enhance athletic performance, push boundaries, and contribute to the advancement of sports science. Thus, focusing on scientific advancements isn't such a stretch as it might seem.

2.4.5 Fan Involvement

Red Bull Stratos is a unique event in the sense that it was a onetime event that didn't have an audience present, which can lead to limited fan involvement. Instead, Red Bull made sure that people could still be involved in the event through social media. Live footage of Felix Baumgartner's jump was broadcasted live with commentators present. During the jump, viewers could see Baumgartner's altitude and speed at which he was falling, and they could also hear his radio messages.

Due to the extraordinary nature of the event, it was very shareable and quickly went viral. Overall, Red Bull made sure that it captured the attention and imagination of millions of people worldwide with stunning footage of the event. The narrative of the first man to ever break the sound barrier captivated audiences, and his triumph created an emotional connection with the viewers.

2.4.6 Consumer Response

Because all three tenets of sponsorship are satisfied (Meenaghan, 2001), there should be a significant consumer response to the sponsorship. In terms of brand sentiment, given that the sponsorship is successful, tweets about Red Bull Stratos should logically be more positive than tweets about Red Bull.

2.5 Coca Cola

Coca Cola was first introduced May 8th, 1886, in Atlanta, Georgia. The Coca Cola syrup was invented by local pharmacist Dr. John Stith Pemberton, and it was named after its two main ingredients, coca leaves and kola nuts. Just prior to his death, Pemberton sold the business to Asa G. Candler. Under Candler's wings, Coca Cola went from selling 9 drinks a day in 1886 to supplying the entire U.S. in 1900 (The Coca Cola Company). Today, 1.7 billion of Coca Cola's products are enjoyed every day, which amounts to 19,400 drinks every second.

2.5.1 History of Advertising

Coca Cola's vision is: "… to craft the brands and choice of drinks that people love, to refresh them in body & spirit. And done in ways that create a more sustainable business and better shared future that makes a difference in people's lives, communities, and our planet" (The Coca Cola Company).

There are many ways Coca Cola tries to get this message across. Notoriously, Coca Cola has become a global market player due to its marketing. Especially when Coca Cola first started, print advertisements were used to spread brand awareness across readers. Furthermore, Coca Cola uses billboards advertising, television commercials, and social media. These advertising strategies are meant to target various audiences, and to maintain the position of one of the most recognizable brands in the world.

Coca Cola also has a rich history with sponsorships. At the 1928 Amsterdam Olympic Games kiosks were set up outside the venues to sell Coca Cola. This began a more than 80-year-old sponsorship of the Olympic Games. Coca Cola is also a sponsor of the torch relay leading up to the Olympic Games.

Moreover, in 1976 Coca Cola and the Fédération Internationale de Football Association (FIFA) started the first ever sponsorship between a sports governing body and a company. This sponsorship didn't only include the World Cup, but all FIFA tournaments, such as the FIFA under-17 World Cup and the FIFA Women's World Cup (The Coca Cola Company, 2011).

2.5.2 Coca Cola 600

Another event that Coca Cola has sponsored is the Coca Cola 600. Originally called the 'World 600', the event is a 600-mile NASCAR (National Association for Stock Car Auto Racing) race hosted by the Charlotte Motor Speedway oval in Concord, North Carolina. It is an annual event held in the last weekend of May, which is the same weekend in which the Indy 500 (IndyCar), and the Monaco Grand Prix (F1) are also held. Coca Cola started sponsoring the event in 1986.

2.5.3 Goodwill

According to the previously defined theoretical framework, the Coca Cola 600 is likely seen as beneficial by many fans that watch NASCAR worldwide. Sponsorship of huge annual sports events captivates fans all over the world, which lowers their state of alertness, and disguises the intention of the sponsor to persuade these fans.

2.5.4 Image Transfer

To understand the concept of image transfer with respect to the Coca Cola 600, four main image values associated with the event were identified, shown in figure 2.9.
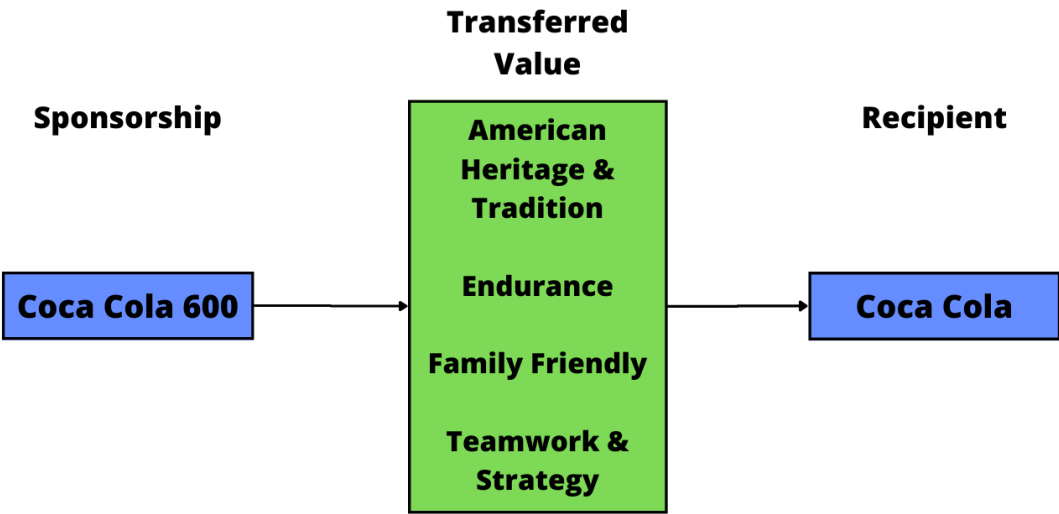

Figure 2.9 Image Values derived from Coca Cola 600 Sponsorship

Firstly, the Coca Cola 600 event is associated with American heritage and tradition. The event has taken place since 1960 and has always taken place during the Memorial Day weekend. Therefore, the Coca Cola 600 is aligned with this national holiday that honours those who served in the military. By being part of this substantial weekend, the Coca Cola 600 associates itself with American heritage and patriotism (McGee, 2022). Additionally, this weekend is known to be one of the most prestigious weekends in motorsport, as the Monaco Grand Prix (F1), and the Indy 500 (IndyCar) are hosted in the same weekend. The Coca Cola 600 is the last race of the three, concluding the race weekend.

Organizers of the Coca Cola 600 event try to create a family friendly atmosphere by selling special ticket packages, having interactive displays, having kid's zones, and more.

The race itself is an endurance race of 400 laps with a distance of 600 miles. Although pit stops, crashes, and race conditions can greatly alter the duration of the race, typically it takes about 4 to 5 hours. The race is started late in the afternoon, which means the race is finished at nighttime. This changes the track conditions during the race, posing an additional challenge for the drivers.

NASCAR is a team sport. Mechanics are busy all weekend to alter the performance and ensure its reliability. Pit crew members need to work in sync to change tyres, fuel the car and adjust the car during the race. This must be done within seconds to maintain track position. Lastly, drivers rely heavily on information provided by the team during the race. Drivers need to know when to come in for a pit stop, where to drive to avoid carnage, and what changes to make to their setup to adjust to changing track conditions.

These are all values that are associated with NASCAR, and subsequently the Coca Cola 600, which are transferred onto Coca Cola's existing brand values. Family-friendliness and American heritage are values that Coca Cola has already incorporated into their marketing communications, reinforcing them through this sponsorship. However, the brand values of teamwork & strategy, and endurance are more specific to the sponsorship.

2.5.5 Fan Involvement

Enthusiasts can view the Coca Cola 600 in several ways; they can be in attendance of the event, follow it through television or radio broadcast, or view the event through online streaming. Motorsports are the fastest growing spectator sport in the US (Economaki, 1997). In 2002 NASCAR had more viewers on television than any other sport except professional football. Many of these viewers identify themselves as dedicated fans.

2.5.6 Consumer Response

Because all three tenets of sponsorship are satisfied, it is expected that there is a positive consumer response. Previous research suggests that NASCAR sponsors enjoy a greater degree of brand loyalty among fans (Levin, Beasley, & Gamble, 2004). Therefore, there is reason to believe that a similar result will be found in the case of the Coca Cola 600 specifically.

3. Research methodology

In this chapter the research methodology is stated. Firstly, the research design is explained (3.1) to distinguish between the different methods of research needed to answer each research question. Then, the data collection methods are explained (3.2), followed by the explanation of the methods of analysis (3.3). Lastly, potential quality concerns are stated (3.4). The research navigator in figure 3.1 helps with the navigation through this chapter.
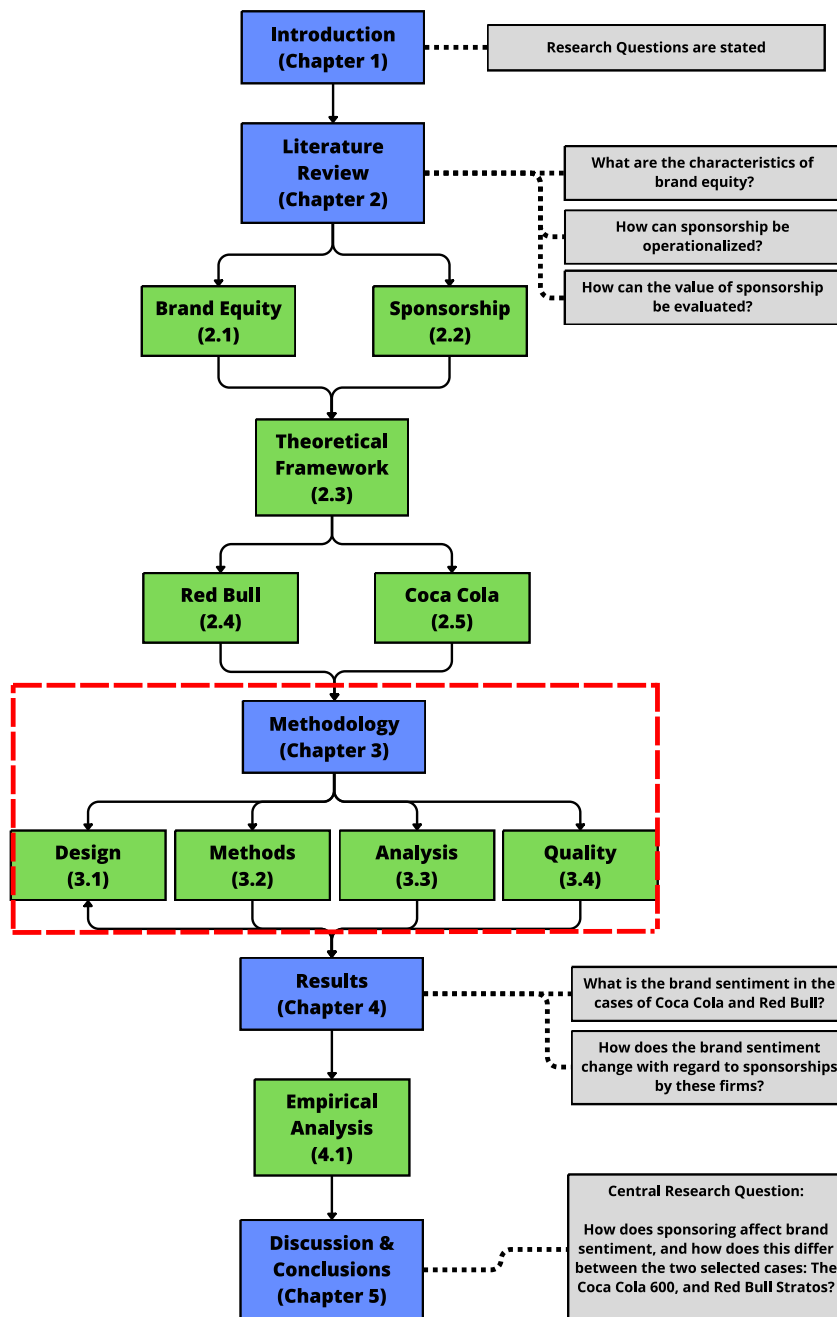

Figure 3.1 Research Navigator, Research Methodology

3.1 Research Strategy Design

Table 3.2 depicts the various methods of data gathering and data processing which were used to answer the research questions stated in section 1.4.

Table 3.2 Research Strategy Design

Question	Research strategy	Methods	Data Gathering	Data Processing
RQ 1, 2 & 3	Theoretical	Literature Review & Theoretical Framework	State of the art literature	Tables & Models
RQ 4 & 5	Empirical	Sentiment Analysis	Twitter API	Tables
Central Research Question	Combination	Analysis	Combination	Combination

Firstly, the goal of the paper is addressed in the problem statement and introduction, which is to analyse the effects of sponsorship on brand sentiment. Secondly, the way sponsorships generate brand equity and thus generate value will be studied in the literature review with state-of-the-art literature. The theoretical framework will then give an outline of the main concepts from the literature that has been studied. Thirdly, tweets about the two different brands, Coca Cola and Red Bull, will be gathered from the Twitter API, as well as tweets that exclusively concern the sponsorships of these brands. The empirical research will consist of tweet sentiment analysis with the roBERTa model. Fourthly, the results of the research will then be explained using the theoretical framework and other existing literature to create a broader understanding of sponsorship. This will then result in an empirical framework, from which, together with the theoretical framework, the conclusions and recommendations ensue.

3.2 Data Collection Methods

Secondary data on two different brands were collected from the Twitter API. Firstly, on May 31st, 2023, 2000 of the most recent tweets on Coca Cola were gathered, as well as 2000 tweets on the 'Coca Cola 600', which is the race event sponsored by Coca Cola. Secondly, on June 6th and 7th respectively, 2000 recent tweets on Red Bull and the Red Bull Stratos event were gathered. The tweets on Coca Cola were selected by the Twitter API if they included the words "Coca Cola" but didn't include the number "600" in the tweet. Logically, tweets on the 'Coca Cola 600' were selected if they included the words "Coca Cola 600". Tweets on Red Bull and the Red Bull Stratos event were gathered in the exact same way. These two event sponsorships were chosen because they are visible

sponsorships; the name of the brand is incorporated into the name of the event, which creates a very clear association between the two.

The tweets are encoded with the 8-bit Unicode Transformation Format (UTF-8). UTF-8 allows for emoji in the text of the tweet. These need to be considered, as they can be great predictors of sentiment. The text of the tweet is the only part of the tweet that will be used for the analysis.

3.3 Data Analysis

The data analysis takes place right after the data collection. The roBERTa model (Robustly Optimized BERT Pretraining Approach) will be used to perform a sentiment analysis on the collected tweets (Liu, Lin, Shi, & Zhao, 2021). The roBERTa model is an improved version of the BERT model (Bidirectional Encoder Representations from Transformers) created by Google in 2018. Both are natural language processing (NLP) models that learn contextual representations of words through extensive training. The models train using a masked language model objective. The model tries to gain an understanding of the language it is set to analyse by masking certain words, which means hiding them. The model then tries to predict what this word is that it hid from its itself, using the other sequences of words in a sentence.

The roBERTa model is preferable over the BERT model, because it can be trained with a larger quantity of text, namely 160 Gigabytes over 16 Gigabytes. This is important, because the larger amount of training data allows the roBERTa model to understand more diverse language patterns. Furthermore, BERT and many other NLP models have a maximum sentence length of 512 tokens, which is too short for many tweets to be fully analysed. The roBERTa model doesn't have this restriction. Lastly, the roBERTa model employs dynamic masking, in which masking is performed in every sequence of words that it is given. This enables the model to have different masking patterns for the same sentence during training.

The roBERTa model can also be pre-trained to enhance its performance in specific tasks. Pre-training can be achieved by feeding the model a specific dataset for pre-training that is representative of the dataset that is analysed later. The specific model that will be used for data analysis is the roBERTa base model which was pretrained on 60 million tweets to develop TweetEval, a benchmark for tweet classification in English (Barbieri, Camacho-Collados, Neves, & Espinosa-Anke, 2020). Although this model is specifically trained on English data, it is worth noting that the roBERTa model is by default capable to handle text from many different languages.

In this study, sentiment will be computed with sentiment intensities. Tweets will be given three scores based on how intensely negative, neutral, and positive they are. Added up, these scores will always total 1. This method was chosen because it allows tweets to be positive and negative at the same time, which is something that is also the case in practice. The scores for positive and negative intensity can explain the emotion of a tweet, where neutral sentiment intensity explains the lack thereof.

3.4 Quality Concerns

3.4.1 Validity

The pre-trained roBERTa model has been shown to be very good at detecting stance, irony, hate speech and offensive language as well as recognizing emotions and analysing sentiment. However, it is still possible for a tweet to contain a picture or link that is beneficial to understand the sentiment of the tweet. Since only the text of the tweet will be analysed, this will not be detected. Tweets are often responses to other tweets or part of a conversation. The model will analyse the sentiment of the tweets separately, which means it will not take the context of the conversation into account. Sometimes this context is crucial, and the sentiment of the tweet is misinterpreted.

There is a chance that the model encounters words that are out of vocabulary (OOV's), which means it has not encountered them during training. This can cause the prediction of sentiment to be less precise.

3.4.2 Reliability

The roBERTa model with pre-training for Twitter is available online on the Hugging face website. The exact datasets can be gathered through the Twitter API. Thus, the data analysis can easily be replicated. Before the data analysis takes place, there is an option to remove links in tweets and replace them with the word 'http' and user tags with the word '@user' as a part of pre-processing. This might be done to remove irrelevant information, ensure privacy, or reduce noise. Pre-processing shouldn't significantly influence results as the model looks at sequences of words to determine sentiment. That being said, outcomes might slightly differ between analyses that use different methods of pre-processing. For the sake of this study, tweets were not pre-processed.

4. Analysis

In this chapter, the empirical analysis ensues from which results will be presented. This answers the following questions:

- What is the brand sentiment in the cases of Coca Cola and Red Bull?
- How does the brand sentiment change with regard to sponsorships by these firms?
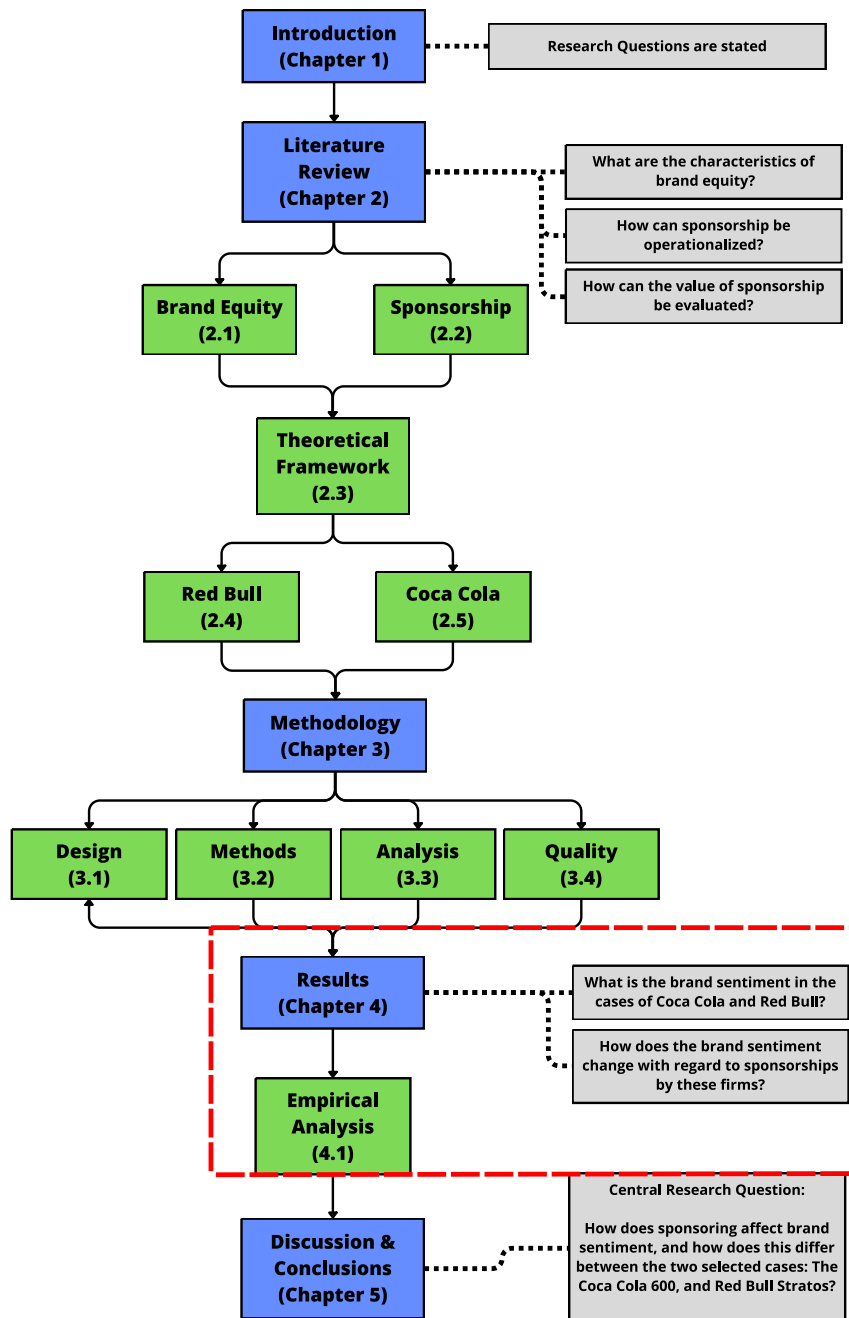
Figure 4.1 shows the contents of this chapter.

Figure 4.1 Research Navigator, Analysis

4.1 Empirical Analysis

From the descriptive statistics of the Red Bull and Red Bull Stratos datasets in table 4.2 we can suspect that these two samples yield different sentiments. On average, tweets about Red Bull have a higher negative intensity (0.180) than tweets about Red Bull Stratos (0.059), and a lower positive intensity (0.180) than the sponsored event (0.269). Tweets about Red Bull Stratos are presumably more factual, resulting in a higher average neutral intensity (0.672 over 0.641). A higher standard deviation of the negative sentiment intensity variable in the Red Bull sample (0.215 over 0.110) suggests that tweets about Red Bull widely vary in negativity, whereas tweets about Red Bull Stratos are less volatile.

Table 4.2 Descriptive statistics for the Red Bull and Red Bull Stratos samples

Sample	Red Bull			Red Bull Stratos		
	Negative	*Neutral*	*Positive*	*Negative*	*Neutral*	*Positive*
Obs.	2000	2000	2000	2000	2000	2000
Mean	0.180	0.641	0.180	0.059	0.672	0.269
Std.	(0.215)	(0.246)	(0.236)	(0.110)	(0.289)	(0.304)
Min	0.001	0.008	0.002	0.001	0.006	0.007
25%	0.037	0.499	0.046	0.010	0.556	0.073
50%	0.093	0.736	0.082	0.025	0.817	0.115
75%	0.238	0.832	0.165	0.054	0.875	0.302
Max	0.974	0.936	0.991	0.907	0.933	0.992

Notes:25%, 50%, and 75% show the median and percentiles of the samples.

In the Coca Cola samples, shown in table 4.3, we observe something similar to the Red Bull samples, as the tweets about the sponsored event are, on average, less intensely negative (0.115 over 0.154) and more positive (0.283 over 0.191). However, the Coca Cola 600 sample does not show a higher neutral intensity (0.602) than the Coca Cola sample (0.656), which was the case in the Red Bull samples.

Table 4.3 Descriptive statistics for the Coca Cola and Coca Cola 600 samples

Variable	Coca Cola			Coca Cola 600		
	Negative	Neutral	Positive	Negative	Neutral	Positive
Obs.	2000	2000	2000	2000	2000	2000
Mean	0.154	0.656	0.191	0.115	0.602	0.283
Std.	(0.205)	(0.251)	(0.244)	(0.185)	(0.292)	(0.315)
Min	0.001	0.007	0.002	0.001	0.006	0.004
25%	0.035	0.553	0.054	0.008	0.389	0.059
50%	0.080	0.775	0.094	0.031	0.717	0.112
75%	0.160	0.835	0.182	0.128	0.851	0.469
Max	0.982	0.941	0.991	0.972	0.949	0.992

Notes:25%, 50%, and 75% show the median and percentiles of the samples.

In figure 4.4 the interquartile ranges are visually represented in boxplots. Firstly, regarding negative sentiment, the Coca Cola datasets seem to be quite similar in terms of length of the interquartile range, although the median line seems to be lower in the Coca Cola 600 dataset. This suggests that the values of negative intensity are more skewed towards lower values in the Coca Cola 600 sample. Secondly, the Red Bull sample has a relatively large interquartile range with regards to negative sentiment intensity, implying a large variation in the central portion of the dataset. There is a very striking difference between the Red Bull and Red Bull Stratos datasets, as the latter has the smallest interquartile range of all datasets, and the lowest average negative intensity. This suggests that tweets about Red Bull Stratos are consistently not very negative.
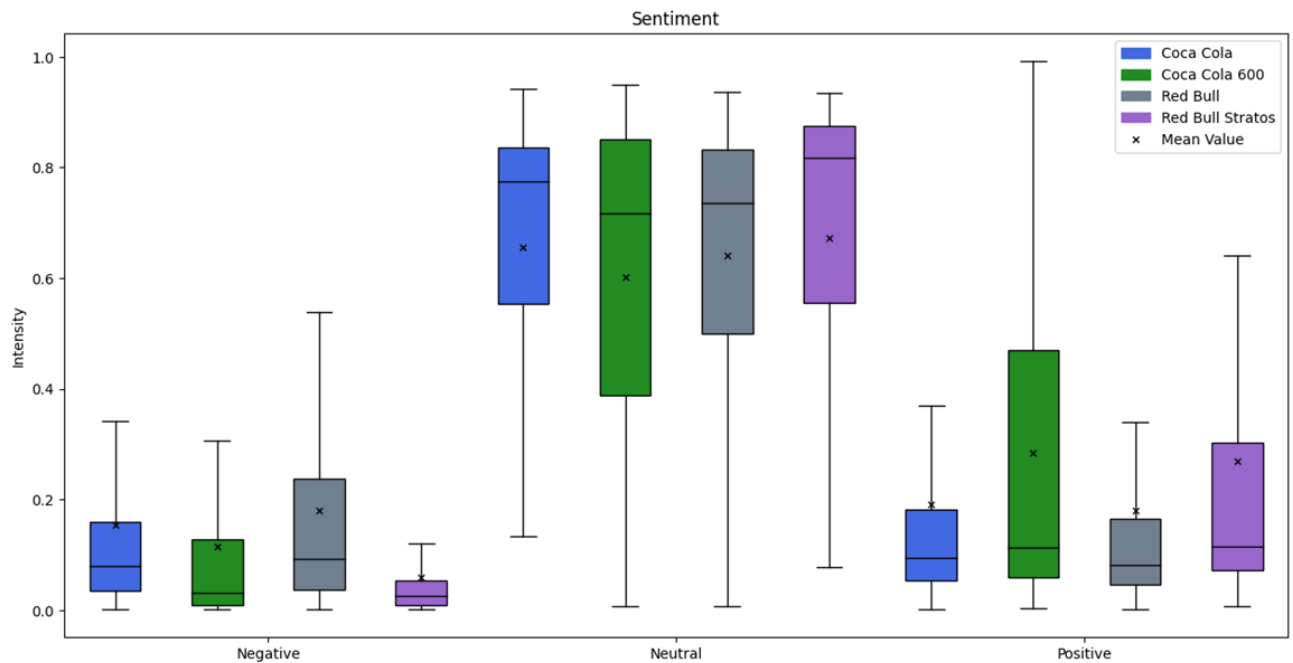
Figure 4.4 Boxplots of the Red Bull and Coca Cola samples for positive, neutral, and negative sentiment intensity.

Thirdly, regarding neutral sentiment within the Coca Cola 600 sample, the interquartile range is a lot larger than it is in the Coca Cola sample, suggesting varying levels of neutral sentiment intensity. This is rather obvious, as the Coca Cola 600 sample also shows a huge dispersion of positive sentiment intensity. To a lesser extent, this also holds for the Red Bull Stratos sample, which shows a higher variety and mean of positive intensity scores than the Red Bull sample.

Table 4.5 Levene's tests and T-tests of the Coca Cola and Red Bull samples

Comparison	Sentiment	Comparative Mean	Levene test F	Levene p-value	T-Stat	p-value
CCvs RB	Positive	0.011	0.368	0.544	1.421	0.155
	Neutral	0.015	1.268	0.260	1.907	0.057*
	Negative	-0.026	13.397	0.000***	-3.880	0.000***
CC vs CC 600	Positive	-0.093	112.418	0.000***	-10.406	0.000***
	Neutral	0.054	88.704	0.000***	6.227	0.000***
	Negative	0.039	6.930	0.009***	6.331	0.000***
RB vs RB Stratos	Positive	-0.089	65.720	0.000***	-10.354	0.000***
	Neutral	-0.032	3.184	0.074*	-3.747	0.000***
	Negative	0.121	374.881	0.000***	22.370	0.000***

Notes: $(p < 0.1)*$ $(p<0.05)**$ $(p<0.01)***$, The comparative mean is computed by subtracting the mean of the first sample with the mean of the second sample. All p-values are two-tailed

Table 4.5 is a representation of tests that compare the means and standard deviations of the studied samples for all three labels. Before the t-tests were conducted, the assumption of equal variances was tested using Levene's test. Because positive, neutral, and negative sentiment always add up to 1, I choose to use the assumption of unequal variances in t-tests if one or more of the labels has a significantly different distribution. From the Levene's tests in figure 4.5 we can conclude that the distribution of the data is different in all three cases. This warrants the use of independent samples t-tests without the assumption of equal variance.

By comparing the Coca Cola sample with the Red Bull sample, we can check if the sentiment intensity significantly differs between tweets about these two brands. For positive and neutral sentiment intensity respectively, significant differences were not found or below the threshold used in this study (0.057 > 0.05). However, regarding negative sentiment intensity, tweets about Coca Cola are less intensely negative than tweets about Red Bull, as the T-statistic is negative, and the p-value divided by two is smaller than 0.05. When we compare tweets about Coca Cola with tweets about their sponsored event, the Coca Cola 600, we see that tweets about the event are significantly more positive, and less neutral and negative. Tweets about Red Bull Stratos also show this pattern, as tweets about this event are more positive and less negative than tweets about the brand itself. However, tweets about RB Stratos are often also more neutral or factual in nature than messages about Red Bull.

5. Discussion & Conclusion

In this chapter the major findings will be discussed (5.1), and conclusions will be drawn (5.2).

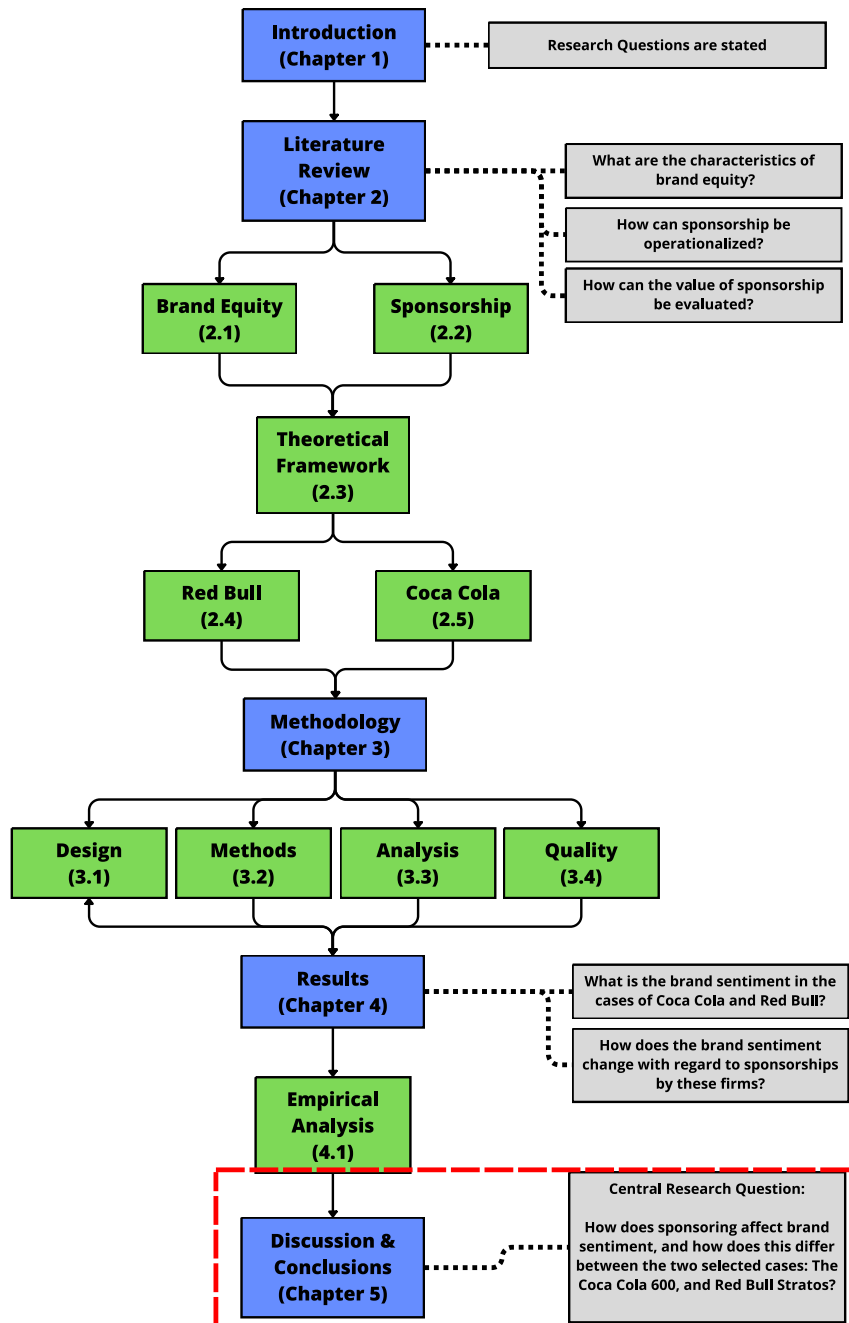Figure 5.1 helps with the navigation through this chapter.

Figure 5.1 Research Navigator, Discussion & Conclusions

5.1 Discussion

It has become evident that tweets about both sponsored events are significantly more intensely positive and less intensely negative than tweets about the firms themselves. This finding suggests that sponsorship can be an effective tool to create brand equity. More positive and less negative tweets about sponsorships suggest that people have a more positive attitude towards sponsorships, which is likely due to goodwill effects, image transfer, and involvement. When customers have more positive feelings and associations with a brand they tend to consider and recall this brand more often (brand awareness). Furthermore, it also suggests that in people's minds the sponsored event has a more positive brand meaning, and people associate the sponsored event with more positive brand feelings. From the analysis we can conclude that brand responses to sponsorship are significantly better than responses to the brand on its own, although we are not able to pin-point which brand feelings are more prevalent in tweets about sponsorship. Through improved brand awareness, brand meaning, and brand responses we can conclude that event sponsorship generates brand equity, and thus, value for the firm.

Pin-pointing what feelings are evoked with a specific sponsorship could be beneficial to research what measures can be taken to get desirable consumer responses. This could be part of further research.

Interestingly, tweets about the Coca Cola 600 event are less intensely neutral than tweets about Coca Cola itself, whereas Red Bull Stratos tweets are more intensely neutral than tweets about Red Bull. Thus, as expected, there are differences between the two sponsorships. This could be because the Coca Cola 600 is an annual event which had taken place 2 days prior to data collection, whereas Red Bull Stratos took place almost 11 years ago. Events that have just taken place tend to yield more immediate and intense responses, therefore being less neutral/factual (Wang, et al., 2022).

The nature of the events could also explain this finding. The Coca Cola 600 is a motor race between drivers, one of them wins, most of them lose. However, the Red Bull Stratos event isn't a contest, so naturally nobody can lose. When a driver does poorly, fans might be disappointed or sad, maybe even mad. This would result in more negative tweets. Because Red Bull Stratos doesn't have this characteristic, tweets about the event might be more neutral. This could also be a reason why the negative sentiment intensity for the Red Bull Stratos dataset is so low.

Arguing why the sponsorships have different intensities is hard because there are many factors that can influence people's feeling towards a brand, and thus brand sentiment. In this paper we have looked at how sponsorships can generate value, and what the differences are between the two

selected cases. However, I can only speculate what might be important concepts that determine different brand responses in these specific cases based on existing literature. Further research could be conducted on variables that determine changes in sentiment, such as the nature, frequency, attendance, revenue, cost, and engagement of an event.

It is worth emphasizing that this analysis entailed reviewing the difference between the most recent tweets about a sponsor, and a sponsored event. We looked at the differences between the samples, and explained why sponsorship could be valuable. To research how people's perceptions change after attending or viewing an event, an experiment could be conducted.

5.2 Conclusion

At the beginning of this paper, we asked the following research question:

- *How does sponsoring affect brand sentiment, and how does this differ between the two selected cases: The Coca Cola 600, and Red Bull Stratos?*

To answer the research question, we asked the following sub-questions:

1. *What are the characteristics of brand equity?*
2. *How can sponsorship be operationalized?*
3. *How can the value of sponsorship be evaluated?*
4. *What is the brand sentiment in the cases of Coca Cola and Red Bull?*
5. *How does the brand sentiment change with regard to sponsorships by these firms?*

A sponsorship creates brand equity through (1) establishing brand identity, (2) creating brand meaning, (3) evoking positive brand responses, and (4) developing brand relationships. Sponsorships differ from traditional advertising, because people see them as beneficial, as opposed to rather selfish traditional advertising. Therefore, people have a lower defence mechanism, and are more easily persuaded. Furthermore, sponsorships are a great way for firms to target involved audiences of events, as these audiences are known to have a grateful and affinitive attitude towards sponsors. Lastly, firms can benefit from associating themselves with the sponsored event and the values it is associated with. This process is called Image transfer. The value of sponsorships can be evaluated by analysing if image transfer happens, if the audience of the event is involved, and if goodwill towards the event exists. If this is the case, there should be a positive consumer response in terms of attitude, and eventually, purchase.

In this paper I chose to analyse brand sentiment in tweets about Red Bull and Coca Cola, and their sponsored events; Red Bull Stratos and the Coca Cola 600. The sentiment of the tweets can be viewed as the consumer response. The tweet sentiment is calculated using three labels: negative, neutral, and positive. The interpretation of the neutral sentiment label is lack of positive or negative sentiment intensity. This means that tweets with a high neutral sentiment intensity can be interpreted as factual or rational.

From the empirical analysis, I concluded that tweets about both sponsorships are both significantly less intensely negative and more intensely positive than tweets about the firms themselves. Thus, my findings support existing literature, which state that sponsorship, when done right, generates a positive consumer response, and thus, brand equity. Furthermore, tweets about the Red Bull Stratos event were more intensely neutral than tweets about Red Bull itself, whereas the Coca Cola 600 event was less intensely neutral than the tweets about Coca Cola. This might be due to the age of the event, as Red Bull Stratos took place 11 years ago, whereas the Coca Cola 600 took place 2 days prior to data collection. It could also be that this is due to the nature of the event, as the Coca Cola 600 is a race, and Red Bull Stratos was simply the attempt at a record. There are many variables that can influence people's emotions and perceptions, which are beyond the scope of this paper.

The empirical findings suggest that sponsorships can be an effective tool to create more desirable feelings toward the brand, which is exactly what the existing literature suggests. What this finding implies is that firms must consider sponsorship as an effective alternative for traditional forms of advertisement or as an addition to traditional forms of advertisement, due to the concepts of goodwill, image transfer, and involvement.

Through the methods used in this paper, we can evaluate if sponsorships create brand equity. However, further research is needed to make claims about what variables might influence changes in sentiment in these two cases. Lastly, my analysis has proven that Red Bull's and Coca Cola's sponsorships improve their brand responses. However, ultimately, firms need to know how their sales numbers have improved as a result. This is not discussed in this paper, thus further research could give an insight into the evaluation of sponsorship in terms of increased sales. Furthermore, there are many other factors that can play a role in the effectiveness of a sponsorship. Even though the concepts of image transfer, goodwill, and involvement are satisfied, the nature, frequency, attendance, revenue, cost, and engagement of an event can influence people's experiences, and thus brand feelings and equity. These variables, among others, are not considered in this paper, although they are crucial to understand when choosing an event to sponsor.

6. List of references

Aaker, D. (1992). The Value of Brand Equity. Journal of Business Strategy. Retrieved from https://doi.org/10.1108/eb039503

Anderson, J. R. (1993). *Rules of the Mind.* Psychology Press.

Barbieri, F., Camacho-Collados, J., Neves, L., & Espinosa-Anke, L. (2020). Tweeteval: Unified benchmark and comparative evaluation for tweet classification.

Benson, P. (2022, October 26). *Michael Jordan & Nike Celebrate 38 Years Together*. Retrieved from Kicks FN: https://www.si.com/fannation/sneakers/news/michael-jordan-nike-celebrate-38-years-together

Cornwell, T. B., & Maignan, I. (1998). An international review of sponsorship research. Journal of Advertising. Retrieved from https://www.tandfonline.com/doi/abs/10.1080/00913367.1998.10673539

Economaki, C. (1997). Racing for Sponsorships. *Brandweek*.

Ferrell, O. C., Hartline, M. D., & Hochstein, B. W. (2021). *Marketing Strategy: Text and Cases* (8 ed.). Cengage Learning.

Forbes Media LLC. (2023). *Red Bull*. Retrieved from Forbes: https://www.forbes.com/companies/red-bull/?sh=2f79b6ca61ce

Gwinner, K. (1997). A model of image creation and image transfer in event sponsorship. *International marketing review., 14*(3), 145-158.

Hauser, J. R. (2014). Consideration-set heuristics. *Journal of Business Research, 67*(8), 1688-1699.

Jacobson, R., & Aaker, D. A. (1987). The strategic role of product quality. *Journal of marketing, 51*(4), 31-44.

Keller, K. L. (2001). Building Customer-Based Brand Equity: A Blueprint for Creating Strong Brands. Marketing Science Institute.

Levin, A. M., Beasley, F., & Gamble, T. (2004). Brand loyalty of NASCAR fans towards sponsors: The impact of fan identification. *International Journal of Sports Marketing and Sponsorship.*

Liu, Z., Lin, W., Shi, Y., & Zhao, J. (2021). A Robustly Optimized BERT Pre-training Approach with Post-training. In *Proceedings of the 20th chinese national conference on computational linguistics* (pp. 1218-1227).

McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research, 16*(3), 310-321.

McGee, R. (2022, May 28). The Monaco Grand Prix, Indianapolis 500 and Coca-Cola 600 combine for an unforgettable Sunday. ESPN. Retrieved from https://www.espn.com/auto/story/_/id/33999534/the-monaco-grand-prix-indianapolis-500-coca-cola-600-combine-unforgettable-sunday

Meenaghan, T. (2001). Understanding sponsorship effects. *Psychology & Marketing, 18*(2), 95-122.

Rawlings, D. (2020, October 13). From Rig To Red Bull's Athlete Performance Center. Red Bull. Retrieved from https://www.redbullracing.com/int-en/rig-to-red-bull-apc

Red Bull. (2023). *Red Bull Athletes - Get to know them here*. Retrieved from redbull.com: https://www.redbull.com/int-en/athletes

Red Bull. (2023). *Red Bull Stratos - Discover the incredible story*. Retrieved from redbull.com: https://www.redbull.com/int-en/projects/red-bull-stratos

Szmigin, I., & Piacentini, M. (2022). *Consumer Behaviour* (Third ed.). Oxford University Press.

The Coca Cola Company. (2011). Advertising History.

The Coca Cola Company. (n.d.). Purpose and Company Vision. Retrieved from https://www.coca-colacompany.com/about-us/purpose-and-vision

The Coca Cola Company. (n.d.). The History of the Coca-Cola Contour Bottle; The Creation of a Cultural Icon. Retrieved from https://www.coca-colacompany.com/about-us/history/the-history-of-the-coca-cola-contour-bottle

Wang, J., Fan, Y., Palacios, J., Chai, Y., Guetta-Jeanrenaud, N., Obradovich, N., . . . Zheng, S. (2022). Global evidence of expressed sentiment alterations during the COVID-19 pandemic. *Nature Human Behaviour, 6*(3), 349-358.