Master's degree thesis

IDR950 Sport Management

Value co-creation with social media
The case study of Formula One and ABB Formula E Twitter accounts
Teija Annika Toivonen

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Teija Annika Toivonen

Abstract

Motorsport has a love hate relationship when it comes to sports scene. In today's society, social media has turned into something that almost everyone is using in day-to-day basis. Social Media has turned into important tool for motorsport series, teams, and athletes to brand themselves with. Aim of this master thesis project is to understand and explore how social media can be used as a tool of value co-creation with fans in motorsport scene. This thesis used mixed methods as a result to look into the research topic. Data was collected from Formula One's and Formula E's Twitter accounts during their 2019 seasons. Tweets were categorized by different themes to give better understanding how both the series use their Twitter and if they are using value-co creation as part of social media strategy. Results of this topic show that the value co-creation doesn't happen in case of Formula One's and Formula E's Twitter strategy. Both series are rather using Twitter to share information related to the series or brand itself than use it to create value co-creation with it. For the future studies the possibilities to continue looking in the topic is recommended.

Keywords: *Twitter, Social Media, Value co-creation, Social media strategy, Motorsport*

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Chapter 1: Introduction

This chapter will introduce the topic and purpose of the research. It will give an overview to the reasons behind choosing the two motorsport series and social media as research topic.

1.1 Introduction to the research topic

Motorsport has a love hate relationship when it comes to sports. Some people see it as a sport, some don't. This topic already brings some interest towards motorsport. But the motorsport has been around since early years of car manufactures and has a big impact on automobile industry. Different motorsport categories are essentially working with the automobile and technology industries to develop better cars and systems for day-to-day use. Paddle-shift gearboxes from late 80's and early 90's are just one example of several different implementations that have been brought over to car manufacturing from Formula One. This type of gearbox is now universally used in road cars of today. More recent example is from 2009, when in Formula One a KERS system harnessing breaking energy was introduced. Nowadays this system is used in both busses and hybrid cars (Kanal, 2019). Outside automobile industry Formula One's aerodynamics and carbon fiber technology has been adapted in other sports such as sailing, bobsleigh and cycling (Kanal, 2019). The actual racing has always been part of car culture since cars were invented. Racing is part sport, part spectacle and part technological showcase. It is more than just fast cars driving around in circles, like some people believe. Whether it is a quarter mile drag races that last few seconds to endurance races that can last up to 24 hours, there is plenty of variety and options to people to watch and find their favorite form of motorsport. This already brings lot of different views through which to study motorsport. Most of the studies and research done before on the topic has been related to the technology side of the sport but also on the physiological side of the drivers.

With the rapid growth of social media, businesses have to acknowledge the importance of social media if they want to keep their business running. In today's society, social media has turned into something that almost everyone is using in day-to-day basis. Social Media has turned into important tool for motorsport series, teams, and athletes to brand themselves with. The use of different social

media channels like Facebook, Instagram, Snapchat, and Twitter has turned into something that is always buzzing with latest information. In these social media platforms sport organizations and athletes are generating additional awareness and exposure towards them, marketing and product selling and services such as tickets and merchandise, customer service, fan engagement and trafficking people to their websites. Everyone has different ways to connect with these people which makes it a unique case.

The lack of written research on the topic in motorsport scene is because most studies done are focused on technology or health of drivers. This limits the possible background information available for this research. Much research hasn't been done on social media and social media strategies, which results in more limitations. Existing studies are related to the branding options in social media. The research done in value co-creation is also limited. There is research done in value co-creation in its simple form, but it has not been connected with the sport or with social media much. Research done with value co-creation in sport as a topic, focuses on fan culture and relates to fan bars, stadiums and similar subjects. Research on value co-creation in social media is almost non-existent and framework has to be searched outside of sport related papers. This gives a good purpose for researching the topic as limitations can be seen as innovating new ways for researching the social media with value co-creation. But also bring new way to look into motorsport scene too.

1.2 Aim and Purpose

In today's world social media is often seen as an easy tool to try and use as a help on value co-creation. After all, social media has given customers a way to two-way communication. Aim of this master thesis project is to understand and explore how social media can be used as a tool of value co-creation with fans in motorsport scene. In this master thesis I am looking into more details on two different forms of motorsport and how they handle their social media use, to understand what type of content they publish in their social media platforms The idea is to look more into the details of their social media strategy for Twitter. It is also to see if value co-creation framework is used by sport organizations in their social media plans. This framework is something that fits in this current age and era, where social media offers way to two-way communication between organizations and fans. There for the following research questions are:

- Value co-creation through Social Network Marketing: Formula One's and Formula E's Twitter accounts
- Identifying the drivers of a Formula One's and Formula E's social media strategy?

The structure of the thesis is as follows, the **chapter 1** is basically the introduction to the thesis. It includes the research purpose and aim but also the research questions. **Chapter 2** will present background information on social media and introduce Twitter. This is to bring up the reasons why social media and specifically Twitter was chosen as a platform for the research. Then two motorsport series Formula One and Formula E will be introduced. For both the overall information about the series and history is presented. There is also explanation on the two series social media use and the numbers from the resent years.

Chapter 3 introduces the literature review on the theory that was used. The theory where the collected data was explained and looked into was value co-creation theory. The chapter three explains developing of the theory and bringing the structure which helps with explaining the results.

Chapter 4 introduces the methodology used in this research paper. It brings more detailed explanation which research design was used in this research and why, but also the ethical considerations and limitations that this study has. Then it introduces the two series and the time frame where the data was collected. **Chapter 5** discusses the results of the data collection and how the data was categorized to see if it answers research question. **Chapter 6** includes a discussion of the differences and similarities between the two series and their Twitter use. After that the author will discuss about does the value co-creation theory happen in these two's Twitter account. It will explain the different themes and structure to explain if theory is working or not. Lastly the author will discuss about possible own opinions about best social media strategies and how the two series could change their plan of using Twitter.

Second to last **chapter 7** will conclude the thesis. In this chapter the author discusses about the whole progress of the thesis, the limitations and the problems that came up while working on it. It will also include the limitations and possible future research ideas. **Chapter 8** has all the references for this thesis and **chapter 9** has the copy of the notification test result from NSD that needed to be done in order for this thesis to be alright.

Chapter 2: Setting the research context

Social media has turned into a tool that is used every day for different purposes in life. It has turned into an important tool for different sport organizations, athletes and teams to connect and share information daily. The chosen sports are Formula One and ABB Formula E motor racing series. These two are similar in fashion of racing types but different by their history and goals.

2.1 Rise and popularity of social media

No one could predict the effects social media would have on digitalization. The idea of sharing your life in internet was new and exciting. Now it has turned into an online platform which people use to build social networks or form social relation with people, who share similar career or personal interests, activities, backgrounds, or real-life connections (Akram&Kumar, 2018). With computers, laptops, tablets, and smartphones the use of social media grew in day-to-day life and has assisted young people to become more socially capable. Social media platforms allow users to have conversations, share information and to create content with different forms of blogging, micro-blogs, wikis, social networking sites, podcasts, photo-sharing, instant messaging, video-sharing and virtual world and much more. Billions of people around the world use social media to share information and make connections with others (Akram&Kumar, 2018). On individual level, social media allows users to communicate with friends and relatives, gain knowledge, and develop interests, and to be entertained. On the other hand, on professional level, social media can be used to expand or broaden the knowledge in particular field and build professional networks by connecting with other professionals in the field. Social media helps businesses to have conversations with their audience or fans, gain customer feedback and elevate brand (Akram&Kumar, 2018).

How popular these different social media platforms really are? Facebook reached 2.4 billion monthly active users in June 2019, Instagram reached 1 billion monthly active users while numbers of Twitter are much smaller with only 330 million monthly users (Stout, 2019). This shows that social media platforms have turned into an important tool to distributing contents and attracting new readers, as well as creating more participation.

2.1.1 Use of social media in sport

When it comes to social media use in sport the impacts differ between different sports, but it certainly has revolutionized the industry. Biggest impact can be seen in communications and marketing side of sport. With social media fans can engage with the sport, follow their favorite athletes and teams, but also get updates in real time on what is happening in the sport. Different social media platforms have been effectively used to connect with fans by large number of sport organizations, such as all Major League Baseball franchises, National Football League teams, National Basketball Association teams and National Hockey League teams (Dae-Eun Kim et al. 2016). Social media has also affected and transformed the culture of sport consumption, changing it from an individual activity to a group or even community-building activity (Swarm, 2018). Sport fans often don't like to be treated as consumers of sports. Instead they see themselves as integral part of their fandom object to watch the game and live their life through the ups and downs of their favorite team (Jalonen, 2017).

Social media can also be used by sport organizations to build a relationship with the public, to reduce their marketing costs and to increase sales et cetera. It can be used to promote two-way conversations with the fans and to build a tighter community (Ma, 2018). It is also good to notice that compared with the traditional media, the social media costs less but affects more efficiently and more consistently (Ma, 2018). It is important to notice that with positive benefits, there is always some negatives ones when social media is used in sport. For example, the bad contents can be spread easier and quicker, because teams or athletes have no idea how to use social media appropriately, which would lead to negative comments from the fans in turn affecting the performance of the athletes or the team. It is important for team or an athlete to be trained in how to use social media before posting something that may affect the team badly (Ma, 2018). Many athletes or players have a love-hate relationship with their audience because of this. Social media also helps to humanize athletes, who are sometimes glorified as perfect beings and make them more relatable to the common person (Swarm, 2018).

Twitter has turned itself in an invaluable resource to all of participants of the sport industry: from leagues, teams and players to fans and sport journalists alike. It allows an easy and immediate access to sport news but also it has become a common practice for team accounts to post real-time game updates on Twitter (Swarm, 2018). In these tweets are often included hashtags, gifs, and audio/visual content, information and entertainment are becoming more of the same and it has allowed sport industry to become embedded into people's everyday life (Swarm, 2018).

2.1.2 Twitter

Twitter turned into a tool that many sport organizations and athletes use daily. It is easy way to connect with millions of people and to use. Twitter is about what is happening in the world and what people are talking about right now. This is why when it was first launched in 2006 the 140-character limit was made to keep information flow in real time, from breaking news and entertainment to sports, politics and everyday life. Twitter is available in more than 40 languages around the world and it can be accessed via web page, application and SMS (Twitter, 2019).

Tweets, as those short messages posted in Twitter are called, are publicly visible by default, but senders can restrict messages to be delivered only to their followers. As a social network channel Twitter, just like its counterparts Facebook and Instagram, revolves around followers and following. When a user starts to follow another user, that user's tweets appear in your personal Twitter main page in chronological order, depending how many people you are following these tweets are mixed with each other's to stay in chronological order. Individual tweets can be forwarded by other users to their own feed which is called a retweet. Other than this user can also like individual tweets. Like button was known as favorite button before 2015, when it was changed to a like button to match with Facebook's like button (Newton, 2015).

2.2 Formula One

Formula One has a very long yet personalized history, which can be traced as far back as there has been cars. Formula One has always been viewed as a best motorsport category there is and reaching that level of racing has been a dream of many drivers and teams. If you ask from someone who their favorite driver is, or from which era of cars they like the most, you can see a pattern. Speaking of older generations, you can hear more often names like James Hunt, Niki Lauda, Jackie Stewart and Jim Clark (Stuart, 2018). While for younger generations names like Alain Prost, Ayrton Senna, Michael Schumacher, Sebastian Vettel and Lewis Hamilton are more popular drivers (Stuart, 2018). Not only because their extraordinary skills on track, but their personalities outside of the track made them popular in eyes of fans. James Hunt was known of his playboy styled life outside racing, this was something different and broke the mold of how drivers should act and live their lives.

It is not just the drivers that make Formula One to have a unique history. Teams as well can also have a unique history. Of course, you have brands like Ferrari and McLaren who have been part of Formula One since the beginning and their history is one straight line. But then, you have teams like Red Bull, whose roots can be traced to its origins in 1997, when the team was called Stewart Grand Prix (News.bbc.co.uk, 2014). From there it was rebranded as Jaguar racing until 2005 Red Bull came in and bought the team from Ford Motor Company (News.bbc.co.uk, 2014). In Formula One it is common to buy a team, because being part of it is expensive, which often leads teams to drop out once the money runs out.

In a recent years, the rise of digital transformation has been part of Formula One world too. Sure, Formula One has always been part of developing the cutting-edge technology to the automobile industry and pushing the technology to its limits. With the rise of social media, digital transformation is not an uncommon thing in Formula One. Almost all of the drivers in 2019 season, except Sebastian Vettel, have at least one social media account. Instagram and Twitter are the most popular services and the use of these two platforms is often connected. When it comes to Formula One teams, every single team has a strong presence on social media, whether you are looking for them in Facebook, Instagram, Twitter or YouTube you can find them. Of course, Twitter being the most used and popular out of them all. In Twitter connecting with fans, other teams and drivers is easy, but the limitations in text input create challenges in conveying real-time information about what is happening on the track. Most of the teams have been active in Twitter since early 2010, but the popularity and almost day-to-day use of today, started to happen only couple of years ago. In 2017 after results of a global fan survey were announced an Executive Director of McLaren Zak Brown was concerned, because the biggest area that Formula One still needed to work on was fan engagement (Reiman, 2017). "I think there needs to be an era of fan engagement, we would really like to see the sport get behind that, communication with fans." stated Brown in an interview with Fox sport (Reiman, 2017).

2.2.1. Selected Formula One Milestones

Formula One can track its roots back to the early days of motor racing during the inter-war years. Plans of Formula One drivers' championship were discussed in the late 1930s, but it was put aside because of World War Two. In 1946 the idea was rekindled, and the first ever official Formula One races were held on the following years. It took until 1950 for details to be finalized and in May 1950 the first Championship race was held at Silverstone. Only seven races were officially counted in the championship, even thought there was twenty or so Formula One races held during the season. Non-

championship races continued all the way until 1983 when the rising costs of racing ruled them unprofitable (Williamson, n.d.). During these times, there was no shortage of privateers – drivers who operated on their own and brought their own cars – nevertheless, Formula One was dominated by major pre-war manufactures such as Alfa Romeo, Ferrari, Maserati and Mercedes Benz (Williamson, n.d.) that are seen as legendary teams in Formula One's history.

It took couple decades, before Formula One managed to solidify itself, but it finally happened during the 1970s and that was the start of some of the more legendary eras in Formula One. The iconic British Racing Green Lotus, with an aluminum-sheet monocoque chassis instead of traditional space-frame design started the revolution and innovation era in Formula One, that is still going on. Late 1970s was also known of the legendary title fights between Niki Lauda and James Hunt. Their championship battle in 1976 ended up as a Hollywood movie in 2013. During that season, Niki Lauda almost lost his life in terrible accident in Nürburgring, where his car went off the track, hit an embankment, burst into flames, and made contact with another driver when it came back to the track (Hopps, 2019). Lauda got stuck in the burning car. Three other drivers who arrived to the scene after the crash were able to pull him out of the car. Lauda suffered severe burns to his head and inhaled hot toxic gases that damaged his lungs and blood (Hopps, 2019). Lauda had been conscious and able to stand immediately after the crash, but he later lapsed into a coma (Hopps, 2019). He survived and returned to racing only six weeks after the crash and finishing in fourth. This bravery remains one of the most courageous comebacks in history of Formula One (Hopps, 2019).

During all of this, Bernie Ecclestone rearranged the management of Formula One's commercial rights, turning it into a billion-dollar global business. This also led to a birth of Formula One Constructors Association known as FOCA for short. Ecclestone made the suggestion before first official FOCA meeting, that instead of each team arranging their own race fees and transportation, one FOCA representative should take care of it all. He squeezed promoters for more money and better facilities. In the early 1980s, FOCA fell out with the sport's governing body – the FISA[1]. The eventual resolution of this conflict was that Ecclestone would take a more significant role in the running of the sport with the formation of FOA[2]. This led Ecclestone to grab lucrative opportunities to put on races outside of Europe, taking Formula One to Brazil and Argentina (Collantine, 2017).

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[1] FISA = Fédération Internationale du Sport Automobile
[2] FOA = Formula One Administration

Ecclestone was known to push towards traditional ways of marketing and saw social media as something that wasn't important. For him, the target audience was over 60 years old people, who would wear Rolex watches and play golf on their free time. Hence Formula One uses heavily traditional media, billboards, TV advertisements, magazines and so on. Just recently, Formula One started to work on digital marketing, but it is still on early stages. In 2017 Liberty Media took over by buying Formula One from Ecclestone and started to change how everything was handled (Formula1, 2017). Because Liberty Media is a USA based company, they shifted to more American way of handling things. As soon as they got the right, Liberty Media started to push it more into digitalized marketing and towards entertainment rather than just a sport. It was their way to try and rebrand the image of Formula One, but also to catch attention of younger generations (Formula1, 2017).

In 2000's Formula One saw more manufacturer-owned teams to return with success as BMW, Honda, Renault, Toyota and Ferrari dominated the championships and managed to negotiate larger share of Formula One's commercial profit and ran the sport for themselves. This also saw a bigger global expansion with new races in lucrative markets and the Middle East (Williamson, n.d.). With Schumacher's retirement in 2006 Formula One became more competitive on track, but the headlines on the worldwide media were dominated by behind-the-scene politics, such as spying scandal between McLaren and Ferrari in 2007 and 2009 Singapore GP where Nelson Piquet Jnr was ordered to crash to get his teammate to win the race. This led the Renault boss Flavio Briatore banned from Formula One, but also it left a bitter taste on everyone's mind (Williamson, n.d.).

With the changing rules and regulations between 2010 and 2019, Formula One had seen only three different drivers to win the championship and only two teams to win constructors championship. It started with Sebastian Vettel winning championship four times in a row from 2010 with Red Bull, and then Mercedes dominating the field with 6 constructors' championships in a row and six drivers' championships between Lewis Hamilton and Nico Rosberg.

2.2.2 Social media and Formula One

During the time when Formula One was under the ownership of Bernie Ecclestone, the reach of behind-the-scenes of racing was highly restricted. Fans and followers of the series were limited to watching live broadcasts of the race weekends on TV and following news through international publications (BRIC-RC, 2019). When the series and its teams joined to social media, access to behind

the scenes content for fans was still highly regulated limiting the growth in audience across the globe. However, in 2017 when Liberty Media bought Formula One ownership from Bernie Ecclestone it saw its chance. Liberty Media understood that the company needed to allow teams, drivers and partner TV broadcasters to release behind-the-scenes content all over social media. This understanding made social media champion as the primary tool to grow the audience (BRIC-RC, 2019). It gave fans and followers opportunity to access the lifestyle associated with the sport instead of just watching the race weekends (BRIC-RC, 2019).

Formula One is one of the most dramatic, dynamic and exciting sports, with breath-taking visuals which translate to lot of good and breathtaking video content such as highlights or quick cuts of footage (Plant, 2019). This type of video content is immensely sharable with fans and showcases F1's taste for action and results fans predicting winners and commenting on upcoming races (Plant, 2019). With Formula One's official accounts and the various accounts of its teams and drivers have had a big part in building an international following of tens of millions (Plant, 2019).

After its 2018 season, Formula One saw 53% of growth in its followers on social media channels. Formula One fanbase has an average age of 40 in line with other major sports and leagues like NFL, NBA and so on (BRIC-RC, 2019). For Formula One the top performing markets in 2018 were Brazil, China and United States followed by India and Europe (BRIC-RC, 2019).

2.3. ABB Formula E

ABB Formula E is a new series developed to bring awareness to climate change by racing in city centers around the world. Since January 2018, ABB became title sponsor of Formula E series (Austin-Morgan, 2019), in this thesis's series will be referred as Formula E. While Formula E is pushed towards younger generations and is still pretty new series, it has been often referenced as a future competitor to Formula One. Certainly, some people see them as two different motorsports and it is not possible to put them on the same line, but racingwise, they are pretty close on. Actually, Formula E racer, Sebastian Buemi, who has raced in Formula One before said in a *How it all began: the story of Formula E* - documentary that "if you speak to many people, they say that level is high as Formula One of driverwise.". This can be seen when you look at the drivers, lot of them are ex-Formula One drivers or drivers, who had chance to go Formula One, if they would have had enough money with them. Since the start lot of people have not viewed Formula E as legitimate racing series, but in recent

years people's minds of the series has changed due big manufacturers coming to the series. When Jaguar joined in Formula E after being away from motor racing over 14 years, it made a buzz in motorsport world. Driver of the Audi Formula E car Lucas Di Grassi was one of the very first to join Formula E, when it was just an idea on the paper. He spoke in a video *"Everybody Laughed At Us" Lucas di Grassi Talks Past, Present And Future Of Formula E* on the official Formula E's YouTube channel. And said, "At the beginning everyone laughed at us, then they started to critics and now they join us". This tells us how the series has changed the opinions of people. Other good example of how Formula E has changed the opinions of people is Switzerland. In 1955 during the Le Mans 24 Hour race was an awful accident, where 83 spectators lost their lives and more than 100 were injured when during the race a car was thrown to a stand. After this Switzerland banned motor racing, until 2015 when the ban was lifted allowing a fully electric vehicles to race.

Formula E had record revenue over €200 million during its 2018/10 season, which was 50% more than last season and a positive EBITDA[3] for the first time (Release, 2019). Other than a significant increase in revenue, the series has also experienced another consecutive year of growth across its digital platforms as well as increased event attendance and TV audience (Release, 2019). It can be seen as the most relevant form of motorsport of today. In the future a lot of people will be driving electric vehicles and Formula E is already showing in a way, that it can be fun.

2.3.1 Selected Formula E Milestones

Formula E on the other hand has much shorter history than Formula One. The idea of fully electric racing series was born in 2011 in restaurant in Paris. FIA President Jean Todt and Spanish businessman Alejandro Agag were having a discussion of more environmentally friendly racing when the idea of Formula E was sketched on a napkin (Juliusbaer.com, 2018). The series was created as a solution towards improved air quality in city centers and to fight against climate change. When the idea was first introduced to the public everyone laughed and commented how the series wouldn't work or it was a joke. Agag didn't let this deter him. "In light of climate change, Formula One no longer appeared appropriate for the times we live in. E-mobility, on the other hand – that is the future. At the end of the day, I simply had to put into practice what I had always believed in." (Juliusbaer.com, 2018). With only his vision and comrades, Agag was able to get Julius Baer as a sponsor for the series.

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[3] Earnings before interest, taxes, depreciation, and amortization

With Julius Baer's help it was possible for the innovative motorsport series to establish itself and to see the start of its first season in 2014.

Since then, Formula E has been hosted in some of the world's major cities and it has made people interested in e-mobility. From first race in Olympic Park in Beijing in 2014, Formula E has grown into a global entertainment brand with motorsport as its core. In 2019/20 12 teams and 24 drivers on the grid, the Championship has become a destination for the world's best teams and drivers. In 2018 Formula E started a title partnership with a global technology and robotics giant ABB, which started a new era of all-electric street racing aided by one of the biggest names in electrification. With nine manufactures onboard during that time – likes of Audi, BMW, DS, Jaguar, Nissan, and Mahindra – Formula E serves as a competitive platform for the global car manufacturers and mobility providers to test and develop road-relevant technologies, just like its rival Formula One (Fiaformulae.com, n.d.).

Season 5 which happened during 2018/19 saw the radical Gen2 car make its debut on the city streets for the very first time. The capacity to storage energy was doubled from the capacity of Gen1 car, which meant that Gen2 cars were able to race the whole distance, erasing the mid-race car swamps. In Gen2 car the all-electric mobility grew to 250kW of power and it was able to accelerate from 0-100km/h in 2.8 seconds, while the top speed grew to 280km/h (Fiaformulae.com, n.d.). This meant a more action on the track and with just one car per driver, there was everything to lose. During this time, Formula E also saw manufacturers like Mercedes-Bentz and Porsche joining into their series.

2.3.2 Formula E in social media

It was known from start that the traditional motorsport fans were not particularly fascinated when Formula E was launched. Lot of diehard fans actually dismissed the series, especially when it was compared with Formula One (Gray, 2019). Now as sixth season has started the ABB FIA Formula E championship has succeeded in mobilizing its audience and public profile, which has pleased sponsors and backers, but most importantly it has connected with a younger, urban audience (Gray, 2019). Formula E has strong social media presence, having an account in Facebook, Instagram, Twitter and YouTube. Alongside of these social media channels, they have detailed and very well-done webpage as well as a newsletter option. When it comes to teams and drivers, the variety of social media channels is the same as for the series itself. Some drivers are more active in Instagram while others in Twitter. Teams are mostly active in Twitter while keeping their presence in other social media channels.

Even though Formula E has a short history, it has a big fan base, which keeps growing every year. In the data that was released by ABB FIA Formula E Championship for its fifth season in 2018/19, the series claimed that 72% of its followers on social media channels were under 35 years old (Crask, 2019). With this percent of followers under 35 and 42% of videos being viewed by fans under 25 years old, Formula E claims it is now "among the highest-performing sports platform on the planet in terms of percentage breakdown of young fans". This is something that Formula One has tried to accomplish in recent years but failed. When it comes to track attendance, Formula E reported it had more than 400 000 spectators during the season 5 and the total number of TV audiences surpassed 411 million (Crask, 2019).

Formula E has a strong gaining of new followers by its new technology and innovative design with mix of taking actions against climate change. Formula E utilizes an interactive mechanic to increase interaction between fans and drivers by letting fans vote for their favorite driver and give them an extra speed boost during the race. This naturally affects more content generated to social media, which the series is capitalizing on with strong pushes for fan interaction (Plant, 2019). The biggest gain of followers Formula E saw during its introduction of Gen2 car. And it produced its most competitive spectacle to the date, with eight different winners in the first eight races. The total amount of social media followers climbed over 212% compared to the previous season, while the engagement rates grew 449% in interaction on Formula E-owned content (Crask, 2019).

Formula E teams have invested in social media providing fans with tweeting at real-time during the event and sharing images on social media channels for fans to use as background pictures on their mobile phones (Gray, 2019). It is important for the fans that team's tweet about almost anything that happens before and during the race. This type of information, such as penalties, is content which is interesting and more important for the fans in real-time rather than after the race/event (Gray, 2019).

Chapter 3. Developing the theoretical framework for research

This chapter explains the literature review done on social media that is related to this research topic. It brings up some of the more common themes and topics, which have been researched in use of social media. Of course, there are big differences between the sports, which meant that literature needed to be adapted and understood before it could be applied to motorsport scene.

3.1 Literature review on social media

A lot of research has been done on social media even with its short history. Due to the high popularity of different social media platforms, it isn't surprising that athletes, teams, and sport organizations use them for marketing and communication purposes. Most of the research on the topic has been done in field of soccer, which isn't surprising because soccer is one of the most popular forms of sport in the world and it appeals to lot of people. Many of these studies are qualitative or single-case ones which are limited to certain time periods or/and single countries. It can have a positive and negative point, often limited by the view of how sport organizations of a specific country handle social media, which can be different depending where you are from. Lot of research on sport sector and social media marketing has been done in a North America, which is organizationally and culturally different from European sports (Maderer et al. 2018). Several authors have pointed out that social media has significant influence on the image of a brand and particularly important role when it comes to building appropriate perceptions and attitudes in consumers mind. Twitter and Facebook have been examined as communication tools for athletes and sport organizations, branding tools in college and with regard to sport fans perceptions, motivations, and preferences about their use (Maderer et al. 2018).

3.1.1 Personal branding on social media

Relationship marketing predicates on the idea that enhanced relationship with consumers can strengthen brand awareness, brand loyalty and increase brand value proposition which can ultimately lead to greater return for the business and consumers (Naraine, 2019). The expanse of social media has fostered more regular, unmediated two-way communication and has impacted the way in which relationship marketing, can be integrated and applied (Naraine, 2019). Most common use of social media from athletes and sport organizations is branding. European football clubs for example use

social media to build a worldwide reputation of football, which has led them to integrate social media as part of their marketing strategy. This has led to some of the teams being amongst the most followed online brands in the world (Maderer et al. 2018). Branding has been understood as an international marketing strategy for establishing a "trademark" that the public associate with an entity. It is often discussed in terms of building, developing, and managing brand equity (Maderer et al. 2018). When it comes to brand equity it is seen as a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to organization or customers (Maderer et al. 2018). In sport marketing an idea of managing a team as a brand has become more popular in the resent years. Gladden and Funk (2012) proposed the team-association model, which included 16 brand associations such as brand benefits, brand attitudes, product-related brand attributes and non-product-related attributes (Maderer et al. 2018). Recently, Parganas et al. (2015), build a work based on Gladden and Funk (2002) and Bauer et al. (2008), which was about developing a sport team branding model and applied it to the English professional football club's use of Twitter (Maderer et al. 2018). This research only focused on one dimension of brand associations (i.e brand attributes), but they proposed a model that consisted of the product-related attributes of team success, star players, and head coach, as well as the non-product-related attributes logo, team's history and tradition, team's culture and values, management, sponsor(s), fans, stadium, and event's image (Maderer et al. 2018). This led them to conclude Twitter an appropriate marketing tool for professional sport brands. It helps to communicate a variety of brand attributes, which lead to fans to generally appreciate such efforts, which lead to high number of followers and interactions (Maderer et al. 2018).

Maderer et al. (2018) research on brand-image of top-tier European football teams gives a good baseline on how personal branding can be used in social media. Use of the same approach was applied both Facebook and Twitter on their study, each post from the 10 teams were categorized according to the brand attributes of Parganas et al.'s (2015) branding model (Maderer et al. 2018). To allow comparisons between and among posts and interactions rates, each post qualified only for one type of brand attribute. This coding process helped to decide which posts to include and which to exclude from the study. The fan interactions were measured by responses to the club's posts in terms of like, share and comment in Facebook and replies, retweet and favorite in Twitter during the selected time periods.

Of course, it is important to remember that not all the posts are relevant to the fan interaction, but they are rather information posts from the team. In the research of Maderer et al. (2018) paper it can

be seen that product-related brand attributes tend to attract most of the fans interest, with no significant differences either between on and offseason or among the examined countries (Maderer et al. 2018). It is also good to notice not all online followers are fans of particular team and not all fans follow their team in online. It is also worth to mention that interaction with a social media post does not necessarily reflect a brand attribute.

Next, I will summarize the main point of this subcategory. When it comes to social media from athletes and sport organization it is used for branding purposes. Social media is used to build a worldwide reputation of the sport, which has led it to integrate social media as part of their marketing strategy. Branding itself has been understood as an international marketing strategy for establishing a "trademark" that the public associate with an entity. It is often discussed in terms of building, developing, and managing brand equity. In sport marketing an idea of managing a team as a brand has become more popular in the resent years.

3.1.2 Follower segments within and across the social media

Engaging with fans and other stakeholders in social media can be challenging to the sport organization. Multiple conversations on several platforms are happening at the same time and even yielding hundreds of thousands of messages over a span of few hours. Engaging in that space can also provide difficult because the conversation often fluctuates considerably. To see through these fluctuations, an alternative engagement strategy is needed to focus on users who seek organizationally driven or focused content and for those who actively follow the sport organization (Naraine, 2019). For some sport organizations that have large fan following in their networks, it can be problematic and potentially limit the understanding of social media traits of these followers and associations. Of course, these organizations can recognize some of the higher profile users within their network that have an initiated a social media presence (Naraine, 2019). However, the recent arrival of automated social media bots and fake profiles in social media channels has altered the perception of who are the users and have brought up problem of identifying various subgroups or communities within these structures (Naraine, 2019). This can be led to the absence showcase of subgroups of followers on social media, which can be useful for strategic relationship build and increasing engagement level.

Next, I want to summarize shortly this subcategory of social media and followers segment to give also a small comment about it. Engaging with fans and other stakeholders in social media can be

challenging to the organization, because of the multiple conversations on several platforms happening at the same time. Engaging in that space can also prove to be difficult because the conversation often fluctuates considerably. For some sport organizations that have large size of fan following in their networks it can be problematic and potentially limit the understanding of these followers social media traits and associations.

Stepping out of the comfort zone to less popular sports, it's easy to see a lack of research altogether. When it comes to athletes and sport organizations social media is used for branding purposes. This gives a good reason to research this topic. It is also good to notice that social media research can be limited to only one social media platform out of many of possibilities. It is clear that most commonly research has been done on Facebook or Twitter over the years and now in recent years on Instagram (Maderer et al. 2018; Parganas & Anagnostopoulos 2015; Pegoraro 2010).

3.2 Value Co-creation as a theoretical framework

In this subchapter the value co-creation theoretical framework will be presented through overview of the topic and more detailed view on value co-creation with social media. This is to get a better understanding about what has been studied beforehand.

3.2.1 Value co-creation in sport management research

A number of academic studies have examined the concept of value in the team sports context and pointed out that customers value perceptions are a key element of their behavioral intentions (Byon, Zhang, & Baker, 2013), satisfaction and loyalty (Uhrich, 2014). However, an increasingly popular view on value has been acknowledged, in which customers integrate their resources with different actors and value is created through interactive activities. In this, value is both created and determined in use because there is no value until an offering is used by customer. This means that the customer is active, rather than passive and always co-creates value with the central firm or other actors in the marketplace (Uhrich, 2014). There are some authors who argue that value is not always co-created but can also be individually created by the customer (Grönroos & Voima, 2013; Gummerus,2013). The creation of value may be individual or shared, but the determination of value outcomes is clearly individual as value is embedded in the customer's individual experience of consumption (Uhrich, 2014; Gummerus, 2013). The customer's perceptions and evaluations of value co-creation determine

customers value outcomes. This determination of value outcomes is phenomenological and experiential, referring to the customer's 'feeling, thinking, wanting, sensing, imagining, and acting' (Uhrich, 2014; Gummerus, 2013, p. 30). When it comes to customer-to-customer interactions it is obvious in team sport industry and acknowledged in a number of studies (Woratschek, Horbel, & Popp, 2014). Research demonstrates that socializing with fellow fans is an important aspect that contributes to customers' perceptions of value at sporting event. Team sport customers engage in numerous valuable interactions with the other customers on various platforms outside the sporting event and beyond the actual game day (Uhrich, 2014). These type of interactions among sports customers contribute to a value perception and should not be conceptualized as a less authentic or passive form of fandom. This is also in line with the view that a customer's value perception is shaped by various consumption experiences prior to, during and after the primary service encounter (Uhrich, 2014). Despite the findings before, a comprehensive analysis of value co-creation among team sport customers doesn't exist (Uhrich, 2014). The previous research hasn't been able to identify and categorize systematically the places in which team sport customers interact and co-create value. Studies before Uhrich's focus on either on the live venue or on other specific places but don't explore customer-to-customer value co-creation concepts.

Fans part in value co-creation

Today value co-creation takes many shapes and forms and observes the development and growth of fan-ruled clubs, online fan-bases, fan-shaped events, and fan-facilitated exchange channels (Kolyperas, D et al. 2018). With reference to the sport services it has shifted from value delivery to value co-creation. That's why common logics such as GDL[4] cannot fully support the value co-creation and use of SDL[5] approach is needed (Kolyperas, D et al. 2018). However, the SDL cannot effectively explain the between fans actions and value creation in experimental context of sport, which is often why CCT[6] is brought to connect the gap between SDL and theoretical explanation of role of fans (Kolyperas, D et al. 2018). CCT can provide an explanation of phenomena that are relevant to a certain context. Sport activities are the base to provide a platform for fans and other actors to co-create value which is compatible with the SDL, where value is co-created through

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[4] Good-dominant logic = GDL's objective of economics exchange is to create and deliver offerings to be sold. Consumers value is created by products, whilst value is defined by sport brand (Kolyperas, D et al. 2018).
[5] Service-dominant logic = SDL's objects to the passive role of consumers as inert receivers of value and instead it details how consumers and providers interact to co-create value (Kolyperas, D et al. 2018).
[6] CCT = illuminates the cultural dimensions of consumption behavior and taking account experimental, ideological, sociocultural, and symbolic aspects of consumption (Kolyperas, D et al. 2018).

interactions amongst resource-integrating stakeholders (Kolyperas, D et al. 2018). In the industry a focus on value delivery cannot fully accommodate for the fans power in value co-creation progress.

That's why, if SDL is used, the fans should be encouraged to take a part of the job of sport marketers by co-creating and co-producing value (Kolyperas, D et al. 2018). It's important to emphasize the importance of supporters and fan communities as co-creators, noting that value is co-created differently in different sporting communities. If service ecosystem is applied there are five experience-based factors that influence value co-creation from fan perspective – historical meaning, rituals and socialization processes, tribal logics, value-in-subcultural-context, and the co-construction/co-destruction of context. This would help sport service providers consider which dimensions of value are most important to them by identifying how fans evaluate experiences with them (Kolyperas, D et al. 2018). However, SDL is more abstract by nature and some consider it to be too far away from the observable reality. CCT is more suitable intermediary since it can provide a better understanding of what and how things work in certain context. That's why, Kolyperas, D et al. (2018) recommend an SDL perspective to be fused with CCT insight, when researcher wants to capture fan value co-creation phenomena in sport.

Overall, the research done in value co-creation in sport management is wide, but it is focused more outside of digital world. A number of academic studies have examined the concept of value in the team sports context and pointed out that customers value perceptions are a key element of their behavioral intentions (Byon, Zhang, & Baker, 2013), satisfaction and loyalty (Uhrich, 2014). The creation of value may be individual or shared, but the determination of value outcomes is clearly individual as value is embedded in the customer's individual experience of consumption (Uhrich, 2014; Gummerus, 2013). The customer's perceptions and evaluations of value co-creation determine customers value outcomes. Despite the findings before, a comprehensive analysis of value co-creation among team sport customers doesn't exist (Uhrich, 2014). The previous research hasn't been able to identify and categorize systematically the places in which team sport customers interact and co-create value. Studies before Uhrich's focus on either on the live venue or on other specific places but don't explore customer-to-customer value co-creation concepts.

3.3.2 Value co-creation in social media research

There is a gap in academic research on co-creation and social media, because these two topics haven't been connected before in this level. In sport scene there are nearly none because most of the research on value co-creation has been done in relation to fan club cafes and stadium atmosphere for the fans. This meant that the search for research papers had to be done outside of sport environment.

It has been mentioned (Uhrich, 2014) that internet is an important platform to team sport customers to interact with one another. They share experiences and knowledge with other supporters which has been identified as a value-creating practice of sports online consumptions. Online interactions sometimes extend beyond online world and become a precursor of face-to-face encounters. As it was mentioned in chapter on social media, smart phones allow customers to be in touch with others almost anywhere at any time. The research brings up a good typology that is based on the two dimensions of co-creation sphere and type of co-creation platform. The dimension sphere was borrowed from Gröönroos and Voima's (2013) value creation spheres and differentiates between the joint sphere and the customer sphere. This model can be useful in categorization of value co-creation among customers for theoretical and practical purposes. Some of the examples of categories of co-creation platforms are associating/dissociating, engaging and sharing, competing, intensifying and exchanging.

As it was noted before, social media has changed the way we communicate, collaborate, and connect with each other. Social media allows direct interaction between sponsoring companies, teams, athletes, and fans. Social media can be used with partnerships and collaboration to help increase the organizations values. According to Kim & Choi (2019) value co-creation is the personalized interaction between organizations and users. On today's world Facebook has grown into the world's largest community of sport fans and some even argue that Facebook has become the world's largest stadium (Jalonen, 2017). Facebook isn't the only social media platform that sport fans or spectators use, YouTube and Twitter amongst many other platforms have changed how sport is consumed. Providing sport live streams and on demand videos social media platforms have expanded to encompass contents previously broadcasted exclusively by television channels. Social media has also lowered the threshold for contacting and personalized communication which can happen in real time (Jalonen, 2017).

Organizations have discovered the benefits of joint working with followers or customers, where customers can be agents of value co-creation, which can lead to trend of co-creating value. User's ability to assign their own meanings, experiences and context and share them with others are key points in value co-creation (Kim & Choi, 2019). That's why, value as a co-created with different actors in social media platforms includes its service providers, service beneficiaries and other users. In this context all business missions on social media should be more focused on serving users rather than produce output (Kim & Choi, 2019). This is why changing the nature of value makes value creation more critical contributor to innovation and that's why value creation signifies a system in (Kim & Choi, 2019). Organizations under this concept alone cannot merely regard their produced outputs as complete objects, because this omits the possibility of innovation, improvement and change through understanding users' experiences (Kim & Choi, 2019). On the other hand, social media platforms offer a new opportunity for organizations to innovate, which can lead to improved credibility, sustainability and success.

Consumers use social media to find information on the products. Additionally, Twitter is often used as a platform to increase brand awareness, rather than sales. The digital space offers a cost-effective and less labor-intensive way for organizations to produce and reproduce marketing material with fewer time and geographical restrictions (Kim & Choi, 2019).

Kim & Choi (2019) presented a structure based on drivers, which consist of four elements and 12 conditions. These four elements are experience, expression, satisfaction and sharing. This can be seen as experience includes accessibility, availability, and awareness: expression includes user creativity, personalization and customization; satisfaction includes services, content and interfaces: and lastly sharing ability includes connectivity, interactivity and reward. These drivers are something that evolved in terms of internalizing and externalizing value.

As it was mentioned before, there is a gap in academic research on co-creation and social media, because these two topics haven't been connected before in this level. As it was noted before, social media has changed the way we communicate, collaborate and connect with each other. Social media allows direct interaction between sponsoring companies, teams, athletes and fans. Social media can be used with partnerships and collaboration to help increase the organizations values.

Chapter 4. Methodology

This chapter describes the methodology used in this research, how the data is collected, the reasons for data collections, how the data was translated and why this is the best approach to answer the research question.

4.1 Define the goal of the research

When it comes to Formula One, it's a global sport, owned by USA based company, but has a strong history in the UK. Most of the teams on 2019 are European, two from Italy, one from Switzerland, one from Austria, four from UK, and one team coming from USA. This already makes the sport mix different cultural approaches and themes. Formula E on the other hand has a similar situation to Formula One, the only difference being that its core owners are from Europe. This makes the sport culturally more European style than Formula One. Does this affect their way of handing things online too?

The focus in analyzing the official Twitter account of Formula One is in their digital marketing strategies and how they are branding themselves in social media. After Liberty Media bought rights to Formula One from Bernie Ecclestone in 2017, they have pushed for more digitalized and fan friendlier environment. Teams have more freedom on their social media content but also are able to work on fan engagement. For example, bringing fans free paddock passes for Friday, or more famously Kimi Räikkönen DNF. This was at the first turn in Barcelona 2017, where TV camera showed crying little boy who was his fan. Ferrari PR team got permission from Liberty media / FIA to bring the boy and his parents to paddock to meet Kimi himself (ESPN.com, 2017). This was something that even teams said, wasn't possible to do during Ecclestone era. This research also gives a different view on how to handle social media accounts that are heavily connected with automobile and technology industry and not only in sport. The idea to bring Formula E's official Twitter account as the other research point would give an idea how many differences or similarities there are between these two series on their use of social media. The series also gives perspective as it is just starting its journey in motorsport scene.

4.2 Research design

This subchapter explains the qualitative and quantitative data and their differences. Author will also explain which of these research methods are used in this master thesis and why.

4.2.1 Qualitative, Quantitative or Mixed methods-based design

Research is done by qualitative methods with a mix of collecting data from text. Data is collected from Twitter during the 2019 season. Data collection starts from car launch, which happens during February and ends at end of the season's tests at November. This time includes summer break, which starts at end of July and ends at the end of August, when there are no Formula One races, but also the winter tests before 2019 season had officially started in March. This means that the data is collected from between mid-February to start of December of 2019. Reason why mixed methods was chosen, was because this thesis handles large number of tweets that are categorized by topics/themes. Numbers from qualitative research shows how much in each category has tweets, while the qualitative will give more detailed information about these topics.

When it comes to researching there is often one topic that will be brought up. Will your research be qualitative or quantitative in nature? There are differences between these two methods, even though their objectives and applications overlap in many ways. The core difference between these two is that qualitative research generates textual data and quantitative on the other hand produces numerical data or information that can be converted into numbers (Farnsworth, 2019).

Qualitative research is seen as good research method for exploratory research, and it is used to discover and gain an in-depth understanding of individual experiences, thoughts, options and trends to understand in more detail a situation or problem at hand. Typically, qualitative research focuses more on individual cases and their subjective impressions (Farnsworth, 2019). Most common methods for data collection in qualitative research are via case studies interviews, focus groups, ethnography, and literature reviews (Streefkerk, 2019).

Quantitative research on the other hand is all about expressing research in numbers and figures. It is used to quantify attitudes, options and other variables with the goal to support or disprove hypotheses about specific phenomenon and contextualize the results from the sample in wider population

(Farnsworth, 2019). On quantitative data the collecting methods are often via surveys, experiments, observations and content analysis (Streefkerk, 2019).

When it comes to choosing which methods fits more into the research it is important to take notice in what you want to do with your research. If it's about confirming or testing a theory or hypothesis then quantitative research would be the best choice. But, if the research is about understanding the concepts, thoughts and experiences then qualitative research should be chosen (Streefkerk, 2019). In certain situations, it can be also mixed methods research, where both of the methods are used to understand the research and its results.

4.3 Sample Selection / Data collection techniques

Reason why these series were chosen, was because both of them have a solid baseline on different social media channels, but for this research only source for data is activity in Twitter. This is because in both cases the accounts are active during and off the season. Also, the text limitation gives more options for sports to choose what to post and do in Twitter. Data is collected and then analyzed with Nvivo program. Because of the privacy and security settings the number of tweets captured and collected was limited. Only tweets allowed by the user's privacy policy were captured, but also the limitations of Twitter applied to the collection.

4.3.1 ABB Formula E

ABB Formula E Twitter account has 219 136 followers and they are following 702 accounts at end of March 2020. Account was created on July 2012 and from that date to today they have posted 19 1K tweets. Accounts they follow range from drivers and teams to sponsors and fans but also people and companies who are known for their stand against climate change. 2762 tweets were collected during the period of one month before 2018/19 seasons starts to one month after the 2018/19 season ended. The reason for this over one-month period stretch before and after the season is, because the account kept tweeting relevant information of 2018/19 season.

For Formula E, there are 3200 tweets of data acquired from Twitter. These tweets were collected from October 2018 to January 2020, but the actual time under research is from December 2018 to July 2019 when the Formula E's fifth season happened. During this time, there were 2649 tweets to

go through and categorize. Some of the related information is shared before and after season ends, and it is accounted for by including three-week period after the end of the season. Data, the tweets, will be analyzed and categorized by different themes in Nvivo program. Excel would be used to create possible charts and tables to see how tweets are grouped into different categories numerically and visually.

Round	ePrix	Country	Circuit	Date
1	Ad Diriyah ePrix	Saudi Arabia	Riyadh Street Circuit	15 December 2018
2	Marrakesh ePrix	Morocco	Circuit International Automobile Moulay El Hassan	12 January 2019
3	Santiago ePrix	Chile	Parque O'Higgins Circuit	26 January 2019
4	Mexico City ePrix	Mexico	Autódromo Hermanos Rodríguez	16 February 2019
5	Hong Kong ePrix	Hong Kong	Hong Kong Central Harbourfront Circuit	10 March 2019
6	Sanya ePrix	China	Haitang Bay Circuit	23 March 2019
7	Rome ePrix	Italy	Circuito Cittadino dell'EUR	13 April 2019
8	Paris ePrix	France	Paris Street Circuit	27 April 2019
9	Monaco ePrix	Monaco	Circuit de Monaco	11 May 2019
10	Berlin ePrix	Germany	Tempelhof Airport Street Circuit	25 May 2019
11	Swiss ePrix	Switzerland	Bern Street Circuit	22 June 2019
12	New York City ePrix Race 1	United States	Brooklyn Street Circuit	13 July 2019
13	New York City ePrix Race 2			14 July 2019

Table 1. 2018/19 Formula E season's calendar

Tweets will be categorized and themed by different ways. Mostly it will be time based, limiting it to before, after and during the season. This will give an overview when certain themed tweets are posted. Additionally, the race weekend tweets will be subcategorized by weekends, this will help to understand which types of themes are posted with certain races.

Formula One Twitter account has 4.4 million followers and it's following 69 accounts at end of March 2020. Formula One account was created in august 2009 and since then it has posted 54.2K tweets. Formula One is only following current Formula One teams and drivers, but also accounts of official race tracks that Formula One has or is racing. Other than that, they are also following couple of old Formula One drivers, FIA and FIA president and four other racing categories. They are also following 2019 Formula One eSport champion. For Formula One the data was collected from early February from car launches, which happens month before seasons starts until month after 2019 season ends. This includes car launches, pre-season and end-season testing and summer holiday at august. Because of the limitations, data collected was from 30.8.2019 forward, meaning the possible tweets from start of the season couldn't be collected. Despite this small problem, the end of the season shows the similarities and themes that were there during the whole season. From total 3143 collected tweets 3039 was tweeted during the second part of Formula One 2019 season.

Round	Grand Prix	Circuit	Race date
1	Australian Grand Prix	Melbourne Grand Prix Circuit, Melbourne	17 March
2	Bahrain Grand Prix	Bahrain International Circuit, Sakhir	31 March
3	Chinese Grand Prix	Shanghai International Circuit, Shanghai	14 April
4	Azerbaijan Grand Prix	Baku City Circuit, Baku	28 April
5	Spanish Grand Prix	Circuit de Barcelona-Catalunya, Montmeló	12 May
6	Monaco Grand Prix	Circuit de Monaco, Monte Carlo	26 May
7	Canadian Grand Prix	Circuit Gilles Villeneuve, Montréal	9 June
8	French Grand Prix	Circuit Paul Ricard, Le Castellet	23 June
9	Austrian Grand Prix	Red Bull Ring, Spielberg	30 June
10	British Grand Prix	Silverstone Circuit, Silverstone	14 July
11	German Grand Prix	Hockenheimring, Hockenheim	28 July
12	Hungarian Grand Prix	Hungaroring, Mogyoród	4 August
13	Belgian Grand Prix	Circuit de Spa-Francorchamps, Stavelot	1 September
14	Italian Grand Prix	Autodromo Nazionale Monza, Monza	8 September
15	Singapore Grand Prix	Marina Bay Street Circuit, Singapore	22 September

16	Russian Grand Prix	Sochi Autodrom, Sochi	29 September
17	Japanese Grand Prix	Suzuka International Racing Course, Suzuka	13 October
18	Mexican Grand Prix	Autódromo Hermanos Rodríguez, Mexico City	27 October
19	United States Grand Prix	Circuit of the Americas, Austin, Texas	3 November
20	Brazilian Grand Prix	Autódromo José Carlos Pace, São Paulo	17 November
21	Abu Dhabi Grand Prix	Yas Marina Circuit, Abu Dhabi	1 December

Table 2. 2019 Formula One calendar

4.4 Ethical Consideration

When it comes to research and research papers the ethical consideration can be specified as one of the most important part. Because when considering using a social media platform for evidence generation and communication it is important to take a notice on legal, social, political, and organizational context which should be investigated or understood and taken into account. This includes engaging in critical reflection on these issues (Berman, Powell and Herranz, 2018). It is important to take notice on some of these when it comes to social media:

- Social media can provide a vehicle for greater transparency and accountability
- Social media platforms can also be used to provide real-time information on events as well as environmental and social conditions
- Crowdsourcing to gather information and for real-time monitoring.
- Difficulties in verifying the age of users
- Determining the value of the data and obligations to those providing the data
- Ensuring the confidentiality of data and protecting participants

In this research data is collected from official twitter accounts of Formula E and Formula One during their 2019 seasons. The only information shown in this data are usernames. As part of the research it is important to know if the Norwegian Centre for Research Data or NSD for short needed to be

informed of this type of collection of data. The quick test on their page reveals the notification isn't needed. This document will be attached to the end.

4.5 Limitations

Choosing a right type of methods for this research is important because both methods have their own limitations. In qualitative methods often time and cost are involved, qualitative design doesn't generally draw samples from large-scale data sets which often lead to problem for adequate validity and reliability (McLeod, 2019). With the subjective nature of qualitative data and its origin in single contexts, it is difficult to apply it reliably and validly. For example, a researcher often plays a central role in the generation of data, it is not possible to replicate qualitative studies. Similarly, context, situations, events, conditions, and interactions cannot be replicated making each qualitative case unique. On the other hand, the strength is in the close involvement of researcher, and they gain insider's view of the field they are studying. This helps researcher find issues and errors that are often missed by scientific inquiries (McLeod, 2019).

In this research, there are some limitations on the research and research methods. Firstly, this is only telling the results of two motorsport series and their use of Twitter. This already has some limitations from form of sport, because different sports have different ways to use social media. Secondly the data is only collected from one social media platform. This only shows results from one social media platform. This platform has different purpose than Instagram, YouTube or Facebook, which is the reason why the results are applicable only on Twitter.

In case of quantitative methods, the limitations are related to that data is not acquired from natural setting. It also won't let the participants explain their choices or what kinds of meanings the questions have towards the participants (McLeod, 2019). It also reacts strongly if there is lack of knowledge on the application of statistical analysis and has a negative effect on the analysis. With quantitative methods there is possible bias on the data analyzing, when the research is often done only by observing phenomena rather than on the theory of hypothesis generation (McLeod, 2019). Both of these affect also the ability of generalizing the research findings to the wider populations. On the other hand, quantitative methods have some strengths against qualitative methods. Quantitative methods are useful for testing and validating already confirmed or constructed theories. This gives more conduct and detailed analysis on the research topic.

There will be other limitations too, of course. The reason for choosing only Twitter as a social media platform is to limit the amount of data to reasonable quantity instead of looking into every possible social media platform there is and where the series in question is active. There are limitations with sample sizes, a large sample size is needed for more accurate analysis while small scale is less reliable (McLeod, 2019). Both of these also have effects on the ability to generalize the research findings on wider populations. Secondly the limit is in two different motorsport series, so the data is comparable. The series are selected from different popularities and sizes: it can be said if there are similarities with others or not, but it cannot go too much into details. Additionally, missing data can be an issue. This is caused by the possibility of not being able to collect all the data from the selected time period. Twitter only allows one to see a certain number of tweets from past months, before stopping. This can be seen as a problem which can end with limited data and drawing possible conclusions from it. Limitations of the data could also include data gaps, merging of incompatible databases/datasets, inclusion of outdated data, etc. Any limitations of geospatial data should be understood also.

Chapter 5: Findings and analyses

This chapter will explain the results of the data collection from both race series Twitter accounts and connect it to value co-creation theory.

5.1 Findings of ABB Formula E Twitter account during 2018/19 season

In this subchapter the data collected from ABB Formula E's official Twitter account has been opened and explained. To get a better understanding on each category the different subcategories has been brought up and explained.

5.1.1 Overview of the collected data

As it was mentioned before, the total amount of collected data had 3200 tweets. But out of those only 2762 tweets were related to 2018/19 season. Tweets that were published one month before and after the season were included in data too, because they were related to the season. This is something to get fans to notice towards the series before the season starts, but also to keep the interest on it even after the season has ended. This means that data was collected from 45 weeks. This means that on average 61 tweets were tweeted during a week. These tweets were categorized by different themes to see what topics ABB Formula E twitter account is using. It is important to notice that the main focus was on theme of the tweets rather than the use of hashtags, photos or linked accounts.

Due the large amount of tweets collected, it was important to organize them. The table 1 introduces the categories of main topics, but because of the number of tweets in themes, such as off season and during the season, there are different subcategories. The subcategorization in themes was done by race calendar order and under each race weekend there are more subcategorizes such as drivers, teams, event, media, replies and others. This was done to have better and cleaner structure of the topics on the tweets.

Timing of the tweets	Theme of the tweet	Total number of tweets
During 2018/19 season		
	Race weekend	1623
	Between race weekends	433
After, before and during the 2018/19 season		
	Innovation	29
	Marketing	59
	Sustainability	44
	Women of Motorsport	9
Off-season		
	After season ends	62
	Before season starts	145
	Off season other (break)	358
	Total:	**2762**

Table 3. Number of tweets by Formula E organized by different main categories

Just looking into the number on the table, it is important to notice that outside racing Formula E posts tweets related to innovation, sustainability, and women in motorsport. This shows that Formula E did not make their Twitter account to just market their series but also to use it to market and show important topics around the series.

As to understand little bit behind the categories and what type of tweets were related under them, more explaining is needed. This is, to understand later on, when the differences and similarities are drawn between the two series.

5.1.2 Different themes and subcategories explained

In this part the different categories for the themes are explained to get better understanding of the data. It will explain first race weekends and then go with order of between races and off-season before moving to individual themes that were brought up during the collected data time.

Race weekends

The biggest number of tweets are under race weekends category. In total 1623 tweets are included in this category, making it 58.76% of all the tweets that were released during the 2018/19 season. Because the great number of tweets, it was important to put subcategories under it, to get a better understanding what theme's there are. This was firstly made into each race weekend as its own, to break it down.

Subcategories for race weekends:
- Teams
- Information
  - Track, weather, event information
- Drivers
- Media
- Sponsors
- Track action
  - Shakedown, Practice, Qualification, Race
- Replies
  - Fans, Teams, Drivers, and others
- After the races
- Formula E
- Other

One of the biggest subcategories in race weekends is track action. This means tweets that are giving information about shakedown, practice, qualification and race action. In total this subcategory has 662 tweets out of 1623, making it 40.79% out of all race weekend tweets. These tweets are tweets, that give a real time track action information. For example, during the races, tweets are posted every lap, explaining the current lap and what is happening. This gives a good way to follow the race, if you are not able to watch it live. These include information given during the shakedown, practice and qualification. Similar to this is theme called information that includes all race weekend information there is, related to the track, weather, drivers and teams and event itself. In total there were 15 tweets, 0.92% in this category. Most of the tweets included track information, such as track layouts, track temperature, but also event location weather updates. For example, during the Paris ePrix weather was heavily changing so the information was given often. There is also a subcategory related to the after the race related tweets, in total there was 45 tweets in this category making it 2.77% out of the total number. These are the tweets that are posted soon after the race ended, until the midnight of same day. This gives information of race finishing order, possible penalties, interviews and podium.

One of the subcategories is called Formula E, this is tweets that Formula E account has posted during the year that couldn't fit anywhere else, these include tweets such as fanboost, driver of the day and other information and similar tweets belong to this category. For example, during the first race of the season this subcategory had information and photos related to the new season. In total there were 233 tweets, which would make 14.35% out of total 1623 tweets, in this subcategory. This subcategory is something that has a wide range of tweets, that doesn't have a clear theme other than the fact they are related to the Formula E information and other race weekend related tweets. These tweets for example included "it's race weekend" tweets and what has happened in the season so far. These are short posts that don't contain enough information to fit under information category.

Formula E often re-tweets or posts about their sponsors during the race weekends. These tweets are often common congratulations tweets from the sponsors towards the team or driver they are sponsoring. There is also couple of tweets where the event sponsors are congratulating the winner of the race and how event was well done. There are 46 tweets included in this subcategory making it 2.83% out of the total amount. Media subcategory has tweets that are related to tv schedules, written and audio media. Formula E releases information about tv schedules when sessions are on. They also tell information, related to their radio, which are basically tv commentators but only audio. In total there were 150 tweets, making it 9.24% out of all race weekend tweets.

One of the bigger subcategories during the race weekends were teams, this subcategory included tweets that were ether re-tweeted from the actual teams Twitter accounts, or Formula E posting about the tweets. Lot of these tweets could be under different theme categories, but these were put under the teams, because these tweets were tweeted from the actual team accounts. In total there were 219 tweets, or 13.49% out of 1623. These tweets were information giving tweets from teams towards fans, including driver and team principal comments, track information and other relevant information. There was also tweets where teams' drivers were battling against each other's in different games, or/and Q&A sessions from fans questions. Other similar category to this is drivers. In this subcategory there were 65 tweets, making it 4% in total. These tweets were often re-tweets from drivers, who were getting ready for the race weekends, own comments and information giving. For example, drivers own tweets related to the team changes and other announcements. There is also couple of tweets from drivers explaining the track and their expectations towards it.

There is also a subcategory called replies, these include tweets in which Formula E account replied to the team, driver, sponsor or fans during the race weekends. This is also a topic that will come up

between race weekends and after the season. In total during the race weekends there were 168 tweets, making it 10.35% on this subcategory. These tweets, when they were related to the fans, were often replies to questions from fans about the starting time of the race or on other information from Formula E account. There was also couple of humorous comments towards drivers, who had posted something funny or sometimes informing information. There was also couple of tweets towards event holders and celebrity accounts, where Formula E account thanked them for being in the event as a reply to the original tweets.

Lastly there is small subcategory called others. When data was collected and put together by race weekends, there was one or two tweets that didn't have a clear theme. That's why they got another themed category, and, in the end, this was 20 in total, or 1.23%. They are not always directed straight to the race itself, for example there is a week promoting a new music album during the Monaco ePrix and Jaguar IPace action, which debut during 2018/19 season.

Between races

In total there were 432 tweets in this subcategory making it 16.04% out of total amount of tweets. This was the second largest after the race weekend themed tweets. Because the large number of tweets, they were firstly categorized under each between race weekend to have a better understanding timewise where tweets were happening. After this each between time was broken into smaller pieces to understand what themes were tweeted about. Lot of these subcategories have one to five tweets, but they were brought up to see similarities later on with Formula E data.

Subcategories for between race weekends:
- Sponsors
- Formula E
    - Fanboost, event information, DHL driver of the day etc.
- Media
- Replies
- About the race
- Drivers
- Team
- Championship
- Celebration
- Future
- Technical
- IPace series
- Other

Biggest subcategory in this theme category was Formula E, with 146 tweets. Lot of these tweets included event and race information given towards the next race. For example, event guides to the fans who were going to watch race live at the trackside. These also included tweets related to the fanboost and DHL award for driver of the day, that is released day after the race had been held. These also included tweets from Marrakesh testing that happened after the Marrakesh race weekend. There were also 16 tweets about the race itself released after the race weekends, rather than just overall information.

There were 15 tweets related to the sponsors of the series, these tweets were information tweets where sponsors congratulated winners of the races or other information about the race. In total there were 22 tweets included in media category. There were tweets related to the previous race, information what had happened but also links to re-watch it on YouTube or TV. There were 65 tweets related to the teams and 25 related to the drivers. In total both of these categories were tweets related to what teams or driver was thinking about of the previous race or the next race that was going to happen. But also tweets such as drivers doing Q&A sessions or challenges against each other. Overall, these were very broad themed topics.

In total there were 89 tweets related to the reply subcategory. These 89 tweets included replies to the fan's questions, teams and drivers comments or sponsors tweets. Most of them were related to the tv schedules for the next races or other information given to the fans.

Because the season runs from December to the July next year, there were tweets celebrating Christmas and new year. In total there were 11 tweets in this category from account itself but also re-tweets from teams and drivers. During these holidays there was also couple of tweets related to the giveaway that were posted during that time. Before the last race weekend there was also two tweets related to the championship, because there were many drivers who had still chance to win it. Overall, there were 6 tweets that were subcategorized under funny because, they weren't related to the series itself but rather jokes and puns that Formula E made up during between races.

Smaller ones with only one tweet in each subcategory was tweet related to the Jaguar IPace series, that races during the Formula E weekends, but also one tweet related to the technical information about series. There were also two tweets related to the future of the series, with both of the tweets relating to the driver changes in the teams for 2019/20 season. There were 65 tweets under other

categories over the season. These tweets include tweets explaining the future events, about extreme e, reliving favorite moments and many more.

Off-season

These include tweets that were posted after the season had ended, before the next season started but also the between time of season opener and second race, which timewise is often related to the winter break. These three were the main categories that helped to shape it up. In total off season has 565 tweets in it, making the total 20.46% out of all tweets. The biggest category in this is the other off-season category, with 341 tweets.

Subcategories for off season other

- Replies
  - Fans, drivers, teams and other
- Teams

- Formula E
- Other

In total there were 154 tweets, which is almost 43,02%, about off season. Other tweets were related to the teams via either re-tweets or tweets directed to them. These tweets are countdowns for the season beginning, drivers' interviews, introductions for the new drivers and test drivers. Or tweets related to the topics of their automobile industry related companies, which teams tweeted about. Second biggest subcategory in off season tweets is replies. These tweets are direct comments and answers for fans, drivers, teams and sponsors that Formula E account spend time to answer. In total there were 115 tweets in this subcategory. These are jokingly humorous, for example asking who leaked the press-release or other comments toward the replied account.

There was one tweet related to the Formula E. This category had total of 56 tweets, or 9.9% out of all. In this subcategory there were tweets related to the driver changing, event information for the ticketing, information about the season and new changes. Overall information based towards the series itself.   Last subcategory for this was other, these included tweets that Formula E either posted themself or re-tweeted for someone else. These tweets were video clips of races, but edited to fit in popular game or movie or other similar unrelated tweets. In total there were 33 tweets in this category.

After the season 2018/19 ended

In total tweets that were collected for this data after the official 2018/19 season had ended was 62 tweets. These 62 tweets make total of 2.24% out of all 2762 tweets. Even thought there was smaller number of tweets, it was important to subcategorize these to get better understanding of the different themes.

Subcategories for after the season has ended:

- Drivers moves
- Formula E (2018/19 season recap)
- Media

- Next season
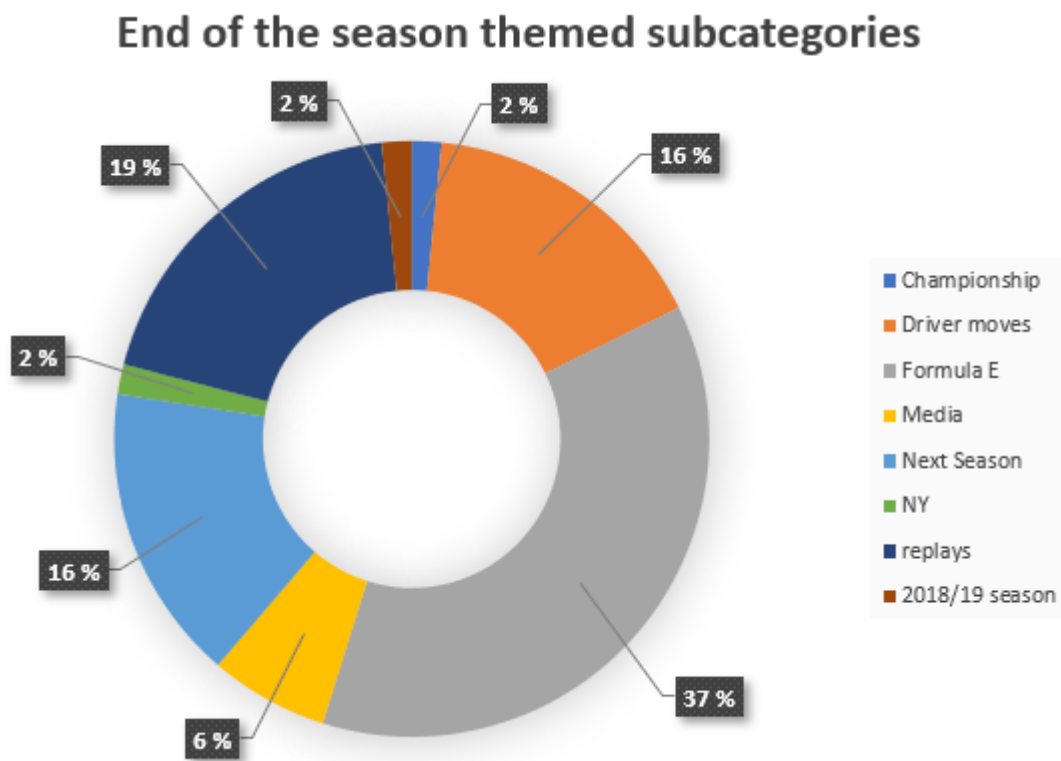- Last race weekend recap
- Replies

Table 4. Pie chart of tweets under end of the season themed subcategory

To understand these subcategories and how big part of each were the pie chart was to make a give an visual idea. As it can be seen in it, its remarkably similar overall, lot of the themed subcategorize

were in similar sizes. This is also to visually help to reader to understand the different subcategory explained.

Largest number of tweets were under the Formula E category total of 24 tweets. These were overall tweets, asking fans their favorite moments, sharing best moments of the season, but also video clips of drivers answering questions like "Who is the funniest driver in Formula E?" and such. This was their idea to bring best things happened during the season by letting the drivers choose, but also bring up topics that weren't discussed during the season or weren't clearly related to the racing itself. Related to this subcategory there was also a last race weekend recap subcategory that hold only two tweets. These tweets were about re-tweet of Envision Virgin's account about how their last race weekend went. The other one was information who had won the final driver of the race/day in the final race.

Related to the next season there was 10 tweets on this topic. These were tweets related to the countdown for the new season, but also Porsches interactive car release were re-tweeted from Porsches account. Similar to next season themed tweets were driver movement tweets. These means drivers who are moving in different teams for 2019/20 season or new drivers coming into the series. In total there was 10 tweets also, in this subcategory. Example Da Costa leaving BMW motorsport team to join in DS Techeetah team.

Last two subcategories for after the season had ended was media and replies. Starting with the media themed tweets, there was total of four of them. Out of the four tweets, two of them were memorated to the Jean-Paul Driot DAMS and e.dams founder who pass away after losing a battle against his long time illness(Formula E, 2019). He was well liked and important person in Formula E scene, making teams, drivers and series to send wishes to the family. One other was about last race weekend of the season and last tweet in this category was Jeremy Clarkson's comment that he would rather watch Formula E race these days. Last subcategory in this category was replies. In total there was 12 tweets in this category, and they were divided in drivers, teams and fans replies. These were answers for guested but lot of agreeing replies to the comments they got.

Before 2018/19 season has started

This category includes tweets that were posted or re-tweeted before 2018/19 season had started. In total there was 201 tweets in this category and most of the tweets were related three-day pre-season testing in Valencia. This test was held 16-19.10.2018 where two days were open to the public. These

tweets included teams form Formula E, teams and drivers on track action during the testing. Including lap times, orders and what was happening in the track. There were also four tweets from sponsors which three of them were updating the pre-season test and one was informing that Sony Pictures Networks India extends its partnership with Formula E.

Marketing

In this category had total of 59 tweets, 2.14%, which were divided in two subcategories, marketing new teams and marketing events. For 2019/20 season, Formula E series would get two new teams, MercedesEQ and Porsche Formula E teams. During the 2018/19 season, both of the teams used Twitter to market their teams and bring interested towards them. Formula E account often re-tweeted tweets from these two accounts to give it wider audience. Most of these tweets are drivers' announcements, market tweets during the racing events, where both teams had their demo cars on view. This included tweets from the drivers too, explaining how test drivers were or how exiting 2019/20 season would be.

Second part of this category are marketing tweets towards the events. In total there was 24 tweets in this sub-category. Overall tweets were related to the new races what would be held in 2019/20 season. Most of the tweets were about London ePrix, which would have a brand-new location and track, then it has had before. These tweets were from Formula E's official account but also re-tweets from the race events accounts and sponsors. Most of the tweets were related to the London ePrix and Seoul ePrix, which both were new entries for the race calendar.

Sustainability

Sustainability was the biggest category outside racing related tweets. In total there was 44 tweets in this category, making it 1.59% overall. This category has lot of tweets that are not directly related to the series itself but overall sustainability and climate chance. There is tweets about different cities and their plan to reduce the emission before certain year and they are pointing out how electric cars will play a big part of it. There is also tweets related to the series and how key people are bringing the topic of sustainability to the schools and forums, example Mark Preseston a team principle talking about sustainability and why going green at Mohammed IV Polytechnic Uni in Marrakesh. Additionally, tweets related to the different Formula E race events that has worked for better and sustainable racing events. In over all this category is to bring awareness to the how actions can help the planet to survive. During the Sanya ePrix, Formula E tweeted about raising an awareness of ocean pollution. Lastly in this category, has also the tweets related to the And We Go Green documentary

that was made how a sport, in this situation Formula E, can have a meaningful social impact. Formula E also actively tweeted during the world environment day to bring awareness and fight against air pollution.

Innovation

In this category tweets are related to the technology. Reason why it was named as innovation because these tweets were presenting new innovated products to help sustainability and world. Example, Formula E tweeted about yearly Goodwood Festival of Speed event, where German ex-Formula E driver Nick Heidfeld broke the open wheel eRecord with Mahindra Racing's 2019/20 season car. This also included Heidfeld broke the 20 year hill climb record with electric VW ID.R car. Other than tweets related to this, they have tweets related to extreme e-series that is making its debut on 2021. There is also tweets related to car manufacturers who are racing in Formula E. Example Jaguar Land Rover's tweet was re-tweeted by Formula E's Twitter account to raise awareness that bringing range of electric cars to the UK and safeguarding thousands jobs by this. Reason why this is in here, because the electric cars that are linked into the Panasonic Jaguar Formula E team is racing in Formula E, so the Formula E's Twitter account brings up these. This also included Harley Davison electronic bike related tweets during the New York race weekend, because Harley Davison was sponsor for the event. Outside of these automobile industry related innovations, this category also included couple of tweets where teams, drivers or Formula E personals introduces innovated products like halo and attackmode. In total there was 29 tweets in this category, making it 1.05% out of all the tweets that were collected.

Women in motorsport

Women in motorsport is smallest themed category in ABB Formula E tweets. In total there is only 9 tweets in this category, 0.33% out of all. 8 of these tweets are related to FIA's campaign of Girls on track, bringing up the interest of motorsport to girls. This is FIA's and nine partners to promote and develop of young women in motor sport at grassroot level. It will contribute to the development of the FIA's educational and social roles and support its national sporting authorities with their motor sport growth. To strive to raise aware of gender equality and increase the participation of women in the sport (FIA. n.d). For Formula E these tweets were released during the race weekends where these girls were visiting the paddock. Other than the campaign, Formula E also tweeted on women's day wishing a good day.

5.2 Results of Formula One Twitter account during 2019 season

In this subchapter the data collected from Formula One official Twitter account has been opened and explained. To get a better understanding on each category the different subcategories has brought up and explained.

5.2.1 Overview of the data

Formula One's tweets were only collected from second half of the season. This is because Nvivo program couldn't collect tweets prior to August 2018 and on Formula One's Twitter timeline it is not possible to go further back either. This means that the data was collected only from the last nine races out of 21 that is in 2019 season. Even though it was possible to collect data only from the second half of the season, it resulted in 3039 tweets for the research. This means that from the period of 19 weeks that data was collected, the average amount of tweets per week was 160. Similar to Formula E the hashtags, photos or videos weren't used in categorization but rather the theme of the tweet was used. Meaning that each tweet was categorize by theme that the tweets text was telling. If category had lot of tweets under it, subcategories were used to make it easier to divide by theme.

Timing of the tweets	Theme of the tweets	Total number of tweets
After 2019 season		
	Drivers	63
	Best of 2019	41
	Other	25
	About 2020 season	17
	Teams	16
	2019 races	14
	Post-season testing	9
	Celebration gala's	8
	About Abu Dhabi	7
During 2019 season		
	Between race weekends	585
	Race weekends (Thursday to Sunday)	1840

	eSport	76
	Technical Information	22
	Women in motorsport	2
	Young drivers / future F1 drivers	57
During and after 2019 season		
	Celebration (Birthdays, championship)	41
	Marketing	174
	Standing / Championship	42
		3039

Table 5. Number of tweets under each main theme and total number of tweets.

To understand where the tweets for each category come from it is important to open and explain them. Most of the tweets are coming from between race weekends and during race weekends, in which both have lot of different subcategorizes to help in categorizing them better, this will be explained and opened up more later on. Formula One also tweets lot about young drivers, that aren't racing in Formula One but rather in smaller categories hoping to make to Formula One one day. Formula One offers teams a chance to run their third drivers, who are often the young drivers, on Friday's first practice session or during official testing days, to give the young drivers a chance to get better understanding of F1 cars, but also having options other than their official racing drivers. Third drivers are often used in testing and other purposes, so the current F1 drivers wouldn't need to spend so much time in simulators and instead concentrate on racing. It is also important to notice that Formula One uses its Twitter channel to promote Formula 2 and Formula 3 series, which race at the same weekends when Formula One is, even though their season is limited only to races in Europe and the final race at Abu Dhabi. This also means that during the race weekend at Belgium 2019, when Formula 2 race had an awful crash during the first lap Formula One account kept informing about it also. When information of one driver passing on and other being in hospital was told, they sent their messages to the families and kept posting tweets to remember the driver who was passed away. This was something that was posted during the weekend but also between Spa and Monza race weekends. Account also kept informing the other drivers' situation, who was in hospital care weeks after the crash and later released to home.
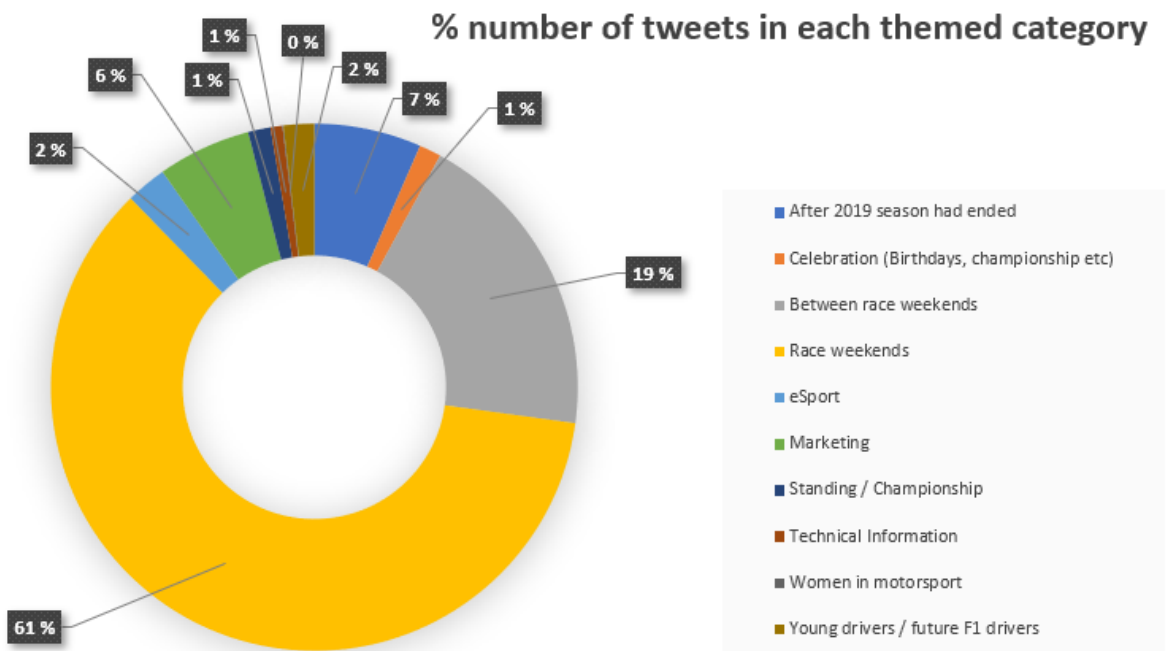
% number of tweets in each themed category

- After 2019 season had ended
- Celebration (Birthdays, championship etc)
- Between race weekends
- Race weekends
- eSport
- Marketing
- Standing / Championship
- Technical Information
- Women in motorsport
- Young drivers / future F1 drivers

Table 6. Pie chart of tweets in each category

Pie chart to explaining each percent's part of the main themed category. This pie chart gives a first glance how the tweets were separated by different themes but also gives an idea to reader to catch first idea of what Formula One Twitter account it trying to use Twitter.

5.2.2 Different categories and their subcategories explained

In this section, the different categories are explained in what type of tweets were categories under these. This also includes the different subcategories for race weekends, between race weekends, marketing and after the season has ended categories.

Race weekends category

Biggest number of tweets was posted during the race weekends. In the case of Formula One account 61% out of total tweets were related to race weekends. These tweets are collected from Thursday, which holds the driver interviews and press conferences and autograph session. On Friday two 90 minutes practice sessions are held, Saturday one 60minute practice session and qualification is held and on Sunday it is the race. Monaco from the first part of the season has special schedule, meaning that Fridays program is moved to Thursday and Friday is used to different events and galas. During

2019 season also saw one special schedule when Japanese grand prix qualification was moved to Sunday morning before the race. This was related to bad weather on Saturday, meaning it wasn't possible to race. During each session Formula One keeps posting tweets in real-time to inform followers what is happening on the track. Out of 1840 tweets 1227 tweets were related to this. 66.68 % of race weekend tweets were related to relaying information on things happening on track in real time. The subcategories of these tweets were based on after the race information, these tweets were related to the podium ceremony, drivers interviews and other post-race related tweets. The total number of tweets under this theme was 221, which was 12.01% of race weekend tweets.

Subcategories for race weekend themed tweets:
- Real-time track happening information
    - Practices
    - Qualification
    - Race
    - After the race (podium, drivers' comments etc)
- Track introduction and general information about the event
- Drivers
- Teams
- Media
- Fans
- Past events
- Other

Other than relaying information of happenings on the track Formula One Twitter account tweets a lot on information about the event and track. This means information like, when different sessions are going to start or if there are delays, but also weather updates before, during and after each session. During each race weekend account also releases information related to the track. For example, track changes, track temperature and other. 119 out of 1840 tweets during the race weekend were related to information given from Formula One Twitter account. This means that 6.47% out of 1840 tweets were information sharing.

Formula One Twitter account also tweets about its drivers and teams during the race weekends. These tweets are pretty much anything. Sometimes the tweets are more on humorous side, commenting on something funny driver has done in front of the camera. Couple tweets were direct comments on driver tweets about something that had happened to them. Formula One account also posted tweets about different drivers and their possible battles for the race, with "last time *drivers name* and *drivers name* were starting at next to each other ended with *drivers name* finishing before". But they are also commenting from drivers and teams about different sessions and what they thought about those. Out

of 1840 tweets 135 tweets were related to teams and drivers, with the total amounting to only 7.34%. Teams and drivers were often brought up in other categories, but this theme was more centered towards them than other things.

Smaller part of the race week tweets were media tweets. These tweets were about different types of content, such as interviews, tv-schedules, written media and such. There were only 25 tweets related to this subcategory, meaning it was only 2.72% of the tweets. Other even smaller sub-category for race weekend tweets were past events. These were tweets that were used to explain the last race of driver of 2019 on the track or more iconic race on the track. 17 tweets were related to this topic taking 0.92% out of all the race weekend themed tweets.

There were two more subcategories under the race weekend. One of them was tweets related to the fans. Most of the tweets under this category were posted during the Japanese grand prix, which is known of its strong fan culture. Few tweets were posted during the Italian grand prix, which is well known of Tifosi's the Ferrari fans. The total amount of tweets under this category was 18, or 1.96% of the tweets. Last subcategory for the race weekend themed tweets was other. These tweets didn't fit into any other category. In these there were tweets about celebrities, but also tweets that hold only photos and no text. 52 tweets are in this category, making 2.82% out of all race weekend themed tweets.

Between race weekends category

Another period the tweets were from during the season was time between races. This period of time varies from races held back-to-back up to two to three weeklong breaks between races. This ensures that cars, tools and everything needed was able to arrive to the next racing track well ahead of the race weekend. Just like in race weekends, because the high number of tweets 585, there was subcategories to help. In total between race tweets were 19% of total amount of data.

Subcategories in between race weekends:
- Media
- Driver
- Teams
- On this day
- Other

- About last race
  - Belgium
  - Italy
  - Singapore
  - Russia
  - Japan
  - Mexico

- o USA
- o Brazil
- o Abu Dhabi
- • About next race
  - o Italy
  - o Singapore
- o Russia
- o Japan
- o Mexico
- o USA
- o Brazil
- o Abu Dhabi

Biggest part of the between races tweets were related to the last race related tweets. These were often highlighting, drivers' comments, how drivers or teams did or tweets about the race event itself. These are commonly to get people to talk, but are used to lift the race weekend moments that didn't make into the tv live or were remarkable for some other reason. Out of all 585 tweets 273, or 46.67%, of the tweets belong to this subcategory. Most of the tweets were released between Brazil and Abu Dhabi, because of how dramatic the race in Brazil had been. These examples were Albon's and Hamilton's crash near the end of the race and Hamilton's penalty that dropped him out of the podium. This also meant Carlos Sainz Jr. getting his first podium and Kvyat's second place finish with Toro Rosso.

Similar to tweets related to last race, there was 151 tweets related to the next race. This was 25.81% out of total between races category tweets. These tweets often included links to YouTube to track preview made by one driver or other previews for the upcoming race. There were also numerous tweets related to the drivers and their achievements at the track during earlier in their career. Often written as, can they reach the similar positions or better. These are often common things to tweet before the race weekend to make people talk about it. In these tweets there was also overall information about the country or track but also time schedule to upcoming weekend. Just like during the race weekends and off season too, a lot of Formula One tweets are often about teams or drivers. Either as a re-tweet from them or tweets where, they talk about them. Lot of teams and drivers related tweets are under about next and last race, where they choose to tweet about how driver has done on the specific track. These could have been categorized in either one, so the topics that were more about racing and the event itself were categorized under the next and the last race, while other that couldn't be categorized under those were categorized under teams or drivers.

The smallest sub-category under the between race weekends was media. This meant tweets that were related to different news articles, interview or media links or anything that media would cover on Formula One. In total there were only 6 tweets that could be categorized under this, making it smallest area with only 1.03% of the total amount of tweets. There was two other subcategorizes left. First one

out of these was on this day related tweets. In total there was 44 tweets under this subcategory, making it 15.04% out of all the tweets under the between races tweets. In this category tweets were often related to Formula One history that had happened on a certain day. For example, past races that had happened on a certain date, making it feel kind of nostalgic when you see it, because often there was photo related to the tweet's text. Other than the past races, drivers were often the topic of the tweet. If driver had managed to do well in certain race in the past that had happened during the second part of the season, this would be brought up with the question could driver do same in next time they would race there. Also, there were tweets related to on this day, when more iconic or legendary past driver had won a race or championship. This also was more of the nostalgic side of feeling, but also brought the greatness of the driver up.

Last subcategory for between races tweet is other tweets. These tweets couldn't be fitted in anywhere else, but it seemed pointless to create a subcategory for only one or so tweets. This subcategory had a total of 6 tweets out of 585 tweets, this means that 1.03% out of the total amount was under this subcategory. There were two tweets related to the rules and regulations, because the position fight that happened in Monza and it was explained why there wasn't any penalties given out. This was something that was a hot topic after the race and people wanted to have explanation why there wasn't anything done about it. Other four were celebrity related tweets from Italian and USA grand prix. It is common to have celebrities during the race weekends to watch, so these tweets were related to that. Celebrity was given a chance to have a lap around the track in a super car to see what the driving around the track would feel like. Couple of the tweets was like this, reminding the celebrity of the lap that were able to take in the event.

Marketing

Formula One uses its Twitter account for marketing purposes too and was 6% of all tweets posted during the second half of the season. Most of the marketing themed tweets were related to Formula One series and its future, driver changes, future rule changes, next season's calendar. The end of last season saw a lot of tweets related to rule changes. Because 2021 there is a big change in regulations of the sport coming. Other bigger marketing topic was tweeting about *BeyondTheGrid* podcasts in YouTube and other YouTube related videos. BeyondTheGrid videos are podcasts, where current or old drivers, team bosses or other important Formula One people take part in and have 1 on 1 podcast with reporter Will Buxton. For example, during the last part of the season podcasts with Bernie Ecclestone, Mika Häkkinen, Rubens Barichello and many others, were released every race weekend. Third biggest tweets on marketing were about events. This includes marketing tweets towards new

races on the next season, such as Netherlands and Vietnam, but also Formula One event that was hosted in Los Angeles during the USA grand prix weekend. This event was where current and old drivers went to market Formula One on streets of Los Angeles. This also included interviews, autograph and photo sessions and live band playing the Formula One theme song. This event was also streamed via Formula One's official YouTube channel. These tweets were related to F1Fantasy game, which is about choosing 10 drivers who will finish in top 10 in next race, top 3 in qualification, but also favorite driver and team and if those are finishing on scoring point it will give extra. For the best betters there would be weekly prizes but also at the end of the season of the season top 3 players would win prizes such as F1 paddock passes, f1 grandstand tickets or F1TV 12-month subscription. Parts of their marketing themed tweets were also related to their online store during the different holiday's but also to the end of the year sales. This also included marketing on two past races.

Subcategories under marketing category are:
- Series
    - Driver changes, future rule changes, next seasons calendar
- YouTube
- Event
    - New races, F1 event at Los Angeles, next season
- Fantasy
- Store
- Past race

As it was mentioned before, biggest part of the tweets under the marketing category was series related tweets. Out of 174 tweets 51 were under this topic, making it 32.76% out of the total amount. These tweets were for example driver changes themed tweets where Formula One account would tweet about the driver and his possible future team place. Nico Hulkenberg was a big topic on these tweets, during the season he didn't have a place in Renault team for 2020 season, even though it looked sure he would continue there. Then 2019 season came closer to the end and suddenly he was left without place for 2020 season. Other than Hulkenberg there was information tweets about Haas team continuing the same driver lineup to 2020 but also Esteban Ocon getting a driver seat for 2020 season by taking Hulkenberg's seat. Other than the driver related tweets, tweets under this were series related tweets. These tweets included tweets about rule change news, as a new era on Formula One is set to begin in 2021 and lot of new limitations and regulations are coming in. These tweets were mostly posted around the last two races, making the waiting of the new season to more exciting rather than posting about this in the middle of the season. Also, the yearly next season calendar release and tweets related to it were released during the near end of the season. In tweets it included the photo of the race calendar with questions, which race you would come and watch at and other similar texts.

Second largest number of tweets under marketing was YouTube subcategory with 47 tweets, making it 31.97% out of all. These tweets were mostly about BeyondTheGrid where a Will Buxton interviewed different key people in a podcast. This podcast format started in 2018 and they have released new podcast every race and between race seasons a couple per month. Most of the podcasts have featured drivers, current and old ones, where they talk about their career in Formula One and life before and after it. They have also managed to have podcasts with other team bosses in Formula One, which are often explaining how season has been going and what it means to run a Formula One team. Other persons that have been in these podcasts have been main personals behind Formula One such as Ross Brawn, Bernie Ecclestone and others. These podcasts have given a good insider view to Formula One world. These tweets are actually one of the few where Formula One has linked to other social media platforms. They are using channel as way to catch new audience, but it also works as a good a good way to introduce new topics and themes with videos. Other than the podcast episode, Formula One Twitter account also released YouTube videos of *Grill the Grid* episodes, where each teams' drivers work together to gain highest number of points. Winner of the whole event would get a trophy and the title of a champion in the end. This year Mercedes didn't take part in it. During the last part of the season, there were Williams, Scuderia Ferrari, Toro Rosso, Racing Point, Renault, Alfa Romeo teams' episodes and bonus round released.

Third biggest part of the marketing themed tweets was related to the events. This meant events such as races, but also a Formula One event that was held in Los Angeles during the USA grand prix weekend. In total 37 tweets out of 174 were under this category which is 21.26% in total. Near at the end of the season, ticket sales for some 2020 races were released and Twitter was used as a marketing tool to show this information with direct links to ticket sellers pages. Mostly tweets were related on the opening race of 2020 season Australia, which would be held in March 2020. There was also ticket selling tweets related to the winter testing, these weren't yet with link to ticket selling page but rather reminder when the winter testing would be held. This subcategory also included couple of tweets related Formula One's official F1 Fantasy game, which will be brought up on next paragraph, which had a winning prize of paddock passes for 2020 race of the winners' choice. This was also marketed couple of times before the last race, reminding people to play it. Other than the race event itself, Formula One used Twitter to market their second Formula One event that was held in Los Angeles. This event was held during the USA grand prix at Los Angeles to raise awareness and interest in American market. The event itself had couple of Formula One cars driving around streets of Los Angeles, giving a showcase of the cars to the audience in close. In Tuesday 29th of October even

hosted a "Hollywood Ride of Fame" car exhibition along the Hollywood Boulevard. Multiple F1 and iconic cars from throughout the ages took part of the event that day, giving fans the opportunity to engage themselves in the world of motorsport. On Wednesday Valtteri Bottas, Daniel Ricciardo and Max Verstappen tore up the Hollywood Blvd. with their cars. This also included short interview with the drivers, Formula One theme song played in live and small autograph session near the parked cars. This happened two days before the start of the of the USA grand prix at Austin.

As it was mentioned in the events subcategory, Formula One has its own official game called F1 Fantasy. In this game player creates three teams of five drivers and 1 constructor from a $100million budged (F1 Fantasy, n.d.). Teams will score points based on the teams chosen drivers' actual performance in Grand Prixes during the season. It is allowed to do changes in the teams before the team-picking deadline which is the of the qualifying. As the price of the drivers and constructor increases or decreases during the season, this will be reflected in the available budged, when players make changes to their teams (F1 Fantasy, n.d.). Players' number 1 team is automatically entered in Global F1 League which is the league of your favorite constructor and your country league. Drivers add points based on their performance in qualifying and in the race, which is based on the Points Scoring table. Constructors score all points accumulated by their drivers apart from "driver only" scoring categories which are "beat teammate" bonuses and "driver streak" bonuses (F1 Fantasy, n.d.). Out of the total 174 tweets 28 were related to this game, making it as 16.09% out of total amount. Text style out of all of the tweets were pretty similar between each other, having a link to the game with a text reminding people to play the game before qualifying would start. After each race weekend there would be tweets asking how people had done in the previous round and also small information related to the last race that was held.

9 tweets in marketing category were related to the F1 store. These were released around holidays, such as thanksgiving and Black Friday to remind people to buy merchandise of their favorite driver or team. But also, when Mercedes won the constructor championship and Lewis Hamilton won the drivers' championship, the F1 store released tweets to market that you could buy the championship themed products in their online store. Smallest part of the marketing themed tweets was related to the past races, these were mixed with event related subcategory too, because tweets marketed the race itself with use of the past race. For example, commemorating the last race held in Netherlands, because in 2020 season Formula One would return there. In total there were only two tweets in this subcategory.

After the 2019 season

In this category, the tweets were accounted from the day after the last race until start of January 1st, 2020, giving it whole month worth of data related to the 2019 season. This included 200 tweets a total of 7% out of 3039 tweets. In this category, because of the high number of tweets, subcategories were included.

Subcategories in after the 2019 season were:

- Drivers
- Best of
- Next season
- Teams
- Races from 2019 season
- Testing
- Gala
- About Abu Dhabi
- Other

Biggest subcategory in after 2019 season was tweets related to the drivers. In total there were 63 tweets under this subcategory making it 31.5% out of the total amount. These tweets were about the driver's life after the season had ended as in what they were doing but also there were tweets from 2019 season. This includes mentions of how certain drivers had done in certain races or in overall. Related to the driver's a similar subcategory, but smaller in size of after the season has ended tweets is related to the teams. In total of 16 tweets, as 8%, were included in this subcategory. In this the most tweets were about how different teams had done in past season, but also tweets from teams telling what they were doing after the season had ended.

Second biggest number of tweets, 41, as 20.5%, in total came from best of 2019 themed tweets. These tweets included links and photos of moments from the season. Formula One account started to post these tweets couple of days after the season had ended until mid-December when all of the best moments chosen by them and fans had been released. Related to the best part of the season tweets Formula One Twitter account also posted 14 tweets, as 7%, that were related to the 2019 season. These tweets were about moments unrelated to the best parts of season tweets or videos. These included moments like drivers' mishaps during the race weekends or other information. There was total of 7 tweets, 3.5%, related to the last race in Abu Dhabi. These tweets were similar to the tweets that were released during between the races. The tweets contained information about what had happened during the race, biggest winners and losers of the race.

As preseason test happens during February, there has been couple of days at the end of the season end of the season testing, where teams often let young drivers to test different tire settings, car settings and others for the next season. This happens right after the last race of the season at Abu Dhabi. This year there were 9 tweets in total on this, because Formula One account itself didn't post information about it, but rather teams. Formula One's tweets were basic information sharing tweets, telling when the testing had started and ended, if there had been crashes or red flag situations but also when the session would be continued. These 9 tweets included also the order of the best time driver had made under each day.

There were 8 tweets, 4%, related to the galas. These tweets were mostly related to the Formula 2 and Formula 3 drivers' gala, that had been held after the last race of the season. In this, top three in championship and top three in constructions championship would get a trophy. They also presented a new trophy that carried the name of Anthoine Hubert Award for the Rookie of the Year. This trophy was before known as rookie of the year award. This was brought up in two different tweets, one of that was posted by Formula 2 account and one from Formula One. There were also two tweets related to the annual FIA award ceremony gala, where best three drivers and teams on championship would be celebrated.

Fourth largest subcategory of tweets was tweets related to the 2020 season. In total there were 17 tweets, 8.5%, in this subcategory. As the subcategory name shows, in this category tweets were related to 2020 season, meaning tweets such as driver changes, rule and race information. This also includes tweets where Formula One official account is counting days for winter testing and 2020 season opener at Australia.

Last subcategory of this section was other, similar to during the season tweets, these tweets are something that couldn't fit in anywhere else. But it also seemed to be pointless to create a whole subcategory for only one tweet or so. This subcategory had a total of 25 tweets out of 200 tweets. This mean that 12.5% out of the total amount was under this sub-category. These tweets included tweets related to the different celebrities that had visited different race weekends. But also tweets that had no other content than photos from 2019 season. There was also couple of posts counting towards the possible car launch day of 2020 season.

eSports

After the four biggest categories there are seven other categories, these don't have any subcategories, because the number of tweets were double digits only. The biggest category was esport related category with 76 tweets, making it 2% out of the total 3039 tweets. Formula One's esport series saw the light of the day during the 2017 season, but the first official championship was crowned at 2018, making the 2019 season the third season of the esport series, and second were drivers were racing for the championship. 2019 pro season started at September with the qualifications round, which lead to Semi-finals at London at October. Finals for the pro series were held during the Abu Dhabi race weekend. The tweets itself had information related to the events, starting times and real-time information on what was happening. There was also tweets related to the players, short introductions on who were driving at were at the finals, but as well as other related information. Formula One channel used its Twitter to market its YouTube streams but also the game itself.

Standing / Points

Under this category were tweets related to the drivers and team's championship. The closer to the end the season came, the more tweets of this theme were released. In total there were 42 tweets, making it 1% out of all the tweets. These tweets were more about the actual battles for the championship, and winners and losers that race weekend affected. After the drivers and team's championship was won before season ended, the tweets were commenting on how everything wasn't decided yet and focused more into the mid-field teams and their battles for the team's championship.

Celebrations

In this category tweets were related to the celebrations. These tweets were mostly celebration tweets towards the 2019 champion Lewis Hamilton and 2019 teams champion Mercedes-AMG. These tweets included Formula One's own tweets but also re-tweets from teams and drivers congratulating Hamilton and Mercedes for their success. Other than the racing related tweets, celebration included celebration tweets for birthday wishes for the Formula One drivers who had birthdays during the latter part of the season. Lastly there was celebrating tweets for different holidays such as thanksgiving, Christmas and new year's. These tweets were focused towards the fans of Formula One.

Young drivers

This category holds tweets related to drivers who are driving in smaller series rather than Formula One, mostly focusing on Formula 2 and Formula 3 series. These two series are racing during the same weekends as Formula One in European races and Abu Dhabi as a season finale. This category includes

37 tweets or 2% out of all tweets. These tweets are often related to the racing, congratulating the winners and explaining the standings situations. These tweets sadly for 2019 season included tweets related to the Anthoine Hubert, French Formula 2 driver who passed away in Saturdays race in Belgium. Firstly, the tweets were related the real-time information about the crash, which lead to the official updates on the conditions of Hubert and Juan Manuel Correa, Ecuadorian American Formula 2 driver. After the passing of Hubert, Formula One account kept informing about Correra's situation in hospital and later when he was released.

Technical information

In this category tweets are related to the car technology and innovation. Most of the tweets were released on Tuesdays as a tech Tuesday theme Formula One account had. In total there were 22 tweets or 1% out of all tweets. Most of the tweets were released on Tuesdays as a tech Tuesday theme Formula 1 account had. This means that one Formula 1 personnel would explain different technical information about the cars. In total there were 22 tweets, which is 1% out of all tweets. Some of the tweets were related to the Scuderia Ferrari and their better speeds during the last part of the season. There were also tweets related to the 2021 rule changes in cars, explaining the differences between 2019 and 2020 cars to 2021 cars. There was also one tweet related to the Formula One and innovations they are pushing to automobile industry.

Fans

This and next theme of tweets were only small part of the overall tweets. In this category there were only 3 tweets or 0.098% out of all tweets. Both of them were related to the fans and fan culture. There were however more fans related tweets during the Italian and Japanese grand prix, which if those are counted in makes this area much bigger. These were however under the race weekends tweets, but could be moved under this one too, if needed.

Women in motorsport

Other smaller piece of the tweets was related to the women in motorsport. There were only 2 tweets, or 0.065% out of all the tweets. Both of these tweets were released during the International Women's Day, celebrating all the Formula One personnel who were women but also all the women drivers and other motorsport personals.

6 Discussion about series social media strategy

In this part of the results chapter, the differences between the Formula E's and Formula One's Twitter strategies will be discussed. Also, this chapter will include the main question of, does either of the series follow the value co-creation theory in their Twitter posting strategy.

6.1. Differences and similarities

In total number of tweets collected from Twitter accounts of both series, it can be seen that Formula One account uses Twitter much more to tweet than Formula E does. Just from September to the end of December, Formula One has tweeted over 3000 tweets, while Formula E had from November 2018 to end of July 2019 only little less than 3000 tweets. Of course, it is important to notice, because the privacy security reasons, not all of the tweets were able to be collected from both series. But even with that accounted for, it is important to notice the differences and similarities between these two series and their Twitter strategy.
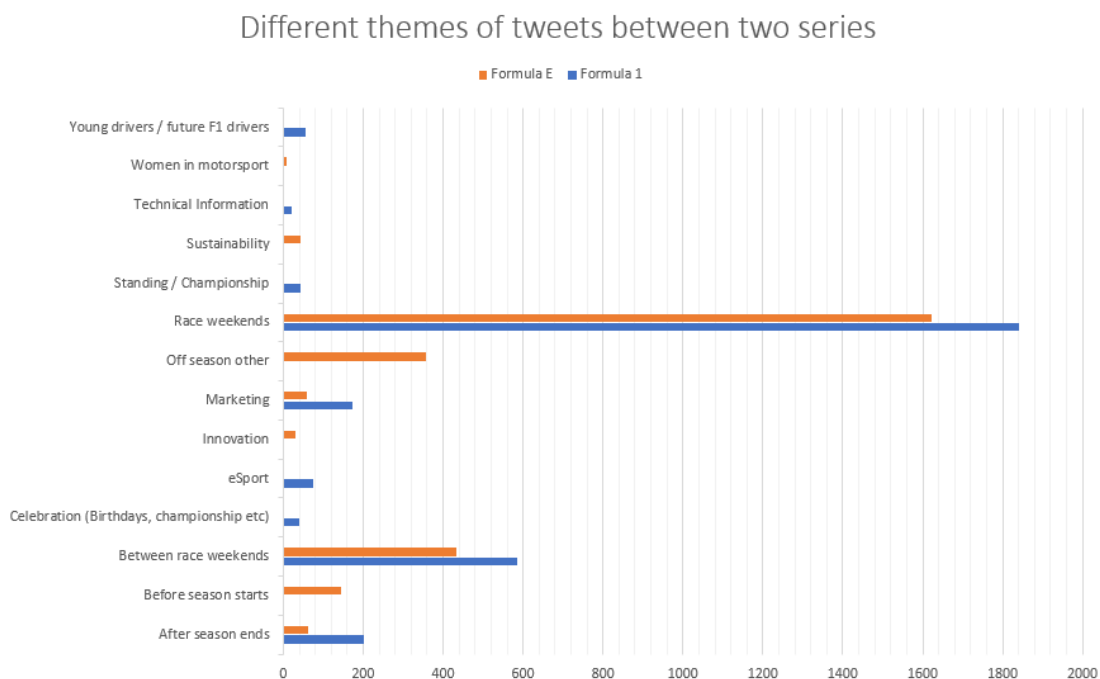

Table 7. Different themes of tweets between two series

The Table 7 shows the differences between different categories from both of the series. As it can be seen, certain categories such as race weekend, between race weekends and after season has ended categories are biggest categorize under both series. When it comes to Formula One's official Twitter

account it is heavily information based. As the tweets categorized shows it is heavily based on information giving and marketing Formula One and its products. Even though the data is only collected during the second half of the season, it gives a good baseline how their whole view is for Twitter. They use Twitter to give real-time information during the race weekends. When there are practice sessions, they tweet in every 30 minutes what the timing situation is, until in last 30 minutes the information is given more often. They also release real-time information on qualification, how much time is left and who are not able to continue to higher places. During the races itself, Formula One gives information at every lap on who is leading and what kind of track battles there are. There is also real-time information if safety car is deployed or whether the track is clear or not. During the race weekends they also offer information on weather, track conditions and other important information effecting the race.

They also use Twitter to market themselves and their products. This happens during holiday time tweets promoting their store, but also linking to and sharing information about ticket sales for the races and testing. They use their account to market F1 Fantasy game and their Formula One games, that are used in their eSport series. So, it can be seen as Formula One's official Twitter account is more information based and tool used to market their products. They are very clear of who is their target market and choose to push more towards these segments rather than trying to bring new ones in.

Formula E doesn't only use its Twitter account to promote itself, but also as a tool to bring up information related to sustainability. Even though only 29 tweets were related to, or able to collected for this data set, it is clear that they keep up the topic of electric future, bringing up the innovated and new products that the car manufacturers do. Most of them are related to carmakers that are racing in the series itself, but also other well-known brands. A good example of this is the Goodwill festival, where electric cars were shown, but also used to market electric cars. Other than that ABB Formula E also brings up their Extreme-E series, which is about off-road racing in some of the world's remote locations to bring awareness to the climate change. These tweets were often posted with the hashtags #Racefortheplanet. Formula E also uses their platform to bring awareness to FIA's start cities forums where participants discuss how to disruptive technologies can shape an urban mobility. Even though Formula One also releases tweets related to the innovative technology, they are often related to the Formula One car technology. This is one of the clearer differences between the two series, with the similar themed topic. Other one is more open and uses the platform to market these products and topics, while other is more focused on to bring up themselves more than anything else.

Overall, Formula E is heavily using its Twitter account to bring awareness to the climate change and other nature problems such as air pollution and ocean pollution. They are using it to bring in new people, explaining what they are doing to make this world better, but also how anyone can help. Other than that, they are incredibly open about sustainability and how electric cars will be a big part of that. These are topics that Formula One on the other hand has not brought up on their Twitter posts. As it was mentioned before, Formula One uses Twitter more to market themselves as a series, while Formula E is trying to bring notice to the problems in the world, but also to market their series as a better choice over others.

There are similarities between the two series, both are tweeting about similar topics, for example innovation and technology around it and women in motorsport. Sure both of them are using social media as a marketing tool, but the standing points are different for both of them, while Formula One uses it to make more of its products, Formula E uses it to market the events and teams on the series. It is also worth to notice, neither one is tweeting much about women in motorsport, even though it is a campaign that FIA is pushing forward, but Formula E is at least during it almost every race weekend, while Formula 1 does it just during special occasions.

6.2 Does the value co-creation theory happen in series Twitter strategy?

But does either one of the series follow the value co-creation theory in their social media strategy? The simple answer would be no. The theory doesn't work in either Formula One's or Formula E's social media strategy on Twitter. Their way of using Twitter is very one-sided. Of course, there was some form of conversation happening between the account and fans but overall, the two-way connection that is often needed in value co-creation wasn't there. This is why this will be explained using a structure presented by Kim & Choi (2019) to base on drivers consisting of four elements and 12 conditions. When the four driver elements are looked at, one can see some of its elements in it. This helps to explain how both series use Twitter on their own way and what for.

Experience (accessibility, availability, and awareness)
Experience in this case would be the user experience, a service that would be introduced to consumers in its initial stages and then the service would be easily approachable in early experience (Kim & Choi, 2019). In the case of Formula One and Formula E it can be seen couple of different ways. It

can be seen as users are using social media to search for information on these series. This shows up on the collected data on how both series are releasing information about future changes of the sport as well as overall information about the series. Formula One also uses this as a way to promote their services such as Fantasy F1 game to introduce the game and to inform the possible updates and changes of the app. While Formula E shows their sponsors and partners programs and products that are helping with the fight against climate change. This gives both of the series a good way to bring awareness of their own to users on social media but also use it to access their products. This step helps the possible new followers to quickly become familiar with the series and their values.

Satisfaction (services, content, and the interface)

This driver element is about notifying users on new content and updates, as well as suggestions from users' requirements (Kim & Choi, 2019). This is all about satisfying the users' needs while clearly benefiting out of them, the users continue to return to their channel. In case of the two series the first thing would be the information given towards the followers, both Twitter accounts are giving real-time information on track-action and other series related news. This already gives some of the users a reason to follow them if they want to have a good idea on what is happening in the series. Often providing helpful services or content can be used to motivate followers to remain connected with the brand and show strong commitment to it. Other strong point for user satisfaction can be seen at the end of the season's tweets, when both series release tweets commemorating the best of moments, but also gives voice to followers by letting them vote for their favorite moments.

Expression (user creativity, personalization and customization)

Capturing followers' intrinsic interests is also important way to capture attention towards organization (Kim & Choi, 2019). However, in this driver element it is about users having a way to express their creativity and motivations. There were not many tweets in the data that had this element. Neither of the series are actually giving something that users would customize on their own way during the time period that data was from. Only noticeable thing in this part was Formula E's wallpaper Wednesdays where Formula E account releases photos of the last race on their social media channels to have users use as their phone wallpapers. This was basically only one that could fit in this driver theme out of all data.

Share (connectivity, interactivity and reward)

Last of the four drivers' themes is share. In this the organizations have to understand that they can't fully control what is happening in social media. This is why they have to accept that they don't have

full control in terms of information generation and sharing and instead offer an environment in which users can easily connect and share (Kim & Choi, 2019). This can have a positive or negative effect on the brand perception. Often users participate in social media due to their eagerness to gain personal and social recognition, make a positive impression and express their identities. During the data collection prediction this didn't happen on either one of social media channels. Formula E interacts with the fans, but a lot of the comments were rather information given towards the questions fans had asked. There was however couple tweets, which weren't related directly to followers, but rather tweets where both series were bringing up women in motorsport. This related to the FIA campaign, which is used to bring awareness towards female motorsport fans and how they shouldn't be shamed for liking motorsports. These girls who were on these tweets were related to the fans of the sport that were chosen to have a paddock access during the race weekend.

6.3 Discussion on possible social media strategies

Before discussing the possible social media strategies that both series have and what type of propositions, comments and ideas author has on these series, it is important to understand the role of social media managers. These people are key people who are behind what we see in sport teams, companies, and others social media pages (Kruse, 2019). Looking into social media managers job it is not only about posting a content they like or think followers would like. Social media managers are people who take part in the community, communicate the brands image in a positive, authentic way that will attract new or old followers (Kruse, 2019).

Depending on what type of goals and end results are wanted from Twitter or other social media channels it is important to plan ahead. If a sport is something that is well known, or it has a strong follower base the importance of the own image is clear. Some of the clear objectives social media managers often choose are insufficient website traffic, weak brand awareness, poor online reputation, slow sales, or declining customer retention. Obviously, it is important to notice these are just few challenges that companies may have and reasons why they want to bring them in at social media scene. Content is something that plays a key element when working on the long-term goals in social media. This content should be aligned with the social media strategy and with the goals of team/athlete/organization defined. Examples of content purposes can be:

- Reach
- Engagement
- Consumption
- Insight

- Conversion   - Traffic

When it comes to Formula One, they have a clear picture of their social media strategies. They know what they want to use it for. They have developed a lot during the past few years from just information sharing to something else. Certainly, information sharing is big part of the Twitter, as it was seen on result category, where over 61% of the collected data was related to the race weekends. Of course, the number of followers Formula One has against sport teams and sport entities like Real Madrid is almost nothing. This is something that sport itself effects, soccer is something that anyone in any day or age can play and has grown as a one of the most popular sport because of this connecting people worldwide. For motorsport this is a challenging step, because it's not a sport that anyone can easily jump in or find interesting. Limited target audience makes it harder to catch possible new followers and fans. One thing is sure, they are using Twitter to traffic followers and audience on their services, whenever it is about the games, other social media channels, webpage, web store or streaming subscription service. This was something that came up on many times during the data analyzing.

If a sport entity is new or doesn't have a strong follower base, it is important to bring in and create own style and image. In the case of Formula E, they aren't only pushing towards image of themselves towards the world, but also wanting to bring up the sustainability and climate change. That's why, they are using their Twitter and other social media channels to push towards these values and messages. With this in mind it is clear to see Formula E continue to use their platform as they have until this point. It is clear that they push to reach more people, whether they are fans of the sport or not. They are using it to move traffic to their own web pages or web pages that belong to their sponsors or partners. Formula E has a very unique setting as a sport entity, having a short history but a topic that is something that everyone can relate to. Their talk towards sustainability and climate change is something that they bring up a lot on their social media channels too.

Chapter 7: Conclusion

This chapter presents a conclusion of the research. It will also bring up the research questions and if they have been answered on this research. It will bring up some of the main points from literature review that was used to discuss and study the collected data. There will be also explanation of the data and the results from it. At the end author will bring up the possible future research that can be done on the topic.

7.1 Answer for the research questions

Going through results and discussions chapters we can see that the value co-creation doesn't happen in case of Formula One's and Formula E's Twitter strategy. But rather their strategy is to using Twitter to share information related to the series or brand itself. They also use Twitter to market themselves and their products to their followers. This happens during holiday time tweets promoting their store, but also linking to and sharing information about ticket sales for the races and testing. While value co-creation uses two-way connection between the series and its followers, in this case it is really one way. Both of the series know how to your social media, but they are more confused keeping their followers rather than trying to reach new ones. They also aren't taking the opportunity to build two-way connection with the followers and possible to build value with them. After all both of the series followers are faraway from follower numbers like football, basketball and other sport series has.

Overall, using a structure presented by Kim & Choi (2019) shows well that both of the series are using the Twitter as a one-way tool to the fans. They offer a way to get official information from the series and its related sponsors and partners in one place. From experience side both series are releasing information what is happening in and outside of the track, but news related to the series itself. They are updating their Twitter almost daily from various post of photographs, news, videos and other contents to keep followers connected and entertain. On expression side it is mostly Formula E that releases photos of the last race on their social media channels to have users use as their phone wallpapers. Formula E interacts with the fans, but a lot of the comments were rather information given towards the question's fans had asked. There were however couple tweets, which weren't related directly to followers.

7.2 Contribution to advancement of research

When it comes to research done in motorsport scene it is often related to the technological side of the sport or driver's physical health. This research doesn't include these but rather looks into the social media use of the series and how they can use it in their advantage on marketing and communication. Social media has taken its place in everyone's day-to-day life and giving a new way to connect with sports organizations or athletes and fans. Many of the social media research papers are focused on branding side of social media. This master thesis to give more insight on how sport organizations can use Twitter to their advantage. Whenever it is over all information sharing or using the platform to share values as the organization has. It can be seen as one of the steppingstones for future research.

7.3 Points for future research on topic

What I was able to learn from this research that could possible help for future research on topic. It is important to notice that Twitter saves only limited number of tweets for public to see. This was case of Formula One's Twitter account. Because time limit only allowed the data to be collected only from the second half of the season rather than from the start. That's why for the future similar research I would recommend to start the data collection as soon as possible. For example, if I wanted to study 2020 season, then I would had already started to collect data from car launches at early February, so I wouldn't miss anything. This would mean longer period to collect data, and more data, which could give more support on different themes series tweets. Now we can only conclude results for the Formula One's Twitter account posts from half of the season. Even though it gives a good baseline on what they are tweeting, it still doesn't tell the whole truth, because first half of the season is missing. Formula E on other hand didn't have this issue, because the series starts at end of the year, so the data was able to be collected from whole season. It would also be good to notice, that because privacy reasons Twitter can't share all of its posts, which can possibly have effect on themed subcategories.

For the future studies the possibilities to continue looking in the topic is recommended. This research gives a good idea and way to see how historically two different sport organizations use their social media platforms. It is recommended to look into other platforms too, depending what topics one wants to look into. Even though there is a possibility for non-value co-creation to be happening in any other social media site, their social media strategies itself are an interesting topic to look into. Even though both are sport series, they have different approach to social media than some of the sport organizations

have. Both of the series and its teams have more of mix of business and sport together. They are both selling their brand in different ways.

7.4 Recommendations for social media managers at motorsport teams, drivers, series managers

Depending on the series, team or drivers it is important to take a notice of your audience. Are they more information collectors that want to be on top on latest news related to the series? Or are they someone who casually follows to keep update what is happening. After following these two series I have collected some of the information and samples what could work in social media managers on motorsport teams, athletes or series.

Because motorsport is heavily related to the track action, which is limited to the certain times, during certain weekends of the year. It would be important to keep the update flow going. It is not always possible to audience follow everything that is happening in track, because their seats are located to the only one part of the track. Also, live timing and streams only can show one driver at the time. This is why it is important to have someone to give updates on drivers and where they are. Sharing information such as lap times and track action that the driver is part, gives a follower to way to keep tabs on driver they like and follow. This also gives a good way to inform possible car issues or penalties driver or team is having, rather than letting people have information from outside source.

Other comments and tips would be let teams and drivers use social media as their own purposes. Of course, it would be important to remain certain golden rules everyone should follow, but other than that. It would be good to give more freedom to them and let them to connect followers more. This is something that would give more access to the followers with behind-the-scene videos and photos and let followers to come back for more. So, it would be good to take a notice what is happening around the series and then use it as a way. Even if fans don't except direct two-way connection, they still express more personal touch on the social media. This could be done by letting a driver or team has access to the official series social media platform answer questions or show behind-the-scene things. This is actually something that Formula E does already on Instagram, but it could be used in somewhere else also. Also, the Q&A sessions would bring more notice with the live camera fee rather than just text answers on Twitter. So overall, I would recommend using drivers or other well-known

series persons to market and support the series on social media. This would help to create a buzz around the series and possibilities to bring more people in.

Thirdly keeping the value co-creation in mind. One of the other recommendations would be related to that. Because social media gives a unique case of two-way communication value co-creation would be brought into it. This could be used as a tool to develop new ways to bring followers to series or applications or products to the series. With social media, it would help to series to use it to bring up questioners' possible new fan products or ideas how to bring series closer to the fans. Formula One is already using a fan questioner to help develop series more follower friendly, so it could easily turn into something else too. Overall, there is lot of options how social media manager could work on this and these were just couple of examples that came to the mind while writing this. Of course, most important it is to see what is happening around you and being honest on social media. No one wasn't to see any fake personalities on social media, but rather their own selves, because followers are more easily to connect with these people.

Chapter 8: References

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Chapter 9: Attachment

9.1 Result of Notification Test from NSD

Result of Notification Test: Not Subject to Notification

You have indicated that neither directly or indirectly identifiable personal data will be registered in the project.

If no personal data is to be registered, the project will not be subject to notification, and you will not have to submit a notification form.

Please note that this is a guidance based on information that you have given in the notification test and not a formal confirmation.

For your information: *In order for a project not to be subject to notification, we presuppose that all information processed using electronic equipment in the project remains anonymous.*

Anonymous information is defined as information that cannot identify individuals in the data set in any of the following ways:
> *- directly, through uniquely identifiable characteristic (such as name, social security number, email address, etc.)*
> *- indirectly, through a combination of background variables (such as residence/institution, gender, age, etc.)*
> *- through a list of names referring to an encryption formula or code, or*
> *- through recognizable faces on photographs or video recordings.*

Furthermore, we presuppose that names/consent forms are not linked to sensitive personal data.

Kind regards,
NSD Data Protection