Bachelor's thesis

IDR600 Sport Management

Norwegian Football Fans Attendance
Case: Norwegian men's football

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Preface

Dear reader,

This bachelor thesis is written in connection with the final year of studying Sport Management at Molde University College, and constitutes the last 15 credits before we have completed our bachelor's degree.

Writing such a task as we have done now is something we have not done before and have been very demanding at times, but together we have got through this with a good result in the end. Therefore, we would like to thank each other for the collaboration.

We would like to thank our fellow students for three great years at Molde University College, both when it comes to collaboration around school assignments and the social outside the study itself.

We must also thank our supervisor for help along the way.

We hope that you who read our thesis will appreciate our contribution in this area, good reading!

Abstract

The main purpose of the research is to get a better understanding of why Norwegian football fans attend matches in Norway, focusing on the Eliteserien. We will look closer at four specific factors; entertainment value, sporting product, profiles, and uncertainty of outcome hypothesis. With these factors as points of departure, we will analyze the difference between each of the selected seasons. The selected seasons in our study are: 2004, 2009, 2014 and 2019.

In our findings we present a graph of the total attendance number from 2000 until 2019 visualizing a pretty rapid rise from 2000 to the peak in 2009. When analyzing the data, we saw a clear pattern between the rise in attendance and some sporting factors. In the years after 2009 and up until 2019 there has been a decline, and the curve is approaching the same level as it was in 2000.

During our research process we have come across some interesting elements that seem to affect the demand for stadium football and could benefit from thorough research.

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1. Introduction

As the world's most popular sport, football brings people together and removes barriers between people and groups of different social and cultural background. In many communities and nations, football is the in the center of attention; bringing together people of different walks of life. Modern day football is seemingly becoming an immersive cosmos where the largest associations and clubs around the world are battling out to attract most fans.

The theme for this bachelor thesis is to investigate the interest and the attendance for elite football in Norway. Today European football is developing at a rapid speed and globalization and digitalization enables football fans all over the world to consume an enormous amount of top-level European football from their own sofa, their smartphone while travelling or when they are having a beer at the local pub. Like many other teams and league associations in smaller countries, the Norwegian national top tier league, *Eliteserien*, and the Norwegian national team lack resources to really take part in this money driven gallop. They do however compete at the same "pitch" and to a large extent the same commercial context.

It is possible to argue that Norwegian football consumers get better value for money and time consumed watching matches from other national leagues, at least in a world where affection and affiliation is of less value than pure quality (Kantar 2019). Fans and the framing of matches are imperative for the whole experience watching football, either it is in the crowd at the stadium or in front of a TV-set. There has been a trend in Norway that matches in the national leagues are less visited (Eliteserien 2018), and the national team only attracts a certain number of spectators at high profile games. At the same time as the amount of football available has inclined enormously, the average Norwegian football fan consumes more football on other platforms e.g. television, PC/net. Based on TV surveys conducted by Kantar media (Kantar 2019), it is arguably an indisputable appetite for general sport and football in the Norwegian market that does not fruition into attendance at Norwegian stadiums.

1.1 Research setting: Norwegian football

Eliteserien is the top tier of the Norwegian football pyramid. In 2009 the number of teams in the league was increased by two, from 14 to 16 teams. The league follows a standard round-

robin; starting in the spring and finishing in the autumn. Each team plays each other twice (home and away), which equals a total of 30 games over the whole season for each team. Since the early nineties Rosenborg Ballklub has been the flagship of Norwegian football with various impressive campaigns in the Champions League. The club was successively crowned winner of the top league 13 years in a row; from 1992 to 2004. Since then, only five other teams has won the title (Molde Fotballklubb, Vålerenga Idrettsforening, Sportsklubben Brann, Strømsgodset Idrettsforening and Stabæk Fotball), although Rosenborg has been the champion seven more times since 2004. In the European context teams from the Eliteserien has had a declining standing, with only a few teams qualified for the Champions – and the Europa League. As we have mentioned in the introduction the economic and commercial inequality within football has reached extraordinary levels, and the prospect of competing in European cups for Norwegian clubs is close to a surrealistic dream. According to UEFA coefficients ranking the Eliteserien is currently ranked as the 22nd best league in Europe (UEFA 2019). Looking at the combined squad values of all teams in different European leagues, Eliteserien is ranked as low as 28th place (Transfermarkt 2020). The ranking is considerably lower than comparable leagues like the Austrian Bundesliga, Polish Ekstraklasa, Danish Superligaen and Swedish Allsvenskan.

Matchday revenue, mainly ticketing income, provide for a relatively high percentage of the overall revenue of the clubs in the Eliteserien (between 10-30%). Therefore, it is worrying that in the later years, the overall attendance (spectators on matchdays) in Eliteserien has declined rather significantly. Compared with 2017 the total number of spectators during the season in 2018, was down with as much as 12.49% (Eliteserien 2018). In 2018 Norway's largest online newspaper, VG, stated "Lowest spectator attendance since 2001" (Folvik 2018). The average spectator attendance declined with 859 per match in 2018. Worth mentioning is that some of the reduction was due two of clubs relegating, Aalesund Fotballklubb and Viking Fotballklubb. Traditionally they attract more spectators than the promoted clubs, Mjøndalen Idrettsforening and Ranheim Idrettslag (Eliteserien 2018). By the end of the 2019 season the situation looked even more troubling. Vålerenga, the only top tier team from the capital Oslo, had just over 2500 people inside the gates when visited by Ranheim and Stabæk mid-October (Eurosport 2019).

All the teams in the top tier in 2017 except Sarpsborg 08, Tromsø Idrettslag and Kristiansund Ballklubb experienced reduction in the attendance in 2018. The clubs with the traditional

highest attendance Rosenborg, Molde, Vålerenga and Brann all experienced more empty seats; between 5 and 12% decline during the season (Eliteserien 2018). For Odds Ballklubb the negative trend was even more significant; a 30% decline over two seasons (2018 & 2019). The club had the league's lowest revenue per attendant €4,45, while the league average was €9,25. Rosenborg and Vålerenga experienced the largest drop in ticket revenue in the league, respectively €700.000 (Rosenborg) and €350.000 (Vålerenga), close to 5% of their total revenue (Farnell et al. 2019).

Norway's national football team is a part of the governing body for football in Norway, Norwegian Football Association (NFF). The national team represents Norway in international fixtures. Per. 19th of December 2019 Norway was placed at 44th in the FIFA ranking (FIFA 2019). In recent history, the best ranking was back in 1995 when the national team was ranked number 2 in the world. In the other end of the continuum is 2017, when Norway had slipped to 88th place (FIFA (2) 2019). Norway's home ground is Ullevaal Stadion located in Oslo. Ullevaal is owned by the Norwegian Football Association, and with a capacity of approximately 27.000 it is the largest football stadium in Norway (Ullevaal Stadion 2019). The Norwegian men's national team has participated three times in the FIFA World Cup (1938, 1994 and 1998), and once in the UEFA European Championship (2000) (Holm 2019). It's almost a generation since Norway's last appearance in one of the two major tournaments for European national teams.

In recent years, Norway's national team has made Ullevaal into a fortress. They rarely loose, but are still not able to fill the stadium for all the matches. Hognestad (2006) stated that "passion and interest measured by crowd attendances at games with the Norwegian national team have been heavily dependent on success..., which is indicative of a shallower and less partisan support than the ways fans support their club" (p. 454). Hognestad´s statement is equally relevant to this date when we look at the attendance figures at Ullevaal Stadium in 2019. Only the most "famous" opponents, such as a big team like Spain and our neighbors Sweden, are able to draw almost a crowded stadium … see table in appendix 3.

1.2 Research question

The main purpose of the research is to get a better understanding of why Norwegian football fans attend matches in Norway, and hopefully identify some factors influencing the attendance

numbers. We will look closer at four specific factors; entertainment value, sporting product, profiles, and uncertainty of outcome hypothesis. With these factors as points of departure, we will analyze the difference between each of the selected seasons, focusing on the Eliteserien. Based on the findings we will to look at and indicate measures that could lead to higher interest in attending Eliteserien and international fixtures in Norway. The following research question arise:

> *To what extent do entertainment value, sporting product, profiles, and uncertainty of outcome motivate Norwegian fans (potential fans) to attend football matches in Norway?*

2. Developing the theoretical framework for research

The theoretical framework of this thesis is Saunders, Lewis and Thornhill (2007) research onion. The main idea of this approach is to go from the outer to the inner layer of "the research onion". The foundation of our study is the sport spectators and their demand for football, in the form of attendances. The next layer is the differences between five chosen teams in Eliteserien, and the attractiveness of the league. The final and inner layer gives focus at the main purpose of this thesis and is about external motivational factors affecting attendance such as entertainment value, sporting product, profiles, and competitiveness based on uncertainty of outcome hypothesis.

In the following sections we will go into detail about the various layers. First, we will look at people consuming sport; the sport spectators (Wiid & Cant 2015, Laverie & Arnett 2000, Raincock et al. 2016, Gammelsæter & Ohr 2002, and Trail et al. 2003) and Norwegian spectators (Hognestad 2006). Then we will look at demand for live football and TV football (Simmons 2006, Feehan 2006, and Szymanski 2003), what the theory says about motivation (Kaufmann & Kaufmann 2015), and what factors influence sports spectators (Shank 2009, Funk et al. 2009, Kim et al. 2019, Hirvonen 2014, and Wann et al. 2008). Further we go into the entertainment value (Shank 2009), and the sporting product and aesthetic value (Forrest & Simmons 2002). This also includes the Uncertainty of outcome hypothesis (Rottenberg 1956, Cox 2015, Forrest & Simmons 2002, Neale 1964, and Haugen 2012). Finally, we look at profiles effect on attendance (Brandes et al. 2008, Humphreys & Johnson 2020, and Szymanski 2003).

2.1 Sports spectators

People consuming sport events can be referred to as *sport fans* (Wiid & Cant 2015). Worldwide, millions of people view sporting events regularly, either "live" or on television. In addition, sports fans follow their favorite teams on radio, in newspapers, magazines, and on the internet. Evidence suggests that more and more people are becoming sports fans (Laverie & Arnett 2000). Sport has become an important factor when it comes to bringing people together, regardless of social background. Governments, nations and organizations worldwide use sport as a means to bring people together and to break down barriers (Wiid & Cant 2015).

A sports fan is considered to be "one who is enthusiastic about a particular sport, team or athlete" (Wiid & Cant 2015, p. 385). There is a wide range of sports fans, and the main distinguishing criteria between them is their level of commitment (Wiid & Cant 2015). Not all fans are equally passionate; fandom sits on a spectrum from weakly identified to strongly identified. Some are fans every day, others just once a year. A key difference is that strongly identified fans treat sports as part of their identity - it's who they are (Raincock et al. 2016).

There are many ways to categorize supporters. Gammelsæter & Ohr (2002) believe that one can roughly divide football supporters into two groups; supporters who identify strongly with the club and buy match tickets anyway, and concessional supporters who only buy tickets when the sporting results are good. This is also supported by Trail et al. (2003). They refer to previous research operating with two categories; die-hard and fair-weather fans. The die-hard fans will always stand by a team even after years of losing, while fair-weather fans support the team when successful, but will "stay home" if the team starts losing. Trail et al. (2003) also refers to Sutton el al. (1997) who classified fans on three levels. The first level of fandom consists of those who are social fans: they are low in identification, enjoy socialization, but care a little about the outcome of the game. The second level consists of focused fans: those who are moderate in level of identification and are attracted to some aspect of the sport. The third level consists of vested fans: they have deep persistent emotional attachment to a team and are willing to spend a lot of time and make major financial investment to satisfy their interest.

Hognestad (2006) did a statistical study of Norwegian football supporters. The respondents made their replies during the spring of 2000 when there was a media hype around the national team having qualified for Euro 2000 championships the previous autumn.

Table 1: Comparison between the relationships to club teams and national teams

Option	**Percent (≋)**
Norwegian or other national team most important	15
English club most important	45
Norwegian club most important	6
English and Norwegian club most important	13.5
Club and national team equally important	17.2
Other replies	3.3

(Hognestad 2006)

The table indicate that support for a national team is generally experienced as weaker than club support. To the comparative question about how important national and club teams are, 45 percent state that the English club is the most important, 13.5 percent give greatest importance to support for their Norwegian or English club teams and 6 percent state that the Norwegian club is the most important. Some 15 percent state that the national team is the most important, while 17.2 percent yield equal significance to their support for 'club and country'. This implies that 54.6 percent, or roughly two out of three supporters, attach greater importance to support for a club team than to the national team (Hognestad 2006).

2.2 Demand for live football and TV football

The demand for live sports will largely depend on price and how attractive the product is compared to other relatable substitutes. Relatable substitutes to presence at match at the football stadium can be watching the match on TV, watching another game or league on TV, or doing other recreational activities. It is reasonable to assume that a vast majority of people willing to attend games has a certain level of interest in football and that football related substitutes are of high relevance to match attendance. Simmons (2006) argues that football tournaments with most prestige based on standings creates the highest demand and willingness to pay. In 2019 Norwegian consumers have endless opportunities to watch live football on demand through a wide selection of broadcasters. Premier League (TV2), La Liga and Serie A (Strive/TV2), Bundesliga (Viasat), Champions League and Europa League (TV2/Viasat) are just some of the league's fans can watch live on TV through licensed broadcasters. There is also the option to watch a large number of other leagues through betting-sites and other streaming operators. Almost all the alternatives are tournaments that can be categorized as leagues and other

competitions with more prestige and a perceived higher level of sporting ability compared to the Eliteserien.

The alternative is the opportunity to watch other football-tournaments and matches from other leagues. A meta-study conducted on several leagues and sports, Feehan (2006) argues that live broadcasting of televised events may be harmful to stadium attendance; fans prefer to watch the televised version. The probability of fans preferring to watch matches on TV rises if the matchday experience is poor and the stadium atmosphere is not considered worth the extra time and money. Another interesting note is that there is a higher decline in attendance when matches are scheduled on weekdays or at unpleasant kick-off times experience compared to matches in the weekend and time slots of the “main-round”. A study modeling gate attendance over seven seasons for Aston Villa FC (English Premier League side) indicate a 7,5 % decline in matchday attendance if the match is available on TV (Fehaan 2006). However, there are disagreements regarding if the decline in attendance is mainly related to if the adverse impact of televised games as fans have the option to watch it at home, or impact of televised games being played at timeslots outside the main round (ibid). Studies show that teams with large markets experience no or very little decline in attendance thus being televised. Szymanski (2003) argue that the importance of the game is of great relevance to how much demand there is to watch, and smaller teams on a general play bigger sides while being televised.

2.3 Motivation

A widely accepted definition describes motivation as “a process that initiates, directs, maintains and determines the intensity of behavior" (Kaufmann & Kaufmann 2015, p. 15) It is important to point out that individuals are motivated by different factors, and the motivation is shaped by the individual's perception, needs and wishes.

We normally distinguish between two forms of motivation, external- and internal motivation (Kaufmann & Kaufmann 2015). External motivation means that the source of motivation is not centered around the characteristics by the job or activity itself, but factors triggered by performance and benefits that can be achieved by completing in a good manner, e.g. status and money. External motivation can be various attractive benefits, or bonuses, motivating a person to something extra to achieve (ibid). In our case: it is a tool to achieve people to attend matches. When we refer to internal motivation it is motivation to do something, where the value lies in

just doing it. For example, the motivation for attending a football game is the experience and willingness to do just that. It can be described as an inner pleasure caused by attending a game, and there is no need for other incentive to be motivated to act.

People have different reasons and motivation for attending football games. There are fans, supporters, sponsors, life-long season ticket holders & families to name a few spectator categories. Top level football, both national and international, has for a long time drawn a large audience interest (Kantar 2019). It is fair to assume that most people attending football games are doing it based on inner motivation and are motivated to go because it gives them pleasure, enjoyment and a good time. Not to rule anything out, there is a possibility that some, especially supporters feel an obligation to attend when results and atmosphere are down – with a motivation to reap a reward in joy when things hopefully go better.

There have been conducted several studies on the spectator's motivation to attend and watch sporting events. Numerous of these studies have looked through the scopes of Abraham Maslow's work hierarchy of needs and Seppo Iso-Ahola escape-seeking model (Hirvonen 2014).

As mentioned above individuals are motivated by different factors, based on their own perception, preferences, needs and wishes, and almost as many as there are spectators, there are individual reasons to attend. Even so, there are a number of studies and researchers who have concluded that social and psychological needs of consumers/spectators are the dominating factors for attending sports events (Shank 2009, Funk et al. 2009, Kim et al. 2019). A study conducted by Wann et al. (2008) concluded that there are eight basic motivational factors that are prominent when it comes to sport event spectators. As our primary focus in this study will be how factors are concerned around the sporting product, we will focus on entertainment value, aesthetic value, and demand.

2.4 Entertainment value

Football is undoubtedly the most popular sport rated by matchday attendance and TV viewers, both in Norway and in Europe. Today the great majority tend to consume more entertainment and seek entertainment in a large variety of channels throughout their days and weeks. Live sports, and especially football, seems to remain as the one entertainment product that people

still tend to prefer to watch and consume live, and not on demand. Shank (2009) argues that sport entertainment in its spontaneous and uncontrollable form is live. Emotions in sporting events are unpredictable, and that makes sporting events entertaining and pleasurable. In our study the uncertainty of outcome hypothesis and level of the sporting product are used as indicators for the entertainment value.

2.4.1 Sporting product

Forrest and Simmons (2002) argue that the demand for football matches is highly influenced by the competing teams' quality and performance. This argument is based on a series of studies of the English Football League (EFL). The studies indicate that current and historic results and performance in the league creates a higher demand for matchday attendance. In their study the historic results are measured by win percentage in the previous season. Current performance was scoped down to the previous six matches. In our study we will use a similar measurement, we will use team performance ratings from each season calculated by the British football consult company 21st Club. The league ratings give every team a performance index number based on both short term and long-term results (most recent results have a much higher weight, whereas older results have a lower rate). Comfortable wins that are secured early in games are worth more than narrow, late victories (Omar Chaudhuri, personal communication in email, January 2020). We also account for if a team played with or against a team that had received a red card (ibid) and also accumulated squad strength.

2.4.2 Uncertainty of outcome hypothesis

The uncertainty of outcome hypothesis (UOH) as first presented by Rottenberg (1956) claims that more equal and even sporting competitions/games generate a higher audience and spectator interest on matchdays. The uncertainty of outcome hypothesis suggests that people in general prefer to observe and engage in sporting events where the outcome is vastly unknown (Cox 2015). While Rottenberg's (1956) first analysis mainly gathered data from singular matches, Neale (1964) noted that sports and especially football is of such complexity that utility and game attendance would also be related to the overall "League-standing Effect", where the utility is determined by the total league rankings. Based on the UOH it is reasonable to assume that a sports league where the outcome of most the matches and the final league ranking is fairly uncertain represent an intensive to a higher demand for the league and matches. Based on Rottenberg's (1956) work, a series of empirical evidence testing the hypothesis that outcome uncertainty is crucial for spectator's willingness to pay to attend matches (Cox 2015). Some

studies focusing on chosen sports with extremely strong standing in a country show no evidence of outcome uncertainty affecting attendance. In most cases studies testing the uncertainty of outcome hypothesis on singular football matches and leagues have pre-game betting odds (Cox 2015). There are critics of the approach. Forrest and Simmons (2002) argue that betting odds are often prone to be biased in a way that a chance of a home win is often under-stated, and away-wins over-estimated.

As Rottenberg (1956) and a series of other studies primarily have been concerned with uncertainty of outcome in short periods of time, often from game to game, some of the findings are of less relevance and value to our study, as we are searching for overall demand for the league. Therefore, we will use an uncertainty of outcome league measurement presented by Kjetil K. Haugen (2012). The basis of the model designed to measure relative league competitiveness is to define both minimal and maximal competitiveness. Maximal competitiveness equals a league where all points are shared equally, and a minimal competitive league is characterized by a perfect ranking, where the best team beats all teams, second best team beats all teams except the best and so on. If we want to set the numbers into context and calculate the competitiveness of the league, we also need to fill in the actual points related to each ranking in the league for the years we research. We will follow the same formula as defined by Haugen (2012), which we describe in the following.

Least competitive point score: **LCP = LCPi = (N-2(i-1)wp**
N is the number for matches played, in our case it will be 30, when the league contains 16 teams. **i** stands for ranking in league and **wp** is the points awarded for winning one game.

Maximal competitive point score: **MCP = N* BETAp**
N is still defined as the number of matches played, and **BETAp** is defined as the points earned for a draw. In a maximal competitive league, we assume all teams are equally good, and therefore all games end in a draw.

Actual points score **ACP** = the actual points obtained by the teams in each ranking at the end of the chosen season.

When we have collected all the numbers, we set up a calculation for all the rankings in the league for both LCP - ACP and LCP - MCP, results related to each ranking we square up to

two to make sure there are negative numbers. We add up LCP - ACP and the LCP - MCP separately. To find a percentage to give the competitiveness a concrete number the final calculation is dividing the total LCP - ACP by the total LCP - MCP * 100. All calculations for each season can be found in appendix 4.

2.5 Profiles effect on attendance

A longitudinal study on the effect of superstars on game attendance conducted over 30 seasons in the National Basket Association (NBA) found evidence that superstars and high-profile players on display attracted a larger spectator attendance. It also stated that certain players generate the superstar effect regardless of what team they represented (Humphreys & Johnson 2020). The study however stated that the superstar effect is more visible in largely populated areas. Several studies support the effect stars on display have on demand for sporting events.

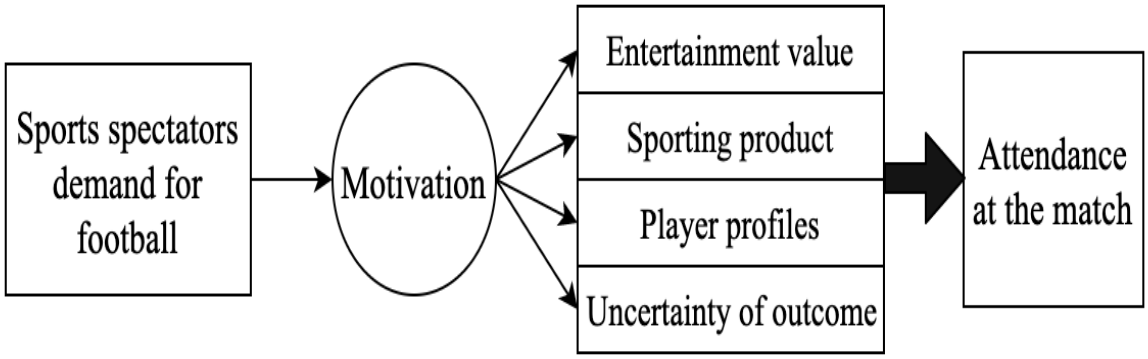
More interesting and related to our study is a longitudinal study by Brandes et al. (2008), using match attendance data in the German Bundesliga. Brandes et al. analyzed the effect of international superstars, national stars and local heroes on match attendance. The empirical data indicate that the three groups differ with regard influence on spectator demand. Superstars attract a higher number of fans at both home and away games, while the local heroes seem to limit its attractiveness to home games. Squad composition is a vital part in facilitating for fan demand. As much as 69% of football fans in Europe state that their affiliation with a club is largely affected by the set of players in the clubs' squad (ibid). The study argues that local heroes as well is vital to enhance fan affiliation.

As our study is conducted on Eliteserien, and based on the leagues standing in European context, we have to moderate the definition of superstars and local heroes. Inspired by Brandes et al. (2008) we argue that superstars in Eliteserien are players with a market value within the top 1% of the league players. Our benchmark for market value will be based on the Transfermarkt (2020) database. Players branded as local heroes will be the best players in clubs with strong affiliation to the area where they do play in the years of our study.

3. Framework for research

We start by looking at the demand sport spectators have for football, before going through their motivation to consume. Then we go into the four factors; entertainment value, sporting product, profiles, and uncertainty of outcome. By examining this, we will look at what brings people to the match.

Figure 1: Theoretical framework



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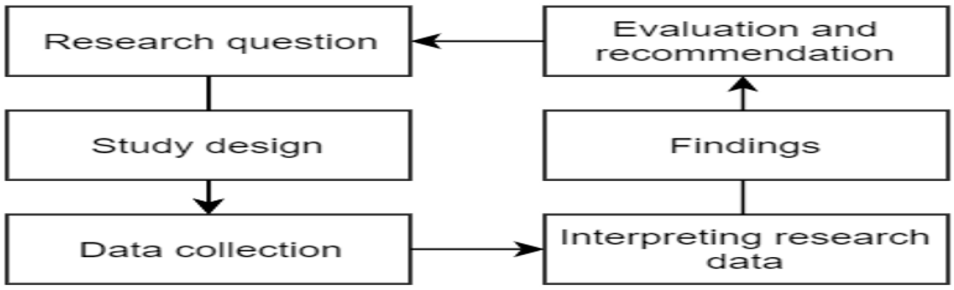
4. Methodology

In this chapter we will elaborate on the method we have used in this thesis. The purpose of research is to produce valid and credible knowledge of reality. To achieve this, researchers must have a strategy for how to proceed. This strategy is the method (Jacobsen 2016, p.15).

Figure 2: Research process



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All research goes through a set of relatively clear phases (Jacobsen 2016, p.63). It always starts with a phenomenon that the researchers would like to find out more about. The phenomenon we would like to find out more about is the effect of big profiles, table ranking, sporting achievements and competitiveness has on the motivation for attending matches in Norway. Based on this phenomenon the following research question arise:

> *"How do the external motivational factors such as big profiles, table placement, sporting achievements and competitiveness affect Norwegian fans to attend football matches in Norway?".*

Further we have to choose a study design. When we want to say something about cause and effect, we should choose a design that contains information from several times, so-called time series data (Jacobsen 2016, p.64). We did this to see if we found trends over a longer period. We made a systematic random selection (Jacobsen 2016, p.295). We started with the season that had just ended, then subtracted years with a given time (ibid) of five years. We did this three times, so we ended up with 2019, 2014, 2009 and 2004. Then we used the attendance numbers from these years to analyze the situation. To choose which teams to look at we made a discretionary selection where we chose the representative teams (Jacobsen 2016, p.303), the following clubs are representative because of their size and their location in the market; Rosenborg, Vålerenga, Brann, Viking and Molde. The data was collected through Norges Fotballforbund, altomfotball.no and Norwegian top football (NTF).

The third phase is to choose between quantitative and qualitative research. We have gone for a hybrid solution; we combine the two methods and analyze already available statistics in the form of attendance numbers at the stadiums and used existing articles to explain our findings. The question is to what extent we can rely on the sources. The articles we use have been carefully evaluated through a literature review, and the collected attendance numbers have been taken directly from the primary source. We have to keep in mind that the attendance numbers do not give a totally clear picture of the actual situation, because the organizers report the number of tickets sold, and not the number of those who actually show up at the stadium on matchday.

Empirical research should satisfy two crucial requirements; i) it must be valid and relevant, and ii) it must be reliable and trustworthy (Jacobsen 2016, p.16). Validity and relevance indicate if

the research actually answer the question(s). In scientific method, we operate with two different types of validity and relevance; internal validity and external validity. Internal validity depends on whether we have coverage in our data for the conclusions we draw. External validity and relevance depend on whether results from a defined area are valid also in other contexts, and whether the answers can be generalized (Jacobsen 2016 p.17). With reliability and credibility, means that study is conducted in a credible manner that evokes confidence.

The goal of a survey is to be able to get almost the same result if you perform exactly the same survey twice (ibid). To secure validity and reliability, we implemented a literature review. Literature reviews are designed to provide an overview of sources you have explored while researching a particular topic and to demonstrate to your readers how your research fits within a larger field of study (Fink 2014). The articles we refer to provided valuable information, giving deeper understanding and knowledge about the theme. For the literature search the following keywords were used: *Eliteserien, fans, sport fan, football/soccer fan, attendance, supporters, sport supporters, spectators, Norwegian football, Norwegian spectators, performance, sports events, sport product, star player, profiles, uncertainty of outcome, TV-sports, live sports, motivation, fan motivation, motivational factors* and *demand*. The main search engines were SPORTDiscus and Google Scholar. Through the literature search we found several potentially interesting articles. To pick the ones that were most relevant to our study we read the abstracts. The articles we ended up with can be found in appendix 1.

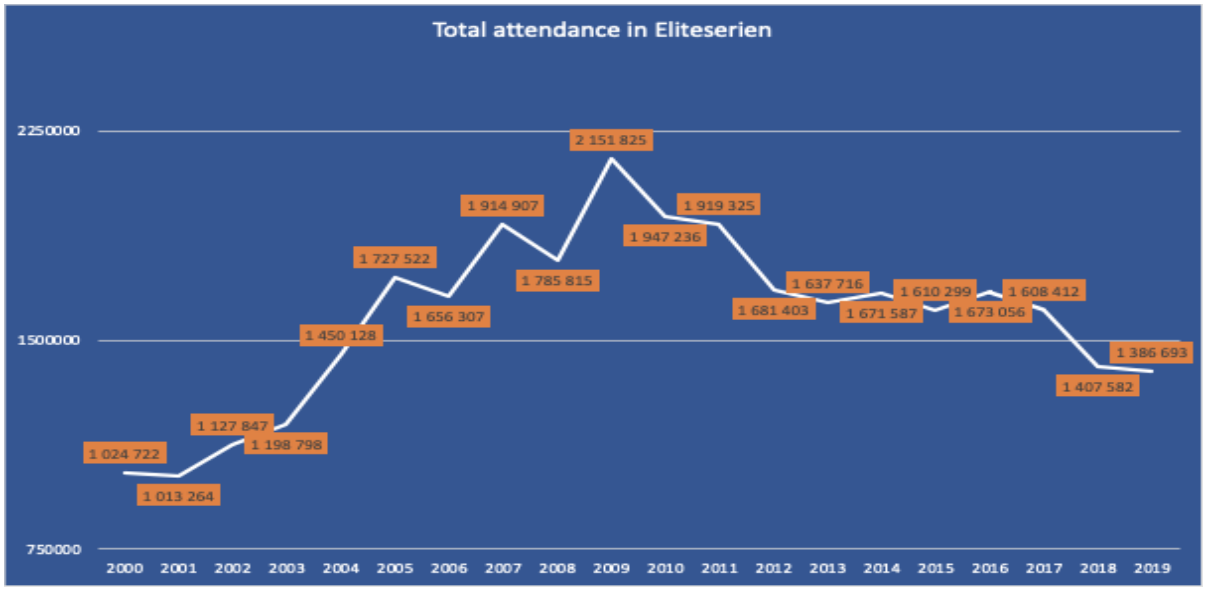
In the next phase we aim at interpreting the collected data in a way that provides us with answer(s) to our research question. Further to present our findings and discuss how new insight eventually can be utilized. Finally, we have to evaluate validity and reliability of the research project, decide if recommendations should be given and indicate further research on the particular topic(s).

When it comes to privacy, the question is whether we must submit our project to Norwegian Center for Research Data (NSD). The answer to this is no, since we only deal with “information that cannot in any way be traced back to a person” (NSD 2020).

5. Findings

The overall attendance numbers for the top tier of Norwegian football from 2000 until 2019 are presented in Figure 3, a period covering 4278 matches. Throughout the period the total number of spectators rose from approx. 1 million to approx. 1.4 million; a rise just under 40%, which in isolation is positive. On the other hand, we can see a momentous rise in attendance from 2000 until 2009 which is the peak year for total attendance. In 2009 Eliteserien expanded from 14 to 16 teams, which actually means that the highest average attendance number for all games can be seen in 2007, 10 516 vs 8956 in 2019 – more details can be seen in table 2.

Figure 3: Overall attendance in Eliteserien from 2000 to 2019.



Own compilation. Data from Eliteserien & www.altomfotball.no. (Full size version in appendix 2).

As mentioned above the Norwegian league experienced an increase in attendance from 2000 until 2009. In the following period up to last season (2019) the attendance numbers have declined. One team seems to be the exception to the rule. Molde experienced a growth from 2004 until 2014. The increasing numbers can probably be attributed to the fact that the team went from fighting at the bottom of the table to becoming one of Norway's best teams. But also, in the case of Molde, we can see a clear decline (-26%) from 2014 to 2019, even though they won the league in 2019, as they did in 2014.

Table 2: Total and average attendance for Eliteserien, and average for the selected teams.

Year	Total	Average	% change	Rosenborg	Vålerenga	Molde	Viking	Brann
2004	1 450 128	7 970	+20,96%	17 383	14 376	5 554	12 450	13 733
2007	1 914 907	10 516	+15,55%	19 903	13 835	1. div	15 846	17 225
2009	2 151 825	8 965	-8,63%	17 652	10 788	7 965	13 071	15 932
2012	1 681 403	7 006	-11,80%	13 394	10 768	9362	9 894	12 321
2014	1 671 587	6 965	-2,07%	13 915	9756	9243	10 014	11 985
2017	1 608 412	6 702	-3,86%	17 593	9703	7838	7380	11 859
2019	1 386 693	5 778	-1,48%	12 704	7 788	6 951	8 933	11 042

Own compilation. Data from Eliteserien & www.altomfotball.no.

The average total attendance number almost halved from 2007 to 2019. The teams in our study, except for Molde, witnessed a decline ranging from 7500 to 2600 spectators over the 13 seasons. The total average decline per game from 2007 (peak average) to 2019 is 4 738 persons per game. Obviously, the decline in spectator attendance represents a significant financial loss for Norwegian clubs. Calculating with an average ticket income per person attending in a Eliteserien game in 2019, which was €9,25 (Farnell et al. 2019) an apostasy of 765.132 spectators from 2009 to 2019, equals a loss of income of €7.084.007. Total ticket revenue in Eliteserien 2019 was €15.455.228 (ibid).

Table 3: Attendance at home games in 2014.

2014																		
Round	Brann	Rosenborg	Vålerenga	Viking	Molde	Aalesund	Sarpsborg 08	Bodø Glimt	Stabæk	Lillestrøm	Odd	Strømsgodset	Start	Haugesund	Sandnes Ulf	Sogndal	Total round	Average round
1		16287			8875		4722	3851	4017			6845		5649	3506		53752	6719
2	11241		9299	12090		9049				5127	6140		5324			2511	60781	7598
3		12263					4294	3122	4609	5157		6721		4769	3292		44227	5528
4	9641		9092	11174	8870	7608		5265			6591					2875	61116	7640
5		14378					4616		4002	5230		6427	7570	5419	3050		50692	6337
6	10012		15437		9085	8289		3807			6603				2644	4068	59945	7493
7		18227		9286			3800		4131	5058		6427	6504	4756			58189	7274
8			8280		10030	7198		2907	3251		6382				3290	2524	43862	5483
9	17032	20442		16508		6580				10965		6427	8555	6323			92832	11604
10			11783		8847		4618	2912	4343		5652				2905	4035	45095	5637
11	9180			9682		7731				5415		6427	5210	5311		2827	51783	6473
12		11617	8554		9837		3810		3856		6398	6312			2910		53294	6662
13	8510			8685		6703		3305		5315			6559	4818		3013	46908	5864
14		11068		9931	8786		3559		3212		7279	5861	6286				55982	6998
15	9610		10332			9386		2813		4376				4819	2674	2875	46885	5861
16		11323		7828	8821		3679		3471		5728	7108	5304				53262	6658
17	8792		14656		11424	6596		2841						4434	3210	2845	54798	6850
18				8460		6747	3637		4206	5497	5556	7149	5565				46817	5852
19	13574	11513	8992		8284						8990			7002	2841	3071	64267	8033
20	14573			8260		6674	3778	3304	4080	8677			6098				55444	6931
21		11433	9859		9586						8395	7077		4839	4418	3556	59163	7395
22	15240			11693		6891	3582	3136	3383	4759			4899				53583	6698
23		14327	8729		9932						8399	7720	8008		3671	4517	65303	8163
24	13140		9173	9545		8002	3509	2972		5837				4872			57050	7131
25		10709			8411				3665		7008	6179	4950		2388	3321	46631	5829
26	11347		7211	7730		7804	4080	3928		6672				6009			54781	6848
27	10204	14106			8362				3941		6704	7063	4835		2428		57643	7205
28		13457	7355	10850			3743	4038		5583				5724		3743	54493	6812
29	17686			8492		8766			3350	4840	11548	6880	4768				66330	8291
30		17582	7583		9500		3767	2533						8945	2330	4439	56679	7085
Total home	179782	208732	146335	150214	138650	114024	59194	50734	57517	88508	107373	100623	90435	83689	45557	50220	**1671587**	
Average home	11985	13915	9756	10014	9243	7602	3946	3382	3834	5901	7158	6708	6029	5579	3037	3348	**55720**	
Stadium capacity	17686	21166	25572	16600	11800	10778	5000	5635	4938	11637	11720	7500	7354	7963	4970	5523	**175842**	
Filling degree	67.77%	65.74%	38.15%	60.33%	78.33%	70.53%	78.93%	60.02%	77.64%	50.70%	61.08%	89.44%	81.98%	85.00%	61.11%	60.62%	**72.49%**	

Own compilation. Data from Eliteserien & www.altomfotball.no. (Full size version in appendix 2).

Table 4: Attendance at home games in 2019.

2019																		
Round	Brann	Rosenborg	Vålerenga	Viking	Molde	Tromsø	Sarpsborg 08	Bodø Glimt	Stabæk	Lillestrøm	Odd	Strømsgodset	Ranheim	Haugesund	Kristiansund	Mjøndalen	Total round	Average round
1			8055	10059			5964	2793	4031		7295	5040	1694				44931	5616
2	13213	11723			6372	2888				5829				3671	3984	2211	49891	6236
3			5719	13029			5567	3240	4521		4608	8505	1353				46542	5818
4	10889	11367						3663		5248	4775			4020	4037	2058	46057	5757
5			6766		9010	3137	5451		3531	4828		4875	1950				39548	4944
6	10026	10040		7659				2879			5252			3772	3852	2236	45716	5715
7					6995	2514	4903		3942	8839		4576	1950	3777			37496	4687
8	16484	17799	10091	15029		4368					6289				4444	2380	76884	9611
9		13038			6108		4767	3721	4621	4439		4628		4559			45881	5735
10	14956		14418	7002		2779					5157		1766		4123	1963	52182	6523
11		13320			6615		5515	3061	3682	5676				7001		1978	46848	5856
12	9523		8130	8203		4501					5589	5313	2044		4118		47421	5928
13		13522			6819		5443	3442	3256	5108				3817		2550	43957	5495
14	10039		8836	8169		2982					6129	5078	2925		4316		48474	6059
15	9133	12659			6202			3322	3321	4337				3421		2358	44753	5594
16			6248	7069		3101	7042		3153		4720	4943	2145				38421	4803
17	9049	12869			7027			3567		5544		5318		3305	4016		50695	6337
18			7304	6822		3409	5311		3831		7218		2655			2614	39164	4896
19	10314	12298		8135	6843			3860				4855		4045	3820		54170	6771
20			11101			3245	5366		3674	6771	6118		1869			2314	40458	5057
21		12183		7519	5952		5454	3569				4913		3512	4007		47109	5889
22	10129		7056			2943			3915	5117	5496		1833			2462	38951	4869
23		12578	5037	6500	6626		4971	4248				5001			3952		48913	6114
24	9821					2717			3127	5305	5362		1501	5322		3350	36505	4563
25			5511	8212	6304		4947	2782				5604	1453		4444		39257	4907
26	8875	14093				3002			3082	9884				3465	4301	2273	48975	6122
27			5889	7037	8776		6267	2777			4492	5457	1402				42097	5262
28	8693	12039			7098	2575				4650				5742	3856	2077	46730	5841
29			6666	13540			5924	3265	3106		5478	5352	1708				45039	5630
30	14490	11026			7512	5522				5293				3358	4106	2321	53628	6704
Total home	165634	190554	116827	134002	104259	49683	82892	50189	54793	86868	83978	79458	28248	62787	61376	35145	**1386693**	
Average home	11042	12704	7788	8933	6951	3312	5526	3346	3653	5791	5599	5297	1883	4186	4092	2343	**46223**	
Stadium capacity	16750	21421	16555	16300	11300	6687	6833	5635	4938	11500	11767	8040	3000	8754	4443	4200	**158123**	
Filling degree	65.92%	59.30%	47.05%	54.81%	61.51%	49.53%	80.87%	59.38%	73.97%	50.36%	47.58%	65.89%	62.77%	47.82%	92.09%	55.79%	**60.92%**	

Own compilation. Data from Eliteserien & www.altomfotball.no. (Full size version in appendix 2).

Looking into each home-match played in 2014 and 2019 we can see that the span in attendance in each arena is higher in 2014 than in 2019. The span indicates that in 2014 – compared to 2019 – the clubs sold more singular tickets to some games and in 2019 the vast majority of attendance numbers are more often regulars and season-ticket holders. The away numbers indicate that traditionally "big teams", do not to attract notably more spectators when they play "smaller teams" away. Especially the pulling power of Rosenborg, Vålerenga and Brann seem to be of less importance today than in the earlier years, as their attendance is lower. Another interesting observation is the marked decline in attendance on key matchdays. Looking at the round of 16th of May, often referred to as the national day of football in Norway – respectively round 8 (2019) and round 9 (2014) – the total attendance number is down 18,28 % (the highest of any round). The same trend is visible looking at the last two matchdays of 2014 and 2019. In 2019 Eliteserien experienced one of the most exciting relegation battles ever. Before the last round, as many as six teams were in the danger zone of relegation, and all matches had great dramatic potential. Still – with this background, the attendance was lower than in 2014, when the final ranking was settled before the last the last rounds matches.

6. Analysis and discussion

In this section we will have a closer look on the factors we believe motivates football supporters to attend games. Why has the attendance numbers varied over the last 15 years and what factors have contributed to rise and downfall in attendance at stadiums in the professional Norwegian

football league. Our data indicate great variation in attendance in the period from 2004 to 2019, and the process Norwegian football has been through at this time.

6.1 Sporting product

As mentioned in the introduction the point of departure for our research is the perception of a massive interest in football in the Norwegian population. According to a study by MMI as many as one out of three respondents in Norway has a wide interest in football (RBnett 2002). Almost 900.000 unique viewers saw the Champions League final in 2019 broadcasted on Norwegian television (Ould-Saada 2019). However, this general interest does not seem to move masses into the stadiums in Norway. Forrest and Simmons (2002) argue that the demand for football matches is highly influenced by the competing team's quality and performance. Therefore, we have examined the UEFA coefficient rankings and FIFA national team rankings, to see if spectator attendance is affected by the relative perception of the league and national team. The highest ranking was in 2009, coinciding with the peak spectator attendance year (see table 2). However there seems to be little correspondence between the leagues standing and spectator attendance in general. In the period between 2014 and 2019 Norway experienced a ranking climb from 2014 (29th) to 2019 (22nd). The same period is marked by a major spectator decrease.

Table 5: Coefficient ranking.

Coefficient ranking		
Year	Eliteserien	National team
2004	20	35
2009	19	32
2014	29	67
2019	22	44

Own compilation. Data from UEFA 2019 and FIFA 2019.

With reference to Simmons (2006) argument that football tournaments with the most prestige based on standings, creates the highest demand and willingness to pay, and Hognestad's (2006) study indicating that as many as 45% of Norwegian football supporters hold their English favorite club as the most important, the possibility that Eliteserien lose a high number of spectators to other competing products and leagues is highly possible. In 2010, TV2, the second biggest broadcaster in Norway (MedieNorge 2019) secured the rights to broadcast the Premier League in Norway; until then Premier League had been broadcasted on Canal+. From 2006 TV2 had been the main channel for Norwegian football, and their wide coverage and promotion of the league may have contributed to the increase in spectators at Norwegian stadiums in the

same period. When TV2 secured the rights to the Premier League, a product with a larger commercial potential compared to Eliteserien based on affiliation and relative sporting level, the focus shifted towards promoting the Premier League broadcasts. As TV2´s main channel is available in all TV-packages in Norway, promotion and advertisements for the Premier League were exposed for Norwegian consumers. Affiliation to the Premier League with TV2´s new won focus on promoting the canals Premier league coverage from 2010 and onwards, may have contributed to the spectator decline from 2010. Premium substitutes were made easily accessible to an affordable prize for the consumer. Hognestad's study (2006) show that Norwegian supporters have high affiliation to teams in the Premier League, and the spectator decline coincides with TV2s Premier League coverage that started in 2010.

6.2 Live attendance vs. televised broadcast

We have argued that it's never been easier for consumers to access football matches from international leagues, representing a higher sporting level. In 2019, at the same time as international football being more accessible on televised broadcasts, more Norwegian football has been available on TV and on demand streams than ever before. From 2017 Discovery Networks Norway secured the rights to broadcast the Eliteserien and the OBOS league (second tier of Norwegian football pyramid). This involved a coverage deal where all games where broadcasted on either linear or on demand TV productions. Table 6 shows that the number of games broadcasted per round has more than doubled from 2009 to 2014. During the same period the attendance numbers declined by over 2000 spectators per game. According to Feehan (2006) the decline in stadium attendance could be a consequence of more games being easily accessible for the consumer "at home". He argues that live broadcasting of televised events may be harmful to stadium attendance, as fans prefer to watch the televised version.

Table 6: Broadcasters and number of live events.

Year	Live events pr round	Broadcaster
2004	2/1	Canal+/TV2-NRK
2009	2/1	TV2/NRK
2014	6/2	Cmore/TV2
2019	8	Discovery Networks

Own compilation. Data from MedieNorge 2019.

Table 7: Attendance at home games in 2019 for the five chosen teams.

Selected teams in study				
RBK	VIF	Molde	Viking	Brann
	8 055		10 059	
11 723		6 372		13 213
	5 719		13 029	
11 367				10 889
	6 766	9 010		
10 040			7 659	10 026
		6 995		
17 799	10 091		15 029	16 484
13 038		6 108		
	14 418		7 020	14 956
13 320		6 615		
	8 130		8 203	9 523
13 522		6 819		
	8 836		8169	10039
12 659		6 202		9 133
	6 248		7 069	
12 869		7 027		9 049
	7 304		6 822	
12 298		6 843	8 135	10 314
	11 101			
12 183		5 952	7 519	
	7 056			10 129
12 578	5 037	6 626	6 500	
				9 821
	5 511	6 304	8 212	
14 093				8 875
	5 889	8 776	7 037	
12 039		7 098		8 693
	6 666		13 540	
11 026		7 512		14 490
12 548	7 918	6 567	10 182	10 295
12 230	8 500	7 085	7 456	10 682
12 202	6712	6838	9331	12 515

Own compilation. Data from Eliteserien & www.altomfotball.no.

Table 7 illustrate home games for the teams in the study throughout the 2019. The matches are categorized based on where they were broadcasted. Green represent games on TV Norge/Max (channels available on all TV-packages in Norway, so-called open channel games). Yellow is games broadcasted on Eurosport Norway (a channel that is free on some providers, but also available at an extra cost on all providers). Finally, blue representing games screened on Eurosport Plus (subscription or "extra channel package"). There are significant variations with regard to how open-channel games affect attendance for each club. Only Rosenborg and Viking experienced the highest average attendance number when matches were televised on an open channel. Rosenborgs' numbers seem to manifest Feehan's (2006) argument that teams with large markets show no or very little decline in attendance thus their matches being televised. The only time they played another top side screened on an open TV-channel was against Molde in round 26, where 14 000 attended.

Feehan's (2006) study show that teams with large markets show no or very little decline in attendance thus being televised. According to table 7, Brann, one of the biggest clubs in Norway, experienced the lowest matchday attendance when the games were broadcasted on open channels. Four of the five least attended games at Brann Stadion where televised on open air channel (including games versus champion Molde and second placed Fotballklubben Bodø/Glimt). Regarding Vålerenga and Molde, it seems to be no significant correlation between attendance and broadcasting.

6.3 Uncertainty of outcome hypothesis

Rottenberg's (1956) hypothesis regarding uncertainty of outcome claiming that attendance demands for sporting contests positively depends on the uncertainty and excitement related to

the outcome of the event. Based on the hypothesis we should expect to find an incline in the outcome certainty of the whole league, as there has been an overall decline in attendance over the period 2004 to 2019.

6.3.1 League certainty of outcome effect on overall attendance

Using the formula to measure certainty of outcome designed by Haugen (2008) we calculated how certain the outcome of Eliteserien would be on a seasonal measure. We analyze four seasons with a five-year span between them; 2004, 2009, 2014 and 2019 season. The rise in attendance started in 2004 and reached a peak in 2009. Since 2009 we have seen a decline until 2014, and the curve keeps falling until 2019. There are rather insignificant variations in the outcome certainty of the league over the four years (+/- 5%). The numbers indicate that in 2019 there was a slight increase in competitiveness and outcome uncertainty compared to 2004, fairly similar to 2009 when attendance was at an all-time high. It seems like Tippeligaen year by year provide a fairly stable amount of entertainment and uncertainty with regard to the final outcome of the league. Eliteserien is fairly stable when it comes to uncertainty compared to other European Leagues. According to Haugens (2012) model most other European leagues have experienced a decline in uncertainty in later years.

Table 8: Certainty of outcome.

Certainty of outcome		
Year	Calculation	Percent (%) ≈
2004	0,3061821 * 100	30,62 %
2009	0,3238636 * 100	32,39 %
2014	0,2848116 * 100	28,48 %
2019	0,3322601 * 100	33,23 %

Own compilation. Data from www.altomfotball.no.

Therefore, for the overall interest in the league our findings indicate no positive correlation between the declining attendance and lower uncertainty of the final result of the league. From a historic point of view, it is also fair to mention that the Norwegian League was won by Rosenborg every year between 1992 and 2004. Figure 3 show a pretty dramatic incline in overall attendance numbers through 2005 and 2006. The 2005-season represent “a year of change”, when Vålerenga was the first team to overcome Rosenborg in 13 years. Rosenborg won the league again in 2006, followed by a year with declining attendance in 2007. The same trend can be observed in the following years of 2008, 2009 and 2019 when the overall league attendance record was set. These numbers open up an opportunity to discuss if the uncertainty of the league champion is more of an incentive to attend games, then the overall certainty.

6.3.2 Uncertainty of outcome effect on match attendance

To measure the uncertainty of outcome of the singular matchday events, we have chosen pre-game betting odds based on models from studies to measure the perceived strength relationship of the competing teams (Cox 2015). As pre-game betting odds are affected by the amount of money placed on each team, it should give a pretty accurate insight into how the public view the game. It must be mentioned that the odds can be affected by where the better sees value - in our opportunity this should not affect the reliability of the numbers. Based on Rottenberg's (1956) thesis that a more competitive game where the outcome is uncertain attracts more audience, we could expect to see that games where the odds are more equal have a higher attendance number, then games with uneven odds.

Table 9 illustrates the pre-match betting odds off all the games between Rosenborg, Vålerenga, Molde, Brann and Viking. The numbers indicate that the market and the betters judged the outfall of the games to be more uncertain in 2004 and 2009, than in 2014 and 2019. There is one exception, matches involving Rosenborg seem to be more evenly contested in 2014 and 2019. The odds may to some extent have been influenced by history; until 2004 Rosenborg had won the league thirteen times in a row.

The table somewhat correlates with Rottenberg's findings that fairly even match up generates a higher spectator demand, as the games in 2004 and 2009 on average had higher attendance then the ones in 2014 and 2019. However, taking a closer look at some data on Molde, winner of the league in both 2014 and 2019, and ending up second in 2009, there seems to be little correlation between match outcome uncertainty and spectator attendance. For instance, the game between Rosenborg with the most uneven pre-match odds, was the one that attracted most spectators (2014). It was also played in the Norwegian summer holiday, which is seen as a fairly tough time to attract large crowds in Norway.

Table 9: Attendance, league position and pre-match betting odds in Eliteserien for the chosen teams against each other in 2004, 2009, 2014 and 2019.

2004	League position	Spectators	Pre game - Betting Odds	2009	League position	Spectators	Pre game - Betting Odds
RBK - Molde	5 - 9	21 366	1.41 - 3.99 - 6.17	RBK - Molde	1 - 2	21 597	1.70 - 3.71 - 4.89
RBK - VIF	1 - 3	16 744	1.46 - 3.75 - 6.00	RBK - VIF	1st round	17 637	1.61 - 3.71 - 5.46
RBK - Brann	1st round	14 667	1.39 - 4.03, - 6.55	RBK - Brann	1 - 15	18 400	1.50 - 4.04 - 6.62
RBK - Viking	2 - 12	12 915	1.35 - 4.15 - 6.60	RBK - Viking	1 - 6	16 006	1.56 - 3.87 - 6.03
Molde - RBK	10 - 1	9 142	4.44 - 3.55 - 1.63	Molde - RBK	2 - 1	10 773	2.55 - 3.39 - 2.59
Molde - VIF	8 - 3	4 920	2.10 - 3.27 - 2.95	Molde - VIF	2 - 13	7 235	1.67 - 3.80 - 5.00
Molde - Viking	10 - 12	4 695	2.24 - 3.23 - 2.74	Molde - Viking	1 - 11	8 019	1.82 - 3.48 - 4.20
Molde - Brann	9 - 8	5 019	2.20 - 3.33 - 2.76	Molde - Brann	2 - 4	11 168	1.67 - 3.65 - 4.82
Brann - VIF	7 - 5	14 091	2.02 - 3.28 - 3.17	Brann - VIF	4 - 6	16 022	1.81 - 3.66 - 4.05
Brann - RBK	7 - 2	15 544	3.89 - 3.44 - 1.77	Brann - RBK	5 - 1	17 040	2.72 - 3.43 - 2.35
Brann - Viking	5 - 9	17 677	1.92 - 3.15 - 3.50	Brann - Viking	5 - 7	16 086	1.85 - 3.54 - 3.97
Brann - Molde	9 - 3	15 318	1.88 - 3.44 - 3.41	Brann - Molde	7 - 2	15 073	2.31 - 3.34 - 2.92
VIF - RBK	3 - 8	18 434	3.24 - 3.33 - 1.96	VIF - RBK	4 - 1	19 234	3.37 - 3.46 - 2.05
VIF - Viking	4 - 12	7 520	2.03 - 3.20 - 3.20	VIF - Viking	9 - 8	12 614	2.24 - 3.34 - 3.02
VIF - Molde	3 - 12	10 232	1.68 - 3.37 - 4.48	VIF - Molde	11 - 2	6 891	3.70 - 3.54 - 1.92
VIF -Brann	5 - 6	9 557	2.40 - 3.13 - 2.42	VIF - Brann	13 - 15	6 250	2.09 - 3.38 - 3.32
Viking - Molde	13 - 10	15 300	2.06 - 3.23 - 3.03	Viking - Molde	7 - 2	13 349	2.96 - 3.44 - 2.23
Viking - Brann	9 - 2	12 928	2.29 - 3.16 - 2.72	Viking - Brann	10 - 6	14 715	2.35 - 3.31 - 2.90
Viking - RBK	11 - 1	12 688	3.94 - 3.45 - 1.73	Viking - RBK	10 - 1	13 782	2.92 - 3.36 - 2.30
Viking - VIF	12 - 4	12 336	2.16 - 3.17 - 2.96	Viking - VIF	10 - 6	11 835	1.99 - 3.41 - 3.54

2014	League position	Spectators	Pre game - Betting Odds	2019	League position	Spectators	Pre game - Betting Odds
RBK - Molde	4 - 1	18 227	2.41 - 3.36 - 2.79	RBK - Molde	4 - 1	14 093	1.85 - 3.60 - 4.33
RBK - VIF	3 - 6	14 106	1.58 - 4.24 - 5.14	RBK - VIF	11 - 4	13 320	1.90 - 3.55 - 4.05
RBK - Brann	7 - 12	18 227	1.56 - 4.12 - 5.38	RBK - Brann	4 - 6	12 578	1.49 - 4.18 - 6.90
RBK - Viking	1st round	16 287	1.62 - 3.80 - 5.31	RBK - Viking	7 - 5	12 659	1.43 - 4.70 - 7.06
Molde - RBK	1 - 2	11 424	1.61 - 3.88 - 5.31	Molde - RBK	5 - 15	9 010	1.95 - 3.75 - 3.50
Molde - VIF	1st round	8 875	1.52 - 4.22 - 5.81	Molde - VIF	3 - 4	6 202	1.51 - 4.67 - 7.48
Molde - Viking	1 - 3	8 847	1.59 - 3.91 - 5.47	Molde - Viking	4 - 6	6 108	1.37 - 4.90 - 7.88
Molde - Brann	1 - 14	9 837	1.26 - 5.73 - 9.89	Molde - Brann	3 - 6	6 900	2.00 - 3.66 - 3.57
Brann - VIF	13 - 6	9 180	2.10 - 3.57 - 3.23	Brann - VIF	14 - 4	10 889	1.65 - 3.03 - 5.14
Brann - RBK	15 - 4	14 573	2.90 - 3.50 - 2.29	Brann - RBK	6 - 12	14 956	1.71 - 3.71 - 5.12
Brann - Viking	15 - 7	8 792	2.77 - 3.39 - 2.40	Brann - Viking	7 - 5	14 490	1.74 - 3.97 - 4.34
Brann - Molde	15 - 1	15 240	4.19 - 3.76 - 1.78	Brann - Molde	7 - 1	9 821	2.78 - 3.46 - 2.45
VIF - RBK	5 - 3	10 332	2.61 - 3.54 - 2.50	VIF - RBK	6 - 4	11 101	3.49 - 3.66 - 2.02
VIF - Viking	4 - 3	8 280	2.57 - 3.41 - 2.60	VIF - Viking	8 - 7	7 056	1.74 - 4.08 - 4.29
VIF - Molde	6 - 1	9 173	3.85 - 3.86 - 1.87	VIF - Molde	10 - 1	6 666	2.44 - 3.53 - 2.77
VIF - Brann	5 - 15	9 859	1.75 - 3.88 - 4.15	VIF - Brann	9 - 7	5 889	2.00 - 3.29 - 3.76
Viking - Molde	8 - 1	7 730	4.21 - 3.80 - 1.78	Viking - Molde	7 - 2	7 069	3.74 - 4.00 - 1.86
Viking - Brann	7 - 16	9 931	1.42 - 4.57 - 6.76	Viking - Brann	1 - 11	13 029	2.75 - 3.52 - 2.47
Viking - RBK	7 - 4	11 693	2.32 - 3.47 - 2.86	Viking - RBK	5 - 4	13 540	3.43 - 3.77 - 2.01
Viking - VIF	6 - 4	8 460	1.78 - 3.78 - 4.11	Viking - VIF	5 - 2	7 659	1.74 - 4.08 - 4.20

Own compilation. Data from Eliteserien, www.altomfotball.no & www.oddsportal.com.

6.4 Profiles effect on attendance

Table 2 shows that Norwegian league experienced an increase in attendance from 2004 until 2009, followed by a decline in attendance numbers until last season (2019). One team is the exception to the rule, Molde, experienced growth from 2004 until 2014. The fact that the team went from fighting at the bottom of the table to becoming a Norwegian top team is probably a great part of the explanation. But also, in the case of Molde, we can see a pretty momentous fall (-26%) from 2014 to 2019, even though they won the league in 2019.

In this section we will base our discussion on the study of Brandes et al. (2008) on high-profile players and local heroes positively contributing to the attendance numbers, analyzing the Norwegian topflight. Further we will take a look at the club affiliation of players representing Norway on a national level that affects attendance levels.

6.4.1 Star players and local heroes

Brandes et al. (2008) argues that certain players and types of players differ in their pulling effect on supporters. We have designed a matrix to rank different players into two different

categories based on specific attributes, to see how the attractiveness of stardom-hypothesis relates to Norwegian football.

i) **Stars** are players with unusual talent and/or standing in Norwegian football. To categorize star players, we have used market value, objective perception of public opinion and international games.

ii) **Local heroes** are players with a heavily influenced affiliation to the club - based on origin and cult status.

The category i) players have all either played very well in the Norwegian league and/or on the national team, or in higher rated leagues around in Europe before playing in the Eliteserien. The category ii) players are from the same area as the club they are representing They are highly appreciated among the supporters of the respective teams. Some players are listed differently on different teams. Steffen Iversen, playing for Tottenham before returning to Vålerenga in 2004, is categorized as a big star as Vålerenga player, but in 2009 when returning to Rosenborg, he is categorized as a local hero, because he started his career in Rosenborg.

Table 10 illustrate that all of the teams have several stars and local heroes that have played for them throughout the years. Some of the players categorized as stars have been in the clubs for so long that they can almost be categorized as local heroes. Even though the numbers of profiles in each club has been rather constant, there are large gaps between the values from year to year. There was a significant steady increase from 2006. The combined value for the five chosen teams increased from €49,75m in 2006 until 2011 when it peaked at €95,56m. Since 2011 the combined value has decreased constantly. It is interesting to note that the market value curve follows a similar curve as the spectator curve, but lags one-two seasons behind.

Table 10: 1) stars and 2) local heroes for each team in the chosen seasons

Team/year	2004	2009	2014	2019
Rosenborg	1. Jan Gunnar Solli and Frode Johnsen	1. Rade Prica, Marek Sapara, Anthony Annan and Alexander Tettey	1. Morten Gamst Pedersen, Mike Jensen, Mikael Dorsin, Alexander Søderlund and Tore Reginiussen	1. Nicklas Bendtner, Mike Jensen, Tore Reginiussen and Bjørn Maars Johnsen
	2. Erik Hoftun, Vidar Riseth, Roar Strand, Fredrik Winsnes and Harald Martin Brattbakk	2. Steffen Iversen, Roar Strand and Per Ciljan Skjelbred	2. Pål André Helland, Ole Kristian Sælnes and Jonas Svensson	2. Pål André Helland
Vålerenga	1. Erik Hagen, Steffen Iversen, Kjetil Wæhler, David Brocken and Kjetil Rekdal	1. Bengt Sæternes, Bojan Zaijic, Andre Muri and Erik Hagen	1. Vidar Örn Kjartansson, Christian Grindheim and Kjetil Rekdal (Manager)	1. Bård Finne, Matthías Vilhjálmsson, Mohammed Abu, Deyver Vega and Chidera Ejuke
	2. Freddy dos Santos, Daniel Fredheim Holm and Morten Berre	2. Morten Berre, Harmeet Singh, Mohammed Abdellaou, Mustafa Abdellaoue, Mohammed Fellah, Freddy dos Santos and Daniel Fredheim Holm	2. Morten Berre, Daniel Fredheim Holm and Ghayas Zahid	2. Aron Leonard Dønnum, Ivan Näsberg and Markus Nakkim
Molde	1. Arild Stavrum and Eddie Gustafsson	1. Mame Biram Diouf, Pape Paté Diouf, Vegard Forren, Makhtar Thioune and José Mota	1. Mohammed Elyounoussi, Vegard Forren, Martin Linnes and Daniel Chima Chukwu	1. Leke James and Ohi Omoijuanfo
	2. Magne Hoseth, Bernt Hulsker and Petter Rudi	2. Knut Olav Rindarøy, Daniel Berg Hestad and Magne Hoseth	2. Knut Olav Rindarøy,Ørjan Håskjold Nyland Daniel Berg Hestad and Magne Hoseth	2. Eirik Hestad, Magnus Wolff Eikrem and Vegard Forren
Viking	1. Peter Kopteff, Egil Østenstad, Frode Olsen and Erik Nevland	1. Birkir Bjarnason, Peter Ijeh, Mamé Niang and Uwe Rösler (Manager)	1. Jón Bödvarsson, Indridi Sigurdsson and Makhtar Thioune	1. Zlatko Tripic
	2. Frode Olsen, Thomas Pereira, Erik Fuglestad and Brede Hangeland	2. Vidar Nisja and Ragnvald Soma	2. Vidar Nisja, André Danielsen, Yann-Erik de Lanlay, Veton Berisha and Iven Austbø	2. Iven Austbø, André Danielsen, Tommy Høiland and Kristian Thorstvedt
Brann	1. Ragnvald Soma, Bengt Sæternes, Raymond Kvisvik and Robbie Winters	1. Jan Gunnar Solli, Hassan El Fakiri, Petter Vaagan Moen, Rodolph Austin and David Nielsen	1. Jakob Orlov, Piotr Leciejewski, Stéphane Badji and Birkir Már Sævarsson	1. Vito Wormgoor, Bismar Acosta, Veton Berisha and Daouda Bamba
	2. Cato Guntveit, Helge Haugen, Erlend Hanstveit and Håkon Opdal	2. Erik Huseklepp, Håkon Opdal and Azar Karadas	2. Erik Huseklepp, Fredrik Haugen, Kristoffer Barmen, Erlend Hanstveit and Azar Karadas	2. Håkon Opdal, Kristoffer Barmen, Fredrik Haugen, Petter Strand and Azar Karadas

Own compilation. Data from www.altomfotball.no.

Table 10 illustrate that Rosenborg went from having a huge number of local heroes in 2004, to only having one truly local hero in 2019 (the numbers in 2004 could have been even higher with a minor modification in the selection criteria). But it's also interesting when comparing it to the market values presented in table 11, with the introduction of Bendtner not increasing the market value of the club. Rosenborg had the highest market value in 2011, and that might be explained by the numbers of stars and local heroes in the period between 2009 and 2014. It is not surprising that Rosenborg was far more “worth” than the other teams, considering the clubs success in the late 90's and early 2000s. In addition, the club’s success made it easy to develop “the habit” of picking the best Norwegian players from the other clubs in Eliteserien.

Table 11: Market value in million euros and table placement between 2004 and 2019, 04/05 not available.

Year	Rosenborg		Molde		Brann		Vålerenga		Viking	
2004	0	1	0	11	0	3	0	2	0	9
2005	0	7	0	12	0	6	0	1	0	5
2006	€ 17,40	1	€ 3,64	14	€ 9,53	2	€ 14,93	3	€ 4,25	11
2007	€ 12,03	5	€ 4,02	N/A	€ 14,12	1	€ 9,53	7	€ 9,38	3
2008	€ 17,53	5	€ 5,92	9	€ 11,53	8	€ 16,40	10	€ 8,75	6
2009	€ 26,60	1	€ 5,47	2	€ 9,28	5	€ 7,28	7	€ 5,25	10
2010	€ 28,05	1	€ 14,85	11	€ 10,80	13	€ 10,00	2	€ 14,30	9
2011	€ 34,95	3	€ 22,75	1	€ 10,83	4	€ 14,65	7	€ 12,38	11
2012	€ 24,18	3	€ 12,73	1	€ 11,43	6	€ 14,88	8	€ 11,70	5
2013	€ 26,38	2	€ 23,80	6	€ 11,23	8	€ 19,35	11	€ 11,50	5
2014	€ 23,15	2	€ 25,55	1	€ 10,50	14	€ 8,93	6	€ 8,65	10
2015	€ 20,93	1	€ 20,70	6	€ 9,03	N/A	€ 7,05	7	€ 8,75	5
2016	€ 22,85	1	€ 18,80	5	€ 10,25	2	€ 8,73	10	€ 5,25	8
2017	€ 24,55	1	€ 11,43	2	€ 9,33	5	€ 10,83	8	€ 7,03	16
2018	€ 23,45	1	€ 12,70	2	€ 13,45	3	€ 8,45	6	€ 4,13	N/A
2019	€ 24,25	3	€ 15,05	1	€ 10,10	9	€ 9,03	10	€ 3,35	5
Average	€ 23,31	2,4	€ 14,10	5,6	€ 10,82	5,9	€ 11,43	6,6	€ 8,19	7,9

Own compilation. Data from www.transfermarkt.com & www.altomfotball.no.

Molde stands out from the rest of the teams, with a different attendance curve. As already discussed, Molde was not among the big teams in the early 2000s. Until 2009 they had a limited market value and a low number of profiles. In the period between 2009 and 2014 a considerable change in the number of profiles, the market value, the attendance numbers and table placement is taking place. The development indicate that the various factors are related and may support the findings of Brandes et al. (2008); high profile players and good results are leading to higher attendance numbers.

Brann is the team with the most consistent market value over the years. The highest registered value is in 2007 with €14,12m and the lowest in 2015 with €9,03m (Brann was relegated to the second tier in 2014). The ratio between stars and local heroes is also consistent. On the other hand, is the clubs table placement. Brann has been "unpredictable" on the continuum from winning the league to going down to the second tier. One explanation may be a considerable flow of players, illustrated in table 10; just a few names are registered twice. The same trend is observable for Vålerenga and Viking as well. Vålerenga is registered with high value a few years, while Viking's value is low compared to the average of approximately €10m for these three teams.

Assessing players, values and table placements, one trend is obvious (Rosenborg is the exception). The turnover of players from year to year is high, the club value varies tremendously and there is little continuity when it comes to table placement.

6.4.2 Club affiliation on Norwegian national team nominations

Brandes et al. (2008) argue that 67 % of all European football fans state that their interest in attending games is affected by the players on display. According to a reputation and interest survey 24% (977,000 people) of the Norwegian population claim to be somewhat interested in Eliteserien (Sponsor Insight 2017). Table 12 indicates that the highest numbers of players (8) representing the Norwegian national team affiliated to Norwegian clubs during the peak attendance year of 2009.

A closer look at one randomly selected national team match in each of the four chosen years of our study, reveals considerable differences in the ratio between the players playing abroad and the ones playing in the Eliteserien. We had criterions for the selection. The match should not be an international friendly and that it was played at Ullevaal Stadion. The following matches was selected; Norway - Belarus 2004, Norway - Scotland 2009, Norway - Bulgaria 2014 and Norway - Malta 2019.

Table 12: Distribution of the national team players

Year	Playing abroad	Playing nationally	Team distribution Norway
2004	7	7	Rosenborg: 3, Molde: 2, Lyn: 1 and Stabæk: 1.
2009	6	8	Rosenborg: 2, Molde: 1, Vålerenga: 1, Brann: 1, Lillestrøm: 1, Tromsø: 1 and Stabæk: 1.
2014	9	5	Molde: 3, Strømsgodset: 1 and Odd: 1.
2019	12	2	Rosenborg: 2.

Own compilation. Data from www.altomfotball.no.

Only players used in the games is registered, the starting eleven and three substitutes (eleven+ three). In 2004 there were an even number of players (seven + seven) playing for teams abroad and nationally. In 2009 there were six players "from abroad" and eight playing in Norway (two of these players were representing Rosenborg). However interestingly six other clubs were represented by one player each. In line with Brandes et al. (2008) claims about profiles and national team players attract larger crowds, it is relevant to argue that - in 2009 – one of the factors that attracted larger crowds to Eliteserien was the numbers of "internationals" playing in the league. Another element that backs up the hypothesis is that "big clubs" didn´t experience their peak average attendance year in 2009, but more people attended the league in total. This also falls in line with Brandes et al. (2008) claims about superstars and national team players attract higher attendance both home and away. After 2009 the ratio between "players abroad" and "players at home" changed; more players played abroad. In 2014 nine of the players played abroad and five in Eliteserien, and in 2019 there were as many as twelve players playing abroad

and only two from Eliteserien. The decline in the number of national team players playing in the home league coincides with the decrease in the number of spectators at Norwegian stadiums.

Assessing figure 3 and table 12 reveals a possible positive correlation between attendance numbers in Eliteserien and the number of players representing the national team in the league; "Local heroes" are followed by larger crowds. The golden era for Norwegian attendance numbers were between 2007 and 2011, just around the time when players from Eliteserien were the dominant force on the national team. The trend continues throughout the decade. In 2019 Eliteserien reached the lowest average with only 5778 spectators per match, at the same time as Norway reached a record high number of national team players playing abroad in bigger leagues. Even though 54.6%, or roughly two out of three Norwegian supporters, attach greater importance to support for club teams than to a national team (Hognestad 2006), it seems to be of importance that the players represent the national team.

6.5 Matchday attendance numbers – 2019

So far we have focused on differences between selected seasons. In this section we will take a closer look at attendance trends in one concrete season, namely 2019. We will look at variations in attendance numbers from match week to match week and attendance for specific games. The average attendance per round lies somewhere between 36 000 and 50 000 spectators, with most rounds attracting approximately 45 000 spectators. The rounds with attendance numbers below 40 000 seem to correlate with "big teams" playing away in the respective rounds.

Table 13: Three highest and the lowest attended matches in 2019 for the chosen teams.

	Rosenborg	Vålerenga	Molde	Viking	Brann
Highest	Haugsund, Thursday 16. May	Lillestrøm, Saturday 25. May	Rosenborg, Sunday 28. April	Stabæk, Thursday 16. May	Sarpsborg 08, Thursday 16. May
2. highest	Molde, Sunday 27. October	Rosenborg, Sunday 1. September	Kristiansund, Saturday 27. October	Rosenborg, Sunday 24. November	Rosenborg, Sunday 25. May
3. highest	Kristiansund, Sunday 29. June	Strømgodset, Thursday 16. May	Bodø/Glimt, Sunday 1. December	Brann, Saturday 13. April	Viking, Sunday 11. December
Lowest	Sarpsborg 08, Sunday 5. May	Ranheim, Sunday 29. September	Tromsø, Sunday 15. September	Mjøndalen, Monday 30. September	Odd, Friday 08. November

Own compilation. Data from Eliteserien & www.altomfotball.no.

Analyzing the three most attended, and the least attended home-matches for the five teams in the study, three trends are standing out:

i) *The national day of football.* Four of the teams match in round eight, 16th of May, is one of the three most attended games. For Rosenborg, Viking and Brann the match at 16th of May was most attended game throughout the season.

ii) *Derby matches.* Matches of high importance to supporters with emotional rivalry based on either connection to a certain city, geography or demography. All the five teams match against their closest rival, was one of the most attended games.

iii) *Rosenborg still has pulling power*. Even though Rosenborg's sporting achievements during 2019 were "average", and the club most of the season battled in the middle of the table, it attracted a large number of supporters when playing away. The match against Rosenborg was one of the two most attended games throughout the season for the four other teams in the study

Regarding the matches that attracted least spectators there were some common denominators. Three out of five matches were scheduled "outside" the main round, Sunday at 18.00. Two of the games were played on respectively Monday and Friday at 19.00.

6.5.1 Kick-off not in "Main round" effect on attendance

As discussed in section 6.2 matchday attendance could suffer if the game is broadcasted. Stadium attendance may be affected by live broadcasting, and attendance seems to suffer more if the game is scheduled on a weekday outside the main round (Feehan 2006). Table 14 contains all games played on Fridays and Mondays. Green markings indicate attendance higher than the home-teams season average, and red markings indicate the attendance lower than the home team's season average. Our findings suggest that the conclusion of Feehan (2006) turns out to be consistent with our data from Eliteserien. Almost all games played on Mondays - 17 out of 20 games – had a lower attendance then the home team's average throughout the season. A closer look at some of the fixtures reveals that several are "big games" (top teams visiting), but playing against a top side, or a rival does not seem to equal out the disadvantage of playing on Mondays. Surprisingly it seems to be the teams with the largest market of spectators who suffer the biggest decline in attendance when playing outside the main round and/or being televised.

Table 14: Friday and Monday matches in 2019.

Friday	Attendance	Monday	Attendance
Mjøndalen- Bodø/Glimt	2211	Stabæk- Lillestrøm	4031
Strømsgodset-Mjøndalen	8 505	Rosenborg - Odd	11 723
Odd - Bodø/glimt	6 118	Odd -Viking	4 775
Mjøndalen- Strømsgodset	3350	Vålerenga -Odd	6 766
Strømsgodset-Rosenborg	5457	Viking - Vålerenga	7 659
Brann - Odd	8693	Strømsgodset - Viking	4 576
		Molde -Viking	6 108
		Stabæk - Tromsø	3 682
		SO8- Strømsgodset	5 443
		Stabæk - SO8	3 321
		Strømsgodset - Bodø/Glimt	4 943
		Lillestrøm - Mjøndalen	5 544
		SO8- Bodø/Glimt	5 311
		Bodø/Glimt- Vålerenga	3 860
		SO8 - Vålerenga	5 454
		Stabæk - Molde	3 915
		Viking - Mjøndalen	6 500
		Bodø/Glimt -Mjøndalen	2 782
		Brann- Bodø/glimt	8 875
		Odd- Mjøndalen	4 492
Average	**5722**	**Average**	**5 488**
Season avarega	**5 778**	**Season avarega**	**5 778**
	-56	**Differance**	**-290**

Own compilation. Data from Eliteserien & www.altomfotball.no.

Matches played on Friday seemed to have a more fortunate fate, as four out six games are registered with a higher attendance than the average. However, there is little validity in claiming Friday games is a positive, as two of the games were derbies between Strømsgodset and Mjøndalen, one of Norway's most intense derbies. The other two games were a top game between Odd and Bodø/Glimt (second and third in the league at the time of the game), and Rosenborg visited Strømsgodset in the last match.

7. Conclusion

We started the research of our thesis with an eagerness to find if there were any patterns in matchday attendance in the Norwegian football league. With a more than average interest in Norwegian football, we had registered a pretty significant decline in attendance at stadiums over the last 10-15 years. When attending Norwegian football matches, a discussion that often rises is that "the sporting level isn't good enough", followed up by a claim that they prefer to watch matches from other leagues. So, the idea of analyzing attendance data up against fixed sporting parameters and research on the field arose.

To answer our research question *"To what extent do entertainment value, sporting product, profiles, and uncertainty of outcome motivate Norwegian fans to attend football matches in Norway?"* we carried out as a study on the Norwegian top tier, where we used a longitudinal design with attendance data, and analyzed the numbers up against data related to the chosen factors and against previous literature on the field of research. We were aware that there in fact had been higher attendance numbers in previous years, so the key to the study would be to figure out if the sporting product had been of a higher standard in the years where attendance was on top.

In our findings we present a graph of the total attendance number from 2000 until 2019 visualizing a pretty rapid rise from 2000 to the peak in 2009. When analyzing the data, we saw a clear pattern between the rise in attendance and some sporting factors, such as a higher UEFA coefficient ranking, more players on the national team playing in the league, and increased market value of the squads. These factors give a fairly objective view of how the league is perceived compared to other leagues. In fact, from 2009 until 2014 the league dropped 10 places on the UEFA coefficient ranking, market value stagnated, and the vast majority of the national team played abroad. Aptly for our research the attendance declined in the same years

in correspondence with the sporting factors. However, this trend does not appear to be true for the other years, as we see a continuing decline in the number of spectators from 2014 to 2019, although rankings have risen from 29th in 2014 to 22nd in 2019.

Another important discovery in our research shows that interest in the Eliteserien dropped drastically when they increased the number of live events per round, and TV2 focused on the Premier League when they were granted the rights to it in 2010. TV2 moved the focus away from Eliteserien even though the number of matches shown increased, making the Premier League their number one priority and making it more accessible to the Norwegian people. The falling interest in Norwegian football has also affected the clubs financially, with an income loss of €7.084.007 from 2009 to 2019 based on average ticket revenue per person in 2019.

We also throughout the years of our study see strong signs of what we have called the "Rosenborg effect". In the earlier years of our study Rosenborg were regulars in Champions League and Europa League, and had a standing as unbeatable in Norwegian football, and masses were drawn to stadiums to see them play away from home. Over the last seasons there has been no gargantuan in Norwegian football, at least in a sporting aspect, which seems to translate into a little more indifference towards the league as a whole. Without doubt there are clear signs that it is a necessity for Eliteserien to maintain a high quality on the teams, as opponents and overall perception of the league seem to affect the demand for the league.

When looking at the characteristics of the league isolated, we see that the uncertainty of the outcome of games in little, or no fashion seem to affect the attendance at Norwegian stadium. However, the opponent, time of kick-off and how many local players are fielded seems to play a vital role in attracting Norwegian football fans to stadiums. Our findings back up Brandes et al. (2008) hypothesis that the amount of "star-players" attract a higher attendance, both home and away, and if the home-side field "local-players" it has a positive impact on match attendance.

7.1 Strength and weaknesses

We see it as a clear strength that we have investigated how the clubs have done/performed and what it has led to when it comes to table placement and spectators at games. It is also a strength that the numbers come directly from the organizer. We have done extensive and thorough

research with data material, both game data and attendance data. We consider that the data used in the thesis is reliable, as it comes from the league organization and is double checked with other sources. We have found clear correlations between the sporting product, player profiles and entertainment aspect with variations in attendance.

However, some of the numbers do consist of a weakness, as they represent the number of sold tickets for each game and not actual attendance numbers, and that we could have involved even more previous articles. Due to the limitations of the task, focusing on sporting attributes the task does not take in to question social and cultural factors, such as atmosphere, stadium accessibility, free time, leisure and social bonding – which are important when discussing overall attendance at games.

7.2 Implications to further research:

During our research process we have come across some interesting elements that seem to affect the demand for stadium football and could benefit from thorough research. First of all, as we have researched in how large an extent the level of the sporting product has on attendance, and conclude that a higher sporting level obtains more spectators it would be of interest to see an hypothetical analysis of matchday attendance in Norway if the league was to contain 14, 12 or 10 teams. The size of the league has been heavily discussed in Norwegian football, and an economic analysis of a league containing 14, 12 or 10 teams compared to 16, we believe would be of high interest to Norwegian club leaders.

Another variable we believe would be of high interest is to study the effect different media-right holders has one matchday attendance. How much promo coverage of the league to how many people does different broadcasters offer, and does a vast amount of promo through sizable media outlets lead to higher matchday attendance?

In extension to the previous question it could be interesting to see why some clubs struggle to reach certain audiences even if they meet other requirements when it comes to entertainment and sporting results. We also believe a deeper research into what characterizes the typical Norwegian football fan and matchday attendee would be highly valuable for Norwegian clubs when segmenting marketing for different the catchment areas.

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Appendix

Appendix 1)

Literature review

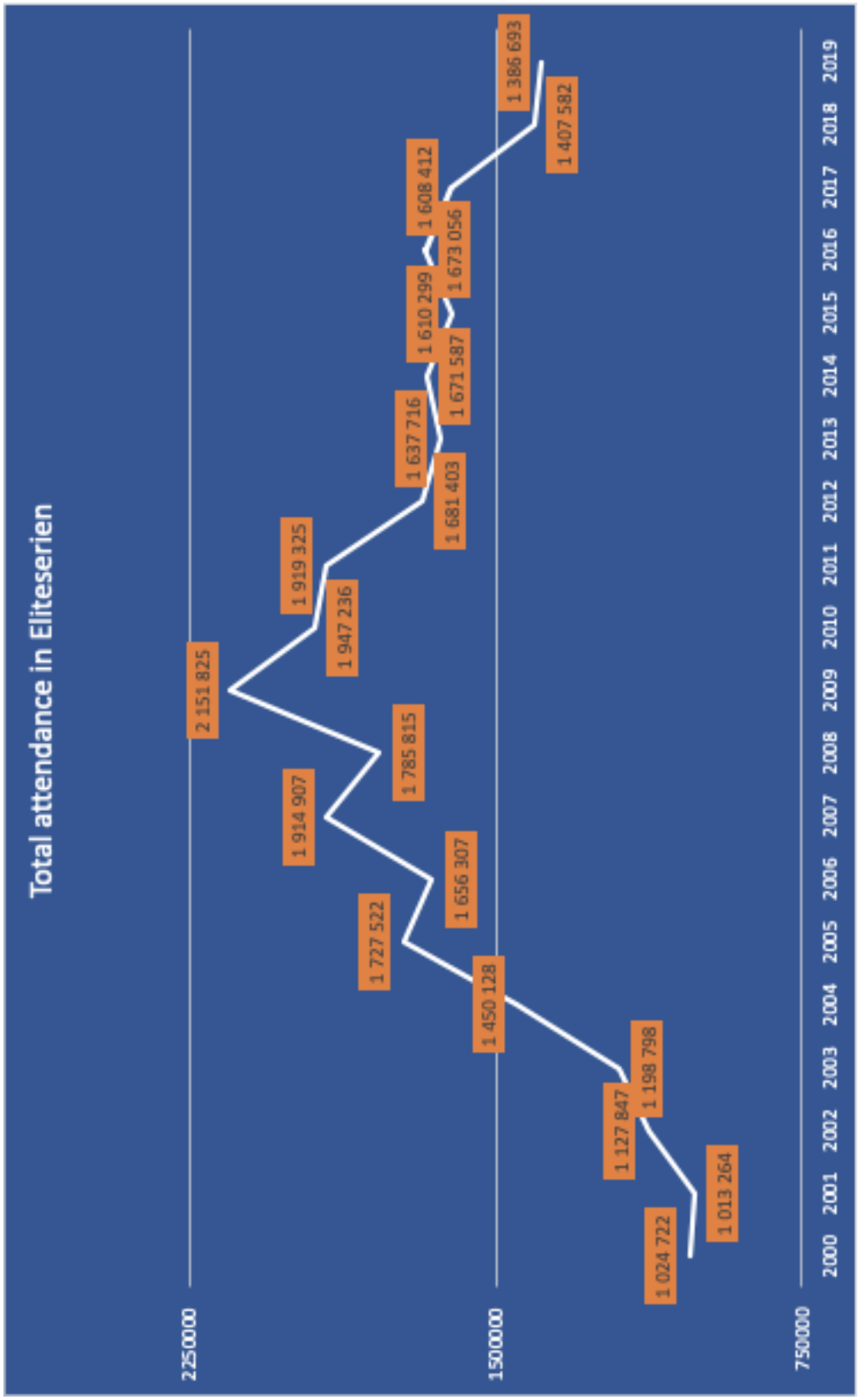
Author(s) & year	Title	Source	Topic	Findings
Rob Simmons – 2006	Handbook on the Economics of Sport – The demand for spectator sports (chapter 8)	Edward Elgar Publishing	Attendance and demand for televised sport.	Reasons for attending; 1) uncertainty of outcome, 2) partisanship (identification with a team). Sport teams are viewed as local monopolists, and people don't choose another team if their team is doing badly.
Patrick Feehan – 2006	Handbook on the Economics of Sport – Attendance at sports events (chapter 9)	Edward Elgar Publishing	Attendance demand function for team sports. Sport specific demand theory.	Market size is found to be a major determinant of attendance demand. Majority of studies point to good performance in the previous season, good run of results in last matches, quality of the team and degree of outcome uncertainty boosts attendance.
Kim, Yukyoum, Marshall Magnusen, Minjung Kim and Hyun-Woo Lee – 2019	Meta-Analytic Review of Sport Consumption : Factors Affecting Attendance to Sporting Events	Sport marketing quarterly, vol. 28; 117-134.	Understanding what leads individuals to consume the product of sport. Relationship between three categories of predictors and sport attendance.	The three predictors used are fan-focused, relationship-focused and product-focused. Inside the relationship-focused we found out that identification and commitment had the largest effects on attendance of all the antecedents investigated in the meta-analysis.

Mikko Hirvonen - 2014	Motivational factors for sport spectator attendance – case: ice hockey	JAMK University of Applied Sciences	Comparing international and domestic ice hockey fans concerning the factors that motivates them to attend ice hockey events.	Minor differences when comparing international and domestic fans. The greatest difference was that international fans are motivated by the entertainment at the event, compared to domestic fans who appreciate aesthetic values and players' skills.
Wiid, Johannes A., and Michael C. Cant - 2015	Sport Fan Motivation: Are You Going to The Game?	International Journal of Academic Research in Business and Social Sciences, vol. 5, no. 1; 383-398.	Sport fan motivation from a South African perspective.	Differences between sport fan and sport spectator when it comes to commitment and enthusiasm. Also looks at how the different groups are motivated to attend games.
Hans K. Hognestad – 2006	Transnational Passions: A Statistical Study of Norwegian Football Supporters	Soccer and Society, vol. 7, no. 4; 439-462.	Norwegian supporters have developed a passionate relationship to football teams across national boundaries.	Norwegian fans consume huge amounts of football, but value the English league over the Norwegian Eliteserien and national team. In Norway success is an important factor for attending games.
Funk, Daniel C., Kevin Filo, Anthony A. Beaton and Mark Pritchard.	Measuring the Motives of Sport Event Attendance: Bridging the Academic-Practitioner Divide to Understanding Behavior	Sport marketing quarterly, vol. 18; 126-138.	Explain the motives behind sport event attendance.	Social and psychological needs of spectators are the dominating factors for attending sports events.
Matthew D. Shank – 2009	Sports Marketing: A	Pearson Education	Framework of the strategic	Key motivational factors for attending sports

	Strategic Perspective		marketing process that can be applied to the sports industry	events. Perceived value of entertainment compared to other substitutes.
Brandes, Leif, Egon Franck and Stephan Nüesch - 2008	Local Heroes and Superstars - An Empirical Analysis of Star Attraction in German Soccer.	Journal of Sports Economics, vol. 9, no. 3; 266-286.	Analyzing the impact of local heroes and superstars in German soccer over a 9-year period.	Superstars enhance attendance both at home and on the road, the star attraction of local heroes is limited to home games. In addition, superstars attract fans by outstanding field performances, whereas local heroes facilitate fan support by mere popularity.
Forrest, David, and Robert Simmons - 2002	Outcome Uncertainty and Attendance Demand in Sport: The Case of English Soccer.	Journal of the Royal Statistical Society, Vol. 51, No. 2; 229-241.	Study conducted in the English Football League (EFL) on how demand is effected by the competing teams' quality and late performance.	The demand for football matches is highly influenced by the competing teams' quality and performance. Findings show that current and historic results and performance in the league creates a higher demand for matchday attendance.

Appendix 2)

Attendance – Eliteserien



2014																		
Round	Brann	Rosenborg	Vålerenga	Viking	Molde	Aalesund	Sarpsborg 08	Bodø Glimt	Stabæk	Lillestrøm	Odd	Strømsgodset	Start	Haugesund	Sandnes Ulf	Sogndal	Total round	Average round
1		16287			8875		4722	3851	4017			6845		5649	3506		53752	6719
2	11241		9299	12090		9049				5127	6140		5324			2511	60781	7598
3		12263					4294	3122	4609	5157		6721		4769	3292		44227	5528
4	9641		9092	11174	8870	7608		5265			6591					2875	61116	7640
5		14378					4616		4002	5230		6427	7570	5419	3050		50692	6337
6	10012		15437		9085	8289		3807			6603				2644	4068	59945	7493
7		18227		9286			3800		4131	5058		6427	6504	4756			58189	7274
8			8280		10030	7198		2907	3251		6382				3290	2524	43862	5483
9	17032	20442		16508		6580				10965		6427	8555	6323			92832	11604
10			11783		8847		4618	2912	4343		5652				2905	4035	45095	5637
11	9180			9682		7731				5415		6427	5210	5311		2827	51783	6473
12		11617	8554		9837		3810		3856		6398	6312			2910		53294	6662
13	8510			8685		6703		3305		5315			6559	4818		3013	46908	5864
14		11068		9931	8786		3559		3212		7279	5861	6286				55982	6998
15	9610		10332			9386		2813		4376				4819	2674	2875	46885	5861
16		11323		7828	8821		3679		3471		5728	7108	5304				53262	6658
17	8792		14656		11424	6596		2841						4434	3210	2845	54798	6850
18				8460		6747	3637		4206	5497	5556	7149	5565				46817	5852
19	13574	11513	8992		8284						8990			7002	2841	3071	64267	8033
20	14573			8260		6674	3778	3304	4080	8677			6098				55444	6931
21		11433	9859		9586						8395	7077		4839	4418	3556	59163	7395
22	15240			11693		6891	3582	3136	3383	4759			4899				53583	6698
23		14327	8729		9932						8399	7720	8008		3671	4517	65303	8163
24	13140		9173	9545		8002	3509	2972		5837				4872			57050	7131
25		10709			8411				3665		7008	6179	4950		2388	3321	46631	5829
26	11347		7211	7730		7804	4080	3928		6672				6009			54781	6848
27	10204	14106			8362				3941		6704	7063	4835		2428		57643	7205
28		13457	7355	10850			3743	4038		5583				5724		3743	54493	6812
29	17686			8492		8766			3350	4840	11548	6880	4768				66330	8291
30		17582	7583		9500		3767	2533						8945	2330	4439	56679	7085
Total home	179782	208732	146335	150214	138650	114024	59194	50734	57517	88508	107373	100623	90435	83689	45557	50220	**1671587**	
Average home	11985	13915	9756	10014	9243	7602	3946	3382	3834	5901	7158	6708	6029	5579	3037	3348	**55720**	
Stadium capacity	17686	21166	25572	16600	11800	10778	5000	5635	4938	11637	11720	7500	7354	7963	4970	5523	**175842**	
Filling degree	67.77%	65.74%	38.15%	60.33%	78.33%	70.53%	78.93%	60.02%	77.64%	50.70%	61.08%	89.44%	81.98%	85.00%	61.11%	60.62%	**72.49%**	

2019																		
Round	Brann	Rosenborg	Vålerenga	Viking	Molde	Tromsø	Sarpsborg 08	Bodø Glimt	Stabæk	Lillestrøm	Odd	Strømsgodset	Ranheim	Haugesund	Kristiansund	Mjøndalen	Total round	Average round
1			8055	10059			5964	2793	4031		7295	5040	1694				44931	5616
2	13213	11723			6372	2888				5829				3671	3984	2211	49891	6236
3			5719	13029			5567	3240	4521		4608	8505	1353				46542	5818
4	10889	11367						3663		5248	4775			4020	4037	2058	46057	5757
5			6766		9010	3137	5451		3531	4828		4875	1950				39548	4944
6	10026	10040		7659				2879			5252			3772	3852	2236	45716	5715
7					6995	2514	4903		3942	8839		4576	1950	3777			37496	4687
8	16484	17799	10091	15029		4368					6289				4444	2380	76884	9611
9		13038			6108		4767	3721	4621	4439		4628		4559			45881	5735
10	14956		14418	7002		2779					5157		1766		4123	1963	52182	6523
11		13320			6615		5515	3061	3682	5676				7001		1978	46848	5856
12	9523		8130	8203		4501					5589	5313	2044		4118		47421	5928
13		13522			6819		5443	3442	3256	5108				3817		2550	43957	5495
14	10039		8836	8169		2982					6129	5078	2925		4316		48474	6059
15	9133	12659			6202			3322	3321	4337				3421		2358	44753	5594
16			6248	7069		3101	7042		3153		4720	4943	2145				38421	4803
17	9049	12869			7027			3567		5544		5318		3305	4016		50695	6337
18			7304	6822		3409	5311		3831		7218		2655			2614	39164	4896
19	10314	12298		8135	6843			3860				4855		4045	3820		54170	6771
20			11101			3245	5366		3674	6771	6118		1869			2314	40458	5057
21		12183		7519	5952		5454	3569				4913		3512	4007		47109	5889
22	10129		7056			2943			3915	5117	5496		1833			2462	38951	4869
23		12578	5037	6500	6626		4971	4248				5001			3952		48913	6114
24	9821					2717			3127	5305	5362		1501	5322		3350	36505	4563
25			5511	8212	6304		4947	2782				5604	1453		4444		39257	4907
26	8875	14093				3002			3082	9884				3465	4301	2273	48975	6122
27			5889	7037	8776		6267	2777			4492	5457	1402				42097	5262
28	8693	12039			7098	2575				4650				5742	3856	2077	46730	5841
29			6666	13540			5924	3265	3106		5478	5352	1708				45039	5630
30	14490	11026			7512	5522				5293				3358	4106	2321	53628	6704
Total home	165634	190554	116827	134002	104259	49683	82892	50189	54793	86868	83978	79458	28248	62787	61376	35145	**1386693**	
Average home	11042	12704	7788	8933	6951	3312	5526	3346	3653	5791	5599	5297	1883	4186	4092	2343	**46223**	
Stadium capacity	16750	21421	16555	16300	11300	6687	6833	5635	4938	11500	11767	8040	3000	8754	4443	4200	**158123**	
Filling degree	65.92%	59.30%	47.05%	54.81%	61.51%	49.53%	80.87%	59.38%	73.97%	50.36%	47.58%	65.89%	62.77%	47.82%	92.09%	55.79%	**60.92%**	

Appendix 3)

Attendance at Ullevaal Stadium during Norway's home games. Data collected from:

https://www.fotball.no/fotballdata/turnering/terminliste/?fiksId=39899

2004

Competition	Opponent	Attendance (Max 27.000)	Filling degree (%)
Friendly	Russia	11.435	42,35 %
Friendly	Wales	14.137	52,36 %
Friendly	Belgium	16.669	61,74 %
WC – qualification	Belarus	25.272	93,60 %
WC – qualification	Slovenia	24.907	92,25 %
Total		92.420	
Average		18,484	68,46 %

2009

Competition	Opponent	Attendance (Max 27.000)	Filling degree (%)
Friendly	Finland	16.239	60,14 %
WC – qualification	Scotland	24.493	90,71 %
WC – qualification	Macedonia	14.766	54,69 %
Friendly	South Africa	13.504	50,01 %
Total		69.002	
Average		17.250	63,89 %

2014

Competition	Opponent	Attendance (Max 27.000)	Filling degree (%)
Friendly	Russia	11.486	42,54 %
EC – qualification	Italy	26.265	97,28 %
EC – qualification	Bulgaria	18.990	70,33 %
Friendly	Estonia	9.580	35,48 %
Total		66.321	
Average		16.580	61,41 %

2019

Competition	Opponent	Attendance (Max 27.000)	Filling degree (%)
EC – qualification	Sweden	23.439	86,81 %
EC – qualification	Romania	17.664	65,42 %
EC – qualification	Malta	11.269	41,74 %
EC – qualification	Spain	25.200	93,33 %
EC – qualification	Faroe Islands	10.400	38,52 %
Total		87.972	
Average		17.594	65,16 %

Appendix 4)

– Uncertainty of outcome

2004					
LCP1	78	AP1	48	30	900
LCP2	72	AP2	48	24	576
LCP3	66	AP3	40	26	676
LCP4	60	AP4	40	20	400
LCP5	54	AP5	38	16	256
LCP6	48	AP6	37	11	121
LCP7	42	AP7	35	7	49
LCP8	36	AP8	35	1	1
LCP9	30	AP9	33	3	9
LCP10	24	AP10	32	-8	64
LCP11	18	AP11	31	-14	196
LCP12	12	AP12	27	-15	225
LCP13	6	AP13	27	-21	441
LCP14	0	AP14	22	-22	484
					4398
					30,61 %
LCP1	78	MCP1	26	60	3600
LCP2	72	MCP2	26	54	2916
LCP3	66	MCP3	26	48	2304
LCP4	60	MCP4	26	42	1764
LCP5	54	MCP5	26	36	1296
LCP6	48	MCP6	26	30	900
LCP7	42	MCP7	26	24	576
LCP8	36	MCP8	26	18	324
LCP9	30	MCP9	26	12	144
LCP10	24	MCP10	26	6	36
LCP11	18	MCP11	26	0	0
LCP12	12	MCP12	26	-6	36
LCP13	6	MCP13	26	-12	144
LCP14	0	MCP14	26	-18	324
					14364

2009					
LCP1	90	AP1	69	21	441
LCP2	84	AP2	56	28	784
LCP3	78	AP3	53	25	500
LCP4	72	AP4	46	26	676
LCP5	66	AP5	44	22	484
LCP6	60	AP6	40	20	400
LCP7	54	AP7	40	14	196
LCP8	48	AP8	40	8	64
LCP9	42	AP9	40	2	4
LCP10	36	AP10	38	0	0
LCP11	30	AP11	37	7	49
LCP12	24	AP12	36	-12	144
LCP13	18	AP13	36	-18	324
LCP14	12	AP14	34	-18	324
LCP15	6	AP15	28	-22	484
LCP16	0	AP16	16	16	256
					5130
					32,38 %
LCP1	90	MCP1	30	60	3600
LCP2	84	MCP2	30	54	2916
LCP3	78	MCP3	30	48	2304
LCP4	72	MCP4	30	42	1764
LCP5	66	MCP5	30	36	1296
LCP6	60	MCP6	30	30	900
LCP7	54	MCP7	30	24	576
LCP8	48	MCP8	30	18	324
LCP9	42	MCP9	30	12	144
LCP10	36	MCP10	30	6	36
LCP11	30	MCP11	30	0	0
LCP12	24	MCP12	30	-6	36
LCP13	18	MCP13	30	-12	144
LCP14	12	MCP14	30	-18	324
LCP15	6	MCP15	30	-24	576
LCP16	0	MCP16	30	-30	900
					15840

2014					
LCP1	90	AP1	71	19	361
LCP2	84	AP2	60	24	576
LCP3	78	AP3	58	20	400
LCP4	72	AP4	50	22	484
LCP5	66	AP5	46	20	400
LCP6	60	AP6	42	18	324
LCP7	54	AP7	41	13	169
LCP8	48	AP8	40	8	64
LCP9	42	AP9	39	3	9
LCP10	36	AP10	36	0	0
LCP11	30	AP11	36	-6	36
LCP12	24	AP12	35	-12	144
LCP13	18	AP13	35	-17	289
LCP14	12	AP14	29	-17	289
LCP15	6	AP15	24	-22	484
LCP16	0	AP16	22	-22	484
					4513
					28,49 %
LCP1	90	MCP1	30	60	3600
LCP2	84	MCP2	30	54	2916
LCP3	78	MCP3	30	48	2304
LCP4	72	MCP4	30	42	1764
LCP5	66	MCP5	30	36	1296
LCP6	60	MCP6	30	30	900
LCP7	54	MCP7	30	24	576
LCP8	48	MCP8	30	18	324
LCP9	42	MCP9	30	12	144
LCP10	36	MCP10	30	6	36
LCP11	30	MCP11	30	0	0
LCP12	24	MCP12	30	-6	36
LCP13	18	MCP13	30	-12	144
LCP14	12	MCP14	30	-18	324
LCP15	6	MCP15	30	-24	576
LCP16	0	MCP16	30	-30	900
					15840

2019					
LCP1	90	AP1	68	22	484
LCP2	84	AP2	54	30	900
LCP3	78	AP3	52	26	676
LCP4	72	AP4	52	20	400
LCP5	66	AP5	47	19	361
LCP6	60	AP6	41	19	361
LCP7	54	AP7	40	14	196
LCP8	48	AP8	40	8	64
LCP9	42	AP9	40	2	4
LCP10	36	AP10	34	2	4
LCP11	30	AP11	32	-2	4
LCP12	24	AP12	30	-6	36
LCP13	18	AP13	30	-12	144
LCP14	12	AP14	30	-18	324
LCP15	6	AP15	30	-24	576
LCP16	0	AP16	27	-27	729
					5263
					33,23 %
LCP1	90	MCP1	30	60	3600
LCP2	84	MCP2	30	54	2916
LCP3	78	MCP3	30	48	2304
LCP4	72	MCP4	30	42	1764
LCP5	66	MCP5	30	36	1296
LCP6	60	MCP6	30	30	900
LCP7	54	MCP7	30	24	576
LCP8	48	MCP8	30	18	324
LCP9	42	MCP9	30	12	144
LCP10	36	MCP10	30	6	36
LCP11	30	MCP11	30	0	0
LCP12	24	MCP12	30	-6	36
LCP13	18	MCP13	30	-12	144
LCP14	12	MCP14	30	-18	324
LCP15	6	MCP15	30	-24	576
LCP16	0	MCP16	30	-30	900
					15840