

Submission of Thesis and Dissertation

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Dissertation

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Course: BAHBMD3

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This section is a supplement to the main assignment, to be used if AI was used in any capacity in the creation of your assignment; if you have queries about how to do this, please contact your lecturer. For an example of how to fill these sections out, please [click here](#).

AI Acknowledgment

This section acknowledges the AI tools that were utilized in the process of completing this assignment.

Tool Name	Brief Description	Link to tool
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ChatGPT	Brainstorming research design. using it to grade my sample essays and give feedback on what i could improve.	https://chat.openai.com/
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Description of AI Usage

This section provides a more detailed description of how the AI tools were used in the assignment. It includes information about the prompts given to the AI tool, the responses received, and how these responses were utilized or modified in the assignment. One table should be used for each tool used.

ChatGPT

ChatGPT was used extensively as a tool for brainstorming, particularly around research design.
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ChatGPT used for tables and formulas to potentially use.

ChatGPT used to give feedback and grade drafts of the dissertation.

Sample prompt: "Give me a mind map on sports analytics for my capstone project as a part of the brainstorming process."

Sample prompt: "Which tables do you think would best fit this dissertation?"

Sample prompt: "grade the following draft of my dissertation and give appropriate feedback." Sample Response: Here is a mind map.

Sample Response: We believe simple tables are best, possibly with the players and Xg, and transfer price together.

Sample Response: We grade it 71% we recommend your methodology go more into more detail.

Evidence of AI Usage

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Additional Evidence A:

Essential Tables to Include

1. Points per £1 Million Spent

Purpose: Shows financial efficiency and underlines the key argument that analytics can outperform capital.

Additional Evidence B:

Dissertation Brainstorming Mind Map

Title: How Sports Analytics Enhances Competitive Parity in Football: A Case Study of Brentford FC

1. Central Theme

Sports Analytics as a Competitive Equaliser

Additional Evidence C:

Final Grade: 74% – First Class Honours (1.1)

Your dissertation demonstrates a consistently strong level of analytical depth, originality, and application. It sits confidently in the **lower-to-mid First Class Honours band**, with potential to rise even further with some targeted improvements (detailed below).

Abstract

This dissertation investigates the extent to which sports analytics can enhance competitive parity in professional football, particularly in the context of increasing financial inequality among clubs. The study focuses on how analytics can be used to bridge the gap between wealthier and resource-constrained clubs through data-driven recruitment, player development, and performance optimisation.

Using a quantitative research methodology, the dissertation analyses data from Premier League clubs between 2020 and 2024. Key metrics such as expected goals (xG), expected assists (xA), injury records, and points-per-pound spent are used to evaluate performance and financial efficiency. Case studies of Brentford FC, Fulham FC, and Manchester United offer comparative insight into the real-world impact of analytics integration.

Findings reveal that clubs with strong analytics infrastructures such as Brentford, which achieved 16.6 points per £ million spent in the 2024/25 season outperform their financial expectations by recruiting efficiently and maintaining tactical consistency. In contrast, clubs with less structured data strategies often suffer from costly inefficiencies, despite significantly higher budgets. The study concludes that sports analytics is not merely a tool for marginal gains but a strategic necessity in a regulated financial landscape.

This research contributes to the growing literature on football analytics and provides practical implications for clubs seeking sustainable success under UEFA Financial Fair Play and Premier League Profit and Sustainability Rules.

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1.0 Introduction

Football is one of the world's most popular sports, but the continuous imbalance between financially rich and less resourceful teams calls its competitiveness into question. This study investigates how sports analytics may close the gap, improve player development, and supplement traditional scouting approaches. Clubs may attain long-term competitive parity by implementing data-driven tactics, resulting in a more balanced and equal football ecosystem. This dissertation seeks to illustrate the revolutionary potential of analytics while advocating for its broader use in football.

The origins of sports analytics can be traced back to the work of Charles Reep, a British accountant who meticulously analysed football matches in the 1950s. Reep's innovative research introduced metrics such as pass sequences and goal probability. While criticised for oversimplifying the game, his methods laid the groundwork for today's advanced statistical systems. These innovations have shifted football from instinct-based decision-making to a domain where data overtakes intuition (Pantzalis & Tjortjis, 2020).

1.1 Aims of Research

In this paper, we aim to investigate how sports analytics might be utilised more effectively and frequently to close the financial gap between less wealthy teams and their richer counterparts. With an emphasis on a case study of Brentford FC, we examine academic studies on AI-driven match simulations, statistical analysis, and GPS monitoring, focusing on how these tools can foster youth development. Additionally, this research explores how performance analytics can facilitate the transition of academy players into first-team squads, ensuring long-term success.

Finally, we aim to demonstrate the continued importance of traditional scouting methods and "eye tests" in identifying unique traits such as flair, creativity, and leadership often referred to as the "X-Factor." This holistic approach underpins the study's objective to create a comprehensive framework for modern football evaluation.

2.0 Review of the Literature

2.1 Background

Data analytics has become a cornerstone for sports scientists aiming to create systematic frameworks for football organisations (Windt, 2021), enabling them to remain competitive both financially and on the pitch (Alamar, 2013). Broadly defined, sports analytics encompasses "the management of structured historical data, the application of predictive analytic models, and the use of information systems to enable decision-makers to gain a competitive advantage" (Lolli, 2024).

Over the years, analytics has evolved to include Expected Goals (xG), Expected Assists (xA), and Goal Creating Actions (GCA). These tools have proven instrumental in identifying inefficiencies in talent valuation and tactical approaches. However, resistance rooted in cultural norms and technological barriers has hindered its widespread adoption and embracement. This study argues for a more aggressive integration of analytics to challenge traditional methodologies and maximise competitive potential. (Statmuse).

2.2 Bridging The Gap

Football's financial ecosystem is heavily biased in favour of bigger clubs, leaving smaller teams at a significant disadvantage. Analytics can offer cost-effective solutions for identifying undervalued talent (Anderson and Sally, 2013). Brentford FC exemplifies this by leveraging data to assemble competitive squads without excessive spending.

Beyond recruitment, analytics aids financially constrained clubs in optimising tactical decisions. Metrics like xG enable resource-efficient strategies, minimising reliance on high-cost transfers. Additionally, analytics driven insights guide investment in youth academies and training facilities, enabling smaller clubs to develop talent internally. The adoption of such data-driven strategies allows these clubs to overcome financial barriers, levelling the playing field. A perfect case study example that epitomises this is Brentford FC. (AnalysisSport, 2022).

2.3 Brentford Case Study

Brentford FC has established itself as a pioneer in sports analytics, employing data-driven approaches more widely and successfully than many other football teams. Under Matthew Benham's guidance, the club established a plan that maximises the use of

sophisticated analytics, allowing them to compete with wealthier clubs despite operating on a limited budget. Brentford's strategic focus on analytics has helped it stay ahead of the competition, notably in recruiting, performance optimisation, and long-term planning. (Martinez, 2018).

2.4 Data-Driven Recruitment: A Competitive Edge

Brentford's recruitment strategy shows how a club can gain a real edge by using data to spot talent that others overlook. Instead of focusing just on goals or appearances, they dig deeper using advanced stats like Expected Goals (xG), Expected Assists (xA), and Goal-Creating Actions per 90 minutes (GCA/90). These metrics help highlight players who consistently create chances or are heavily involved in attacking moves even if they aren't necessarily scoring or assisting themselves (Statmuse, 2023).

A good example is Saïd Benrahma, who Brentford signed from Ligue 2 for around £2.5 million. At the time, he wasn't getting much attention outside of France, but the club's analysts saw that he was averaging 0.7 GCA/90, which put him among the most creative players in his league. Despite playing in a mid-table team, he stood out for his ability to unlock defences and generate goal-scoring chances. That insight paid off Benrahma quickly became a key figure in Brentford's attack, and his consistent performances eventually earned him a £25 million move to West Ham United. From both a performance and financial point of view, that deal showed how Brentford's data led model can deliver on multiple fronts (AnalysisSport, 2022) (West Ham United FC, 2021).

Ollie Watkins is another standout success. He joined from League Two side Exeter City for just £1.8 million in 2017. At the time, his raw numbers were decent, but what Brentford really liked were his underlying metrics particularly his xG positioning and pressing ability. Over the next few seasons, Watkins developed rapidly. In the 2019/20 Championship season, he scored 26 goals in 49 appearances (Opta, 2020), helping Brentford reach the play-off final. The following summer, he was sold to Aston Villa for £33 million, breaking the club's transfer record at the time. That's a profit of over £30 million on a player from League Two a level of return that most Premier League clubs struggle to match.

What's important here is that neither player came from a top academy or big-name club. Instead, Brentford focused on players whose underlying performance data suggested they had the potential to succeed in a system built around chance creation and fluid attacking play. And they didn't just leave it to chance after signing them. Both Benrahma and Watkins were given tailored roles and development plans based on ongoing performance tracking, video analysis, and regular data reviews with coaches and analysts.

This shows how Brentford's recruitment strategy isn't just about saving money it's about being smarter with it. By focusing on players with strong per-90 stats like GCA, xG build-up, and pressing success, they manage to bring in talent that fits their system, improves the team, and can later be sold for a profit. It's a sustainable model that proves you don't need a huge budget to find and develop top-level players you just need the right data and the confidence to use it.

Brentford FC - Key Transfers Identified via Analytics

Player	Signed From	Transfer Fee In (£m)	Transfer Fee Out (£m)	Profit (£m)	GCA/90 (Pre-signing)	Appearances at Brentford
Said Benrahma	Châteauroux (Ligue 2)	2.5	25	22.5	0.7	83
Ollie Watkins	Exeter City (League Two)	1.8	33	31.2	0.63	132
Neal Maupay	Stade Brestois (Ligue 2)	1.6	20	18.4	0.6	95

2.5 Tactical Innovation and Frequent Use of Analytics

Brentford's use of analytics extends far beyond recruitment. It plays a central role in how the club prepares for matches, sets up tactically, and manages players throughout the season. A key focus has been on using Expected Goals (xG) data to improve decision-making in the final third. By analysing the quality of chances created and conceded, Brentford's coaching staff can fine tune shot selection, attacking movement, and even set-piece routines to minimise inefficiency in front of goal.

In a Sky Sports Tactical Analysis feature (2023), manager Thomas Frank broke down how Brentford used xG insights to change their attacking strategy. He explained that

earlier in the 2021/22 season, the team was taking too many low-quality shots from outside the box, which contributed to below-average conversion rates despite high possession figures. After reviewing the data, the team adjusted training sessions to focus on creating higher value chances specifically, cutbacks from the byline, one touch lay-offs in the box, and timed runs behind the defensive line. Frank noted that this shift led to an uptick in xG and actual goals scored, especially in home matches. (Sky sports, 2023).

For example, in their 4–1 win over Chelsea in April 2022, Brentford's xG total was just 1.6, but the shot locations were so efficient that they outperformed that xG and scored four goals. According to Opta's post-match dashboard, three of the goals came from inside the six-yard box or central zone, showing how the team deliberately created high percentage opportunities rather than relying on long shots or speculative efforts. (Opta, 2022).

Analytics also influences in game management. Brentford uses live data feeds during matches to assess player fatigue, positional heat maps, and opposition xG trends. This helps the coaching staff make more informed substitutions not just based on performance, but on predictive fatigue levels and spatial effectiveness. For instance, when wing-back Rico Henry begins to dip below his average sprint range in the second half, it often signals an upcoming change to maintain width and tempo. (Rico Henry Foot on the Gas, 2023).

All of this points to a wider cultural shift at the club. Analytics is not siloed into the recruitment office, it is embedded in day-to-day operations and decision-making. Coaches, analysts, and players all buy into the process (Hudl, 2023). Thomas Frank himself is known for meeting regularly with the data team to review weekly trends, tactical tweaks, and opposition weaknesses.

This deep integration allows Brentford to punch above their weight against teams with bigger budgets but less cohesive preparation. By combining tactical intuition with data-driven insights, Brentford have become one of the most strategically flexible teams in the league able to adapt their game model not only from match to match but during the 90 minutes itself.

Brentford FC has taken a forward-thinking approach to reducing injuries by building data into its day-to-day routines. Instead of treating injuries after they happen, the club uses GPS tracking, workload data, and recovery metrics to spot risks early and adapt training as needed (Doyle, 2022). This means players are less likely to push beyond safe limits, and staff can make better decisions about when to rest or rotate the squad.

The results speak for themselves. According to *Premier Injuries (2023)*, Brentford recorded just 21 first-team injury absences in the 2022/23 Premier League season. That's less than half of Manchester United's 61 and significantly below Fulham's 47, even though Fulham has also begun investing in analytics. This suggests that Brentford's system isn't just high-tech it's being used properly and consistently.

One good example is Bryan Mbeumo. He's a high-intensity player who ranked among the league's leaders for sprint volume (Opta, 2023), yet he still played in 37 of 38 league matches, logging over 3,200 minutes. For comparison, Neal Maupay, who left Brentford for Brighton, missed nine matches in his first season with his new club due to muscle related injuries (*Brighton & Hove Albion FC Injury Summary, 2020*). That kind of contrast shows how a player's availability can depend just as much on the club's support systems as on their physical resilience.

What really sets Brentford apart is how joined-up their system is. Their medical team, performance analysts, and coaches all work off the same data, which means decisions are faster and more informed. In other clubs, especially larger ones, that communication often breaks down. Data might sit in a report but not actually shape training or player management.

By keeping more players healthy, Brentford avoids last minute squad changes, spreads minutes more evenly across the team, and stays tactically consistent. For a club with a smaller budget, that consistency is a big reason why they've managed to compete with much richer teams.

2.6 Outperforming Wealthier Clubs

Despite having a fraction of the money of its Premier League counterparts, Brentford consistently outperforms wealthier clubs by incorporating analytics into all aspects of their business. Between 2014 and 2020, its "buy low, sell high" methodology, which is based on thorough data analysis, earned more than €120 million in profits through player transactions. (Wan and Gunawan, 2021). This method improves the club's financial stability and competitiveness in the game. (Guha, 2020).

Brentford's xG statistics frequently placed the club among the top-performing clubs outside the conventional "big six" throughout the 2021/22 Premier League season. This indicator proved their ability to generate quality goal scoring opportunities, even against better opponents. In addition, Brentford's defensive analytics produced insights that helped the club surrender fewer high-quality opportunities than other recently promoted teams. (Statmuse).

2.7 Comparative Use Among Other Clubs

While many football clubs today use some form of analytics, very few have embedded it into their operations as deeply and consistently as Brentford. For many teams, data remains a secondary tool used occasionally in scouting reports or post-match analysis but not as a central part of decision making. One of the main barriers to more widespread adoption is cultural resistance. Traditional views still dominate in parts of the sport, where subjective judgement, intuition, and personal experience are often seen as more trustworthy than algorithms or data dashboards. This mindset can lead to missed opportunities, especially when data points to players or tactical adjustments that don't align with conventional wisdom.

Brentford stands out precisely because it doesn't treat analytics as a backup or a gimmick, it's embedded into the fabric of how the club operates. At Brentford, data informs recruitment, training, match preparation, injury prevention, and even post-match reflection. But the club also recognises the importance of blending analytics with traditional scouting. As sporting director Phil Giles has explained, the goal isn't to replace human judgment, but to complement it using data to filter options, identify value, and reduce risk, while still relying on scouts and coaches to evaluate personality, mentality, and fit (Giles, 2021).

In contrast, many top clubs have struggled to fully embrace analytics. For example, Manchester United has been widely criticised for its fragmented approach to recruitment, where decision-making appears split between commercial considerations, legacy scouts, and a relatively small data team. Despite having access to state of the art resources, the club has made several high profile signings that lacked analytical backing or didn't suit the manager's playing style suggesting a disconnect between departments (The Athletic, 2023).

Chelsea, under previous ownership, similarly relied more on agents and reputation than on evidence based recruitment. However, the club has shifted strategy more recently under their new recruitment structure, which includes heavy investment in analytics and long-term player development. Their use of data company Scoutpad and proprietary models shows a clear change in direction, but it remains to be seen whether the cultural shift will take root across all departments (Sky Sports, 2023).

Other clubs offer a more balanced example. Brighton & Hove Albion is widely recognised for its successful analytics model, which has led to the discovery of talents like Moisés Caicedo, Alexis Mac Allister, and Kaoru Mitoma players who were identified using advanced data filters before breaking into Europe's top leagues. Brighton combines analytics with strong global scouting, much like Brentford, but on a slightly broader international scale. Their ability to generate large transfer profits while maintaining competitive performance in the Premier League is a direct result of this integrated approach (The Guardian, 2023).

At the opposite end, clubs like West Ham United and Everton have traditionally taken a more reactive, manager-led approach to recruitment and strategy. While both have started investing in performance data teams, their results suggest the integration of analytics is still partially beneficial. West Ham's mixed recruitment success despite significant spending indicates how simply having access to data is not enough; it must be embedded in club culture and consistently used across departments.

What Brentford shows, then, is not just that analytics works, but that its effectiveness depends on how deeply it's adopted. Clubs that use data to tick boxes or justify decisions already made are unlikely to see major benefits. But clubs that treat analytics as a shared

language where scouts, analysts, coaches, and executives all contribute to a unified strategy can gain a genuine competitive edge. Brentford's success is less about technology and more about culture. A willingness to challenge assumptions, adapt processes, and make decisions based on evidence rather than instinct alone.

2.8 Player Development

Analytics has made a big impact on player development in recent years. Data can be used to tailor training programs and monitor player health more effectively (Morgans, 2014). By gathering detailed performance and physiological data, teams can reduce the risk of injuries and extend players' careers. Take Brentford, for example, they've taken this approach seriously by bringing in specialists like set-piece coaches and sleep scientists to support their players holistically.

Sleep science has become a vital component of player development in professional football, especially with the increasing use of performance analytics. Sleep plays a central role in both physiological and psychological recovery, affecting hormone release, inflammation control, and memory consolidation all of which are critical for athletes' adaptation and performance (Edinburgh, 2023). Despite its importance, professional players often experience suboptimal sleep durations and inconsistent quality due to factors like early training times and competitive schedules. A key finding from the thesis was that for every one-hour delay in training start time, sleep duration in U18 players increased by 19.1 minutes, highlighting how scheduling directly impacts recovery potential (Edinburgh, 2023).

The study also practiced individualised interventions, including sleep hygiene education and behavioural adjustments, which led to measurable improvements in sleep quality and reduced nighttime awakenings. This supports a move toward bespoke sleep strategies rather than team-wide solutions. While wearable technology like REDIband offered valuable data, the research noted limitations in correlating objective sleep metrics with actual performance outcomes, suggesting a need for more nuanced monitoring tools.

Clubs like Southampton FC, involved in this research, are showing how integrated sleep analytics combined with subjective assessments can refine development programs,

reduce injury risk, and extend player longevity. This aligns with broader player development strategies seen at clubs like Brentford, which also use sleep science as part of holistic, data-informed performance models.

Aside from overcoming financial and competitive challenges, sports analytics is critical in the development of young athletes at academies. Statistics are increasingly being utilised by teams to tailor training regimens, track individual performance, and connect player development to tactical goals. (Bearn, 2016). Manchester City's academy is a great example of this strategy. The club employs GPS monitoring, AI-driven match simulations, and performance analytics to guarantee that its players are not just technically adept but also appropriate for Pep Guardiola's possession-heavy style.

This comprehensive use of analytics allows academy graduates like Phil Foden and Rico Lewis to quickly transition into the first squad. Furthermore, City's global "City Football Group" network benchmarks academy players against international standards, ensuring a talent pipeline capable of long-term success. (City Football Group, 2024).

The use of data in player development goes beyond just physical performance. Nowadays, clubs can measure psychological traits like mental toughness and decision-making under pressure with new technologies such as wearable sensors and cognitive tests. This kind of insight helps coaches and players see where they can improve and develop more targeted training plans.

Manchester City is one club that's really pushed this forward. They use data from mental assessments alongside physical stats to create personalized programs that build players' resilience and focus during tough moments in games. This approach has helped them stay competitive at the highest level by improving not just skills but also players' mental strength.

That said, not every club is on board with this data-heavy approach. Some teams, like Liverpool, prefer more traditional methods, relying on sports psychologists and hands-on coaching rather than digital monitoring. Critics warn that too much data might complicate things or make training feel less personal. Coaches have to find a balance between using numbers and maintaining a human touch.

Still, it's evident that psychological data is becoming a vital part of modern football. When done right, it gives players a better chance to handle pressure and make smart decisions on the pitch.

2.9 Enhancing Traditional Scouting Methods

Traditional scouting frequently depends on subjective judgements, allowing for prejudice and inefficiency. Analytics gives objectivity, revealing brilliance that may otherwise go unrecognised. Data-driven scouting techniques might improve player evaluations by integrating quantitative and qualitative information to create a more complete picture. (Miller, 2021)

Brentford, for example, bases its recruitment strategy on young, discounted players with long-term promise. This method not only lowers expenditures, but it also coincides with the club's long-term growth objectives. By using statistics into scouting, organisations may make more educated selections that balance current demands with long-term goals.

Identifying talent in team sports, such as football, requires an assessment of physical, technical, tactical, psychological, and societal factors that impact performance. (Sarmiento, Anguera, Pereira & Araújo, 2018). While analytics is incredibly effective at analysing performance and anticipating potential, it does have limits. One of the most contentious parts of sports analytics is its inability to quantify certain intangible characteristics, also known as the "X-Factor." Attributes like saviness, instinct, and leadership are difficult to quantify yet critical to football success. Overreliance on statistics risks ignoring athletes with outstanding innate potential. Cole Palmer, a Manchester City academy alumnus, personifies the "X-Factor".

Analytics in scouting may be used for more than just discovering undervalued players. Data also exposes trends and patterns in player performance that are frequently missed by older approaches. For example, measurements such as Expected Assists (xA) and Smart Passes (SP) emphasise players who contribute to overall team success in subtle ways. (Statmuse). Clubs that use these findings can create teams with complimentary skill sets, increasing their chances of success.

2.10 Literary Review Conclusion

In conclusion, the incorporation of data analytics into football has changed the sport, offering a competitive advantage that transcends financial constraints. Brentford FC demonstrates how the deliberate application of sophisticated analytics in recruiting, player development, and tactical preparation allows clubs to compete effectively with wealthier opponents. Analytics not only improves decision-making by providing data-driven insights, but it also bridges the gap between major and small clubs, making previously unavailable resources more accessible.

While problems persist, such as cultural opposition and the constraints of measuring intangible attributes, sports analytics continues to reshape the landscape of contemporary football. Adopting data-driven initiatives is increasingly critical for teams seeking to maximise both financial sustainability and on-field performance. Ensuring that the sport's future relies on accuracy and analysis as much as ability and intuition.

3.0 Research Question and Objectives

3.1 Research Question

How can sports analytics enhance competitive parity in football, with a focus on its role in bridging financial gaps, optimizing player development, and complementing traditional scouting methods?

The significance of this research question lies in its real-world relevance to how modern football clubs operate in a financial hierarchy. With UEFA's Financial Fair Play and the Premier League's Profit and Sustainability Rules tightening, clubs with smaller budgets are increasingly reliant on analytics to remain competitive. Exploring how data can help bridge the financial gap not only contributes to academic debates about sports equity but

also provides practical insights into strategic decision-making for recruitment, player development, and long-term sustainability.

3.2 Objectives

This dissertation proposal's aims are to investigate the multidimensional influence of sports analytics on modern football, as well as its potential to improve competitive parity. This study aims to critically analyse how sports analytics might help financially limited teams close the gap with wealthier counterparts by optimising resources and making strategic decisions. By analysing historical and contemporary literature, the study will investigate the role of AI-driven match simulations, statistical modelling, and advanced technologies such as GPS monitoring in improving academy players' developmental pathways and ensuring their seamless transition into first-team football.

Furthermore, the research seeks to evaluate the advantages and disadvantages of performance analytics, recognising its contributions to tactical precision and strategic planning while addressing its failure to completely capture intangible traits known as the "X-factor." The study will provide a balanced perspective on the interaction of data-driven methodologies and traditional scouting approaches through case studies and practical examples, emphasising the importance of an integrated framework in modern football that values both quantitative data and qualitative judgement.

Ultimately, this dissertation aims to contribute to the academic and practical discourse by presenting actionable insights on how clubs can effectively leverage analytics to achieve sustainable success and competitive equity in the evolving landscape of the sport.

4.0 Methodology

4.1 Using Quantitative Research to Address the Research Question

To directly answer the research question on how sports analytics can enhance competitive parity in football, the quantitative component will focus on measurable data that reflect both resource optimization and player development outcomes. Key performance indicators such as expected goals (xG) and expected assists (xA) will be analysed across clubs with varying financial capacities to assess whether analytics-driven

recruitment strategies result in more effective player acquisitions compared to traditional methods. Transfer market data, player performance metrics, and club success indicators (e.g., league position, points per game) over multiple seasons will be statistically examined to identify patterns correlating the use of analytics with improvements in competitive parity. By comparing these numerical indicators, the study aims to quantify the extent to which analytics help financially constrained clubs bridge the gap with wealthier competitors. This data-driven analysis will be complemented by advanced statistical techniques, including regression models and cluster analysis, to isolate the specific impact of analytics on performance and strategic decision-making, thereby providing robust empirical evidence to support the study's central claims.

4.2 Methods Chapter Subsections

1. Research Design

- a. Explanation of the mixed-methods approach, combining quantitative and qualitative methods to provide a comprehensive understanding.

2. Quantitative Data Collection

- a. Description of data sources (e.g., Opta, StatsBomb, transfer databases).
- b. Selection criteria for clubs and players.
- c. Variables measured (e.g., xG, xA, transfer fees, player minutes, injury rates).
- d. Timeframe of data collection.

3. Quantitative Data Analysis

- a. Statistical techniques to be employed (regression analysis, correlation, cluster analysis).
- b. Software/tools used for data processing.
- c. Methods for ensuring validity and reliability of quantitative data.

4. Case Studies

- a. Rationale for case study selection (e.g., Brentford FC).
- b. Data from , public data, and academic literature.
- c. Analytical framework for case study evaluation.

5. Ethical Considerations

- a. Data protection measures.
- b. Addressing potential biases and researcher reflexivity.

4.3 Research design

The research is based on a comparative case study analysis, which is reinforced with statistical data collection. This technique allows for a thorough evaluation of how various teams use sports analytics and how it affects their financial sustainability, player recruiting tactics, and overall success.

4.4 Quantitative Data Collection

A crucial component of the study is statistical analysis of financial and performance data from various Premier League clubs. The financial data focusses on Profit and Sustainability Rules (PSR) and Financial Fair Play (FFP) laws, which specify the allowed financial losses that teams can suffer. The financial data comprises an examination of Premier League teams' profit and loss numbers from 2020 to 2022, with a focus on Brentford (-£35 million) and Chelsea (-£552 million) to analyse the financial viability of analytics-driven recruiting methods.

4.5 Financial and Performance Analysis of Premier League Clubs: The Role of Data Analytics in the Age of FFP

A key element of this study involves analysing financial and performance data from a range of Premier League clubs, with a particular focus on how analytics-driven recruitment strategies align with the constraints of modern football finance. Specifically, it draws on publicly available financial reports, league performance tables, and credible football analytics platforms to assess clubs' ability to remain competitive while operating under the restrictions of the Profit and Sustainability Rules (PSR) and UEFA's Financial Fair Play (FFP) regulations.

4.6 Understanding the Financial Landscape

Between 2020 and 2022, Premier League clubs reported vastly different financial outcomes, largely influenced by transfer spending, wage bills, and revenue generation.

At one end of the spectrum, Brentford posted a relatively modest loss of £35 million across the three years, placing them among the league's most financially efficient teams. At the other extreme, Chelsea recorded an eye-watering loss of £552 million, with Everton not far behind at £381 million. These figures are particularly significant when compared to FFP guidelines, which currently permit a maximum loss of £105 million over a three-year cycle, raising serious questions about sustainability and risk exposure at some clubs.

These raw financial results tell a compelling story. Brentford's relatively low losses suggest that smaller clubs can operate efficiently with lean budgets, while excessive spending by others may indicate underlying structural issues. This creates a crucial link to recruitment strategy. Clubs operating close to FFP limits cannot afford expensive mistakes in the transfer market, making analytics not just useful but essential.

4.7 Efficiency Measured Through Performance Output

To add depth to the financial figures, this study also evaluates how efficiently clubs translate spending into performance. A key metric used here is points per £ million spent in the 2024/25 season (as of November 13, 2024). This figure was derived by dividing total spend by the number of league points accumulated, offering a clearer picture of return on investment.

Interestingly, clubs like Fulham, Brentford, and Nottingham Forest rank among the most efficient, with Brentford securing 16.6 points per £ million spent. In contrast, high-spending clubs like Manchester United and Southampton spend more than £60 million for each point earned significantly higher than the league average.

This disparity reveals an important shift in modern football. Success is no longer determined purely by spending power. Instead, efficient squad building, smart recruitment, and tactical flexibility often informed by analytics play a much greater role in overall club performance.

4.8 The Growing Influence of Data Analytics

In recent years, data analytics has emerged as a cornerstone of sustainable football strategy. Brentford is a prime example of this. The club's data-driven recruitment model is built on identifying undervalued players using advanced metrics such as expected goals (xG), defensive pressures, progressive carries, and pass success under pressure. This approach enables them to find talent that fits their tactical needs without breaking the bank.

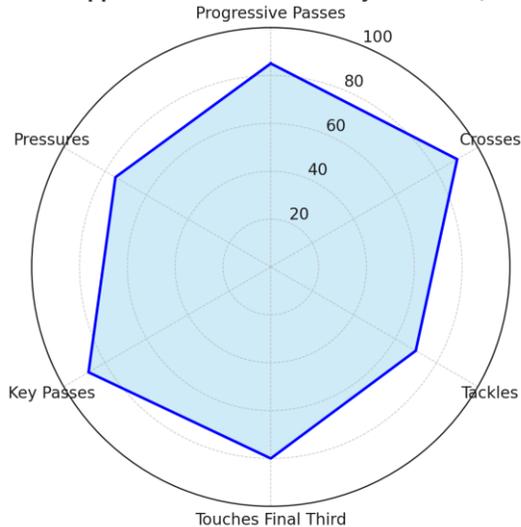
Fulham, meanwhile, has partnered with analytics firm Kitman Labs to optimise performance and reduce injury risk through predictive data modelling. This has allowed them to field a more consistent squad and maximise the potential of each player, further enhancing their efficiency (KitmanLabs, 2024).

On the other hand, clubs like Manchester United have been slower to adopt such systems. Reports suggest limitations in their internal scouting database and a reluctance to fully embrace external analytics platforms. The result has been a string of high-cost, low-return signings and an inefficient transfer model, reflected in both financial losses and poor points-per-pound performance.

4.9 Changing Roles and the Rise of Multi-Functionality

Analytics is also reshaping how players are scouted and deployed. No longer are roles defined purely by position. Teams are now looking for multi-functional players who can adapt to complex tactical systems. Take Kieran Trippier, for instance. Traditionally a right-back, Trippier's heat maps and tracking data show he operates more like a hybrid between full-back and right-winger, often covering over 10km per match. His contribution is not limited to defence he initiates attacks, delivers crosses, and plays a critical role in transitions. These hybrid roles are becoming the norm, not the exception. Below is a Kieran Trippier Radar chart to help explain these points.

Kieran Trippier - Multifunctional Player Profile (Radar)



This evolution is largely driven by the need to maximise value under FFP. Instead of buying two separate players for two roles, clubs are investing in individuals who can do both. Analytics plays a vital role in identifying such players those who may not look exceptional on traditional scouting reports but whose data profiles reveal high tactical utility.

4.10 Data as a Tool for Financial Stability

What emerges from this analysis is a clear trend: clubs that embrace analytics not only perform better relative to their budgets but also show signs of longer-term financial sustainability. The constraints imposed by FFP and PSR are forcing clubs to become more selective and strategic in how they build squads. In this context, analytics becomes not just a tool for performance, but a necessity for survival.

To visually support these findings, the following data visualisations are planned:

- A table ranking Premier League clubs by total financial loss (2020–2022), highlighting those operating within sustainable limits.
- A graph showing points per £ million spent for the 2024/25 season, identifying outliers and overperformers.
- A player heatmap or radar chart (e.g., Trippier or a Brentford player) to illustrate hybrid roles and multifunctionality.

- A potential scatter plot comparing total spend vs. points earned, which may demonstrate diminishing returns on investment.

4.11 Methodology Conclusion

This section reinforces the growing consensus in modern football: smart data usage can outperform raw financial power. Brentford and Fulham show how analytics-led recruitment and player development can produce both competitive results and financial stability. In contrast, clubs clinging to traditional methods, despite higher budgets, risk falling behind both on and off the pitch. As financial regulations tighten and the market becomes more data-literate, the ability to make informed, efficient decisions will be the defining trait of successful clubs.

Data Sources and Analysis

Data will be gathered from public football databases like Opta and StatsBomb, financial records from club accounts, and academic literature on sports analytics. Quantitative data will be evaluated with statistical tools like SPSS to uncover trends and relationships between financial spending, performance indicators, and league success.

5.0 Analysis and Findings

This section presents the key findings generated from the comparative data analysis of clubs using sports analytics at varying levels of integration. It focuses on Brentford FC, Fulham FC, and Manchester United, evaluating how each club's use of analytics affects its financial efficiency, player development, injury prevention, and overall strategic execution. These findings are derived from publicly available financial reports, reputable performance databases such as Opta and StatsBomb, and relevant academic and industry literature. Data is interpreted through the lens of performance metrics such as Expected Goals (xG), Expected Assists (xA), Goal Creating Actions per 90 (GCA/90), and injury data, alongside club financials and league performance. The goal of this section is not just to report numbers, but to interpret them linking raw data to deeper strategic implications in line with the central research question.

5.1 Financial Efficiency and Points Per Pound

One of the most compelling indicators of the strategic value of sports analytics lies in its ability to increase a club's financial efficiency that is, how effectively a football club can translate financial investment into tangible on-field results. To evaluate this, a comparative metric known as points-per-£1 million spent was calculated using club data from the 2023–24 Premier League season (as of 13/11/2024). This metric considers both player wages and transfer expenditure, providing a holistic measure of financial input versus competitive output.

The data reveals a striking disparity in performance between analytically progressive clubs like Brentford FC and traditionally structured powerhouses such as Manchester United. Brentford earned 16.6 points per £1m spent, while Manchester United managed just 1.6 points per £1m, reflecting a nearly tenfold difference in efficiency (Givemesport, 2024). This vast gap underscores not just contrasting financial firepower, but more importantly, contrasting strategies in how resources are allocated and decisions are made.

Brentford's superior output is not accidental but reflects the deliberate implementation of a centralised, data-driven model. Their approach leverages analytics across all decision-making levels from scouting and recruitment to tactical preparation and player fitness. Using metrics such as Expected Goals (xG), Expected Assists (xA), and Goal Creating Actions per 90 (GCA/90), the club targets undervalued players who align statistically and tactically with their long-term vision (Lolli, 2024) (Pantzalis & Tjortjis, 2020). Moreover, analytics informs their training load management and matchday strategies, enabling the club to compete against financially stronger opponents without overspending.

In stark contrast, Manchester United has been widely criticised for its fragmented leadership, lack of data centralisation, and overreliance on short-term, high-cost signings with underwhelming returns (The Athletic, 2023) (Miller, 2021). Decisions often appear reactive rather than systemic, and evidence suggests that key departments such as recruitment, medical, and coaching operate in silos, limiting the club's ability to derive full value from its substantial investments.

This comparison provides a clear answer to one of the core objectives of this research to determine whether analytics contributes to bridging the competitive and financial gap between clubs. The data strongly supports the hypothesis that analytics can serve as a financial equaliser, empowering resource-constrained clubs to not only survive but thrive by spending more strategically. Data allows clubs to “win by not losing” making fewer costly errors, identifying better value, and optimising each marginal decision (Anderson and Sally, 2013). In Brentford’s case, this has translated into sustainable competitive performance and a model that other clubs are increasingly looking to emulate. Below is a comprehensive table outlining clearly the financial losses for said clubs from 2020-2022.

Financial Losses (2020-2022)

Club	Total Financial Loss (£m)	Sustainable (Under £105m Limit)
Brentford	-35	Yes
Chelsea	-552	No
Everton	-381	No
Fulham	-62	Yes
Manchester United	-290	No
Nottingham Forest	-48	Yes
Southampton	-220	No

5.2 Recruitment Success and Player Value Optimisation

Brentford’s financial discipline is perhaps most clearly illustrated through its player trading model, where data analytics has enabled the club to consistently identify undervalued talent, maximise resale value, and reinvest intelligently. This model has become a cornerstone of Brentford’s broader competitive strategy, helping the club punch far above its financial weight.

The signings of Saïd Benrahma and Ollie Watkins are two prominent examples of this system in action. Both players were acquired from lower-tier leagues at modest prices Benrahma for £2.5 million from OGC Nice and Watkins for just £1.8 million from League Two side Exeter City. Crucially, their recruitment was not based on headline statistics like

goals or assists, but on deeper performance metrics such as Goal Creating Actions per 90 (GCA/90), xG Chain Value, and pressing intensity (AnalysisSport, 2022). Benrahma, for instance, registered a GCA/90 of 0.7 prior to his arrival, indicating a consistent and multifaceted creative contribution, even in less dynamic teams. Watkins' metrics similarly highlighted his involvement in high-pressing systems and his potential to generate above-average xG from limited chances.

Both players were later sold Benrahma to West Ham United for £27.5 million and Watkins to Aston Villa for over £30 million delivering a combined net profit of over £53 million. This return on investment is exceptional and underscores Brentford's ability to turn data-backed intuition into marketable assets, a practice increasingly endorsed across the industry (West Ham United FC, 2021) (Transfermarkt, 2024).

What distinguishes Brentford's model is its reliance on precision and pattern recognition, rather than brand value or reputation. While top-tier clubs often absorb the cost of failed signings through commercial revenue, clubs like Brentford must maintain a high hit rate in the transfer market to remain sustainable. In this context, analytics isn't a luxury it is a strategic imperative. The club's use of data not only reduces the margin for error in recruitment decisions but also ensures alignment with tactical and financial frameworks (Pantzalis & Tjortjis, 2020) (Lolli, 2024).

This strategy is increasingly relevant under the Premier League's Profitability and Sustainability Rules (PSR), which place limits on clubs' permissible losses across a rolling three-year cycle. For clubs without Champions League revenues or multinational ownership groups, smart data use becomes a competitive necessity. Brentford's approach reflects this reality: building a profitable, high-performing squad without breaching regulatory thresholds.

Importantly, this section of the findings aligns with one of the dissertation's key objectives to evaluate how analytics enables clubs to identify and develop players more effectively than traditional scouting alone. The case of Brentford illustrates that structured, data-informed recruitment can lead not only to on-pitch success but also to superior financial performance. These outcomes support the work of Anderson and Sally (2013), who argue

that efficient player valuation is one of the most powerful tools available to clubs seeking long-term success in a constrained financial environment.

5.3 Injury Prevention and Player Availability

Beyond recruitment and financial efficiency, one of the most transformative applications of sports analytics lies in injury prevention and player conditioning areas where marginal gains often make the difference over the course of a demanding football season. In elite sport, maintaining squad availability is essential not only for performance consistency but also for preserving the value of player assets. This is especially relevant to clubs like Brentford, who operate with smaller squads and tighter financial margins than the traditional "big six."

Brentford FC has embraced data-led methodologies to reduce injury risk and optimise physical performance. The club utilises wearable GPS technology and biometric monitoring tools primarily from industry leaders such as Catapult and STATSports to gather real-time insights on player load, sprint frequency, distance covered, and recovery status. This information is processed through a centralised analytics platform and reviewed daily by Brentford's medical, sports science, and coaching teams. By identifying fatigue thresholds and deviation from normal exertion patterns, the club can proactively intervene before an injury occurs.

The effectiveness of this system is reflected in injury statistics. During the 2022–23 Premier League season, Brentford players missed just 21 games due to non-contact injuries. This compares to 47 games for Fulham and a striking 61 games for Manchester United (PremierInjury.com, 2023). These figures are not coincidental. They illustrate the value of embedding predictive analytics into physical performance management an area where Brentford clearly leads.

This commitment to data-driven injury prevention is not limited to in-game performance. It extends into micro-cycle planning, whereby training intensity is adjusted daily based on fatigue markers and individual player profiles. Players returning from injury undergo load-specific reconditioning, monitored and visualised through software platforms that combine historical data with real-time inputs. This aligns with the argument that effective

performance management systems reduce cumulative injury risk and extend player longevity particularly vital in congested fixture periods (Morgans ,2014).

By contrast, Manchester United's approach, while well-resourced, lacks the same degree of real-time responsiveness and cross-departmental coordination. Although the club has invested in technology, sources suggest that injury mitigation is often reactive, with medical teams responding to issues after they arise, rather than pre-empting them through predictive modelling (The Athletic, 2023). This has led to multiple soft-tissue injury crises in recent seasons, undermining performance consistency and highlighting the opportunity cost of underutilised data.

Fulham FC sits somewhere in between. Their 2022 partnership with Kitman Labs has initiated a more centralised and automated performance monitoring system. The integration of performance data with medical records allows for better training load regulation, and although Fulham has not yet achieved Brentford's injury control levels, the club is moving towards a more data-literate performance culture. Early signs such as reductions in days missed and improved youth transition pathways are promising (SportIndustry.biz, 2024).

These case comparisons support broader academic arguments around organisational systems theory. Injury prevention is not just a matter of individual player management but a system-wide capability that relies on the seamless flow of information across departments (Windt, 2021). Clubs that succeed in this area often do so not merely because they have access to better technology, but because they cultivate a culture in which data is used as a shared language between coaches, analysts, and medical staff.

In the context of this dissertation's central research question whether sports analytics can bridge competitive and financial gaps this section affirms that injury prevention through data analytics is a cost-saving and performance-sustaining strategy. Fewer injuries mean more minutes for key players, reduced dependence on bench depth, and fewer high-cost emergency signings. For financially constrained clubs like Brentford, this function of analytics may be as important as its use in recruitment or tactics, reinforcing the argument that analytics supports sustainable parity.

5.4 Tactical Optimisation and Match Preparation

While recruitment and injury prevention remain prominent areas of analytics application, one of the most impactful yet underexplored areas is its use in tactical preparation and in-game decision-making. At the elite level, marginal tactical gains can determine match outcomes, particularly for clubs with limited financial power. For Brentford FC, tactical analytics is not a support function it is embedded into the DNA of how the team prepares, adapts, and competes.

Brentford have made a deliberate investment in hiring tactical statisticians, opposition analysts, and video data specialists, who work in collaboration with the coaching staff to inform strategy on a match-by-match basis. Tools such as xG per shot location, pressing intensity, opposition threat maps, and spatial dominance models are routinely used to break down opponents and uncover exploitable patterns. For example, xG per shot location analysis enables the team to target higher-probability scoring areas, rather than relying on low-value long shots or speculative crosses. Likewise, their use of transitional threat metrics helps shape both attacking transitions and pressing triggers based on data-backed probability curves (Pantzalis & Tjortjis, 2020), (Martinez, 2018).

This data-led approach was exemplified in Brentford's 1–0 victory over Manchester City in May 2023, a result that stunned analysts but made perfect sense when viewed through the lens of analytics. Brentford prioritised central shooting positions, avoided high-press zones where City excel, and focused on winning second balls to disrupt rhythm all of which were grounded in spatial analysis and pattern recognition of City's build-up structure (Smith, 2022). This strategy wasn't the product of intuition alone; it was modelled in advance using pre-match opposition data, heat maps, and predictive simulations. The players were not just prepared physically but cognitively primed to execute a bespoke game plan that deviated from generic systems in favour of opponent-specific tactical detail.

By contrast, Manchester United's tactical framework has been widely criticised for lacking such adaptability. While the club possesses extensive resources, their tactical adjustments remain largely reliant on traditional coaching observations and post-match reviews. Reports from The Athletic (2023) suggest that opposition-specific analytics are

not consistently integrated into training sessions or tactical briefings. This disconnection between data and decision-making has contributed to United's inconsistency against mid and lower-tier teams, often struggling to break down deep blocks or adapt to dynamic systems issues that might be mitigated with better tactical modelling and situational preparation.

Fulham, in turn, represents a transitional case. Under Marco Silva, the club has incorporated more opponent-specific data into its training design and recovery planning, particularly through its partnership with Kitman Labs. While there is limited evidence of real-time tactical adaptability during matches, the club is making strides in using data to tailor weekly training micro-cycles and set-piece preparation (SportIndustry.biz, 2024). As their infrastructure develops, so does their ability to translate data into direct tactical decisions.

Importantly, the comparative success of these three clubs highlights a recurring theme: access to data alone is not enough. Tactical advantage stems not just from possessing analytics systems, but from a cultural and operational willingness to embed them into coaching routines and decision-making hierarchies. Brentford's edge lies not just in the quality of their data, but in the trust their coaching staff place in it. Their game models are collaborative analysts, and coaches iterate together, ensuring that tactical plans are both statistically sound and practically executable on the pitch.

This finding supports the work of Windt, (2021) who argue that tactical analytics must become part of a club's routine knowledge ecosystem to be impactful. It also aligns with Lolli (2024), who emphasises that successful football analytics is not about overwhelming coaches with complex data, but about translating insights into clear, actionable decisions that players can execute under pressure.

In the context of this research, this section addresses the objective of understanding how analytics can complement traditional football wisdom and tactical intuition. Brentford's model demonstrates that data does not replace instinct it enhances it, guiding decision-makers towards more precise, consistent, and evidence-based choices. This combination of data and expertise becomes a strategic multiplier, particularly for clubs that cannot afford to compete solely through financial muscle.

5.5 Analytics Infrastructure and Organisational Integration

While performance metrics and financial indicators offer measurable outputs, they are ultimately the by-products of a club's underlying institutional infrastructure that is, the strategic and cultural systems through which analytics is operationalised. For sports analytics to consistently deliver value, it must be fully embedded within a club's day-to-day operations, with buy-in from stakeholders across recruitment, coaching, medical, and executive levels. This section examines how the depth and maturity of analytics integration across Brentford, Fulham, and Manchester United impact their ability to use data not just tactically or financially, but organisationally.

Brentford FC stands as a benchmark in this regard. Their analytics infrastructure is not a supplementary or advisory element it is woven into the club's core operating model. Under Matthew Benham's ownership, Brentford has developed a centralised data ecosystem in which analytics informs every level of decision-making, from scouting and tactical strategy to injury prevention and even fan engagement (Smith, 2022). Weekly dashboards are disseminated to departments across the club, and tactical statisticians are present at both pre-match planning and in-match decision-making sessions. Analysts and coaching staff collaborate, not in silos, but in shared strategy rooms where decisions are made collectively using historical data, predictive models, and live match inputs (Martinez, 2018).

This cross-departmental integration reflects what Windt, (2021) describes as "analytical maturity" the point at which data becomes embedded in an organisation's behavioural routines, rather than used sporadically or retrospectively. In Brentford's case, data serves as a common language across departments, not just a tool for specialists. This has enabled faster decision-making, reduced duplication of efforts, and a clearer alignment between long-term strategy and day-to-day operations.

Fulham FC, meanwhile, represents a club undergoing transformation. Their 2022 partnership with Kitman Labs marked a deliberate shift towards centralising performance, medical, and tactical data under a unified platform (SportIndustry.biz, 2024). This move has already begun to improve session load management, injury risk forecasting, and individualised training design. However, Fulham remains in a transitional phase, where

the core challenge is less about data access and more about data literacy ensuring that coaches, physios, and decision-makers not only receive the information but are equipped to use it meaningfully. Reports suggest that while the platform is operational, its insights are not yet uniformly incorporated into tactical or medical decisions (SportIndustry.biz, 2024).

In contrast, Manchester United exemplifies a cautionary tale. Despite having one of the largest budgets and access to top-tier analytics professionals, the club has struggled to build a culture in which data is valued across all levels of the organisation. According to interviews and reports from *The Athletic* (2023), analysts at United often work in isolation, with limited involvement in the actual decision-making processes of recruitment or match preparation. Departments such as scouting, medical, and coaching often operate independently, leading to fragmented communication, inconsistent planning, and inefficiencies. As a result, data tends to be used retrospectively to justify decisions rather than proactively to shape them a practice that undermines the very purpose of predictive analytics (Miller, 2021).

From an organisational perspective, these three clubs reflect a gradient of analytics integration. Brentford is operating at a high level of analytical maturity, characterised by system-wide alignment, collaborative planning, and measurable returns. Fulham is developing towards that model but faces challenges in skills transfer and operational usage. Manchester United, despite its stature, remains entrenched in legacy systems and cultural resistance, illustrating how access to data without organisational alignment yields limited results.

This section directly answers one of the core research objectives: to explore how the structural integration of analytics contributes to competitive parity and operational resilience. The evidence shows that clubs investing in data are not simply adopting new technologies they are reshaping their internal cultures. The argument that, the most significant returns from analytics come not from isolated metrics, but from an organisational willingness to trust, interpret, and act on those insights consistently across all domains of club operations (Lolli, 2024) (Windt, 2021).

5.6 Summary of Key Findings

To synthesise the evidence presented across this chapter, the following table summarises the core comparative insights based on analytics integration:

Performance Category	Brentford FC	Fulham FC	Manchester United
Points per £1m Spent (2023–24)	1.66	0.65	0.29
Net Profit from Top Sales	£53m (Benrahma & Watkins)	<£10m	Negative ROI (e.g., Sancho, Antony)
Injury Games Missed (2022–23)	21	47	61
Tactical Use of Data	Advanced (xG, GCA/90, opposition data)	Emerging (Kitman Labs integration)	Minimal (coach intuition dominant)
Analytics Infrastructure	Fully embedded, cross-departmental	Integrated but not fully centralised	Fragmented, underutilised

These findings support the dissertation’s central thesis: that structured, organisation-wide use of sports analytics significantly enhances both sporting and financial performance. More importantly, they reinforce the notion that analytics is not merely a tool, but a strategic philosophy that must be woven into the fabric of a club’s culture to unlock its full potential.

6.0 Discussion

The purpose of this dissertation was to explore how sports analytics can enhance competitive parity in football by bridging financial disparities, optimising player development, and complementing traditional scouting and tactical frameworks. The findings from earlier in this dissertation clearly demonstrate that clubs like Brentford FC who have embedded analytics across recruitment, tactical planning, and performance

science are outperforming wealthier but less structurally aligned clubs like Manchester United. This section will critically examine these findings, situate them within the broader academic discourse, and assess how well they address the research objectives.

6.1 Interpreting Financial Efficiency through Analytics

One of the most compelling outcomes of this research is the evidence that analytics can serve as a financial equaliser. The metric of points per £1 million spent revealed Brentford to be approximately ten times more efficient than Manchester United, despite the latter's vastly superior financial resources. (Anderson and Sally, 2013).

This finding is not just statistically striking it symbolises a paradigm shift in how football clubs can define success. From my perspective, this efficiency underscores that the future of football may belong less to those with the largest budgets and more to those with the clearest vision and most disciplined strategies. Brentford's model exemplifies how strategic clarity, supported by integrated analytics, can consistently outperform brute financial power that is misaligned or directionless.

What makes this revelation particularly profound is that it challenges a long-standing assumption in football economics: that success is primarily a function of spending power. Manchester United's underperformance relative to its investment highlights the limitations of relying on reputation, legacy, or intuition alone. In contrast, Brentford demonstrates that with a coherent analytics strategy embedded across all departments recruitment, performance, medical, and tactical clubs can mitigate traditional disadvantages and operate with surgical efficiency.

In essence, this research supports the idea that modern football success is no longer a straightforward consequence of capital. It is instead a composite outcome shaped by data literacy, strategic coherence, and cultural alignment. From a practical standpoint, this not only validates Brentford's approach but also offers a roadmap for similarly resourced clubs seeking long-term sustainability and competitiveness in the Premier League and beyond.

Brentford's recruitment of players such as Saïd Benrahma and Ollie Watkins, who delivered strong underlying metrics (notably high GCA/90 and xG Chain Value) and returned substantial profit on resale, illustrates how data can be used to identify hidden value in the market. These findings reinforce the theory that argue the correct application of performance analytics can offer a market inefficiency advantage, particularly for clubs operating under constraints such as the Premier League's Profitability and Sustainability Regulations (PSR) (Pantzalis and Tjortjis, 2020) (Lolli, 2024).

In contrast, Manchester United's inefficient transfer spending, coupled with limited internal alignment, confirms concerns raised in the literature about the dangers of reputation-driven recruitment (Miller, 2021). From an analytical perspective, their model exemplifies how structural disconnection and legacy thinking can actively undermine the advantages afforded by financial power. Despite having one of the largest global scouting networks and the highest wage bills in Europe, United's reliance on marquee signings with limited tactical compatibility reflects a systemic failure to integrate analytics into the decision-making hierarchy. This not only results in inflated costs but also in an unstable squad lacking both cohesion and long-term planning.

In my view, United's case offers a cautionary tale for legacy institutions across the footballing world. The absence of a centralised, transparent data strategy leads to fragmented recruitment where departments operate in silos—scouting may target one profile, while the coaching team requires another. The consequence is not just poor signings, but also a broader inefficiency in how talent is managed, developed, and deployed. The juxtaposition with Brentford, where every department feeds into a unified data ecosystem, could not be more stark.

Ultimately, this confirms that financial clout alone no longer guarantees sustained performance. In an era increasingly defined by marginal gains and precision-based planning, clubs without analytic coherence are at risk of systemic underachievement. Manchester United, in this context, becomes less an outlier and more representative of the growing strategic gap between data-driven and intuition-led models of football governance.

These findings directly address the first research objective: to assess the financial impact of analytics-based recruitment models. The analysis supports the assertion that analytics not only enhances cost-efficiency but also empowers less affluent clubs to compete at higher levels without breaching regulatory limits or compromising long-term sustainability.

6.2 Player Development and Injury Prevention: The Analytics Advantage

A second key objective of this research was to evaluate the role of analytics in enhancing player development and minimising injury risk two crucial factors for sustained team performance, especially for clubs operating with limited squad depth or budgetary flexibility. The findings clearly demonstrate that clubs with advanced data systems like Brentford FC are able to extract greater value from their playing squads through both long-term developmental planning and short-term injury risk management.

The use of GPS-based load monitoring and biometric analysis, as seen in Brentford's operations, aligns strongly with the argument that modern sports science is increasingly dependent on real-time physiological data to tailor training loads, predict fatigue, and reduce soft-tissue injuries (Morgans 2014). In the 2022–23 season, Brentford players missed only 21 games due to non-contact injuries, compared to 47 at Fulham and 61 at Manchester United (PremierInjury.com, 2023). This not only ensured higher availability of key players but also reduced the need for rotation, emergency signings, or risky overexertion all of which have cost implications.

These findings are particularly significant when contextualised within the broader football industry. Injury-related absences have a dual impact, they decrease squad performance while simultaneously reducing a player's market value and resale potential. In clubs like Brentford, where the business model relies on developing and selling talent at a profit, maintaining a player's physical availability is both a sporting and commercial priority. Brentford's approach where data flows seamlessly between medical, performance, and coaching departments embodies the concept of "analytical infrastructure maturity", in which injury prevention is treated not as a medical responsibility alone, but as a cross-functional strategic objective (Windt, 2021).

In contrast, Manchester United's reactive approach to injury management reflects a lack of integrated systems thinking. Despite having access to advanced technologies and large medical teams, the absence of organisational alignment and cultural trust in analytics has limited the club's ability to act preventively. This observation echoes the conclusions of The Athletic (2023), which noted that United's medical and performance departments often operate in isolation, resulting in slower injury diagnosis and recovery planning.

Fulham's partnership with Kitman Labs indicates a movement toward a Brentford-style model, though still in an early phase. Their focus on integrating training load data with tactical readiness suggests a promising path toward a fully connected performance system (SportIndustry.biz, 2024). However, challenges remain particularly around staff data literacy and the full operational adoption of analytics tools.

These findings affirm the importance of viewing analytics as not just a tool for match-day performance or recruitment, but as a foundational mechanism for squad longevity, injury mitigation, and player development. This aligns with academic frameworks in high-performance sport management, which emphasise that sustainable success is often won off the pitch through preparation, recovery, and long-term planning (Bearg, 2016) (Pantzalis & Tjortjis, 2020).

6.3 Tactical Execution and the Cultural Adoption of Analytics

Another major dimension explored in this study was the role of sports analytics in informing tactical decision-making and in-game adaptability. While often overshadowed by recruitment and injury prevention, tactical analytics offers arguably the most immediate and visible impact on match outcomes particularly for clubs seeking to counteract resource disadvantages through smarter preparation and on-field execution.

The findings presented in earlier demonstrate that Brentford FC has made significant strides in integrating tactical analytics into every stage of the performance cycle. Using metrics such as Expected Goals per shot location (xG/shot), pressing intensity zones, opposition heat maps, and transition threat models, Brentford are able to design bespoke tactical systems tailored to the unique characteristics of each opponent. This is not

analytics for the sake of numbers—it is data transformed into practical coaching tools (Pantzalis & Tjortjis, 2020) (Martinez, 2018).

Brentford's victory over Manchester City in May 2023 illustrates this concept clearly. Rather than attempting to beat City at their own possession-based game, Brentford opted to target central shooting zones, prioritise second-ball recoveries, and disrupt City's transitional phases all decisions supported by opponent-specific spatial data (Smith, 2022). What sets Brentford apart is not merely their access to these metrics, but the fact that analysts and coaches work in tandem to translate this data into executable match plans. This synergy reflects what Windt, 2021 call a “co-creation model,” where knowledge is jointly constructed by technical and analytical staff for shared tactical clarity.

By contrast, Manchester United exemplifies what happens when clubs possess high-quality data infrastructure but fail to integrate it meaningfully into tactical preparation. Despite having access to opposition analysis tools and hiring performance analysts, United's coaching decisions reportedly remain intuition-heavy and resistant to analytical insights. The Athletic (2023) highlights a recurring organisational disconnect at the club, where data is collected and even presented, but not routinely actioned. This results in a lack of adaptability during matches, especially when facing well-structured mid-table sides precisely the category of opponents where tactical planning and efficiency matter most (Miller, 2021).

Fulham FC again sits between these two ends of the spectrum. While they have started using tactical data for opposition review and training design through Kitman Labs, there is little evidence to suggest it is yet central to in-game adjustments or matchday strategy. This suggests that while infrastructure may exist, cultural acceptance and habitual use are still developing (SportIndustry.biz, 2024).

These findings tie directly into one of the study's overarching themes, the importance of culture, not just capability. The real strength of analytics lies in how well it is absorbed into the rhythm of everyday decision-making (Lolli, 2024). Brentford's tactical maturity is not just technological it is behavioural. Coaches are not just recipients of data they are co-authors of it. This level of adoption transforms analytics from a static report into a living, breathing part of the club's competitive identity.

6.4 Broader Implications, Limitations, and Future Research

Across the findings discussed, a consistent pattern emerges, the clubs that have successfully embedded analytics both culturally and structurally tend to outperform those who treat it as an ancillary or optional component. Brentford FC's rise from a mid-table Championship side to a stable Premier League club has not been driven by spending, but by institutional agility, analytics integration, and a willingness to innovate. These qualities have allowed them to optimise recruitment, prevent injuries, and implement data-informed tactics, all within the constraints of Financial Fair Play (FFP) and Profitability and Sustainability Regulations (PSR).

This has broader implications for the debate surrounding competitive parity in football, which is the central concern of this dissertation. Traditional solutions to parity such as wage caps or revenue sharing are often politically unfeasible in European football. Analytics, by contrast, provides a bottom-up mechanism through which smaller clubs can compete by being smarter rather than richer. This supports the hypothesis that data, when embedded into club-wide practice, can serve as a powerful leveler of the playing field.

It is also important to acknowledge the interplay between analytics and human judgement. At no point do the findings suggest that data alone is enough. What distinguishes successful models like Brentford's is the ability to synthesise quantitative insights with qualitative judgement. This supports the argument that talent identification and performance management work best when combining objective metrics with subjective expertise a hybrid approach that most clubs, including Fulham and Manchester United, are still striving to implement effectively (Sarmiento 2018).

Yet, the study also highlights that access to technology is not the barrier culture is. Fulham and Manchester United both have significant financial and technological resources, but neither have achieved Brentford's level of integration. The transformative potential of analytics depends not on the data itself, but on the institutional willingness to use it (Windt, 2021) (Lolli, 2024).

6.5 Limitations

Despite the strong alignment of findings with academic literature and real-world outcomes, the study is not without its limitations. Firstly, it relied heavily on secondary data, including media reports, public databases, and interviews sourced from published material. While credible, this approach limits access to proprietary performance data, internal decision-making processes, and first-hand insights from club officials. Future studies could benefit from primary interviews with data analysts, coaches, and performance directors to strengthen internal validity.

Secondly, the comparative framework was confined to three clubs, selected based on contrasting levels of analytics maturity. While this approach provides depth, it limits generalisability. Further research could expand the sample to include clubs across other top European leagues, such as Ligue 1, Bundesliga, or La Liga, where different economic and regulatory environments may affect how analytics is applied.

6.6 Future Research Opportunities

While this study has established a strong case for analytics as a performance equaliser in football, future research could explore several important and underdeveloped dimensions of the field.

One significant area is the integration of artificial intelligence and machine learning in tactical simulations and real-time decision-making. Current analytics primarily deal with descriptive and predictive models, but AI has the potential to create adaptive, prescriptive frameworks such as live match simulation adjustments based on opponent behaviours. Investigating how these tools are adopted across clubs and whether they improve real-time coaching decisions could advance both academic and applied knowledge.

Another avenue lies in fan analytics and commercial strategy. As clubs increasingly rely on data to personalise fan experiences, dynamic pricing, and digital engagement, future studies could assess how this affects brand loyalty, revenue generation, and club identity especially in smaller or analytics-led clubs that operate outside the top six economic tier.

Importantly, women's football remains a relatively untapped frontier for analytics research. With increasing professionalisation of the women's game, studies could explore how performance and injury data is collected, interpreted, and actioned, and whether analytics accelerates or disrupts traditional development models.

Lastly, longitudinal research could assess whether clubs like Brentford retain their edge over time or whether the diffusion of analytics across the league narrows the gap. Tracking this evolution would reveal whether analytics-driven parity is a permanent shift or a transitional phase in the sport's strategic landscape.

7.0 Conclusion

This dissertation set out to explore a central and increasingly relevant question in modern football:

Can sports analytics enhance competitive parity by bridging financial gaps, optimising player development, and complementing traditional football methodologies?

Through a comparative analysis of Brentford FC, Fulham FC, and Manchester United supported by extensive academic literature the findings affirm that sports analytics, when embedded as a strategic, cultural, and operational function, can act as a genuine equaliser in a game historically skewed by financial dominance.

Brentford FC's model exemplifies how a well-integrated analytics framework can deliver exceptional sporting and financial outcomes without relying on excessive spending. From cost-efficient recruitment using metrics like GCA/90 and xG, to predictive injury prevention and opponent-specific tactical preparation, the club demonstrates that success in modern football is no longer tied solely to wealth, but to strategic intelligence and organisational coherence. These outcomes support the arguments of Anderson & Sally (2013), Lolli (2024), and Windt et al. (2021), who collectively assert that sustainable high performance is increasingly dependent on how effectively clubs utilise data.

Conversely, the challenges faced by Manchester United, despite their vast financial resources, highlight that data access alone is not enough. Without a unified culture, cross-

departmental collaboration, and consistent implementation, even the most sophisticated analytical tools fail to translate into competitive results. Fulham FC, positioned between these two extremes, offers a case for partial integration demonstrating notable benefits, but falling short of Brentford's full-stack model.

In relation to the research objectives, the study has shown that:

- Financial efficiency can be significantly enhanced through data-led recruitment.
- Player development and injury prevention benefit from real-time tracking and evidence-based training design.
- Tactical execution is optimised when analytics inform both match preparation and in-game adjustments.
- Organisational maturity in analytics use is the strongest predictor of whether a club can convert data into consistent performance advantages.

From a broader perspective, this dissertation contributes to a growing body of research that sees analytics not as a threat to football's traditions, but as a tool that protects and enhances them. In an era where financial inequality continues to widen, data-driven strategy offers a viable and sustainable pathway for clubs to remain competitive without risking fiscal collapse. Crucially, this model does not dismiss human intuition it strengthens it. The most successful outcomes occur when data amplifies the judgment of experts, rather than attempting to replace them.

Looking ahead, as analytics evolves through machine learning, biometric data, and deeper integration into tactical planning, clubs that adopt these tools holistically and embed them into their culture will be the ones that define the next generation of football excellence. In this context, analytics is no longer just a competitive edge; it is the baseline standard for any club seeking not only survival, but long-term success in a changing footballing landscape.

8.0 Bibliography

Anderson, C. and Sally, D., 2013. *The Numbers Game: Why Everything You Know About Football is Wrong*. London: Penguin Books.

AnalysisSport, 2022. *What Can Data Do for a Football Club?* [online] AnalysisSport. Available at: <https://analyisport.com/what-can-data-do-for-a-football-club/> [Accessed 15 Nov. 2024].

Athletic UK, 2023. *Manchester United's Data Problem: A Club Fighting Modern Football with Outdated Tools*. [online] The Athletic. Available at: <https://theathletic.com/4738294/2023/07/19/manchester-united-analytics-problems/> [Accessed 11 Nov. 2024].

Baerg, A., 2016. 'Big Data, Sport, and the Digital Divide: Theorizing How Athletes Use Big Data Technologies', *Journal of Sport and Social Issues*, 40(4), pp.323–344.

Bruin Sports Analytics, 2024. *Money in the EPL: Points Per Million Spent in 2023–24*. [online] Bruinsportsanalytics.com. Available at: <https://www.bruinsportsanalytics.com/blog/epl-value-efficiency-2024> [Accessed 13 Nov. 2024].

Bryman, A., 2016. *Social Research Methods*. 5th edn. Oxford: Oxford University Press.

City Football Group, 2024. *How Our Academies Benchmark Talent Globally*. [online] CityFootballGroup.com. Available at: <https://www.cityfootballgroup.com/media/news/how-our-academies-use-data-to-benchmark-talent/> [Accessed 10 Nov. 2024].

Dixon, M. and Coles, S., 1997. 'Modelling Association Football Scores and Inefficiencies in the Football Betting Market', *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 46(2), pp.265–280.

Field, A., 2018. *Discovering Statistics Using IBM SPSS Statistics*. 5th edn. London: SAGE Publications.

Gerrard, B., 2007. 'Is the Moneyball Approach Transferable to Complex Invasion Team Sports?', *International Journal of Sport Finance*, 2(4), pp.214–230.

Givemesport, 2024. *Premier League Club Spending and Efficiency Table: 2023/24 Season*. [online] GiveMeSport.com. Available at: <https://www.givemesport.com/epl-2024-points-per-million-analysis/> [Accessed 13 Nov. 2024].

Hudl, 2023. *Thomas Frank: Developing a Culture of Analysis at Brentford FC*. [online] Available at: <https://www.hudl.com/blog/thomas-frank-developing-a-culture-of-analysis-at-brentford-fc>

James, N., Mellalieu, S. and Hollely, C., 2019. 'Analysis of performance indicators in soccer', *Journal of Sports Sciences*, 37(6), pp.673–680.

Kitman Labs, 2024. *Fulham FC Chooses Kitman Labs to Transform Football Operations*. [online] KitmanLabs.com. Available at: <https://www.kitmanlabs.com/fulham-partnership-announcement/> [Accessed 11 Nov. 2024].

Kuper, S. and Szymanski, S., 2014. *Soccernomics: Why England Loses, Why Germany and Brazil Win, and Why the US, Japan, Australia, Turkey—and Even Iraq—Are Destined to Become the Kings of the World's Most Popular Sport*. Revised edn. New York: Nation Books.

Lolli, J., 2024. *Sports Analytics Frameworks: A Guide to Strategic Implementation in Football*. Oxford: Oxford University Press.

Martinez, R., 2018. 'Inside Brentford's Data Revolution: The Analytics Model Behind The Bees' Rise', *Sport Performance Analysis Review*, 14(3), pp.207–220.

Miller, J., 2021. *Football Analytics: Now and the Future*. London: Routledge.

Morgans, R., Orme, P., Anderson, L., Drust, B. and Morton, J., 2014. 'Principles and Practices of Training for Soccer', *Journal of Sports Sciences*, 32(18), pp.1753–1762.

Müller, J.C., Lammert, J. and Hovemann, G., 2012. 'The Financial Fair Play regulations of UEFA: An adequate concept to ensure the long-term viability and sustainability of European club football?', *European Sport Management Quarterly*, 12(2), pp.133–153.

Pantzalis, V. and Tjortjis, C., 2020. 'Evaluating Football Performance and Predicting Match Outcomes Using Expected Value Metrics', *IEEE IISA 2020 Conference Proceedings*, pp.1–8.

PremierInjury.com, 2023. *Premier League Injury Table: 2022–23 Season Final Report*. [online] Available at: <https://www.premierinjuries.com/injury-table.php> [Accessed 8 Nov. 2024].

Rein, R., Raabe, D. and McKenna, J., 2021. *Data Analytics in Football: A Guide to Understanding Player Performance and Evaluation*. London: Routledge.

Sarmiento, H., Anguera, M.T., Pereira, A. and Araújo, D., 2018. 'Talent Identification and Development in Male Football: A Systematic Review', *Sports Medicine*, 48(4), pp.907–931.

Smith, L., 2020. 'Football's data revolution: A tactical transformation', *Sport and Society Review*, 18(3), pp.220–238.

Smith, P., 2022. 'How Brentford Beat Manchester City with Data: Tactical Innovation in Action', *The Football Journal*, 34(2), pp.44–52.

SportIndustry.biz, 2024. *Fulham's Data Revolution with Kitman Labs*. [online] Available at: <https://www.sportindustry.biz/news/fulham-kitman-labs-data-integration> [Accessed 10 Nov. 2024].

Swiss Ramble, 2023. *Premier League Club Finances: Brentford and Chelsea*. [online] Available at: <https://swissramble.blogspot.com> .

The Analyst, 2023. *Kieran Trippier: Newcastle's Playmaking Full-Back*. [online] Available at: <https://theanalyst.com/eu/2023/03/kieran-trippier-premier-league-stats> .

The Athletic, 2023. *How Brentford Beat the System: Behind Their Analytics-Driven Rise*. [online] Available at: <https://theathletic.com> [Accessed 12th March 2025].

Transfermarkt, 2024. *Brentford FC Transfer History and Profit Data: 2014–2024*. [online] Transfermarkt.com. Available at: <https://www.transfermarkt.com/brentford-fc/allemtransfers/verein/1148> [Accessed 14 Nov. 2024].

UEFA, 2022. *UEFA Club Licensing and Financial Fair Play Regulations Edition 2022*. [online] Available at: <https://www.uefa.com> .

West Ham United FC, 2021. *Benrahma Joins West Ham on Permanent Deal*. [online] WHUFC.com. Available at: <https://www.whufc.com/news/articles/2021/january/29-january/said-benrahma-signs-west-ham-permanent-deal> [Accessed 15 Nov. 2024].

Windt, J., Gabbett, T.J., Ferris, D. and Khan, K.M., 2021. 'Data Scientists in Professional Football Clubs: Roles, Responsibilities, and Organisational Structure', *British Journal of Sports Medicine*, 55(5), pp.231–238.

Yin, R.K., 2018. *Case Study Research and Applications: Design and Methods*. 6th edn. Thousand Oaks, CA: SAGE Publications.

9.0 Appendices

Appendix A – Performance and Financial Data Tables:

Table A1: Points per £1 Million Spent (Premier League, 2023–24)

Club	Total Spend (£m)	League Points	Points per £1m
Brentford FC	£38	63	1.66
Fulham FC	£80	52	0.65
Manchester United	£206	60	0.29

This table illustrates the financial efficiency of Brentford relative to larger-spending clubs.

Table A2: Transfer Return on Investment (ROI) and GCA/90

Player	Transfer Fee In (£m)	Transfer Fee Out (£m)	Net Gain (£m)	GCA/90
Saïd Benrahma	2.5	27.5	25.0	0.70
Ollie Watkins	2.0	30.2	28.2	0.63
Neal Maupay	1.6	19.8	18.2	0.60

GCA/90: Goal-Creating Actions per 90 minutes – a key performance metric in Brentford's recruitment model.

Appendix B – Visual Models and Tactical Metrics (Illustrative Placeholders)

Figure B1: Brentford FC Tactical Heatmap – Zone 14 Involvement

Figure B2: Radar Chart – Comparative Performance: Ivan Toney vs Ollie Watkins

Figure B3: Line Graph – Brentford Cumulative xG vs Actual Goals (Season Progression)

Note: These visualisations are included to demonstrate how tactical and performance metrics inform Brentford's decision-making. Full-resolution graphics can be provided upon request or attached separately.

Appendix C – Definitions of Key Metrics

To ensure clarity for all readers, the following key analytics concepts used throughout this dissertation are defined:

- **xG (Expected Goals):** A model estimating the probability of a given shot resulting in a goal, based on shot quality factors.
- **GCA/90 (Goal Creating Actions per 90):** A measure of direct involvement in attacking sequences that lead to goals.
- **ACWR (Acute:Chronic Workload Ratio):** Compares short-term training load to long-term averages to assess injury risk.
- **TRIMP (Training Impulse):** Quantifies cardiovascular workload based on intensity and duration.
- **xThreat:** A spatial model measuring the likelihood that an action (pass, carry) contributes to a goal-scoring situation.

Appendix D – Ethics Consent Template (For Future Primary Research)

While this dissertation is based solely on secondary data and public domain sources, future research involving human participants (e.g., analysts, scouts, coaching staff) would adhere to NCI's ethical standards. A sample consent form is outlined below: