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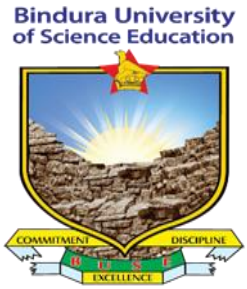

FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT OF SPORTS SCIENCE

CREATING AN INTERACTIVE DIGITAL BRAND COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION.

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A THESIS SUBMITTED TO BINDURA UNIVERSITY OF SCIENCE EDUCATION, IN BINDURA, ZIMBABWE IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE MASTER OF SCIENCE DEGREE IN SPORT SCIENCE

MARCH 2024

Declaration Form

I hereby declare that this dissertation is my original work and has not been submitted before to any institution for assessment purposes. Further, I have acknowledged all sources used and have cited these in the reference section.

Name: Zorodzai Damiso

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Date: March, 2024

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Abstract

The study sought to create an Interactive Digital Brand Communication Platform for Division One Football Clubs in the ZIFA Northern Region. The study's guiding principle was pragmatism, and it used a contemporaneous mixed methods research design to direct the process of gathering and analyzing data. The study employed an inductive approach with a cross-sectional time horizon and an exploratory research goal. Participants were chosen from the qualitative and quantitative strands using purposeful and stratified random sampling techniques, respectively. Eight semi-structured interviews were held to gather qualitative data, while eighteen (18) respondents completed semi-structured questionnaires to provide quantitative data. Version 21 of the Statistical Package for Social Science (SPSS) was used to conduct parametric tests on quantitative data, while NVivo version 12 was used to categorize qualitative data analysis into themes. The study revealed that the Division One Football Clubs in the ZIFA Northern Region were mostly using traditional means for brand communication. The study brought to light that social media mainly, (WhatsApp and Facebook) were being used for brand communication by the Division One football teams in the ZIFA Northern Region. The study also established that the major attributes to be considered when designing the new interactive Digital Brand Communication Platform for Division One Football Clubs in the ZIFA Northern Region include giving football fans access to live game videos, breaking news, and the most relevant information about games and players. These attributes also guided the designing of the ideal system for Division One Football Clubs in the ZIFA Northern Region. The system titled the Interactive Digital Brand Communication Platform for Division One Football Clubs in the ZIFA Northern Region was developed using JavaScript and MySQL server as the back end. This is a web-based electronic system meant to work online and be accessible to soccer sports stakeholders. Information gathered from the study was used to design the new system. The system was examined through a series of test procedures to remove bugs in the system. The main goal of this system is to offer a basic and modern communication means for Division One Football Clubs in the ZIFA Northern Region to reach out to the soccer sports community.

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List of abbreviations

ZIFA- Zimbabwe Football Association

MYSAR-Ministry of Youth, Sport, Arts and Recreation

SRC-Sports and Recreation Commission

MEMS-Microelectromechanical Systems

GPS-Global Positioning System

HQ-Head Quarters

SQL-Structured Query Language

WAN-Wide Area Network

GUI-Graphical User Interface

CEO-Chief Executive Officer

UAT-User Acceptance Testing

SHA-Secure Hash Algorithm

SCD-System Context Diagram

CHAPTER 1: THE PROBLEM AND ITS SETTING

1.1. INTRODUCTION

This study seeks to create an Interactive Digital Brand Communication Platform for Division One Football Clubs in the Zimbabwe Football Association (ZIFA) Northern Region. The study's history, the problem statement, its significance, its goals and research questions, its boundaries, its study framework, and a summary of the chapter are all presented in this chapter.

1.2. BACKGROUND TO THE STUDY

According to Warzynski (2017), clubs' attention has switched from traditional media outlets to internal publications including magazines, television channels, and internet platforms as a result of social media's emergence. According to Manoli (2018), social media has made it possible for fans to be closer to the action than ever before. As a result, club communications departments now aim to increase their own media, news, and publicity in order to establish a more "direct, prompt, and accurate" relationship with their fan base. Previati (2020), asserts that people are increasingly frequently observed perusing social media platforms while playing video games. Consider X (previously Twitter), where every game has its own hashtag. For example, if you want to get the most recent information about Chelsea FC vs. Arsenal FC, all you have to do is click the hashtag #CHEARS to acquire all the details. When a live game is taking place, the official hashtag is frequently the first thing that appears on trending tweets, where supporters share their thoughts about what's happening throughout the game, including interactions and comments made in real time. The way sports are reported and watched has altered as a result.

The sports industry is hardly an exception to how business operations have been profoundly altered by the digital age. Sports teams may now interact with fans on a level that was previously unattainable and reach a worldwide audience thanks to the growth of social media and digital platforms.

Since football players and fans now frequently interact online, digital innovation is a key component of the UEFA Grow program, which is FIFA's equivalent of the CAF club licensing system (De Caigny et al., 2023). The Royal Belgian Football Association (RBFA), for instance, developed a new plan in 2020 to introduce a new smartphone application that was built around

four pillars in order to improve communication with supporters and stakeholders: (1) Prioritize football above all else; (2) cultivate a positive culture; (3) pursue commercial expansion; and (4) adjust the organization to the digital world. In order to help the RBFA reach their full potential both on and off the field, digitalization was the fourth pillar of the plan. The goal was to construct a new digital platform that would act as a hub for information input and retrieval for many stakeholders, act as a foundation for individualized fan experiences and communication, and generate value for business partners.

Declaring that the exciting task of creating a new digital platform for the federation has been given to accountancy company PwC. According to the RBFA authorities, "the goal now is to be able to communicate more digitally, more personally, and round the clock with the broader Belgian Football family." This is because football fans now expect a personalized experience. Verhaeghe (2023) continues, saying, "The user experience of the current RBFA app was subpar on many levels. There was no way to connect in to many platforms at once, no customizing options, no video, no way to purchase tickets, and most importantly, no enjoyment! (PwC & RBFA, 2023).

Football teams and leagues may now provide supporters with organizational insights like news about the team as a whole or a particular player, or behind-the-scenes data, all thanks to improved digital communication channels. Since fans find this kind of content incredibly valuable, they stand to receive higher engagement as a result (Anagnostopoulos, Parganas, Chadwick & Fenton, 2018). Through sharing and leaving comments on content that interests them, fans are getting more involved on social networking sites.

"Ama 2K," the newer generation of football enthusiasts, has diverse tastes in material. They communicate with football via a range of online platforms. It is imperative for football teams to make sure they provide original digital content.

Football teams now depend on social media sites like Instagram and X to market their brands and interact with supporters (Kim and Kim, 2020). Football clubs now have a digital platform to communicate player updates, matches, news, and behind-the-scenes videos, giving supporters a sense of camaraderie. This is made possible by social media platforms. Football fans' brand equity can be greatly impacted by a team's usage of social media by producing engaging and appealing material, according to research on the subject (Barve, 2023).

For example, studies have shown that, when it comes to football, social media marketing has a favorable impact on consumer loyalty and buy intentions (Dobele, et al., 2014; Gómez-Díaz and Martínez-Ruiz, 2016).

Based on the researcher's initial observations during the recently concluded 2023 football season, there is still a deficiency of advancement in digital communication in Zimbabwean sports, even if it is widely used in the worldwide sports business. The ZIFA Northern Region Division One League has also lagged behind in terms of digital communication. To close this information gap, the League's authorities launched the Northern Times, an e-newsletter that primarily circulates on WhatsApp platforms in conjunction with the release of the weekend schedule. However, the league's newsletter is a one-way communication tool from the league organizers to the clubs of fans but does not capture fans' reactions or give stakeholders an insight into the team's performance data. MWOS FC is the only team in this division with a mobile application, although the page is not frequently updated it's a foot in the right direction.

The Zimbabwe Premier Soccer League launched the PSL Zimbabwe App to interact with soccer fans in 2017 as part of its 5th anniversary celebration (The Financial Gazette, 9 December 2022) Sadly, the transition was a failure, and the Google Play Store no longer hosts the mobile application. By way of contrast, Zimbabwe Cricket (ZC) has transformed fan involvement with domestic cricket throughout the nation with the launch of its new mobile app. Both national and ICC records were broken by the level of fan attendance during the just concluded 2023 Cricket World Cup Qualifiers. All of these achievements were fueled by fan interaction on social media and digital platforms; as a result, other sports, particularly rugby and football, can increase their fan appeal by setting up digital engagement systems. Fans can follow results and statistics from leagues all around the nation and enjoy ball-by-ball coverage of Zimbabwe Cricket's key domestic events using the app, simply known as Zimbabwe Cricket. It is available for free download on iOS and Android smartphones. Additionally, the app has interactive features like polls and quizzes.

1.3 STATEMENT OF THE PROBLEM

Zimbabwean football is yet to fully implement the requirements of the Federation of International Football Federation (FIFA) and CAF club licensing system introduced in 2016 to revolutionize and instill professionalism in African football (The Herald, 9 December 2022). One of the five tenets of the Club licensing system is the Administrative and Personnel pillar which mentions that 'clubs should have established offices along with vibrant communication lines. Article 39 of the

Club Licensing Regulations sets out that the License Applicant must have at a minimum, a club website or one official social media account. Although Live information on mobile phones and push notifications about sports events has become a trend around the world it is still almost impossible to track live events in the ZIFA Northern Region Division One League. Even though there are hundreds of mobile applications to follow live sports events, there is still to be created an application that allows the user to share his input regarding less documented events in the ZIFA Northern Region Division One League. Zenenga (2012) noted that systematic studies on the use of digital media tools in the Zimbabwean football circles and its implications on professional management, development and growth of the league are rare if nonexistent. The possibility to overturn this lack of information and to design a platform that answers fans and clubs' needs motivated this research paper.

1.4 SIGNIFICANCE OF THE STUDY

Developing an Interactive Digital Brand Communication Platform for Division One Football in the ZIFA Northern Region was the study's main goal. In order to provide stakeholders in football with pertinent information, the researcher published study results in peer-reviewed journals. This filled in the gaps in the body of literature. Copies of the main conclusions were also sent to the ZIFA Northern Region Division One Football League leadership and all eighteen (18) football teams in the division in order for them to accept the suggestions and apply the Digital Brand Communication Platform.

Another noteworthy aspect of the study is how it closes the gap between the digital communication used in Zimbabwean football leagues and best practices. The study's solution to this gap was the creation of an interactive digital communication platform specifically for Division One football.

1.5 RESEARCH QUESTIONS

1.5.1 Primary Research Question

What adapted interactive digital platform can be created for optimum brand communication for Division One Football Clubs in the ZIFA Northern Region?

1.5.2 Subsidiary Research Questions

1. What platforms are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

2. How effective are the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

3. What interactive digital platform can be developed for effective brand communication for Division One Football Clubs in the ZIFA Northern Region?

1.6 RESEARCH OBJECTIVES

1.6.1 Purpose of the Study

1. The main purpose of this study is to create an interactive digital brand communication platform for division one Football Clubs in the ZIFA Northern Region.

1.6.2 Specific Objectives

1. To identify platforms that are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region.
2. To evaluate the effectiveness of the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region.
3. To develop an interactive digital platform that can be developed for effective brand communication for Division One Football Clubs in the ZIFA Northern Region.

1.7 DELIMITATION OF THE STUDY

The study examined the ZIFA Northern Division One football communication methods and used the findings to create an Interactive Digital Brand Communication Platform for Northern Region Division One football. As a result, data was collected in the Northern Region Division area.

1.8 STUDY OUTLINE

This research was divided into six chapters.

The study's background, problem statement, research questions, goals, importance, study boundaries, study design, and chapter summary were all covered in detail in the first chapter.

In Chapter Two, relevant material was read and diverse researchers' opinions on the topic under study were critically interpreted. In addition, the chapter conceptualized, theoretically framed, reviewed methodologically, reviewed thematically, concluded, and related the literature to the study issue.

The whole plan and justification for the research study were covered in Chapter Three's section on research methodology. The study's goal, paradigm, theory-development approach, time

horizons, main research strategy, population and sampling, data collection methods, data analysis and presentation, validity and reliability, ethical considerations, and the chapter summary came next.

The study's results were reported in Chapter Four, whilst the study's outcomes were covered in Chapter Five.

The conclusions and the significance of the findings for future study and practice were discussed in the final chapter, Chapter Six.

1.9 CHAPTER SUMMARY

The Introduction, Background to the Study, Problem Statement, Significance of the Study, Conceptual Framework, Research Questions, Research Objective, Delimitations of the Study, Study Outline, and Chapter Summary were also dwelled on in this First Chapter.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides the theoretical and conceptual basis for the research as well as an overview of the theoretical traditions that influence my work. The chapter presents several theories that are applied to the development and design of digital mobile solutions for mass media platforms. were mostly obtained through the use of the Google Scholar search tool, which was largely employed to locate research articles. The branding and marketing phenomenon of sports-related mobile applications have been the primary focus of prior studies, therefore this digital communication arena has not received much attention.

2.2 CONCEPTUALISATION

The way that modern mobile media are changing ordinary sociality is what is driving the desire to conceptualize digital connection on mobile media with fans and beyond a social enclosure. This communication scenario has been proposed by Vanden Abeele et al. (2018) as anytime and anywhere connectivity.

Social environment borders have collapsed, social activities have become less sequential, and users' social roles have become more fragmented with the introduction of digital and social media communication. Examining how fan emotions are recorded under various physical and spatial settings sheds light on the any place-anytime connectivity notion.

A Facebook user can indicate to his social network that he is interested in the IT industry and IT-related information by liking Black Mambas' post—even if he hasn't read it.

According to Centeno et al. (2009), the word "digital media" is a general one that is frequently used to refer to all of the apps that facilitate social activities that are becoming more and more popular, such blogging, streaming, social networking, photo- and video-sharing. For instance, McCarthy (2014) found that as of July 2012, there were 30.1 million Facebook users in the UK (Checkfacebook.com, 2012), but there were 23.8 million UK Twitter users (social media Today, 2012). He adds that as of March 2013, English Premier League (EPL) clubs have 8.5 million Twitter followers (Digital-Football.com, 2013).

Digital media platforms are web-based services that enable users to: (1) create a public or semi-public profile within a bounded brand presence system; (2) articulate a list of other users with whom they share a connection; and (3) view and navigate both their list of connections and those made by other scholars in the field of digital media studies (Boyd and Ellison, 2008, p. 211). This study will define digital media platforms as per Ellison's (2008) proposal. In terms of the more general term "social media," Kaplan and Haenlein (2010) acknowledge that there isn't a precise description or classification of programs and websites like Facebook and YouTube. "A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content," is how Kaplan (2015) broadly defines digital media.

According to an analysis of writers for Zimbabwean football organizations on social media, a few longtime rivals, Chegutu Pirates, have only 75 followers as of late. These pages are mostly inactive. Although many people download MWOS FC's digital mobile application in the region mistakenly believing it is for the MWOS betting platform, it is not regularly updated.

With only 135 followers, the ZIFA Northern Region is far less popular than most of the League's teams. Golden Eagles has the largest fan base, with 19,000 followers on their page. Black Mambas, the log leaders, have 620 followers, while MWOS, the top contender, has 880. With 5484 followers, Harare City has the second-highest following, whereas the Chegutu Pirates, who have been rivals for a long time, only have 75. These pages are mostly inactive. Although many people download MWOS FC's digital mobile application in the region mistakenly believing it is for the MWOS betting platform, it is not regularly updated.

2.3 THEORETICAL FRAMEWORK

The author contrasts this study with earlier research in this portion of relevant literature. The framework for developing a mobile application is a process that calls for a special kind of management, involving organizing the different supporting tasks and assets necessary to produce a project that is successful.

Sommer and Krusche (2013) conducted a comparison analysis encompassing multiple technologies, such as PhoneGap, Titanium, and Rhodes. The study indicated that cross-platform technologies in general, although they alert for high requirements with regards to performance

concerns, usability or native user experience. The same three cross-platform technologies were examined and performance was assessed in terms of memory usage, CPU utilization, and power consumption by Dalmasso et al. (2013).

Xiaoping et al. conducted a comparative analysis of native technologies, namely Android and iOS, and Apache Cordova, Microsoft Xamarin, and Appcelerator Titanium. Our study and this one are comparable in that they both outline the trade-offs of various technologies and provide advice on which one to choose depending on performance needs.

Despite scaling to over 30 teams across three cities, Spotify, a music streaming service, is considered one of the best instances of a successful mobile application development employing an Agile framework.

Although many large organizations utilize the waterfall model to build new products, Barros et al. (2020) note that Instagram used a different strategy by working on the product and testing it with actual users.

Although many large organizations utilize the waterfall model to build new products, Barros et al. (2020) note that Instagram used a different strategy by working on the product and testing it with actual users. Agile techniques were employed to quickly produce features and make changes depending on user input, while recommendations for changes were derived from user experiences.

2.4 METHODOLOGICAL REVIEW

Table 2.1: Methodological Literature Review

Author	Country	Focus	Sample Size and Type	Research Approach	Methodological Gaps and their Impact on the Extent to which can be used to inform the current study
Liang and Lishi (2023)	China	Interface design of sports app based on joint analysis method	50 people athletes, university students, ordinary office workers, and housewives, aged between 20 and 60 years old	Quantitative Online Questionnaire	-The study was based on a population not involved in the day-to-day activities of a sports club or league and in such a way it is unlikely to capture the technological design of an interactive digital communication platform hence limiting the research's generalizability to the current study. -The study was also based on a small sample since it was only done in one country and hence it is inappropriate to generalize it to this study and other settings outside China.
Obradović, Alčaković Vyugina and Tasevsk (2019)	England	Use of Social Media in Communication Strategies Of Premier League Football Clubs	5 English Premier League Clubs	Quantitative	-The study was based on a small sample since it was only done in one country and one type of social media (Facebook) hence it is inappropriate to generalize it to this study and other settings outside England
Puuperä (2020)	Finland	A Case Study of Professional Football Club Mobile Application	90 individuals 20 Club CEOs 70 fanatics	Qualitative Quantitative	-The study sought to improve an existing Football Club Mobile Application and multiple mobile club apps were explored to identify common characteristics and features hence cannot inform this study which seeks to create an interactive digital communication platform from scratch.

PwC Belgium	Belgium	Increasing fan engagement, driven by a new app for the Royal Belgian Football Association (RBFA)	100 fans, players, referees club owners	PwC organised workshops	-The study was based on intensive stakeholder workshops which is time-consuming and costly.
Elimimian (2021)		Smartphone Applications, Innovation, and Augmented Reality (AR) in Sports	50 individuals who are sports fans and use their smartphones for any activity that is related to any sports	Qualitative Quantitative	-The study was based on objective and inflexible methods that are unlikely to capture the hidden complexities and socio-cultural, economic and technological contexts of the social environment and limit their generalizability to the current study.
Pather (2021)	South Africa	The Impact of Digital Media Platforms On Sport Reporting and Audience Engagement: A Case Study Of Twitter In South Africa	4 Most viewed games of the 2020/2021 English Premier League season	Qualitative interviews were conducted	-Qualitative studies are exploratory and are meant to be generalized to a sample, not the population. It is therefore inappropriate to generalize the findings of the study to other settings including the current study. -The study was based on only 4 games in general; hence, it cannot effectively capture the key issues in a whole football league season and as such cannot effectively inform the current study.

2.5 THEMATIC REVIEW

2.5.1 What platforms are currently being used for brand communication for Football Clubs?

Football's popularity has made it appealing to a wider audience worldwide Unquestionably, sportive world is heading toward "digital stability," where nearly everything is managed digitally, and intelligent technology plays a major role in it. Research on the digitalization of football events has grown significantly over the past 10 years, demonstrating the prevalence of multilateral digital communication among football networks.

Emerging technologies have provided new opportunities, especially in football, to develop a modernization process in its entertainment and interaction processes. For example, social media networks are being used in some sports such as athletics, basketball, and football to better organize sporting events coverage and improve the fans' experience. The COVID-19 pandemic played a big role in accelerating the virtualization of sporting events. The demand for this rapid digital transition was huge to counter social isolation

According to study by Kuzma and colleagues (2014), research in other sports disciplines has shown that the principles of social media communication can be applied to other teams, despite the paucity of studies in football. According to Kuzma (2014), O'Shea looked at how a number of professional sports teams combined traditional and social media marketing strategies to cultivate client relationships. Notably, the study concluded that it was appropriate to use new technologies, like social media, to improve fan communications.

A study by Kim and Ko (2012) that looked at the use of social media in football marketing discovered that social media platforms give clubs and supporters a way to communicate more directly, strengthening bonds and increasing brand loyalty. Similar ideas are expressed by Zheng et al. (2016), who claim that by giving fans a more engaging and dynamic experience through mobile apps, stakeholders will be more engaged and revenue will be generated.

2.5.2 How effective are the platforms used for brand communication by Football Clubs?

After researching the efficiency of email marketing in football, Fillis and Wagner (2019) came to the conclusion that individualized emails can increase engagement. The literature that is now available generally supports the notion that digital technologies are crucial for connecting with different football stakeholders and encouraging fan involvement. Clubs can effectively contact and communicate with fans through social media, mobile apps, and email marketing, resulting in a more engaging and personalized experience. Football teams that want to be competitive in an increasingly digital world must thus comprehend how these technologies affect fan engagement.

There is a wealth of research on the subject of evaluating the effects of digital marketing and communication on the football industry as a whole and how this affects fan involvement, but there are still unanswered questions. Research on how social media marketing affects a football team's brand equity and how to create material specifically designed to engage and appeal to football supporters is scarce in the literature. It's also necessary to conduct research on how to use athletes' social media presence to build a fan experience around a certain brand.

Although football clubs compete against one another on the field, they also work together to develop a league brand that benefits both parties (Kunkelet al., 2014). Studies using a geographical, international comparative, and multi-platform approach are also absent in the literature, this can provide new insights for research. An analysis by Kunkelet al. (2014) notes that leagues communicate with all levels of football stakeholders and all fans regardless of their teams.

Notably, there is a dearth of research in the literature on the management of official social media profiles by the biggest football leagues (MLS in the USA, Bundesliga in Germany, La Liga in Spain, and Premier League in England, to name a few). Studies that compare social media profiles inside football leagues (e.g., Eichner, 2019; Maderer et al., 2018) or between sports leagues (e.g., Achen et al., 2020) typically omit the leagues' official profiles.

2.5.3 Related Existing System or research on digital platforms that can be developed for effective brand communication

2.5.3.1 The AC Oulu app

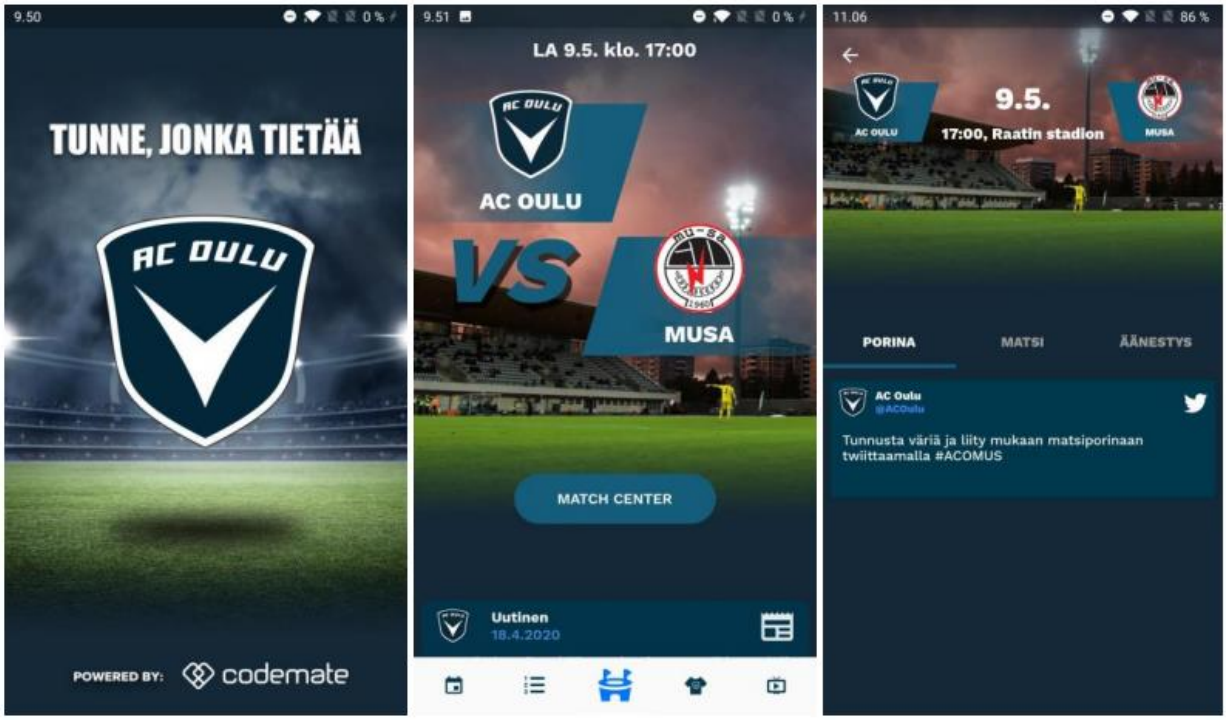
The official club colors and logo are featured in the design of the AC Oulu app. Raatti Stadium, the home field of AC Oulu, is shown in the background photograph. Bellman et al. (2011) identified all of these as typical features in their investigation of branded mobile apps. When the app is deployed, the default home view is displayed in Figure 2.1.

The match schedule, league standings, home view, player biographies, and AC Oulu TV are some of the app's primary features. You can swipe the screen from left to right to switch between views, or you can tap an icon in the navigation menu.

There is no horizontal user interface in the software. The application is only meant to be used vertically.

Figure 2.1

The AC Oulu app Splash screen, home screen, and match Centre



Source: https://play.google.com/store

A brief player biography and statistics like the number of matches played, goals, assists, and cautions are included on the player profile. The app also includes the team roster view, which shows the team's fixtures for the season. Additionally, there are player profiles with individual player statistics displayed; to navigate through these, swipe through the list of players and tap the player card to open it.

2.5.3.2 The Royal Belgian Football Association (RBFA) App

Figure 2.2

The Royal Belgian Football Association (RBFA) App

Source: https://www.rbfa.be/en

According to PwC (2023), the technology consultant for the app development, the new app was unveiled in March 2021 and was designed with the slogan "Sell emotions, not tickets" to provide a more engaging user experience.

A "predict the score" game for the European Football Championship and UEFA Nations League was the first interactive feature. Fans may now purchase tickets and goods, participate in tournaments and quizzes, and watch a lot of video content. In addition, the app offers highly sought-after data on their favorite players and clubs, as well as goals, assists, red and yellow cards, and more.

"My zone" is a reporting mechanism that makes it simple for users to notify the RBFA about problems pertaining to racial abuse and discrimination.

The Royal Belgian Football Federation and the larger football community in Belgium now have an emotional connection thanks to PwC's development of an app. The RBFA (2023) states that *PwC's unique approach of fusing technology, business, and customer experience strengthens the bond between national teams, fans, and stakeholders.*

2.5.3.3 Zimbabwe Premier Soccer League (PSL) App

Launched in 2017, the Premier Soccer League (ZPSL) App included a number of features, including the most recent schedule and standings as well as game regulations and guidelines (The Financial Gazette, 9 December 2022). Additionally, users might choose to enable push alerts to get real-time updates.

Figure 2.3

Castle Larger Premier Soccer League App

Source: www.techzim.co.zw

The functionalities of the app can be found at www.techzim.co.zw.

• Log standings, most recent results, upcoming games, goal scorers and their scores, coach of the month, player of the month, and player information (personal)

• Player suspension; • News summaries from neighborhood media; • Club listings and information, such as galleries;

• Downloadable materials, such as PSL accreditation forms, FIFA statutes, mid-season transfer forms, and lists, to name a few.

• Updates from social media (Twitter and Facebook)

Users did, however, report that the app kept crashing while they were using it and that pressing the phone's back button ended the session without displaying an exit the app alert. Sadly, the app is no longer accessible through the App Store.

2.5.3.4 MWOS F.C App

Users of iOS and Android can download the MWOS F.C App. The goal of the mobile app is to provide the latest information to the team's hordes of supporters and stakeholders about the Norton-based team, its players, and their schedule. This will allow them to stay up to date on things like game results, schedule changes, player injuries, and changes.

The Google Play Store offers the sole mobile application associated with a football club in Zimbabwe.
Although the application is easy to use, page loads often crash. While it displays results and upcoming games for the whole ZIFA Northern Region Division One Football League, the remaining content is about the Club and its sponsors.

Another shortcoming is the platforms fail to provide a means for clubs and fans to interact.

Figure 2.4

MWOS F.C App Homepage

Source: https://play.google.com/store

2.6 CONCLUSION

The relevant literature on the usage of digital media ad design for brand communication was the main topic of the chapter. It emphasized the evolution of digital sports media outlets. Since there was little information available about the development and application of digital media platforms in Zimbabwe, much of the reviewed material was outside of the country. There is a void in the literature since studies from Europe might not be generalized to Zimbabwe or Africa due to the different operating environments.

Since only one club exists with an official club mobile app in Zimbabwe, the country's level of technology adoption is categorized as developing, meaning it cannot be compared to more developed nations where most clubs have official mobile applications. For this reason, the goal of this study was to develop a true and workable solution that addresses the current state of affairs in Zimbabwe. The absence of studies on the relationship between social media usage and fan engagement via the perspective of football leagues is another noteworthy gap in the reviewed literature, as the majority of studies concentrate on football teams (e.g., Lopez-Carril and Anagnostopoulos, 2020; Maderer et al., 2018) or players (e.g., Doyle et al., 2022).

Both qualitative and quantitative techniques were included in the majority of the recommended methodology examined in the literature. In order to create a system that is motivated by the Zimbabwean football ecosystem and can solve the current issues, this study used a mixed methods approach.

CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

The research goal, research paradigm, theory development approach, research strategy, time horizons, participant selection, data collection methods, analysis and presentation processes, quality control, and ethical considerations are all covered in this chapter.

3.2 RESEARCH PURPOSE

The study was interventional and took an exploratory approach. According to Gray (2014), exploratory investigations are especially helpful when little is known about a phenomenon that the exploratory purpose selection guided. This supports Sekaran's (2017) argument that as there hasn't been much research done on the topic, it was necessary to investigate and gather ideas and insights in order to create an interactive digital communication platform.

In order to establish an interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region, which may eventually extend to the other ZIFA regions, the study also had an interventional goal.

3.3 RESEARCH PARADIGM

The research paradigm of pragmatism was used in this study. Pragmatists, according to Ivancova (2014), reject the dogmatic binary between qualitative and quantitative methodologies and hold that the best approach to comprehending a given research challenge is the truth. The researcher was able to decrease the drawbacks of employing a single approach, mix qualitative and quantitative research methods such that the strengths of each covered the deficiencies of the other, and investigate every potential outcome with the use of the pragmatism paradigm.

3.4 APPROACH TO THEORY DEVELOPMENT

The study used the inductive approach. The decision to employ an inductive technique was guided by the observations made by Saunders et al. (2023), who pointed out that inductive approaches are employed by researchers to address subjects that receive less attention in the literature. Since there isn't much information available in the literature about technological tracking of football results and fixtures in Zimbabwe, the researcher set out on a quest of

discovery, gathering data along the way to create an application that Division One teams could use.

3.5 METHODOLOGICAL CHOICE

Because mixed techniques can provide numerous viewpoints of reality in a single study, the study found that they were excellent for the task. The requirement to fulfill the "offset" principle affected the choice of a mixed techniques architecture. This was influenced by Bryman's (2016) observations, according to which research methodologies related to both qualitative and quantitative research have advantages and disadvantages and complement each other. In a single study, researchers can also formulate, clarify, and validate a theory. Superior inferences can be obtained from mixed methods designs by simultaneously merging the results of quantitative and qualitative data.

According to Bryman (2006), qualitative research focuses on viewing the subject of study through the eyes of the subjects being examined, whereas quantitative research is more concerned with the researcher's perspective. Combining the two made it possible for the study to include the perspectives of the research subjects as well as the researcher. To further adhere to the triangulation principle, the study's design employed a mixed techniques approach. Because the mixed methods approach gives the researcher the chance to compare the results from one way with the results from other methods, this principle aids in boosting the confidence of researchers in the accuracy of findings.

3.6 PRIMARY RESEARCH STRATEGY

The study used a contemporaneous mixed methods research strategy, collecting data simultaneously through questionnaires and interviews. The purpose of qualitative interviews is to learn more about participants' in-depth understanding of certain experiences or phenomena (deMarrais & Lapan, 2003). McCarthy et al. (2014) conducted interviews with media managers from football clubs to learn about their worries about the usage of digital media in the field of media studies. The study demonstrated how well the interview method can be used to delve into the detailed information that football media managers have to provide. Therefore, the mixed technique that combines positivist and interpretive approaches seems to be the most appropriate choice for this research in order to thoroughly explore the social media strategy and fan experiences. Research approaches that are both quantitative and qualitative can occur not only separately but also in combination; this latter approach is known as a mixed methods approach.

It is a popular method, particularly when dealing with research issues that call for the application of multiple approaches (Bryman & Bell, 2015, p. 641, 651). The goal of the mixed methods approach is to gather and analyze data from both quantitative and qualitative sources in a single study.

3.7 TIME HORIZONS

Because the study's primary goal was to design an application that would provide live updates on Division One football, rather than tracking changes over time, it had a cross-sectional time horizon.

3.8 CHOOSING RESEARCH PARTICIPANTS

3.8.1 THE POPULATION

By using a sampling population, the researcher can make generalizations about the research findings to the complete population (Majid, 2018). Every single example that has a feature that the researcher is interested in makes up the population. Therefore, the sponsors, fans, management, and clubs of the 18 teams competing in the ZIFA Northern Region Division One League shall be considered the population for the purposes of this thesis. The sponsors, supporters, management, and clubs of the 18 teams competing in the ZIFA Northern Region Division One League made comprised the study's population.

3.8.2 Sampling

The researcher conducted a census of all eighteen (18) teams in the ZIFA Northern Region Division One League in the quantitative strand. On the other hand, purposive sampling procedures were used to select the eight (8) interviewees in the qualitative strand of the study.

3.8.2.1 Sample Size Determination

The sample size of 18 Participants for the quantitative strand of the study was calculated using an online sample size calculator from https://www.qualtrics.com/blog/calculating-sample -/ at a 95% confidence level and a marginal error of 5%. Theoretical sampling procedures were used to determine the sample size of eight (8) interview participants in the qualitative strand of the study.

3.9 DATA COLLECTION PROCEDURES

3.9.1 PILOT STUDY

According to Wegner (2017), bias is seen as the tendency of a pattern of errors to influence data in an unrepresentative way, this can be due to selection procedure, structures, and wording questions, interviews or recordings. The researcher conducted a pre-test with respondents from the main study population to defend against the aforementioned problem as well as to test the validity, reliability, and clarity of the questionnaire. Saunders et al. (2023) posited that the purpose of a pilot or pre-test is to fine-tune the questionnaire so that respondents will have no trouble answering it. A pilot study with Premier Soccer League (PSL) administrators and active players different from the participants of the main study was carried out in the first phase.

The researcher interviewed two football administrators and questionnaires were administered to two active players. This enabled the researcher to establish the time taken to complete both the questionnaire and the interview. The pilot study enabled the researcher to fine-tune the questions to the same wave length as the respondents. Further, the pilot test was done to check for vagueness and ambiguity so that the research could improve on the instruments.

3.9.2 MAIN STUDY

The study used mixed methods encompassing questionnaire administration as well as interviews. Permission was sought from the Northern Region Soccer League administration to conduct the study. The questionnaires were distributed both physically and via online platforms and were self-administered giving participants the luxury to complete them in the comfort of their homes. The interviews were also held both physically and via online platforms. Respondents were supposed to read the information sheet and sign the consent form to voluntarily participate in the study. 18 Questionnaires were distributed to the Fans and Club Administrators and 2 were distributed to the League Management. Interviews were conducted from the population drawn through theoretical sampling techniques in a drive to establish how the league communicates with the clubs and fans, how data is collected and stored, and the digital features which may enhance the appeal of the League to its various stakeholders.

3.9.2.1 Questionnaire Survey

Questionnaires were hand-delivered to the Chief Executive Officers of the clubs, Club Treasures, and Finance Directors of Division 1 (one) football teams. The physical distribution of questionnaires was done to improve the response rate while others were emailed to cut the cost of printing and time to go and issue the questionnaires. The research goal was outlined in an

introduction letter that preceded the questionnaire. Confidentiality was stressed so that the respondents could freely share their thoughts and ideas on the issues posed. A few football administrators finished the questionnaires in front of the researcher, while others were allowed extra time to finish them and hand them over. No question about identity was posed to the respondents. The questions were brief and easy to understand, and the procedure was practical and would not significantly deplete resources. The questionnaires were the method of choice for the study because of their affordability. They were also helpful since the data they offered could be quantitatively examined by the study's research methodology. In addition, surveys reduced prejudice and mistakes by allowing respondents to read the questions through before responding. This helped them react more objectively. Nevertheless, there are drawbacks to using questionnaires in the study, including the inability to elicit more information from the respondents.

3.9.2.2 Interviews

According to Saunders et al. (2023), who supported the use of interviews because they can help to gather valid and reliable data, that is relevant to the research questions and objectives, ten (10) team managers and treasurers of the clubs participated in semi-structured interviews to provide information. The reason for their choice was that, unlike questionnaires, interviews allow the study to elicit more information and give room for follow-up questions. They also allow the research to consider nonverbal cues like the interviewee's demeanour and attitude. As a result, the qualitative strand utilised in-person interviews, which enabled more in-depth questioning. To minimize the possibility of data falsification by forgetting participant responses, great care was taken during data collection, note-taking, and transcription. The study steered clear of the technical vernacular in favour of plain, everyday language to guarantee that all participants were on the same page throughout the conversation. The Northern Region Division One Football League granted permission for the study to be conducted.

3.10 DATA ANALYSIS AND PRESENTATION PROCEDURES

3.10.1 Data Analysis

The Nvivo 12 data analysis program was used to conduct a thematic analysis of the qualitative data. This software was used to analyze qualitative responses that were obtained from both questionnaires and interviews. The software was used to organize qualitative responses into themes

and data was presented graphically. The study went on to explain the trends that showed why responses were more frequent than others. Each research question had a separate qualitative analysis and graphical representation.

The Statistical Package for Social Sciences was used to process and analyze the questions (SPSSV 21.0). In the quantitative strand of the study, questionnaires were used to gather data from players who were active and retired. The Statistical Package for Social Sciences (SPSS) was then used to analyze the data using One Sample T-test and descriptive statistical analysis. The presentation of the data was done with frequency tables and figures.

3.11 QUALITY ASSURANCE AND COMPLIANCE

3.11.1 Validity Reliability and Trustworthiness

The degree to which a piece of measurement equipment or research methodology accurately measures what it is intended to assess is known as validity (Krueger, 1994). The degree of care with which the researcher gathered and examined the data is what is meant by "reliability". In order to improve the dependability of a research instrument, this study made sure that the questions were clear, concise, and free of leading questions. By using specific questions in the interviews and questionnaires, as well as by using the instrument consistently, reliability was further guaranteed. The results in the study got more credible as a result of replies becoming more consistent over a greater number of samples.

Furthermore, in order to guarantee dependability, a suitable time frame for the study was selected that would need the prompt participation of every responder who was free to choose particular options from the answer sets. Similarly, the study employed a combination of approaches that enhance each other. For example, the semi-structured interview served as a surrogate for the questionnaire's inadequate probing ability and incapacity to record nonverbal responses. Football coaches and administrators were contacted by phone. To increase the validity and reliability of the study tools, pilot testing was conducted.

3.11.2 Ethical Considerations

This study committed to ethical problems such access and acceptance, permission, informed consent, anonymity and confidentiality, honesty, openness, and beneficence since it was aware of its ethical commitments. The consent form was signed by the participants, who willingly agreed

to take part in the study. The researcher gave the subjects his word that he would protect their privacy and confidentiality. Written consent forms with this data were distributed to all possible participants. Informed agreement from possible participants was also requested, as was permission from the Northern Region Division One League of the Zimbabwe Football Association (ZIFA), where the study was carried out. The participants were formally invited to participate in the study after providing permission and consent.

Confidentiality and anonymity are ethical practices designed to protect the privacy of human subjects while collecting, analyzing, and reporting data. Confidentiality refers to separating or modifying any personal, identifying information provided by participants from the data. By contrast, anonymity refers to collecting data without obtaining any personal, identifying information (Coffelt 2017). Anonymity is essential in research as it allows the protection of participants' identities as revealing it might be detrimental to them one way or the other and exists when the final responses cannot be linked to a specific respondent. To ensure the anonymity of the participants in this study, the researcher did not include their names, photographs, professional and personal profiles, or any other identity particulars in the entire research process. In the same vein, confidentiality forms were administered to the respondents to ensure that the research process was treated confidentially. Data collected was kept safe in a locked drawer to safeguard the information provided. Data were analyzed at the group level to ensure anonymity. In addition, at the expiry of the research period, data collected through questionnaires were destroyed by burning the papers in a protected incinerator by the researcher. The recorded interview responses were deleted safely by the researcher.

3.12 CHAPTER SUMMARY

The main thrust of this chapter was to give an insight into the research methodology to be used during the study as well as aspects such as research philosophy, research strategy, approaches to theory development, time horizons, study population, samples and sampling procedures, data collection methods and instruments, pilot study. The chapter also dwells on reliability and validity issues as well as ethical considerations that need to be taken care of during the study as well as data analysis. The next Chapter will look at data presentation, interpretation, and analysis.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

The chapter focuses on the presentation and analysis of data. The Chapter is divided into four sections. The first section outlines the study's response rate. The second Section focuses on the demographic information of the respondents. The third Section presents and analyses the data that was collected through questionnaires and interviews. The fourth Section summarizes the whole chapter.

4.2 RESPONSE RATE

Table 4.1:
Response rate

Research Instrument	Planned	Distributed/ Conducted	Spoiled/Not Returned	Completed	Response Rate
Questionnaires	18	18	0	18	100 %
Interview	Guided by theoretical sampling principles	8	0	8	N/A

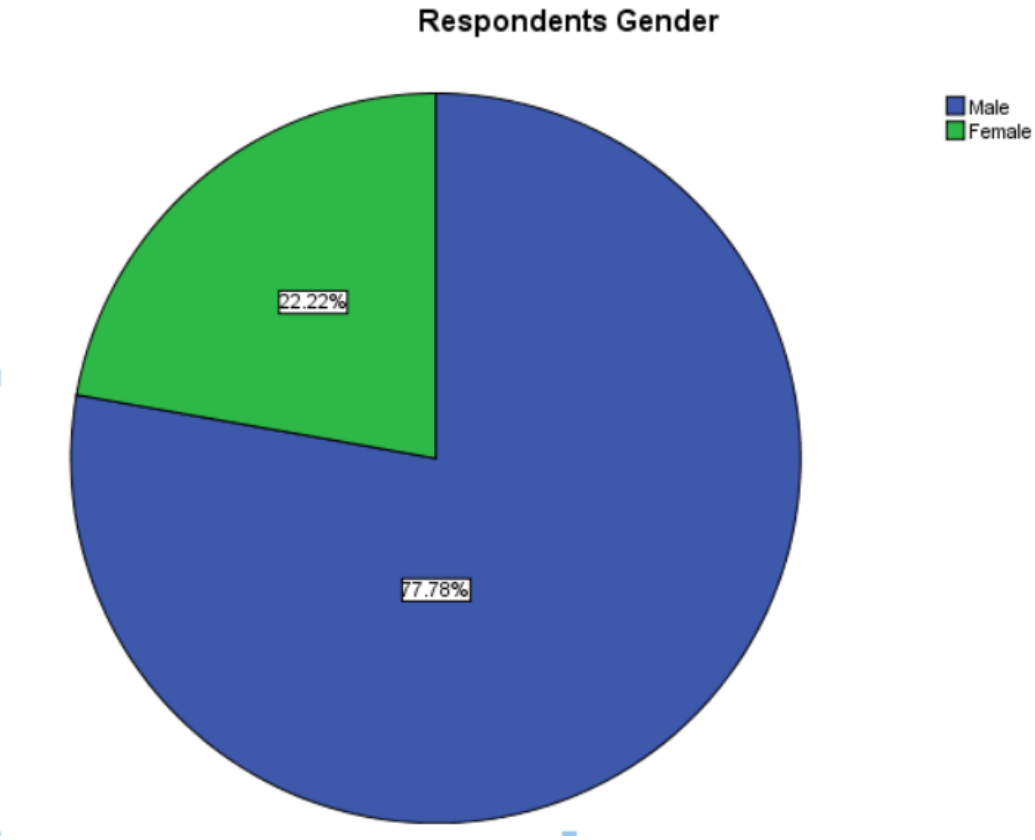
Twenty-six (26) participants successfully participated in the research. The response rate by participants was 100% as presented in Table 4.1. Eighteen (18) questionnaires were distributed, and fully completed. and returned. For the qualitative strand, theoretical saturation was reached in eight (8) interviews. The high response rate can be attributed to the fact that the researcher issued the instruments online; this gave the participants ample time to complete the questionnaires in the comfort of their homes.

4.3 DEMOGRAPHIC DATA

4.3.1 Gender Composition

Figure 4.1 presents data on the gender composition of the eighteen questionnaire respondents.

Figure 4.1:
Questionnaire Respondents' Gender



Of the 18 respondents that responded to questionnaires, 14 were male (77.78%) while 4 were female (22.22%) as shown in Figure 4. 1.. The males were dominant over their female counterparts. In all the research instruments male participants were dominant this is because usually, males are more active in sports administration than females. The domination of male participants confirms Mugari and Bulaliya's (2016) school of thought which, asserts that Zimbabwean sport has for the past years been dominated by male counterparts as women concentrate much on household chores and not getting time for sports and recreation.

Table 4.2 presents data on the gender composition of the eight (8) interviewees.

Table 4.2:
Interview Respondents' Gender

Interview Respondents Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	5	62.5	62.5	62.5
	Female	3	37.5	37.5	100.0
	Total	8	100.0	100.0	

Of the Eight (8) respondents that were interviewed in the study, 62.5% were male while 37.5% were female as shown in Table 4.2.

4.3.2 Age Composition

Figure 4.2 presents data on the age composition of the eighteen (18) questionnaire respondents.

Figure 4.2: ***Questionnaire Respondents' age***

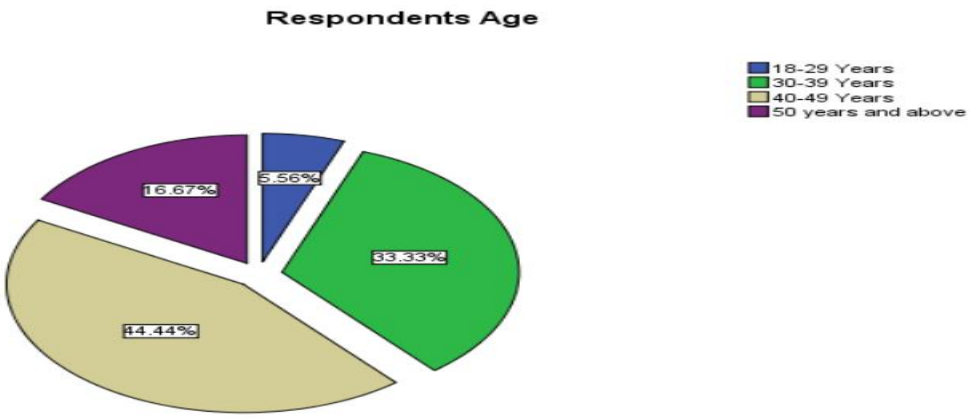


Figure 4.2 shows questionnaire respondents by age, the age groups were divided into 4 categories namely 18-29 years, 30-39 years, 40-49 years, and 50 years and above. The 40-49 years' age group constituted the majority of the respondents by 44.44% followed by the 30-39 age group with 33.33%. 50 years and above constituted 16.67% and lastly 18-29 years constituted 5.56%.

the dominance of age groups 40 to 49 and 30 to 39 years can be attributed to the fact that these age groups are actively involved in sports administration in Zimbabwe. The 18 to 29 years age group was the least abundant constituting 16.67% with the majority of these being players and yet to take up administration duties falling under this category.

Table 4.3 presents data on the age composition of the eighteen (18) questionnaire respondents.

Table 4.3:

Questionnaire Respondents' age

Respondents Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-29 Years	1	5.6	5.6	5.6
	30-39 Years	6	33.3	33.3	38.9
	40-49 Years	8	44.4	44.4	83.3
	50 years and above	3	16.7	16.7	100.0
	Total	18	100.0	100.0	

Figure 4.3 shows interview respondents by age; the age groups were divided into 4 categories namely 18-29 years, 30-39 years, 40-49 years, and 50 years and above. The 40-49 years' age group constituted the majority of the respondents by 44.44% followed by the 30-39 age group with 33.33%. 50 years and above constituted 16.67% and lastly 18-29 years constituted 5.56%.

4.3.3 Level of Education

Figure 4.3 data on the educational qualifications of the eighteen (18) questionnaire respondents.

Figure 4.3:
Interview Respondents Designation

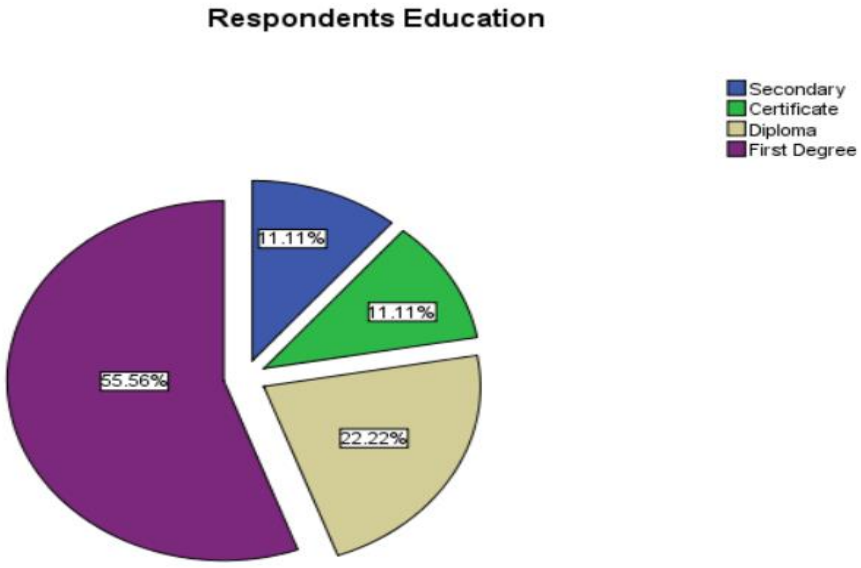


Figure 4.3 shows that 55.56% of the respondents have a first degree, 22.22% have a diploma whilst the remaining 22.22% have at least a secondary school education or diploma qualification. The results are a reflection of the current trends where clubs and associations have set the minimum of a diploma for one to be in administrative roles. The pattern is also the same with findings from Interviews as shown by Table 4.4 where the majority has either a Diploma (37.5%) or a First Degree (37.5%).

Table 4.4:
Interview Respondents' Level of Education

Interview Respondents Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary	1	12.5	12.5	12.5
	Certificate	1	12.5	12.5	25.0
	Diploma	3	37.5	37.5	62.5
	First Degree	3	37.5	37.5	100.0
	Total	8	100.0	100.0	

4.3.4 Level of Experience

Table 4.5 presents data on the football-related experience of the eighteen (18) questionnaire respondents.

Table 4.5:
Questionnaire Respondents Experience

Respondents Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3 Years	5	27.8	27.8	27.8
	4-6 Years	3	16.7	16.7	44.4
	7-9 Years	4	22.2	22.2	66.7
	10 years and above	6	33.3	33.3	100.0
	Total	18	100.0	100.0	

Figure 4.5 shows that of the 18 respondents, six (6) have over 10 years of experience in Division One Football. Of the respondents, five (5) have less than 3 years' experience. Four (4) respondents have 7 to 9 years of experience whilst three (3) have between 4 to 6 years' experience.

4.4 PRESENTATION AND ANALYSIS OF DATA LINKED TO THE RESEARCH OBJECTIVES.

4.4.1 To identify platforms that are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region.

Questionnaires were used to identify the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region. A One-Sample T-test with a test value of 3.0, indicating the midpoint of a 5-point Likert-type scale, was used to analyze the resultant data as follows as presented in Table 4.6

In the test:

- Mean values greater than the test value (3.0) indicated that the platform under consideration was being used for brand communication in the ZIFA Northern Region Division One League,
- Mean values less than the test value (3.0) indicated that the platform under consideration was not being used for brand communication in the ZIFA Northern Region Division One League,

Table 4.6:
One-Sample T-test results on the platforms used for brand communication by clubs in the ZIFA Northern Region Division One League.

	N	Mean	Std. Deviation	Std. Error Mean
My club uses traditional communication platforms (newspapers, magazines, billboards and television) for brand communication.	18	3.22	1.215	.286
My club uses its website platforms for brand communication.	18	3.61	.850	.200
My club uses social media platforms for brand promotion.	18	3.78	1.215	.286
My club uses social media platforms for fan engagement.	18	3.89	1.183	.279
My club uses social media platforms to livestream their matches.	18	2.44	1.294	.305
My club uses content marketing for brand communication.	18	3.33	.767	.181
My club uses mobile marketing applications for brand communication.	18	3.22	1.060	.250

.

Table 4.6 shows the results of the One-Sample T-Test on the platforms used for brand communication by clubs in the ZIFA Northern Region Division One League. With the Test Values of 3 and n =18, mean scores of 3.22,3.61, 3.78, and 3.89 were recorded for traditional

communication platforms, website platforms, and social media platforms for brand communication and promotion as well as fan engagement respectively. The use of social media platforms to livestream matches had a mean score of less than 3 meaning it is not used at all by clubs in the ZIFA Northern Region Division One League.

In the qualitative strand of the study, the respondents were asked to identify the platforms that are being used for brand communication and fan engagement by clubs in the ZIFA Northern Region Division One. The responses from the Eight (8) interviews were subjected to a word frequency query in NVivo 12 as presented in Figure 4.5.

Figure 4.4:
NVivo generated a word cloud for the communication platforms used by clubs in the ZIFA Northern Region Division One League

The word frequency analysis results presented in Figure 4.5 show that the dominant platforms being used for brand communication in the ZIFA Northern Region Division One are Facebook and WhatsApp.

It is evident that the results from the quantitative and qualitative strands of the study Communication Platforms used for brand promotion and fan engagement Clubs in the ZIFA Northern Region Division One are in sync. Both strands show that respondents cited social media (Facebook and WhatsApp) as the most widely used digital communication platform for Clubs in

the ZIFA Northern Region Division One. The two strands also reveal that club websites are another platform that is frequently used but not as much as social media. However, results from the qualitative strand revealed that some of the research participants felt that some clubs do not have a brand communication or promotion platform at all.

Some responders, for example, stated,

- *The very few Northern Region Division One clubs communicating are using social media, particularly Facebook with examples being MWOS FC and Golden Eagles FC.*"
- *Most have not yet taken to even old methods such as official WhatsApp groups, mailing (emailing), or Twitter (X).*

4.4.2 To evaluate the effectiveness of the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region.

To determine the effectiveness of the platforms used for brand communication by clubs in the ZIFA Northern Region questionnaires were used to collect data from eighteen (18) Division One Football Clubs in the ZIFA Northern Region. A One-Sample T-test with a test value of 3.0, indicating the midpoint of a 5-point Likert-type scale, was used to analyze the resultant data as follows as presented in Table 4.6.

Two hypotheses were generated as follows:

H_o: The platforms used for brand communication by clubs in the ZIFA Northern Region are ineffective

H_1: The platforms used for brand communication by clubs in the ZIFA Northern Region are effective

Table 4.6:
The Effectiveness of the Platforms Used for Brand Communication by Clubs in the ZIFA Northern Region

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
The brand communication platforms currently being used by clubs in the ZIFA Northern	-1.844	17	.083	-.333	-.71	.05

Region Division One Football League have an effective target market reach.						

The T value is -1844 and is less than the Significance Level $\alpha = 0.05$ hence the null hypothesis that the platforms used for brand communication by clubs in the ZIFA Northern Region are ineffective was accepted and the alternate hypothesis platforms used for brand communication by clubs in the ZIFA Northern Region are effective was rejected. The results suggest that the platforms used for brand communication by clubs in the ZIFA Northern Region were ineffective

To determine the appropriateness of the platforms used for brand communication by clubs in the ZIFA Northern Region **t**wo hypotheses were generated as follows:
H_o: The platforms used for brand communication by clubs in the ZIFA Northern Region are inappropriate
H_1: The platforms used for brand communication by clubs in the ZIFA Northern Region are appropriate

Table 4.7: The Appropriateness of the Platforms Used for Brand Communication by Clubs in the ZIFA Northern Region

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
The brand communication platforms currently being used by clubs in the ZIFA Northern Region Division One Football League are appropriate.	-1.317	17	.205	-.278	-.72	.17

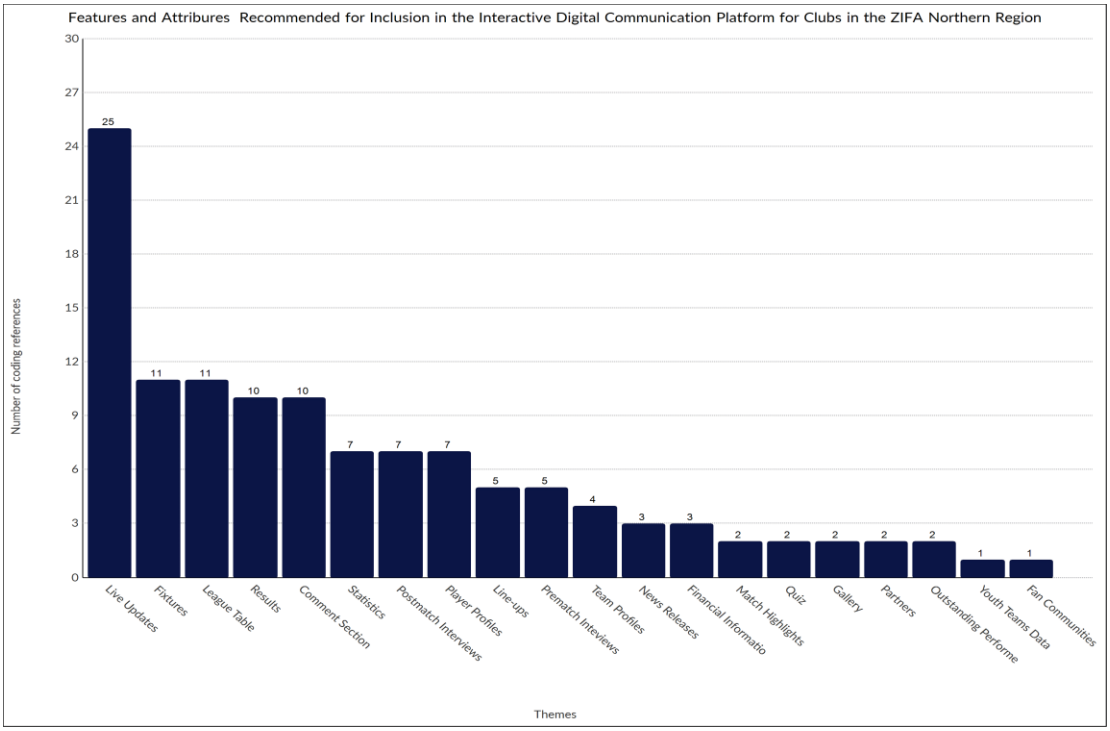
The T value is -1317 and is less than the Significance Level $\alpha = 0.05$ hence the null hypothesis that The platforms used for brand communication by clubs in the ZIFA Northern Region are inappropriate was accepted and the alternate hypothesis platforms used for brand communication by clubs in the ZIFA Northern Region are appropriate was rejected

The results suggest that the platforms used for brand communication by clubs in the ZIFA Northern Region were inappropriate.

4.4.4 To develop an interactive digital platform that can be developed for effective brand communication for Division One Football Clubs in the ZIFA Northern Region.

The respondents were asked to indicate the attributes they desire to see in the Interactive Digital Communication Platform to be designed. Their responses were organized into themes using the NVivo 12 software as summarized in Figure 4.9.

Figure 4.5:
Features and Attributes Recommended for Inclusion in the Interactive Digital Communication Platform for Clubs in the ZIFA Northern Region Division One to be developed



The thematic analysis results presented in Figure 4.5 show majority of the respondents wish to have a system that generates live updates as shown in Figure 4.5 with an overwhelming 25 coding references. Respondents also prefer a system that shows fixtures and League Table as represented

in Figure 4.5 with 11 coding references. Results and the establishment of a Comments Section were also key for the respondents. Statistics, Post-match Interviews, and Player Profiles all have 7 Coding references each showing that the respondents are eager to see a system that is pregnant with data, convenient, and reliable. Respondents also want a system that offers Pre-Match Interviews and Lines to the audience with A Coding Reference of 5. The respondents also indicated that they would like to access Team profiles, News releases, and financial information. Others mentioned the need for Match Highlights, Quiz, Galleries, League Partners, and Outstanding Performers with a Coding Reference of 2. Lastly, with a Coding Reference of 1, the respondents mentioned the need for Youth Teams data and Fan Communities.

4.5 CHAPTER SUMMARY

The chapter looked at data presentation and analysis. The quantitative data were analyzed using SPSS Version 21 while the qualitative data were analyzed using NVivo 12. Demographic data was presented and analyzed as well as data related to the research objectives. Data was presented in tables, bar graphs, word clouds, and pie charts generated from SPSS Version 21 software and NVivo 12 software. The next chapter discusses the findings and presents a summary of the research findings, the new insights emerging from the study, and the limitations of the study.

CHAPTER 5: DISCUSSION

5.1 INTRODUCTION

This chapter discusses and presents a summary of the research findings. The chapter also discusses the new interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region and the limitations of the study. This chapter will shed more light on the system development process. The development of the anticipated program was based on the research findings. This section will also look at systems design, and architectural design, which shows the context and data flow diagrams for the new system. Database design and interface design.

5.2 DISCUSSION

Facebook and WhatsApp commonly referred to as social media are the most used digital platforms in brand communication and fan engagement for Division One Football Clubs in the ZIFA Northern Region. Sometimes these two methods work hand in glove in reaching out to the Northern Region stakeholders but this is not the case as they want to have live updates as well more details about the league at the click of a button. Traditionally in Zimbabwe and most African countries clubs and leagues rely on traditional means of communication. However, research shows that the fans are talking and debating about the games long after the final whistle and need on-the-go access to live game videos, breaking news, and the most relevant info about games and players. Thus, the limitations of traditional media are just a few of the pitfalls associated with subjective evaluations.

The use of modern communication technologies in soccer in Zimbabwe is close to zero this is contrary to Karombo (2017) who notes that promotional WhatsApp and Facebook access bundles, marketed by the local mobile operators, are helping drive up usage of the platforms.

Lack of funds has also resulted in clubs and individuals not being able to purchase the latest technologies in soccer analysis in Zimbabwe. There is also an element of ignorance and unwillingness to change and move with time from the coaches and performance analysts in soccer sport in Zimbabwe as well.

Lack of funds, exorbitant data costs, and a lack of equipment (phones and professional cameras) have also resulted in clubs and individuals not being able to purchase and utilize the latest technologies used for brand communication and fan engagement. There is also an element of ignorance and unwillingness to change and move with time from the administrators.

The Zimbabwean soccer sports community wants a system that generates different performance reports that can inform decisions before during and post-match. The system also has to be user-friendly meaning to say it should not be complicated in nature. Cost, convenience, and reliability are also attributes that the ZIFA Northern Region football community wishes to see in the interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region. The system has to be complete meaning to say that the system should offer all the performance analysis functions in one system. The system should ensure Information privacy as well as perform the tasks that it was designed for in conclusion the following system objectives were derived from the study and these were the basis for system design.

- **Security:** The system should safeguard valuable data or information from unauthorized access, use, unlawful modification, and disclosure.
- **Reliability**: The database should be designed in such a manner that data does not impede each other
- **Efficiency**: The system should have the ability to accomplish a job with a minimum expenditure of time and effort.
- **Cost-effective:** The system should not be costly to the users and the organization
- **Reports**: the system should generate various performance reports
- **User-friendly**: The interfaces should be designed in such a manner that they do not intimidate the users.

5.3 NEW INSIGHTS

The findings from the study were used to develop an interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region.

THE INTERACTIVE DIGITAL COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION SYSTEM DESIGN

By establishing the system architecture, components, modules, interfaces, and data, the study's objectives were met and an interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region was created.

The detailed features of the Division One Football Clubs in the ZIFA Northern Region's interactive digital communication platform are listed below.

5.3.1 Process Analysis

Input

Enter the following: football players, coaches, and information of the match; competition; settings

Process

Include coaches, commentators, administrators, and football players.

Assigning football players to analysts

Selecting football players

Score Forecasts

News Sources

Analysis of performance

manipulation of databases

Outputs

Match reports (with real-time updates and complete scores)

Reports from administration

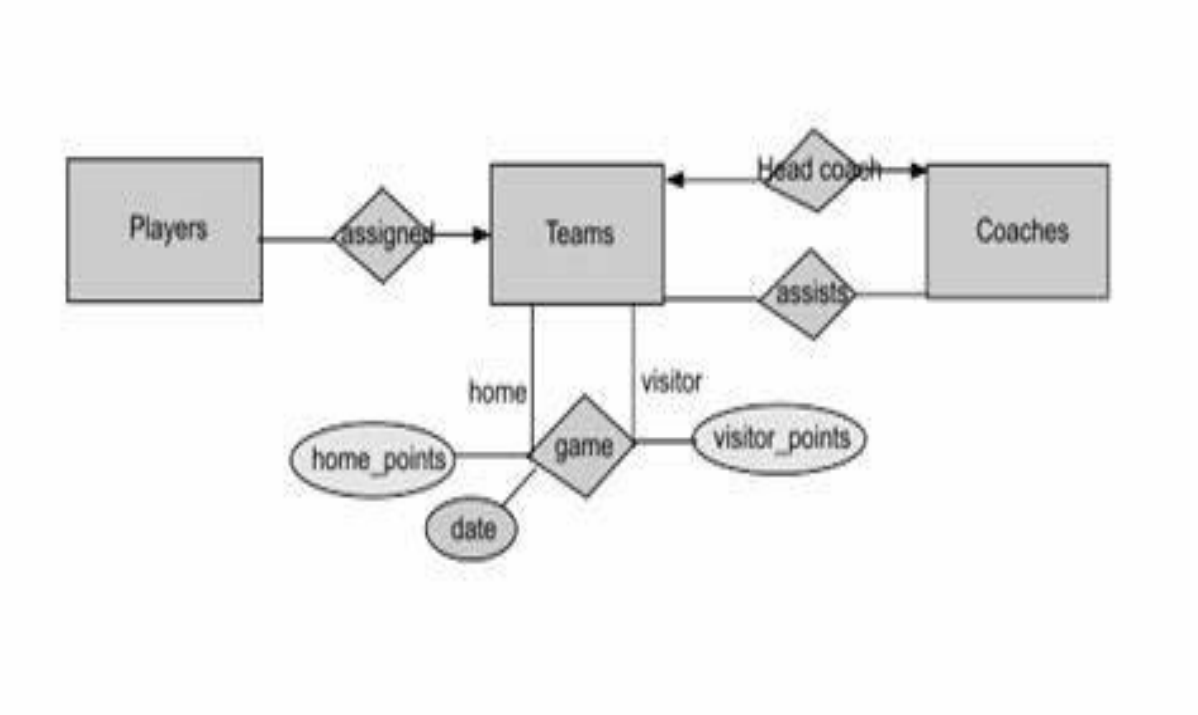
5.3.1.1 Context Diagram of the system

The boundary between a system, a subsystem of a system, and its environment was indicated by a system context diagram (SCD), which also displayed the entities that communicate with the system (Choubey, 2012). The system appears as a collection of functions that receive data and give it to different entities. By showing how users will interact with the system and what

information will be shared, a context diagram assisted the researcher in visualizing the effects of various boundary assumptions.

Figure 5.1:

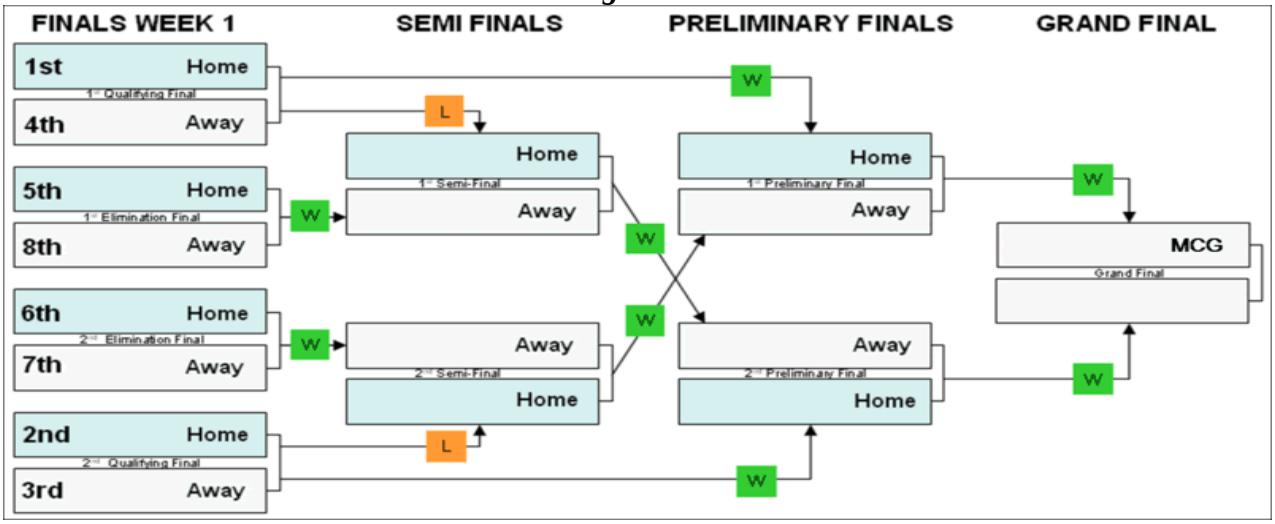
Context diagram of interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region.



5.3.1.2 Dataflow Diagram

A data flow diagram was used to illustrate how input and output data is going to be processed in a system (Tiwari, 2012). It focused on where data originates, its destination, and how it is stored. Primary processes within a dataflow diagram are independent, and separated by intermediate data stores, which lead to the physical design of the system

Figure 5.2: ***Dataflow diagram for the interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region***

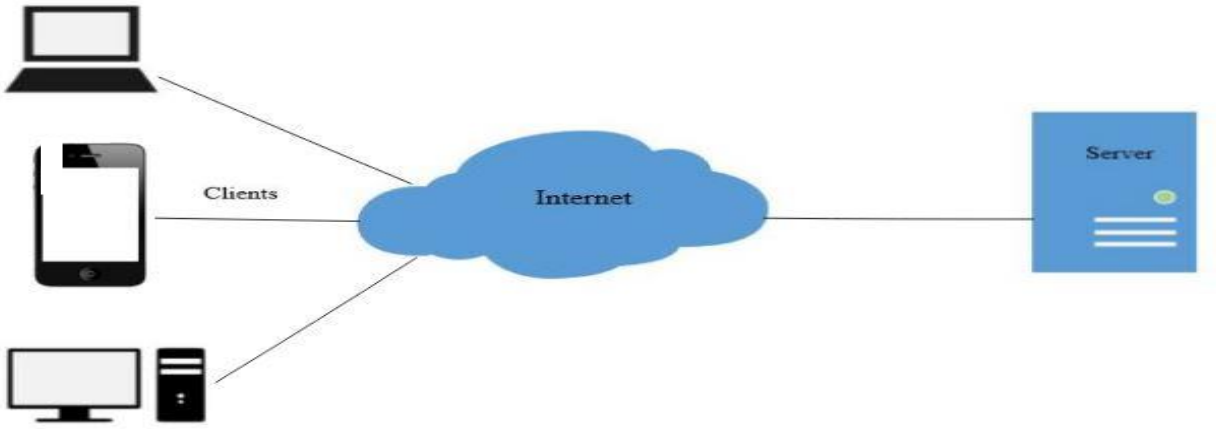


5.3.2 Architectural Design

According to Talheim (2011), the system architecture is the conceptual model that outlines a system's viewpoints, behavior, and structure. It covers the system's architectural configuration in addition to the hardware and software needs. The ZIFA will set up a central server that will provide system access and updates, including database storage. Users will be able to access the system by first making an account and then logging in. The database and application servers will be accessible by user computers or smartphones over the mobile network, Wi-Fi, and fiber network infrastructure.

Figure 5.3:

Users Client Server Architecture for the interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region



The components listed below are the ones that were utilized in the system configuration.

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5.3.2.1 Router

Data packets are transmitted by this network device from one network point to another (Barker, 2014). It can be found at gateways, which are the locations of several network connections. Routers are responsible for receiving packets of data from various networks and passing them to the subsequent router based on the predetermined destination.

5.3.2.2 Internet Server and Switch

This covers the sections of an architectural plan that give the user access to the internet on various gadgets. The router is in charge of sending data packets from a server to users' devices and from users' devices back to servers. A network switch is a piece of hardware used for computer networking that uses packet switching to send, receive, and process data to the appropriate device on a network.

5.3.2.3 MySQL Server

Structured Query Language (SQL) is used by MySQL, a MariaDB database system, to carry out database operations via a database server. The reason it is the most widely used database technology is that it is stable, safe, open-source, and free. Because MySQL supports both

distributed and relational database types, it was a good fit for the Division One Football Clubs in the ZIFA Northern Region's interactive digital communication platform.

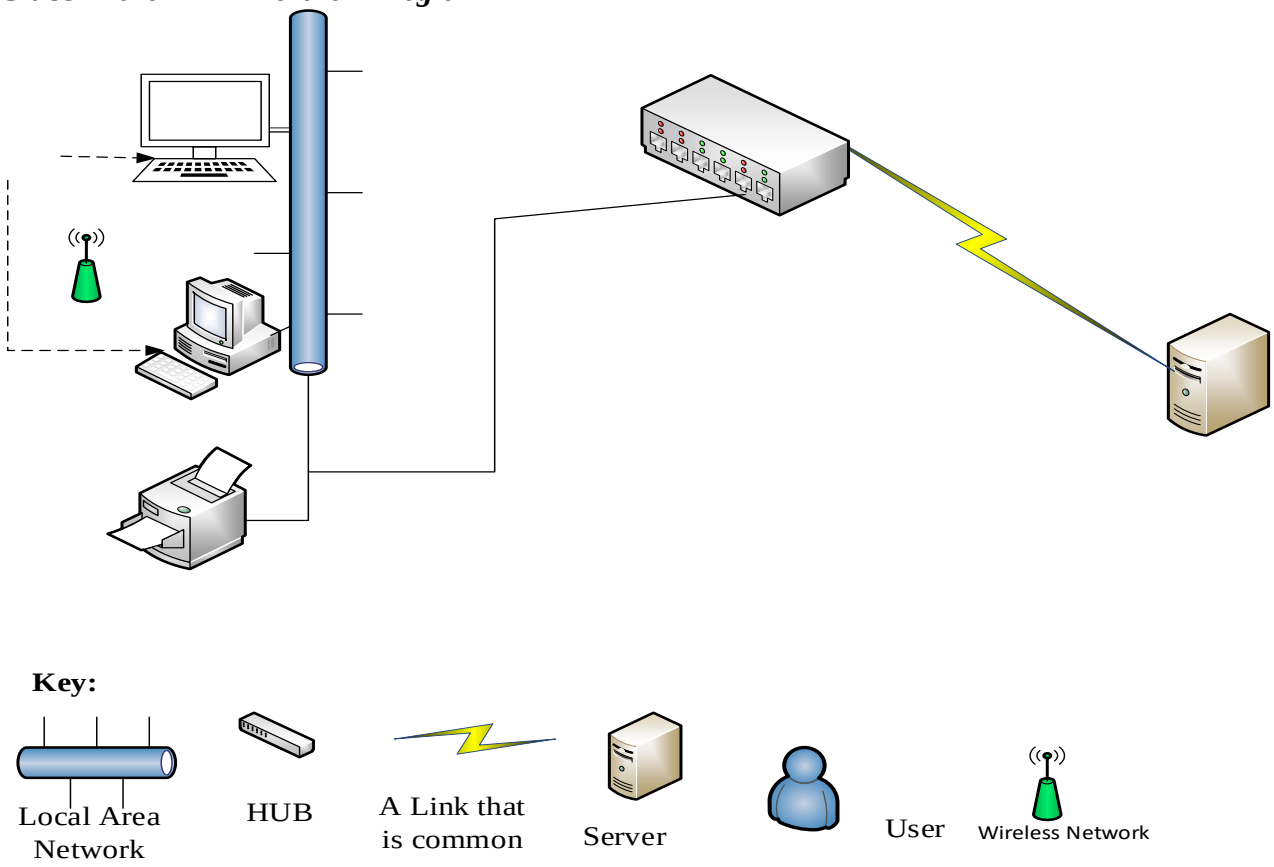
5.3.2.4 Firewall

The firewall is a software application that is intended to prevent unwanted access while allowing outbound communication. It is a crucial component in shielding the local area network from malicious and untrustworthy internet infections. According to the rules that are configured on it, the firewall examines incoming and outgoing data packets to determine whether or not they should be allowed (Noureddine, 2013). It serves as a link between an organization's local area network and the unreliable internet.

5.3.3 Physical Design

Through a wide area network (WAN), users will have access to the central database and other network resources. The system's physical architecture is depicted in full below, with every device component linked together in a network with a star topology. The physical design outlines the intended integration of the software and hardware. The Wide Area Network connection will allow the database to be accessed by the combat sports community from various geographical regions.

Figure 5.4:
Physical design of the interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region



5.3.4 Database Design

The arrangement of data in a database model is known as database design. The developer established the necessary data to be saved and the relationships between the various data items (Hernandez, 2013). According to the client-server model, a database server is a computer program that offers database services to other computer programs or computers. It can also refer to a machine that is specifically used to execute a database application. The combat sport notational performance analysis system utilizes the MySQL database as its database server.

5.3.4.1 Database Tables

A table is a grouping of related data stored in a database in an organized manner. For ease of navigating across the database, when a table containing the necessary data is accessed, it is typically referred. A relationship between the tables may be implied by the existence of a unified

database for the tables. The database of the Combat Sports Computerized Notational Performance Analysis System will contain the following tables.

Table 5.5:
List of Northern Division Fixtures

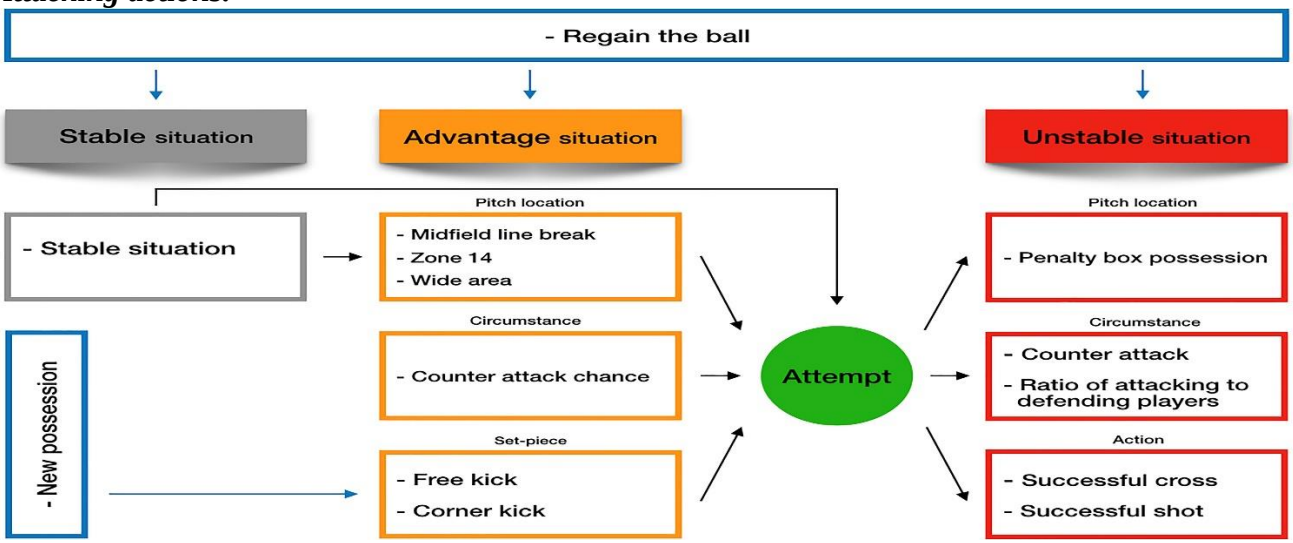
Table 5.6:
Football News

Table 5.7:
List of users

id	username	password	created_at	updated_at
4	mashcom	password	2023-02-14 13:51:46	2023-02-14 13:51:46
5	hello	passwi	2023-02-15 12:35:59	2023-02-15 12:35:59
7	helloggg	passwi	2023-02-15 12:36:15	2023-02-15 12:36:15
8	rwerwr	wrwrw	2023-02-15 12:37:44	2023-02-15 12:37:44
9	fdfdfdf	fdfdfd	2023-02-15 12:39:06	2023-02-15 12:39:06
10	ffff	fffff	2023-02-15 12:39:38	2023-02-15 12:39:38
11	ffffffff	fffff	2023-02-15 12:39:42	2023-02-15 12:39:42
12	fdfgdfd	fdfdfd	2023-02-15 12:40:16	2023-02-15 12:40:16
13	mello	fdfdfd	2023-02-15 12:40:22	2023-02-15 12:40:22
14	fdfdfdfdfdfd	fdfdfdfd	2023-02-15 12:47:19	2023-02-15 12:47:19
15	VVV	VVVV	2023-02-15 12:52:34	2023-02-15 12:52:34

Table 5.8:
Player Statistics

Table 5.9:
Attacking actions.



5.3.5 Interface Design

The interface of the Division One Football Clubs in the ZIFA Northern Region of Zimbabwe Interactive Digital Communication Platform serves as a hub for communication between the user, the hardware, and the program they are using. The interface was created with an emphasis on encouraging a positive user experience, optimizing efficiency, and being responsive. The only other method a user can engage with and control software that is intangible is by using a user interface. In order to guarantee the best possible interaction platform for users—in this example, a shared border for communication between stakeholders with the system—interface designing was done for the Division One Football Clubs in the ZIFA Northern Region Interactive Digital Communication Platform.

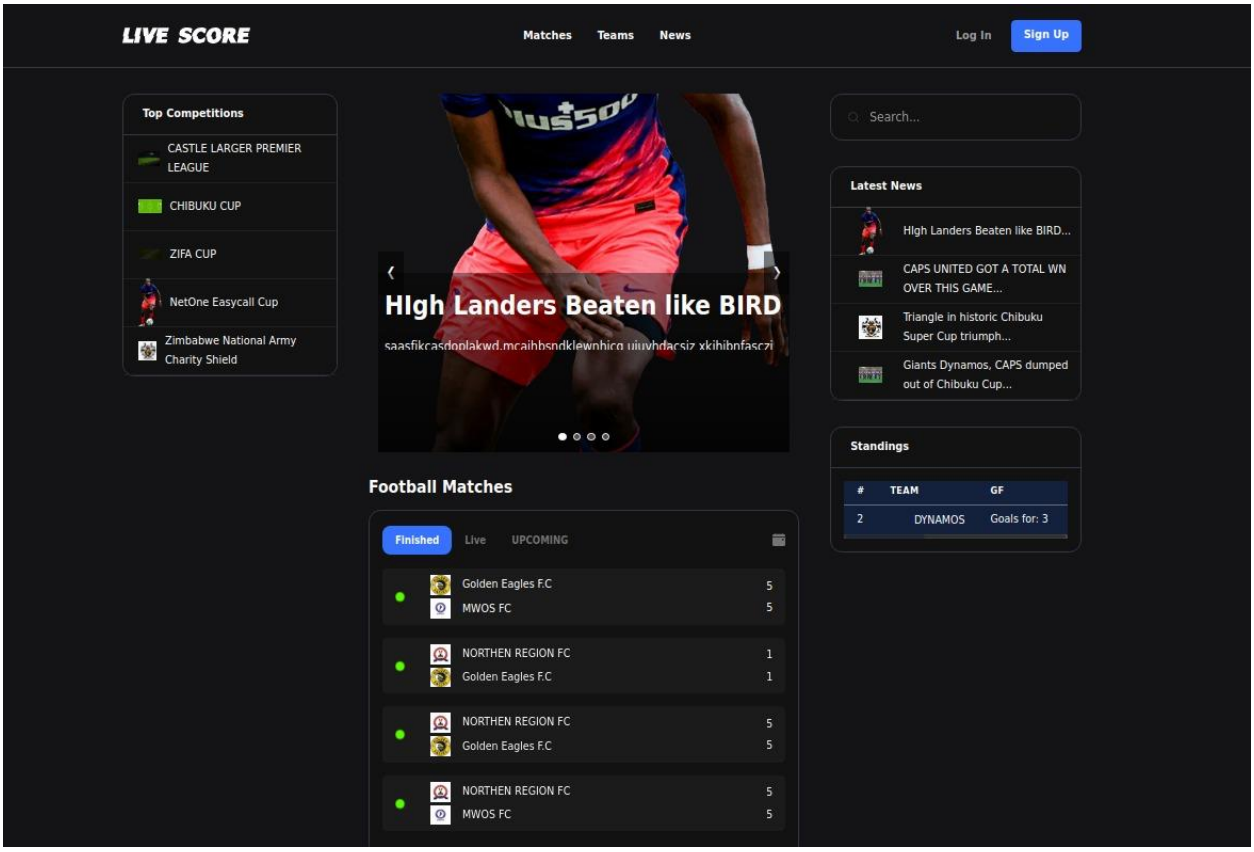
5.3.5.1 Menu Design

One element of the Graphical User Interface (GUI), a common intermediary between the user and the database, is a menu. The menu is the one in charge of showing the user what the system has to offer. One can now choose the location inside the system they want to visit first from the menu.

5.3.5.2 Main Menu

For the user, this is the first point of contact. Everything the system has to offer is displayed here.

Figure 5.10:
Main menu



5.3.5.3 Sub-Menus

Submenus are little pop-up windows that show up when the mouse is over or clicked on a title on the main menu. They are sometimes referred to as drop-down menus that show up on the home screen. A number of diagrams based on the current main menu will assist in illustrating this.

5.3.6 Input Design

The system offers a number of input forms where users are asked to fill in the necessary data in order to proceed or access further features. As seen in the following diagrams, these were intended to be straightforward and simple to comprehend.

Figure 5.11:
Login Page

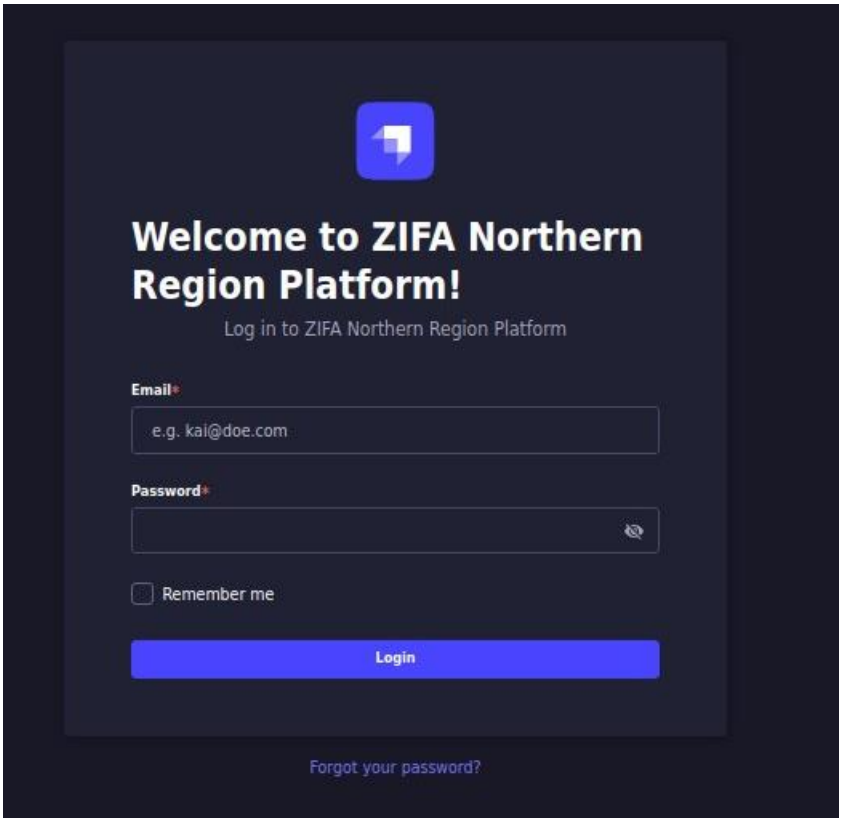


Figure 5.12:
Football match event information input form

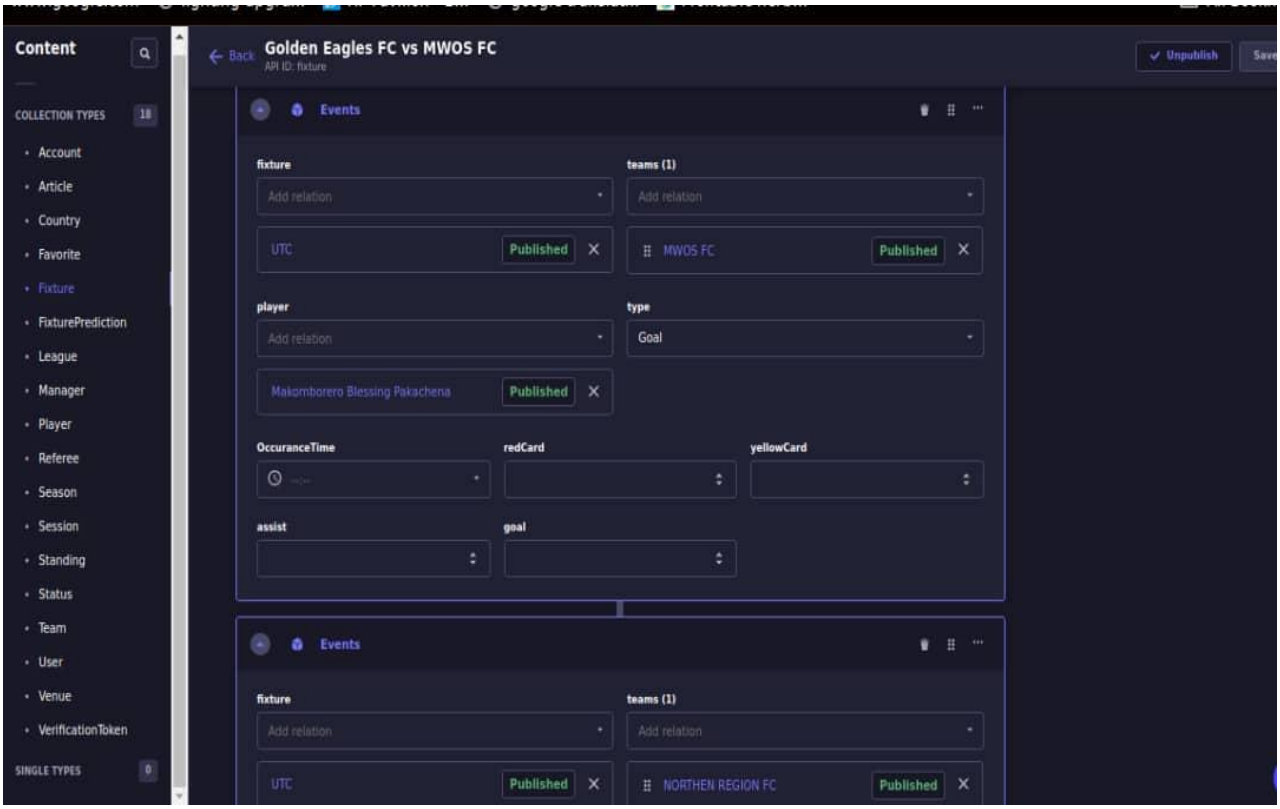
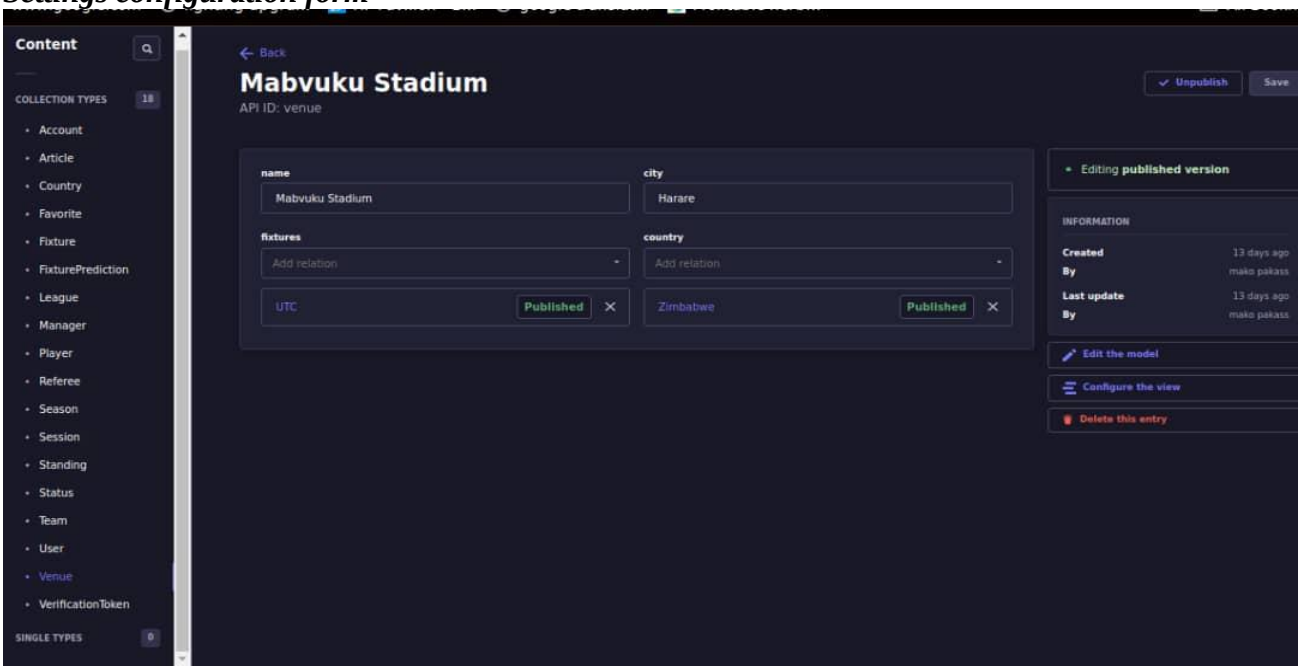


Figure 5.13:
Settings configuration form



5.3.7 Output Design

The term "output" describes what results from manipulation, and this is what the user will be anticipating or waiting for following the submission of a request, which is another name for a query. Similar to the input forms, the output must be succinct, straightforward, comprehensible, and organized. After logging in, users must receive a response indicating the degree of success of their request. If the log-in is successful, the screen will display the information below.

Figure 5.14:
Predictions

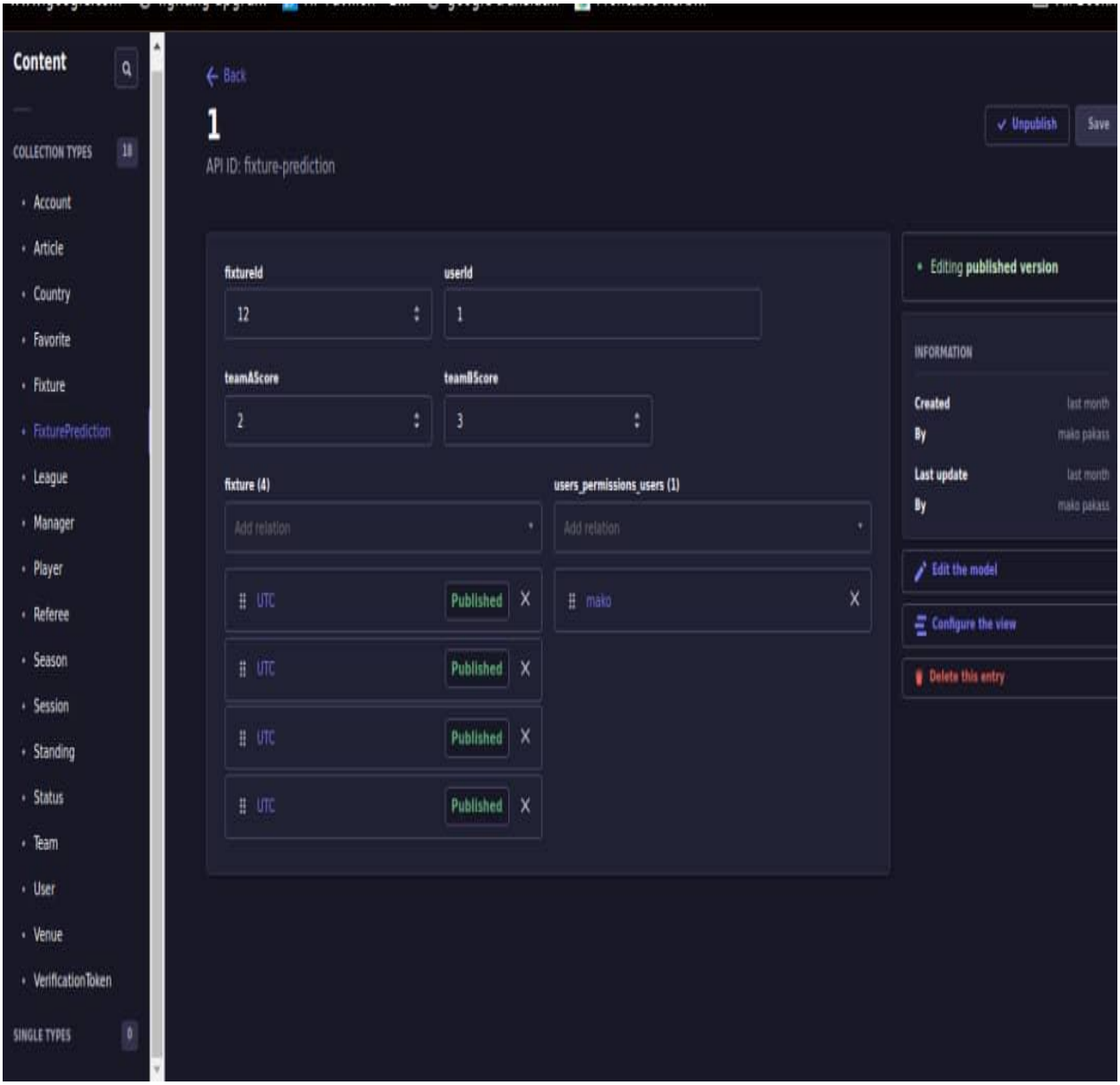
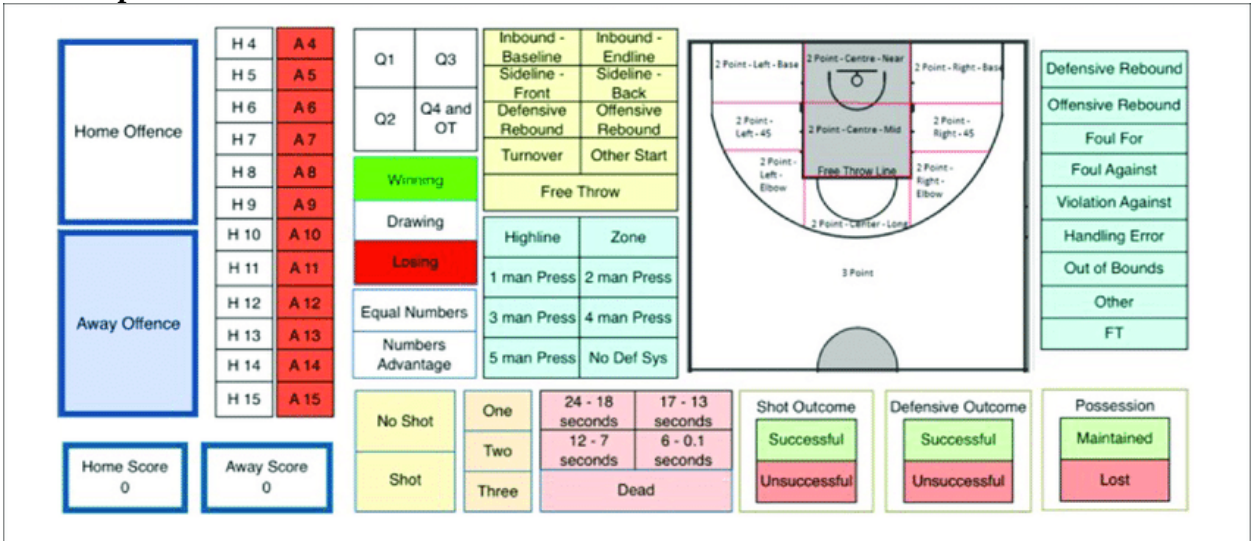


Figure 5.15:
Users report



5.3.8 Security Design

A cooperative approach was taken from the very beginning of the project and persisted in the whole duration. Every system entry point has been validated and authenticated in order to prevent dishonest individuals from hacking the system and to prevent unauthorized access that may eventually cause data loss. The user will be prompted to authenticate themselves using their login credentials per the system's design.

5.3.8.1 Physical Security

Lock and key was a tactic employed to impede a negative event's advancement before assets were compromised. The reaction will be applied to lessen the impact of the incident or attack. In order to quickly return operations and system functionality to normal, recovery is the last step.

5.3.8.2 Network Security

Avast antivirus software and firewalls were placed on the machine to guard against virus programs that can corrupt the system, especially the MySQL server, which is susceptible to virus attacks. The goal of these measures was to identify a variety of threats and prevent them from entering or propagating on the network.

5.3.8.3 Operational Security

Since people are the ones who use the system over time, this is a problem involving human labor. In order to prevent data distortion, this entails watching over and browsing the data packets while they are being sent between machines or devices both during and after the transfer. Upon finishing every task on the system, users will be reminded to log out, and all login sessions will be deleted shortly thereafter.

5.3.8.4 Security: Valuable data or information is protected by the system from unauthorized use, access, disclosure, and unlawful modification. A number of security measures were put in place, including physical security with locks and keys and software security with passwords and access levels. The use of passwords and inscriptions guaranteed database security. Finally, the adoption of firewalls allowed for network security. To put it briefly, the ZIFA Northern Region's Division One Football Clubs' Interactive Digital Communication Platform offers security measures that protect and guarantee the privacy and confidentiality of information resources used by the combat sports community.

5.3.8.5 Reliability: In a climate where load shedding and frequent power outages are commonplace, reliability is crucial. In the event of a power outage, all system sessions are retained, and the database was created so that data does not obstruct one another, improving the reliability of the information. Smooth and efficient communication between the league and stakeholders is made possible by the Division One Football Clubs in the ZIFA Northern Region's Interactive Digital Communication Platform.

5.3.8.6 Efficiency: The performance of the system illustrates a procedure that generates the most outputs with the fewest inputs.

5.3.8.7 Cost: Long-term system maintenance doesn't come at a significant expense to the company, which lessens the financial burden that is transferred to the end user. In situations where the system needs to be developed or new features added, it is simple to maintain. Division One Football Clubs in the ZIFA Northern Region have access to an interactive digital communication platform that is simple to update, adapts to new feature requests, and integrates well with both current and future modifications. You can use the system for free online as well. Users just need to have an internet connection on their devices in order to access; all they have to do is register as coaches, administrators, or performance analysts using any device that has a web browser installed. The software can be used without cost.

5.3.8.8Reports: the system generates various reports

5.3.8.9 User-friendly: The user interfaces were built with the intention of not intimidating people. Simple mouse clicks to note data and common language were employed.

5.3.9 CODING

Coding is the process of turning program logic into specific instructions that the computer system can execute (Dennis et al, 2012). JavaScript was used in program coding.

5.3.104 TESTING

To notify the ZIFA Northern Region football leaders on the caliber of the program being tested, an inquiry was carried out. When developed software satisfies every need of the user, it is considered successful. Thus, software testing was carried out to confirm anticipated software functionality. Finding every bug in the new system was not the goal; rather, it was to draw attention to circumstances that might have a bad effect on consumers.

5.3.10.1 Unit Test

To ascertain functionality, each system component was separately tested in isolation from the other system components. Forms were used to add information to the system and to test different versions of the forms. After that, the Microsoft SQL Server was examined to make sure the data entered had been updated in the database. The fact that the gathered data was updated in the database indicates that the unit testing was successful.

5.3.10.2 White Box Test

White box testing was used to evaluate system finer points and user interfaces. In order to prevent errors of any kind later on, white-box testing during unit testing finds any problems early on and helps with any defects that occur later on after the code is merged with the rest of the program (Ammann, 2016).

5.3.10.2 Integration Test

According to Hauser (2011), integration testing entails comprehensive testing of a system made up of numerous subsystem components or pieces. The software development procedure known as the integration test was carried out, wherein program components are merged and put through various group tests. Before issues or difficulties arise during program execution, it can reveal an issue with the interface between the program's components. By using this strategy, the number of options is reduced to a much more basic level of examination. The following tasks were included in the integration testing process:

- User interface testing, which involves evaluating the system's graphical user interface to make sure it satisfies requirements..
- Testing the system interface entails making sure that information is correctly exchanged between the administrator account and the accounts of other users.

5.3.10.3 Black Box Test

Black box testing was used to assess the system's operation without looking into its internal components or mechanisms (Setiani et al, 2019). The functional requirements of the work, product, and software application served as the basis for testing.

5.3.10.4 Defect Test

To find systemic flaws, the proposed system underwent defect testing as well. Before software was released to users, simulations of data overflow and type mismatch were run to look for bugs.

5.3.10.5 System Test

System testing was done to look for mistakes that might have come from different parts of the system interacting with one another. Additionally, forms were examined to make sure they were effectively exchanging data with the database and one another. The fact that every piece of data entered into the system updated the database appropriately indicates that the system was built correctly. As a result, the requirements for creating an interactive web-based digital

communication platform for Division One Football Clubs in the ZIFA Northern Region System were satisfied.

5.3.10.6 Subsystem Test

The system's independent components' functionality was evaluated. The developer rigorously exercised the pertinent interfaces at this phase and tested the interfaces to look for interface mismatches. Forms were considered as independent subsystems, and their functionality was assessed through testing.

5.3.10.7 Alpha Test

In an effort to create an appropriate system, specific processes, input, and actions taken by system users were identified. Alpha testing revealed anomalous system behavior, which was fixed.

5.3.10.8Acceptance Test

In order to determine whether the system was ready for delivery, it was evaluated for acceptability. User acceptance testing (UAT) is one type of acceptability testing that was done.

5.3.11 Validation

The program was assessed both throughout and after the development process to make sure the right specifications were met and the needs of the user were met.

- Verification is the process of assessing if the system, module, or component that has been produced meets the requirements or objectives that were set for it at the beginning of development.
- Validation: At the conclusion of the system's development phase, it was assessed and compared to the predetermined system requirements.

5.3.12 System Security

Using the Secure Hash Algorithm (SHA) and the Salt algorithm as hash functions, all of the passwords used for this system have been encrypted. The server will be located in the server room, which will be closed off to unauthorized personnel. varying users have varying levels of access to the system, such as the administrator. Within each access level, coaches and analysts have different privileges.

5.3.13 Installation

Preparing a program for execution is known as installation (Kendall and Kendall, 2010). According to the design specifications, the system developer installed the system. During

installation, code is usually generated or copied from the installation files to new files on the local computer so that the operating system may access them more easily. The ensuing procedures will be executed:

The system will be hosted on the Internet so that football stakeholders across the country can access it;

The system database will be hosted on the server as well. The server-side folder will be hosted at ZIFA House, sharing the same domain with the company's web-based systems.

5.3.1 4 User Training

One of the most important factors in the Division One Football Clubs in the ZIFA Northern Region's effective adoption of the interactive digital communication platform is end-user training. The developer completed the following training to ensure a successful installation:

Administrators of the ZIFA Northern Region League are the only employees at this level of access who possess intellectual authority over how the organization uses the technology. Adding new users to the system, uploading team and player profiles, entering match schedules, performing system data backups, looking into or troubleshooting, fixing mistakes in statistics captured during live updates, and viewing fan predictions were all covered in this group's training.

5.3.15 System Changeover

The seamless transition from manual to digital processes and the minimization of disturbances to daily operations were the two main concerns of the system switch. On a specified day, all individuals connected to the new system transitioned to the operational system, known as "big bang adoption" or "direct changeover" (Scott, 2010). This kind of changeover strategy, which involves a sudden transition from the old system to the new one, is crucial. Due to the sudden switch, everything was completed according to a set timetable..

5.3.16 Maintenance

Software maintenance is the process of making changes to a program after it has been delivered in order to fix bugs, enhance performance, or improve other features (Sommerville, 2011). Users will eventually become aware of new requests, and when new technologies emerge and mistakes are bound to happen, these will also need to be investigated and resolved. Throughout the system's life cycle, all types of maintenance (preventative, adaptive, perfective, and corrective) must be performed.

5.5 LIMITATIONS OF THE STUDY

- The study employed a mixed method that required a lot of labor.
- Due to his hectic work schedule, the developer was not always accessible when I needed him, which prolonged the software delivery process.
- The developer did not completely comprehend soccer language, which led to numerous adjustments due to incorrect vocabulary.
- Follow-up through the CEO secretary was done to secure the approval letter from the ZIFA CEO;
- Follow-up and scheduling appointments were done to interview the study's critical respondents who had busy schedules in order to address the gap in the literature.

5.6 CONCLUSION

The debate in light of the research findings, fresh perspectives, and study limitations were the main focus of the chapter. More details were revealed regarding the procedure and design of the system that ZIFA Northern Region will be putting into place. Additionally, this stage provided an illustration of the database, network, and architectural design framework. The next steps in the next chapter are recommendations, implementation, and conclusions.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter focuses on the conclusions and recommendations. The conclusions will address the research questions outlined in Chapter One. Recommendations for practice and further study are suggested in this chapter. The chapter also outlines the implementation of the design solution where the system will be tested before it goes into live operation, to guarantee users' requirements satisfaction. After successful testing, the system will be installed and officially launched for utilization.

6.2 CONCLUSIONS

6.2.1 Research Question 1

What platforms are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

The research concluded that Facebook and WhatsApp commonly referred to as social media are the most used digital platforms in brand communication and fan engagement for Division One Football Clubs in the ZIFA Northern Region.

6.2.2 Research Question 2

How effective are the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

The findings showed that platforms that are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region are ineffective and inappropriate as not add any value to the League’s brand appeal as well as its engagement with fans and clubs.

6.2.3 Research Question 3

What interactive digital platform can be developed for effective brand communication for Division One Football Clubs in the ZIFA Northern Region?

The ZIFA Northern Region's Division One Football Clubs now have access to an interactive digital communication platform and mobile application. The technology generates various statistics and updates that can drive traffic to the leagues' post-match and during-match activities. The system is easy to use, which means that neither administrators nor users will find it difficult to navigate. The system's dependability, affordability, and ease are further qualities. When we state that the system is comprehensive, we mean that it has all of the features that respondents to our questionnaires and interviews indicated. The system solves the issue of providing football fans on-the-go match updates with access to live game videos, breaking news, and conversation starters so that the fans continue to discuss and debate the games long after the final whistle.

6.5 Implications of the study

6.5.1 Implications for Practice

The research findings raised several recommendations and these will be presented in two subheadings as implications for practice and implications for further studies.

- **ZIFA Northern Region Soccer League** - They should use the study to facilitate a shift towards the use of digital technology in reaching out to fans and clubs. They should formulate strategies to ensure that live match updates are available for all matches and crucial historical data is captured on the platform.
- **Change management –** Club and League administrators have to include all parties involved in the change and always inform them about the change process so that they can be part and parcel of the change process. Such involvement minimizes resistance to change in addition sports administrators should introduce change gradually not overnight as the football community is likely to resist change if the change is dramatic as some of the changes have a cost implication on their clubs. For instance, the CAF club licensing guidelines require that all match venues have media centers with Wi-Fi connectivity, the requirement for clubs to assign players with permanent numbers with names written means more uniforms to be purchased.
- **Sponsors and donors –** Sponsors and donors are urged to consider resourcing the interactive digital communication platform through donations or paid advertisements as well as features and promotions. Content marketing can broaden sponsorship opportunities with existing or new partners who want to affiliate with their goals of wider reach.
- **Media –** Media is encouraged to offer positive media coverage that adds the value of the

- **Fans and athletes** - Fans and athletes are encouraged to play a role in utilizing resources carefully and take part greening movement.

6.5.2 Implications for Further Studies/Further Development

The Division One Football Clubs in the ZIFA Northern Region's Interactive Digital Communication Platform's application developer proposed the following enhancements as some of the essential ones that should be implemented to maintain the system's effectiveness: • The system should produce individual player and club reports

- There is a need to factor in other features such as placing of live bets to mention just a few.
- A backup of the files should be considered as a fallback position if the system faces challenges such as a cyber-attack or virus attack the essential information can be easily retrieved from the backup facilities
- The use of GPS and other vital sensors will enable the automatic detection of other player performance statistics during the match such as heat map, passes, and distance covered for example.
- The video analysis interface should be designed and be part of the system.
- The system should produce individual player and club reports
- The main topic that should be addressed in future work is the evaluation of the results in a real simulation with human interaction.

The frontend development also has a range of features that can be added, especially with a focus on possible commercialization.

The design aspect is also a topic to consider that can add value to what has been presented. Some of the features that can be added are shown in the following list:

- Location - Knowing the address of each match, it would be useful to add the validation of the user’s location through GPS information to confirm that the user is in place to be able to contribute to the system.
- Notifications - The implementation of a notification system, which is also possible in a PWA would be very useful to keep the user engaged with the platform.
- E-Ticketing - The information system designed does not answer for scenarios like the occurrence of the half time or the end of the game, which is variable depending on the extra time defined by the referee. This implementation would be another valuable contribution to the

information collected.

The work developed corresponds to the expectations and offers sports a new window of opportunities to grow, which can significantly increase the collection of information when compared to current capabilities

6.6 CHAPTER SUMMARY

The study's recommendations and conclusions were covered in this chapter. The main conclusions of the study were summarized in the first section of the chapter. Following that, findings were reached in accordance with each of the study's research objectives, and suggestions and practical ramifications were also covered. There were also talks on potential research topics in this chapter. Now that the initiative is over, it was a success. The system was successfully implemented, and tests were conducted to ensure data integrity, validation, and verification. In this chapter, plans and tactics for the system's installation, software testing, and upkeep have been presented as a means of assistance for the system's developer and users.

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APPENDICES

Appendix A: Introductory Letter

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE AND ENGINEERING

P. Bag 1020

BINDURA, Zimbabwe

Tel: 263 -0662106134

Fax: 263 -0662107552/6007

Cell: 263-772916712

Department of Sports Science

9 November 2023

TO WHOM IT MAY CONCERN.

RE: MASTER OF SCIENCE IN SPORTS SCIENCE DESSERTATION STUDY ACCESS REQUEST.

This is to certify that Msc2404 is a bona fide Master of Science in Sports Science student in the Department of Sports Science at Bindura University of Science Education. He is conducting an action research study entitled: '**CREATING AN INTERACTIVE DIGITAL BRAND COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION.**

We are kindly requesting your organization to partner with him in the study by participating in the data collection and intervention strategy development process.

Participation in this research is completely voluntary and you may choose to withdraw from the research at any time. The information from your organization will only be used for academic purposes and be kept private and confidential. Codes will be used to identify participant organizations. This is meant to ensure that information would not be linked to the providers. Password-protected computers will be used to store any identifiable information that may be obtained from your organization. Data will also be analyzed at the group level, to ensure anonymity.

Your support will be pivotal to the success of the study.

If you have any queries regarding this project, please phone me at 0772916712, or lysiastapiwacharumbira1968@gmail.com or lcharumbira@buse.ac.zw

We would like to thank you in advance for your support.

Yours Sincerely

Lysias Tapiwanashe Charumbira (Dr.)

Chairperson

Appendix B: Approval to conduct study

Appendix C: Consent Form

BINDURA UNIVERSITY OF SCIENCE EDUCATION

CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

Researcher's Name: Msc2404

Research Title: **CREATING AN INTERACTIVE DIGITAL BRAND COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION.**

1. Introduction

You are being asked to participate in a research study. This research is being conducted to CREATE AN INTERACTIVE DIGITAL BRAND COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION**.** You have the right to be informed about the study procedures so that you can decide whether you want to consent to participation. This form may contain words that you do not know. Please ask the researcher to explain any words or information that you do not understand. You have the right to know what you will be asked to do so that you can decide whether or not to be in the study. Your participation is voluntary. You do not have to be in the study if you do not want to. You may refuse to be in the study and nothing will happen to you. If you do not want to continue to be in the study, you may stop at any time without penalty or loss of benefits to which you are otherwise entitled.

2. Description of the research

The study aims to investigate the dominant methods of performance analysis that are being used in soccer sports performance analysis, to investigate the effects of using such methods for performance analysis in combat sports, to come up with performance determining factors that will

be incorporated into the interactive digital communication platform and finally to develop the interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region. When you choose to participate in the study, you will be asked to complete a questionnaire or take part in an interview

3. Subject participation

Thirty (30) participants will take part in this study and these include ZIFA officials, coaches, club owners, Ministry of Sports, and footballers. Participants must have some motor ability in either of the hands, be able to read and write, and verbally communicate. Your participation will involve approximately 15 minutes in length.

4. Potential risks

There are no known risks.

5. Potential benefits

People who participate in this study may have a better understanding of performance analysis in combat sports and will contribute to the development of a new interactive digital communication platform for Division One Football Clubs in the ZIFA Northern Region

6. Confidentiality

Your responses are completely anonymous. No personal identifying information or IP addresses will be collected. Quantitative and qualitative results will be shared with the Chairperson and the faculty in the academic unit. I will keep your name separate from your words, I will not use your name in any quotations or reports of my findings and I will omit or obscure any identifying details. I can use audio recordings however once audio recordings are coded and transcribed they will be deleted. Chat history will be deleted after data compilation.

7. Compensation

8. You will receive no payment for taking part in this study.

8. Voluntary participation and authorization

Your decision to participate in this study is completely voluntary. If you decide to not participate in this study it will not affect any relationships, you have with the researcher

9. Withdrawal from the Study

If you decide to participate in this study, you may withdraw from your participation at any time without penalty.

10. Cost

To participate in this study you need to have access to Wi-Fi, Data, or WhatsApp bundles.

11. Authorization and signatures

I have read this consent form and my questions have been answered. My signature below means that I do want to be in the study. I authorize the use of my records and data found during this study for education, publication, and presentation.

_____ _____

Name and Signature Date

Appendix D: Confidentiality Agreement

BINDURA UNIVERSITY OF SCIENCE EDUCATION

CONFIDENTIALITY AGREEMENT

This agreement is between:

Individual Receiving the Information:

Mr., MSC2404 Investigator, Student at Bindura University of Science Education

and

Name of Individual Disclosing the Information:

……

for

A Research Entitled:

CREATING AN INTERACTIVE DIGITAL BRAND COMMUNICATION PLATFORM FOR DIVISION ONE FOOTBALL CLUBS IN THE ZIFA NORTHERN REGION.

I agree to:

1. Keep all the research information shared with me confidential. I will not discuss or share the research information with anyone other than those identified by the Researcher.
2. Keep all research information secure while it is in my possession.

3. Return all research information to the Researcher when I have completed the research tasks or upon request, whichever is earlier.
4. Destroy all research information regarding this research project that is not returnable to the Researcher after consulting with the Researcher.
5. Comply with the instructions of the Researcher about requirements to physically and/or electronically secure records including password protection, file/folder encryption, and/or use of secure electronic transfer of records through file sharing, use of virtual private networks.
6. Not allow any personally identifiable information to which I have access to be accessible unless specifically instructed otherwise in writing by the Researcher.

SIGNED:

a. Individuals Receiving the Information:

Name……Signature ……Date…….

b. Individuals Disclosing the Information:

Name……Signature ……Date…….

c. Witness:

Name……Signature ……Date…….

APPENDIX E: QUESTIONNAIRE

BINDURA UNIVERSITY OF SCIENCE EDUCATION

QUESTIONNAIRE CLUB MANAGERS

Introduction

My name is MSc 2404, a Master of Sports Science student at Bindura University of Science Education under the Faculty of Science and Engineering. I am carrying out research that seeks to develop an Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region**.** All your responses are strictly confidential. The information obtained will be sorely used for academic purposes. Thank you for being part of the study and your participation in completing this questionnaire is very much appreciated. No question is compulsory and there are no right or wrong answers.

Instructions

1. Tick the box aligned to the answer of your choice
2. There are some questions where you need to write in an answer, a space will be provided for you to do so.
3. We encourage you to answer every question as best as you can.
4. There are no right or wrong answers, your honesty will be much appreciated.

Demographic Data

1. Gender
   - Male
   - Female
2. Age?
   - 18-29 years
   - 30-39 years 40-49 years
   - 50years and above

3. Level of education?
   □ Secondary □Certificate □Diploma □ First Degree □Post Graduate
4. Experience with Division One Football Clubs in the ZIFA Northern Region?
   □ 1-3
   □ 4-6
   □ 7-9
   □ 10 years and above

Main Questions

Kindly indicate if you agree with the following statements, by ticking the appropriate box.

#		Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
6	My club uses traditional communication platforms (newspapers, magazines, billboards, and television) for brand communication.					
7	My club uses its website platforms for brand communication.					
8	My club uses social media platforms for brand promotion.					
9	My club uses social media platforms for fan engagement.					
10	My club uses social media platforms to livestream their matches.					
11	My club uses content marketing for brand communication.					
12	My club uses mobile marketing applications for brand communication.					
13	Pre-match and post-match interviews as well as match highlights are accessible online					

14	Player statistics (Goals, Assists, Cautions, Suspensions, demographics, and registration status) are available online					
15	The brand communication platforms currently being used by clubs in the ZIFA Northern Region Division One Football League are appropriate.					
16	The brand communication platforms currently being used by clubs in the ZIFA Northern Region Division One Football League have an effective target market reach.					

17 Tick at least 5 features you would like to be included in the Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region.

Fixtures, Results and League Table	
News and Press Releases	
War Zone (Comments Section)	
Matchday Live Updates and Scores	
Player statistics, demographics and registration status	
Pre-match interviews	
Post-match interviews	
Highlights	
Gallery	
Match day Line ups	
Database/Statistics	
Team of the Week	
Moomish or Mambara of the Week	
Quiz	

18. List any four attributes of your choice that you would like to be incorporated into the Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region.

1…….

2…….

3…….

4……

THANK YOU FOR YOUR PARTICIPATION

APPENDIX F: INTERVIEW GUIDE

BINDURA UNIVERSITY OF SCIENCE EDUCATION

INTERVIEW GUIDE (FANS, SPORTS JOURNALISTS, AND LEAGUE ADMINISTRATORS)

Introduction

My name is MSc2404, a Master of Sports Science student at Bindura University of Science Education under the Faculty of Science and Engineering. I am carrying out research that will see the development of an Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region**.** This interview seeks to collect data about the research topic. The information obtained will be sorely used for academic purposes. During the interviews, interviewers and interviewees, are not allowed to identify themselves by name, by position held, or by their organization. When participating do not use personal

information or examples that can identify you and other persons present here or not part of the discussion. The deliberations will be recorded and transcribed later. No question is compulsory. All your responses are strictly confidential. Thank you for being part of the study and your participation in this interview is very much appreciated.

Questions

Q1. Gender

- □ Male
- □ Female

Q2. Age?

- □ 18-29 years
- □ 30-39 years□ 40-49 years
- □ 50years and above

Q3. Level of education?

□ Secondary □Certificate □Diploma □ First Degree□Post Graduate

Q4. How long have been involved with Division One Football Clubs in the ZIFA Northern Region?

Q5. What platforms are currently being used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

Q6. What factors are responsible for shaping the current usage levels of digital platforms in brand communication by Division One Football Clubs in the ZIFA Northern Region?

Q7. How effective are the platforms used for brand communication for Division One Football Clubs in the ZIFA Northern Region?

Q8. What interactive digital platform can be developed for effective brand communication for Division One Football Clubs in the ZIFA Northern Region?

Q9. What features would you recommend for inclusion in the Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region?

Q10. What attributes would you recommend for inclusion in the Interactive Digital Communication Platform for Division One Football Clubs in the ZIFA Northern Region?

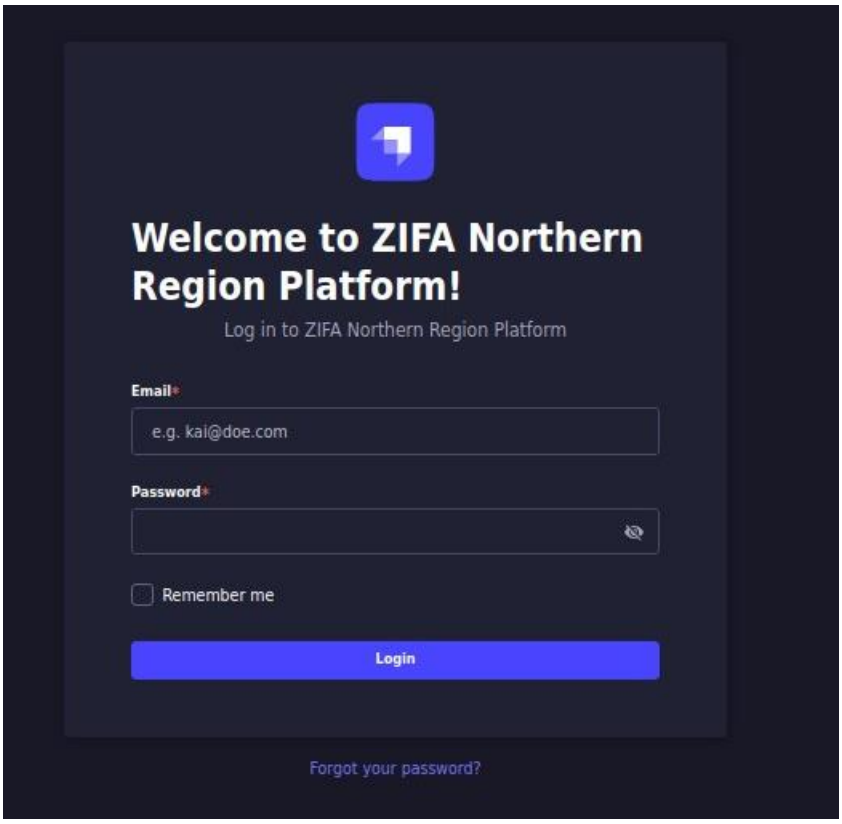
THANK YOU FOR YOUR PARTICIPATION ONCE AGAIN

Appendix G: User Manual

This significant article guides the end users of the system on how to operate or use the system by informing them on what certain features are for and how to manipulate them.

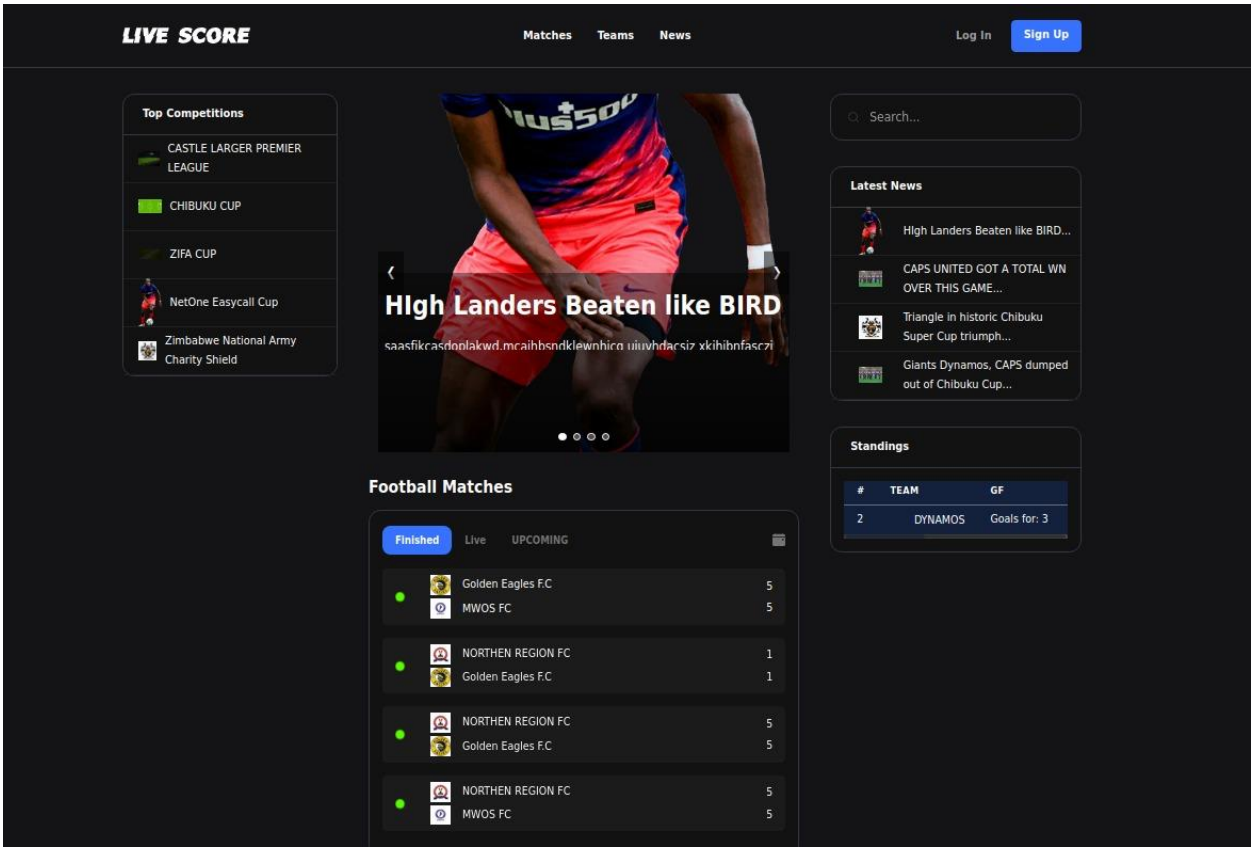
- **To access the system go to www.zifa.gov.zw using your device**

User login



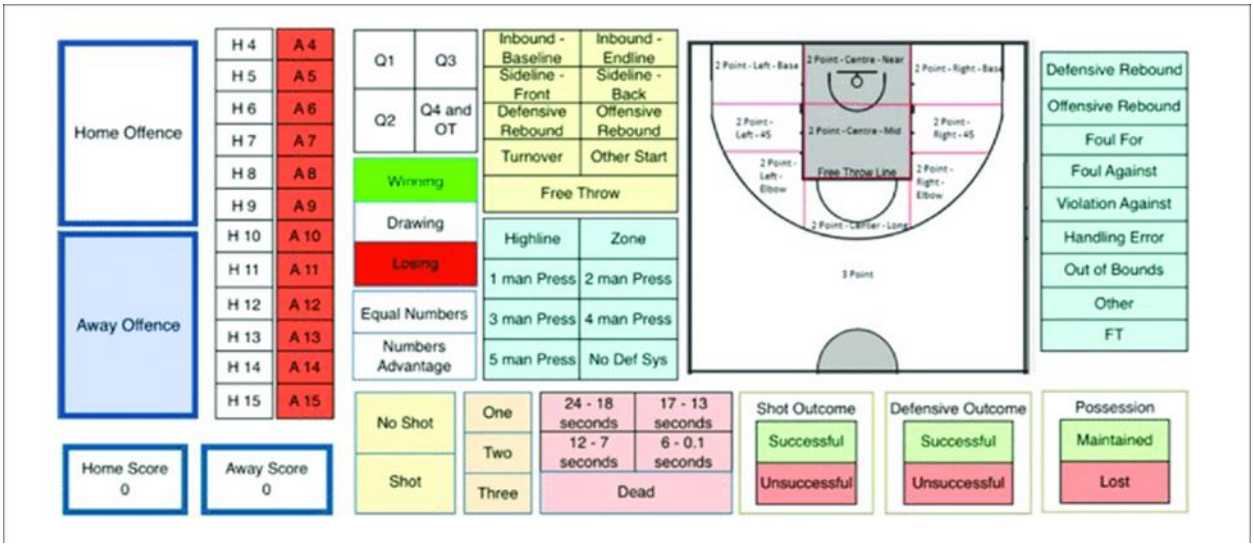
- **A successful login will lead to the main menu page**

Main menu page

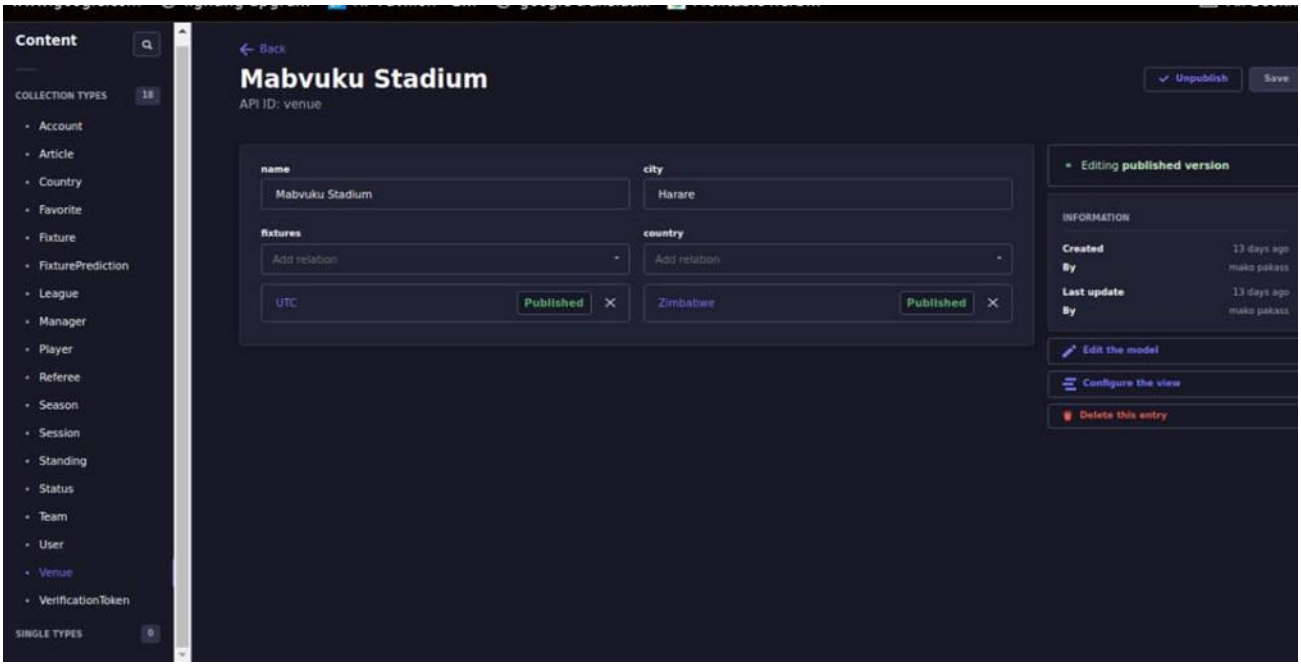


Performance notation interface

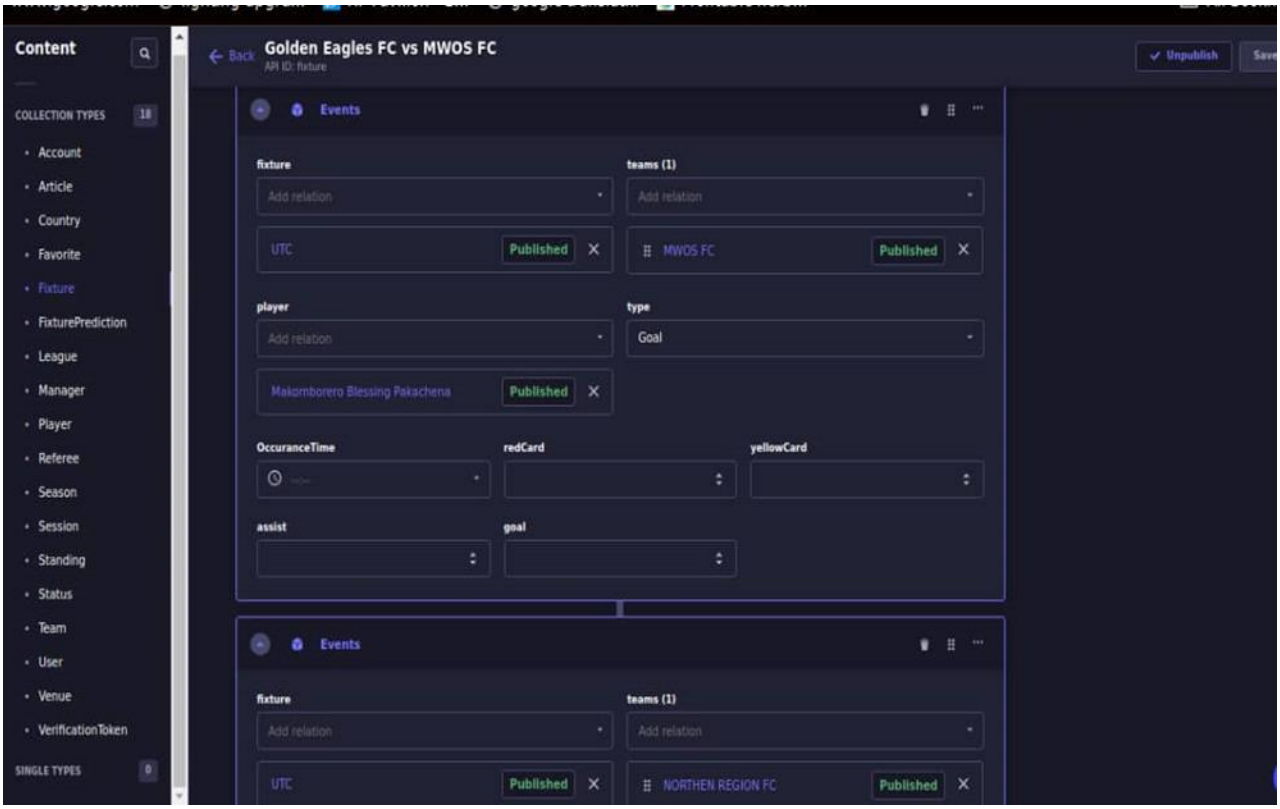
Reports



Starting a new game analysis



Settings manipulation



Attacking Actions