

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI**

**DEPARTMENT OF MARKETING AND CORPORATE STRATEGY**



**FACTORS AFFECTING THE ADOPTION OF E-TICKETING SYSTEMS IN  
GHANA'S SPORTS INDUSTRY**

**BY**

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**A THESIS SUBMITTED TO THE DEPARTMENT OF MARKETING AND  
CORPORATE STRATEGY, KWAME NKRUMAH UNIVERSITY OF SCIENCE  
AND TECHNOLOGY, KUMASI IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD DEGREE OF  
MASTER OF SCIENCE IN MARKETING**

## DECLARATION

I David Sumailla Garibu do hereby declare that this submission is my work toward the MSC in Marketing and that to the best of my knowledge, no part of it has been presented for another degree in this University or elsewhere except for the references to other people's work which have been duly acknowledged.

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## DEDICATION

This research study is dedicated to God for his Grace, my family and all other persons who helped to make this study a possibility

# KNUST



## ACKNOWLEDGEMENT

A special gratitude to the Almighty God for his strength, protection, guidance and knowledge throughout this journey.

I would like to acknowledge my indebtedness and render my warmest thank you to my supervisor, Dr Martin Owusu Ansah, who made this work possible. His friendly guidance and expert advice have been priceless in all the stages of this work. I say, may the good Lord bless him richly.

Again, my gratification goes to my entire family for their support, love, and prayers.

I am most grateful to all the respondents who dedicated their time in providing me with vital information to complete this research.

I would like to say a special thank you to the entire lecturers of the Institute of Distance Learning, Kwame Nkrumah University of Science and Technology (KNUST) who guided me through this study

Finally, to all those who contributed in diverse ways to make this work possible, I say God bless you all

## ABSTRACT

E-ticketing as a new method of issuing and delivering tickets, become profound in most sporting activities in Europe, America, Asia, and some parts of Africa to reduce ticket printing costs. Despite its benefits, Ghana's sporting industry has only recently implemented the E-ticketing system, and key stakeholders in the football industry have fiercely opposed such innovations. This study examined factors affecting e-ticketing system adoption in Ghana's sports industry. The study employed a quantitative research approach in achieving the overall research objectives. Purposive and convenience sampling techniques were adopted to sample 196 sports spectators from Accra and Kumasi Metropolis. Both descriptive and regression analysis techniques were used to examine the factors that influence the adoption of E-ticketing systems. The findings reveal that social media marketing, intentional attributes and other socioeconomic factors such as age, gender, education, employment status and income streams significantly affect the adoption of electronic ticket systems in the sporting industry of Ghana. Challenges such as the lack of infrastructure, inaccessibility, data security and protection issues, and user complexity were found to be the major challenges preventing the adoption of e-ticking within the sports industry. To promote e-ticketing as options for customers, organizations should consider increasing their investment in social media marketing, intensify digital ticketing education while revamping sport digital infrastructures together with improving accessibility to the available technological resources.



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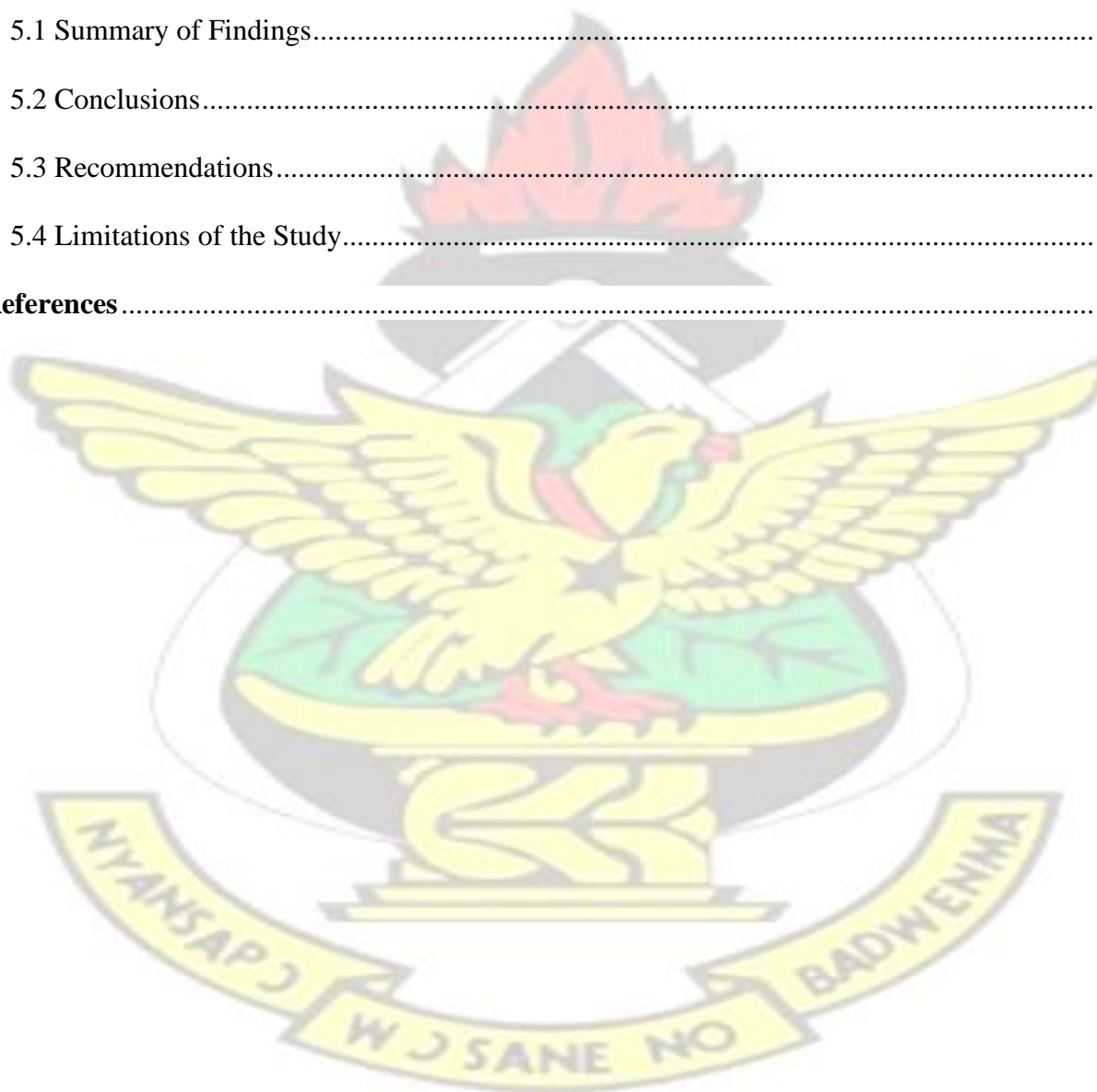
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## CHAPTER ONE

### INTRODUCTION

#### 1.1. Background of the Study

In a relatively short time, information technology has massively affected the lifestyle, attitudes and dreams for the future of a larger percentage of world's population strongly. Information Technology (IT) has extremely modified the processes consumers use in many business transactions (Arantes, 2021). Since the introduction of the world wide web and smartphones, mobile technologies have contributed from many perspectives and development of internet marketing is not an exception, thus, electronic business. This is now possible because people who own and use mobile devices continue to increase quickly. Hence, information technology is quickly changing how people conduct business globally. The development of electronic medium of commerce provides fresh opportunities for businesses to use the internet and mobile software as another marketing tools (Narwal and Sachdeva, 2013). Statistics from the Global System for Mobile Association (GSMA) showed that 50% of people in the world owned a mobile phone resulting in more than 3.6 billion mobile subscribers by 2014 and a global connection penetration at 97 per cent (David et al., 2015). The International Telecommunication Union (2015) also reported that growing countries, including Ghana, are among the top 10 African countries with the largest mobile-cellular subscription (ITU Statistics, 2019). E-commerce has been able to flourish in these nations because of the meteoric rise in mobile phone ownership and subscription rates. Since 2000, many companies have utilized the internet to advertise their products (Roy Dholakia & Uusitalo, 2002). Different sectors of the world's economy, including the transport industry, has been affected by Information Technology. One example is the emerging desire in e-commerce

which has resulted in the development of electronic ticketing (E-ticketing) by airline industries (Tourism, 2005). However, another industry yet to be revolutionised by the e-commerces is the sports industry in Ghana.

Sports have changed over the years from a game to a designated and monetized activity filled with strategies and professionalism (Gruettner, 2019; Xiao et al., 2017). The sports industry has a market value of more than \$500 billion, making it one of the largest corporate markets in the world. (PwC, 2018). At the same time digitalisation is a big trend that is reshaping the sports business. Digital technologies such as cloud computing, electronic platforms, and artificial intelligence have transformed the way sports are handled and competed. (Gruettner, 2019; Xiao et al., 2017). On and off the field of play, common uses of DTs include analytics solutions to enhance player outcomes (e.g., Cordes & Olfman, 2016), pricing forecasts for the sale of tickets (e.g., Mignerat & Audebrand, 2010), and digital technologies to communicate more intimately with sports customers, or followers (e.g., Wulf et al.)

Even though information technology is changing various sectors of the global economy, sporting industry lags the use of e-ticketing, especially in Ghana which is a problem. This is mainly because consumers are used to traditional on-sight ticket purchases (Smith et al., 2014). According to Marfo & Quansah (2020), Ghana has not implemented the e-ticketing system. There is not enough knowledge on its practicality as an alternative to forming long queues to buy paper tickets. As a result, variables influencing consumers' decisions to embrace and appreciate a new service are critical and should be investigated before the service or product is launched (Dehbashi & Nahavandi, 2009).



## 1.2. Problem Statement

The fast growth of people who use internet worldwide provides a great opportunity for e-businesses in other areas of the event's sectors as stated by (Sulaiman et al., 2008), such as ticketing (Thamnopoulos & Gargalianos, 2002). Tickets play a more significant role in the coordination of an event. It is critical to control tickets' issuing, distribution, and selling process to achieve financial success (Thamnopoulos & Gargalianos, 2002). There are a variety of options for consumers looking to purchase tickets to live performances. In the ever-evolving retail landscape, these alternative payment methods come and go. The rationale for using each strategy includes a SWOT analysis of its own strengths, weaknesses, opportunities, and trends (Long, 2010; Smith et al., 2014). One method, however, can be traced back almost to the beginning of ticketing itself, which is the conventional method of buying tickets at the venue itself. In-store purchases give customers the flexibility to buy what they want, when they want it, but they have fewer options than online stores. Consumers today, armed with smartphones and a wealth of online resources, are less likely to visit a physical storefront when they have so many other convenient alternatives. Although it is possible in Ghana (Marfo & Quansah, 2020), many consumers are unable to attend events because they lack the extra time necessary to purchase individual tickets (Sulaiman et al., 2008). Advance ticket sales have significantly altered the simplicity of buying at the venue (a significant number of days before the event). In order to purchase tickets in advance, customers often have to deviate several miles from their usual route. Customers often have the option of waiting until the day of the event to purchase tickets, but this is often viewed as a dangerous decision due to the law of supply and demand. Sometimes tickets are hard to come by or in high demand due to factors like the popularity of the sport, the opponent, the weather, and the venue.



Fans who wait until the last minute to buy tickets risk missing the game because of a shortage or a surge in demand for tickets; those who do attend may have to settle for less than ideal seating because of this, but they will still be able to enjoy an event that is in high demand. Fortunately, there is a workaround: purchasing tickets online. Siemens (2012) Siemens (2012) found that passengers' demand for easy mobility solutions necessitated the development of new ticketing concepts that were both timely and simple to use. In the airline industry, for instance, E-ticketing is used for reservations in Ghana.

Notwithstanding the above, the sporting industry in Ghana has seen a significant transformation due to technological advancements. The internet, which is widely employed in the selling and distribution of tickets, has been one of the most effective change agents. Indeed, event organizers can eliminate the need to print and distribute tickets thanks to electronic tickets, which shift those costs onto the customer. However, in order to use electronic tickets, one must have access to a computer with internet access. At the Baba Yara Sports Stadium in Kumasi, Ghana, a pilot e-ticketing system was put into place by the Ministry for Youth and Sports in collaboration with the National Sports Authority (NSA) and the Ghana Football Association (GFA) for the recent Qatar FIFA 2022 World Cup qualifying match between Ghana and Nigeria (Vigah, 2022). As a result of its success, the system has been upgraded to cover more domestic Premier League matches. Experts predict that the new ticketing system will end the era of laxity and corruption in Ghana's football ticketing system (Vigah, 2022).

Nonetheless, it is rather fascinating to state that key stakeholders of Ghana's football industry have fiercely resisted the adoption of such innovations into the football industry. Could these people have not been vigorously educated about the perceived impact of e-ticketing just as it has taken

grounds in other sectors of the Ghanaian economy, such as the transport industry? What would be the reaction of consumers toward the e-ticketing by the ministry of youth and sports? The chairman of the Ghana League Clubs Association of Ghana (GHALCA), Mr Kudjoe Fianoo, out of fury, raises several concerns about the move by the government of Ghana. He asked, "why should the government impose a company on us to handle the e-ticking without getting us involved?"(Vigah, 2022).

Investigating the factors that influence a consumer's decision to adopt and value a new service is crucial prior to its launch (Chan et al.,2022). However, the E-ticketing system has only recently been implemented in the sporting events industry in Ghana, despite the many advantages it offers. Therefore, there is little information about its viability as an alternative to waiting in long lines at sports stadiums to purchase paper tickets. Furthermore, it is unclear whether spectators would readily accept this system from the sports ministry and the "egotickets" company.

From the users/customers' perspective, another critical factor in e-ticketing is the unpredictability and instability that buyers might have at the time of reserving online tickets, especially at the cancellation of tickets and circumstances that are delayed. These challenges would link e-ticketing acceptance and adoption by customers to their opinions of the system. It is against this backdrop this paper seeks to explore the factors that may affect spectators' acceptance, especially their motive toward using e-ticketing in the sports industry in Ghana. Thus, the development of e-commerce that allows consumers not to travel to the on-site location for ticketing gains great importance. Therefore, this study looks into factors influencing consumers' decision to adopt such an application.

### **1.3 Objectives**

1. To identify the factors that influence the adoption of e-tickets in the sporting industry of Ghana
2. To analyse the effect of the factors on adoption of e-ticketing in the sporting industry of Ghana
3. To explore the potential challenges of e-ticketing on the sporting industry and other stakeholders involved

### **1.4 Research questions**

1. What are the factors that influence adoption of e-tickets in the sporting industry of Ghana?
2. How does these factors influence actual adoption of e-ticketing in the sporting industry of Ghana?
3. What are the potential challenges of e-ticketing on the sporting industry and other stakeholders involved?

### **1.5 Significance of the Study**

There is a remarkable potential for this research to be beneficial since it affords to raise questions concerning the elements that influence the adoption of e-ticketing in the sports industry of Ghana. As a result, the study is promising for spectators in Ghana and companies and stakeholders that are into sports e-ticketing in Ghana. According to the researcher, the introduction of e-ticketing into the sports industry in Ghana is relatively new. Thus, there is a dearth of information. The findings of this study tend to provide proof for most researchers and academicians, and future researchers in connection with the adoption of e-ticketing in sporting events. This study equally has the propensity to influence managerial decisions. Notably, the study will serve as a source of

decision making for such stakeholders as the sports Ministry, Ghana football association (GFA), National Sports Authority, Football Clubs and e-ticketing companies in Ghana. The study further provides insight for IT and business professionals who look to accept and fully incorporate a newly acquired innovation into their organisation. The article's framework can be used as a guide for managers as they consider how to best incorporate innovation to meet the needs of their customers.

### **1.6 Scope of the study**

Limitations placed on a research project are reflected in its scope. It determines the limits, qualifications, and caveats of scientific inquiry (Creswell and Creswell, 2003). This study considers sports activities in Ghana. The consumers who use smartphones and purchase tickets for these events are considered for the study. This study aims to assess the adoption of e-ticketing in the sports industry of Ghana from the consumer perspective. From the user perspective, in this regard, this study covered spectators in Ghana's sporting industry.

### **1.7 Organization of the Study**

A total of five chapters make up this thesis. The first chapter takes a look at the study's rationale, its problem statement, its goals, its research questions, its significance, and its scope. The second section of the paper reviews previous theoretical and empirical works that are both relevant and related to the current investigation. The strategy utilized in order to complete the study's goals is presented in Chapter 3. The presentation and discussion of the most important study findings are the focus of the fourth chapter. The study's conclusion, key takeaways, and suggestions are all summed up in chapter five, the final section of the report.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter discusses previous studies conducted by various scholars concerning the topic. This is done to provide a direction for the study. The chapter is organised into three main sections; the first part entails a conceptual review which defines the e-ticketing ecosystems and the sports industry in Ghana and the effects of e-ticketing on the sports industry. The second part provides the theoretical lens for this study. The third part provides a conceptual model, and importantly, attention is paid to explaining the relationships between the factors affecting the adoption of e-ticketing systems through the theoretical framework adopted for the study.

#### **2.1 Conceptual Review**

##### **2.1.1 The E-ticketing Ecosystem**

According to Pedone (2001), extensive internet use has developed varieties of electronic services. Electronic tickets are a remarkable example. The objective is to make it simpler for individuals to purchase or reserve tickets online, improving the procedure's accessibility and convenience. These e-services include tickets that allow customers to be at a place for amusement, use a means of transportation, or access particular online services. At any time, these services may allow you to purchase tickets from anywhere in the world. E-tickets are proof of permission to visit a venue for entertainment, use a means of transportation, or use specific online services. The explanations of e-ticketing that have been offered have been evaluated in the literature, and an examination of this literature reveals attempts to define the complete range of e-ticketing for both the organisation and the customer. For example, Alfawaer, Awni & Al-zoubi (2011) define an e-ticket as "a paperless



electronic document used for ticketing travellers, particularly in the commercial aircraft business." E-ticketing is illustrated further by Sorooshian, Onn & Yeen (2013) as "a technique of keeping a record of sales, usage tracking, and accounting for a passenger's trip with no requirement for a paper 'value document'." This explanation makes it abundantly evident that the e-ticket goes beyond just being a passenger's paperless ticket; rather, it represents a massive organisational architecture that provides a plethora of customer information. The distribution and issuing of tickets are combined into one action by the E-ticketing system (Ng-kruelle, Swatman and Kruelle, no date).

#### **2.1.1.1 Online/ Internet Ticketing System**

An information system that employs internet web technologies to provide data and services to customers or other information systems is the online ticket booking system. It is a piece of software with the primary purpose of publishing and managing data using hypertext principles as its foundation. Tickets are typically purchased online through websites that offer information about the event and provide a service for purchasing tickets or making reservations. The fundamental objective of the Internet and online ticketing is to supply customers and end-users with a helpful and efficient solution. Ticketing companies that sell tickets for travel, the performing arts, sporting events, concerts, movies, and various other activities have been especially fond of using online ticketing systems (Karami, 2006).

#### **2.1.1.2 Mobile Ticketing Systems**

Many scholars have defined mobile ticketing systems differently; (Hedman and Carr, 2006) concentrate on the entire payment actions aspect, whereas Puhe (2014) consider it to be the usage of a mobile device to hold a virtual ticket as their definition of mobile ticketing systems. These

two definitions are just two of many those various academics have proposed. Mobile ticketing systems allow tickets to be bought, downloaded, and accessed on a mobile device. When brought into proximity to NFC-enabled readers, the tickets can be retrieved, and an electronic receipt can be generated. They are relatively new and operate on the principle that the consumer's mobile phone can be used to make payments for the type of service they have purchased. They can be utilised without an internet connection, with an internet connection, or in a manner that combines the two. Because mobile ticketing is done through wireless mobile devices, data connection plays an essential part in the process. This is especially true between the user's mobile device and the service provider's mobile device (Ferreira et al., 2020). The use of mobile phones as a means of making payments for the acquisition of goods and services enables the processing of payments and the sharing of a significant quantity of information between the customer and the provider of the service (Ferreira *et al.*, 2013). The consumer may obtain accurate information about timetables and points of interest; hence, the exact payment transaction is the last stage of a sequence of data exchanges that took place before. In transportation, operators have started using even the most fundamental mobile phone services, such as calls and text messages, to purchase journey tickets. Examples of SMS-based mobile ticketing systems that have already been implemented include Paybox in Austria, which enables customers of the Austrian Railway OBB to buy transportation tickets through SMS or the Vodafone live Portal; Proximus SMS-Pay in Belgium; Mobipay in Spain; and AvantixMetro in the United Kingdom. Paybox was one of the first mobile ticketing systems to be implemented.

### **2.1.1.3 Electronic Payment System**

The proliferation of the Internet led to the development of electronic commerce, a manner of doing business involving the electronic transfer of information pertaining to transactions. The Internet's openness, speed, anonymity, digitalisation, and global accessibility contributed to the growth of electronic commerce. These features allowed real-time business activities to take place online, such as advertising, querying, sourcing, negotiation, auctioning, ordering, and paying for items (Yu, Hsi and Kuo, 2002). Numerous electronic payment techniques were exposed by Havinga, Smit and Helme (no date). Nevertheless, some systems are quite comparable, with only minor differences. There is a distinction between conventional monetary transactions, credit-debit payment systems, and digital currency. These various payment systems each have advantages and disadvantages concerning their requirements. These advantages and disadvantages include security, acceptability, usability, transaction cost, added cost (such as the cost of point-of-sale hardware), privacy/traceability, durability, and immediate control.

### **2.1.2 The Sports Industry in Ghana**

According to Pitts & Stotlar (1996), the sports sector can be defined as a in which the products rendered for sale to consumers are connected to sports, fitness, or leisure activities in some way. These products can come in the shape of businesses, goods, or services, individuals, locations, or ideas (Ko, 2013). Governing bodies, sporting clubs, and the media are some of the essential stakeholders in this market (Richardson and McGlynn, 2011). There is a wealth of opportunity for participation in sports at every level, from the youth and collegiate levels to the professional ranks. Football (soccer), American football, baseball, and hockey are just a few of the sports that currently fall under the category of "disciplines" that are performed in the world of sport (Tackie, 2018)

Over the last few decades, sports have progressed from the status of a simple pastime to that of a structured activity that has been defined, strategized, professionalised, and commercialised (Xiao *et al.*, 2017; Gruettner, 2019). It is gauged that the total market value of the sports industry is about \$500 billion, which places it among the major corporate marketplaces worldwide. The sports sector has a great influence on both the economy and society (PwC, 2018). The sports industry in Ghana is responsible for around 1.4 per cent of the 3.7 per cent that is contributed to the economy by recreation (Ghana Statistical Services, 2017). The facts of administrative inefficiency in Ghana are difficult to ignore for any reason. A significant number of sports organisations are unaware of the resources available to them (Kankam, 2017). The ability to focus more on generating sustainable development plans for the many disciplines is critical to advancing as a sector and moving closer to the point where it can be termed progressive. The activities these organisations fulfil within the context of the sports sector are of public interest and are typically headed by public administration. The Ministry of Youth and Sports in Ghana manages the country's crucial sports resources and facilities. The government has also established a National Sports Council to manage and distribute resources within the sports industry. In addition, several private organisations and individuals have taken the initiative to form non-governmental organisations (NGOs) and social businesses to cultivate an environment conducive to healthy competition. These endeavours aim to create an environment where healthy competition can thrive (e.g., Right to dream, Rite Sports Limited). Inefficiency and poor management are two potential outcomes that come to mind when considering the part, the government plays in the sports business.



### **2.1.3 Effects of E-ticketing on the sports Industry**

In Ghana, the introduction of e-tickets into the sporting business is still relatively new, and as a result, little study has been conducted in this area. The digitalisation of sports is a significant trend transforming the sports industry simultaneously. Computing in the cloud, electronic platforms, and artificial intelligence are some examples of digital technologies that have revolutionised the sporting industry's operations and how athletes compete (Xiao *et al.*, 2017; Gruettner, 2019). Both on and off the field of play, DTs are frequently used for pricing estimates for ticket sales, digital platforms for closer interaction with sports clients or fans, and analytics solutions to enhance player performance (Cordes and Olfman, 2016).

As a result of technology improvements, the sporting business in Ghana has seen a substantial transition in recent years. One of the most influential agents of change has been the Internet, which is used extensively in selling and distributing tickets. Electronic tickets enable event organisers to avoid the production and distribution of physical tickets by shifting the cost of doing so onto the customer. In order to receive their ticket, customers must possess electronic hardware and pay for internet access. The Ministry implemented a pilot e-ticketing system for Youth and Sports in collaboration with the National Sports Authority (NSA) and the Ghana Football Association (GFA) for the recent Qatar FIFA 2022 World Cup qualifying match between Ghana and Nigeria, which took place at the Baba Yara Sports Stadium in Kumasi. The system was also utilised for the Asante Kotoko vs Hearts of Oak premier league match, which took place at the same venue (Vigah, 2022). Because of how well it worked, the technology has been improved so that it now broadcasts extra matches from the local Premier League. Analysts believe that inefficiencies and corruption



in Ghana's football industry's ticketing era will be eradicated due to the execution of the new ticketing system.

Despite the points made above, it is noteworthy to observe that significant stakeholders in Ghana's football industry have vehemently rejected incorporating such innovations into the football industry. This is even though the above points have been made. The supporters and various heads of administrative departments are included in these stakeholders. The supporters' concerns centre on the fact that it is quite worrying because of the difficulties associated with obtaining the validity of the tickets and the implementation process in general.

#### **2.1.4 Factors Influencing User's Intention to use and Actual Usage**

Various research has attempted to acquire a better knowledge of consumer behaviour in cyberspace (Butler and Peppard, 1998; Chen and Shergill, 2005; Kolsaker et al., 2004). Consumer purchasing and usage decisions are heavily influenced by demographic, economic, social, situational, and technological factors, according to Shwu (2003) and Burke (2002). Age, gender, education, and income are four essential demographic parameters discovered to be significant with customers' attitudes toward online purchasing. According to Schiffman and Kanuk (1997), the greater the consumer's socioeconomic position (as assessed by education, income, and occupational status), the more favourable the consumer's impressions of online purchasing compared to offline purchasing. Furthermore, Wood (2002) discovered in his investigations that persons who are youthful, those under 25 years old, are more interested in using technology like the Internet to successfully learn about new items and, as a result, avoid purchasing on the Internet. Previous research by Steenkamp et al. (1999) and Venkataram and Price (1990) found that older buyers are less inventive and are content with traditional buying methods. Gender, in addition to age, has

been discovered to be a crucial component in shaping consumers' opinions regarding online purchasing. According to Monsuwe et al. (2004), males have a more suitable behaviour toward internet purchasing than females. They are more enthusiastic about employing the Internet as a purchasing medium, whereas female customers prefer to purchase at home with catalogs. Similarly, Shwu (2003) discovered that males had a considerably higher mean attitude score regarding internet buying than females.

Furthermore, Malahaxmi and Ranjith (2016) shows that people aware of digital channels in spite of their educational qualification and the customer prefer digital channels to buy and use any sort of products. Almohaimmeed (2019) indicated that social media antecedents have a significant effect on consumers intention to use a product. Researchers such as Keh and Xie (2000), Lafferty et al. (2002), Oztamur and Kara (2014), Seekadilar To and Ho (2014) and Muntinga et al. (2011) have also found similar effect of social media on User

#### **2.1.4.1 Social Media Marketing Activities**

One of the most important tools for growing a company in recent years has been social media (Vernuccio et al., 2015). Using a social media platform to advertise and raise awareness online, which in turn may facilitate the development of a social network for the dissemination of information and ideas, is known as "social network marketing" (Becker et al., 2013). In general, the Internet and user participation are the cornerstones of social media definitions found in the literature. To interact with public communities online, social media are web technologies, as defined by Zahoor and Qureshi (2017). The marketing industry is paying closer attention to social media as a result of the potential influence of new technologies on consumer behavior. The numerous benefits that can be obtained, such as cost reduction, increased profitability, knowledge

sharing, and the formation of business partnerships, are another factor that piques the interest of organizations in social media (Neti, 2011). Researchers have thus examined the impact of social media on customers (Hajli, 2013), the effects of social media marketing on online consumer behavior (Vinerean, Cetina, & Tichindelean, 2013), the impact of social media marketing on online shopping (Mohammadpour et al., 2014), and so on (Zahoor & Qureshi, 2017). While e-mail and website promotion are two examples of digital marketing activities, SM marketing is widely recognized as one of the most productive approaches to achieving sales goals (Habibi, Laroche, & Richard, 2014). Additionally, businesses are using social media to recruit customers as active participants in the advertising campaign and to inspire customers to become more involved and share their thoughts on the medium (Becker et al., 2013). There is a wide range of consumer social media usage (Dijkmans et al., 2015). Some social media users, for instance, are on the lookout for specific products at low prices, while others are interested in learning more about a product's features and benefits (Mowbray et al., 2017). Moreover, consumers favor using social media to research and buy products (Zielke, 2014). Users are more likely to interact with brands on social media, including by sharing, liking, and providing feedback on products, as stated by Zielke (2014). Consumers can also use social media to research and compare products and their features (Martinho et al., 2015). One could therefore argue that improved advertising on social media sites would make products more accessible to consumers (Jayasuriya et al., 2018; Mukherjee & Banerjee, 2017).

#### **2.1.4.2 Demographic Variables**

Demographic variables are seen as an important factor that influence users of technological innovation perception of and decision to adopt and make use of a particular technological innovation (Quazi & Talukder, 2011). Demographic variables have been classified under inherent

and acquired features. Inherent features are those characteristics individual possess naturally, which does not require any effort or resource such as educational background and income.

#### **2.1.4.2.1 Gender**

When considering the factors that influence users' propensity to adopt and implement new technological innovation, gender differences are categorized as inherent demographic variables. According to Lee et al. (2010), males are more likely to be innovative while females tend to exhibit high technological anxiety. Further, Cheung and Lee (2011) found that female users are less inclined to technological innovation than the male users.

#### **2.1.4.2.2 Age**

Users' ages are a relevant demographic factor to consider when trying to figure out why some people choose one technological innovation over another. Due to technological dread, studies show that early adopters of new ideas tend to be quite young (Quazi & Talukder, 2011). Technological anxiety influences the level of adoption differently among different age groups, with the older users having more technological anxiety (Demirci & Ersoy, 2008; Lee et al., 2010). In general, users who are older prefer to use their innovative skills significantly less than those who are younger, mainly due to the fact that the majority of people over sixty have less experience using computers and the internet than those under thirty.

#### **2.1.4.2.3 Educational Background**

Educational background is an important acquired demographic variable which is a major contributing factor, influencing perception and decision to adopt and practice technological innovation. Quazi and Talukder (2011) state that one's level of familiarity with the technology's



potential applications has a direct bearing on whether or not they choose to adopt it. In most cases, those with more education and experience are the first to adopt cutting-edge technologies.

#### **2.1.4.2.3 Income**

Users' actions and perspectives on technological progress are influenced by the funds that businesses and individuals make from selling their products and services. According to research by Porter and Donthu (2006), low-income users are the ones who worry the most about price, as they believe the price to be excessive in comparison to the value they receive (device and access fee). On the flip side, consumers with disposable income to spare can afford cutting-edge gadgets and speedy Internet connections. This results in varying degrees of technological anxiety among users, with those with more disposable income experiencing the least concern.

#### **2.1.5 Challenges of E-ticketing in the sports Industry**

Numerous efforts are being made to sell tickets over the Internet in this day and age; consequently, most sporting events will transition from selling tickets using conventional ways to selling tickets using electronic techniques in the distant future. People are more likely to compare the experience of purchasing tickets through two distinct channels (physical and online) from various perspectives. Therefore, they may gravitate toward making their ticket purchases online because it offers more convenience, requires less time, and provides better services (Lee *et al.*, 2019). Most printed tickets have contributed to possible abuses and the creation of black markets. Therefore, it would appear that purchasing sports tickets via e-tickets is a viable option to consider (Salamah and Maulana, 2020). According to (Zakizadeh and Atghia, 2020), the implementation of innovative technologies in the market for the purchase of tickets for sporting events has the potential to forestall the development of a secondary ticketing market, enhance the safety of events,



further protect the privacy of participants, bring in additional revenue, and speed up the purchasing process for tickets.

However, several aspects influence online purchasing behaviour, such as financial risk, innovation, mental norms, quick purchases, information interchange, and prompt purchase delivery. Suppose these factors are not handled properly, such as late deliveries, a lack of innovation in goods and services, or website security issues. In that case, individuals will develop a bad attitude toward online shopping (Domina, Lee and MacGillivray, 2012). Several obstacles must be overcome before electronic tickets can become widespread in the sports sector. The research on challenges people face when trying to use technologies can be looked at from various angles; scholars have classified these obstacles into several distinct buckets. According to Narimani *et al.*, (2017), the deployment and execution of Internet ticket sales are each impacted by financial, technological, organisational, and behavioural challenges. When it comes to online ticket sales, the biggest challenges are a lack of qualified technical staff, a slow internet connection, the complexity of the system, and the inability of individual club websites to communicate with one another. Technological barriers are the highest priority (Narimani et al., 2017). The stakeholders are responsible for providing high-capacity Internet bandwidth and keeping the communications infrastructure up to date. In a recent study, Narimani et al. (2017) ranked the challenges spectators face when attempting to purchase electronic tickets. The study's findings point to issues with ticketing systems, the premature sale of electronic tickets, a lack of confidence in the sale of electronic tickets, an inability to work with the Internet, slow internet speeds, and a lack of access to the Internet as contributing factors. The current investigation into the situation in Ghana is based on these findings.

## **2.2 Theoretical Review**

This study provides a review of theories in the field of IS, these theories include Theory of Reasoned Action (TRA), diffusion of innovation theory, UTAUT, TAM and Signalling theory. The factors that determine whether or not customers will use increasingly complex and data-rich services have been the subject of a great deal of research (Patel and Patel, 2018). Among the many topics studied extensively in the field of information systems research, technology adoption stands out as one of the most multifaceted and multidimensional (Berry et al., 2006). One of the most studied areas of technology adoption is how people decide which technologies to adopt and why (Berry et al., 2006). As technology continues to advance, it makes sense to investigate what factors are motivating or dissuading the sports industry in Ghana from adopting electronic tickets. Therefore, it is important from both an academic and a practical standpoint to investigate and assess the factors about spectators from the signalling theory and TAM perspective that are influencing the spread of e-ticketing in Ghana.

### **2.2.1 Theory of Reasoned Action (TRA)**

Ajzen and Fishbein first proposed the idea of reasoned action in 1975, and they revisited it in 1980. (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Davis et al., 1989). The theory states that an individual's subjective norms and their attitude toward a given situation work together to shape an individual's behaviour intention, which in turn shapes the individual's actual behaviour. That is to say, a person's intended behaviour has an effect on the person's actual behaviour. Ajzen & Fishbein (1980) were the ones who initially put forward the theory. It has provided a starting point for various ideas concerning adopting new technology (Davis et al., 1989). It establishes a connection between a person's perceptions, norms, and attitudes and their decision-making intentions.

Furthermore, it forecasts the behaviour that may arise due to these intentions. However, it has been criticized for ignoring people's ability to self-regulate (Yusuf and Derus, 2013).

When attempting to grasp the theory of reasoned action, it is helpful to have a brief history of the theory. Fishbein (1967) proposed a theory that attempted to explain the connections between people's views about something and their attitudes toward it. In 1967, he put up a conceptual framework for the link between attitude and the purpose of behaving in a certain way. Many academics at the time were interested in the connection between an individual's perspective of a stimulus object and the actions that person takes in response to that object. Their research produced inconclusive and contradictory results. Fishbein (1967) provided two possible explanations for the failure of attitude to predict behaviour. Both of these arguments are reasonable.

To begin, it's possible that the attitude wasn't measured correctly. Second, there is a possibility that the attitude being studied is not at all or only partially related to the behaviour being investigated. Therefore, Fishbein challenged the conventional notion that there was a direct relationship between attitude and behaviour, as well as the belief that a person's attitude toward an item was a determinant of the individual's behaviour concerning the object. Fishbein rethought the structure of the connection by including an additional variable in the middle, which he called behavioural intention. Based on Dulany's (1967) theory of propositional control in social behaviour, the new framework also incorporated some situational, motivational, and normative elements. This was done to explain social behaviour better.

However, Fishbein modified the attitude test to place more weight on a different factor. The researchers were less interested in participants' opinions of a product than in their feelings about a particular behavior. As the method of assessment, the semantic differential scale created by



Osgood and coworkers in 1957 was chosen. Fishbein's new model had been developed, and the concept of attitude had been implemented, by that time. But before that time, neither of those things held true. Ultimately, Fishbein presented an updated version of the concept of reasoned action in 1979. Two fundamental premises form the backbone of the concept of reasoned action. Our first premise is that we are rational beings who make methodical use of the information at hand. Second, the individual is responsible for the majority of their own socially significant behaviours. Therefore, an individual's intention to perform or refrain from a behaviour is a decisive factor in that behaviour at that very moment (Ajzen, I., & Fishbein, 1980). Beliefs are the source of both attitude and subjective norms, which in turn determine both behavioural intention and behaviour.

The ideas that a person holds that cause them to behave in a certain way, as well as his appraisal of those results, are referred to as his behavioural beliefs. A person's normative beliefs are the opinions of others, either individually or collectively, about whether or not he should perform some action, as well as his reasons for doing so. Each member of a group or the group as a whole can hold normative beliefs. Behavioural attitudes can be defined as a person's positive or negative evaluation of a specific type of behavior. An example of a subjective norm is a person's understanding of the social pressures he faces to perform or abstain from a certain behavior. Thus, one's own attitude is the driving force behind their decision to act, while one's own subjective standard reflects the societal pressures that shaped the norm (Ajzen and Fishbein, 1980). Many empirical studies in different fields since the 1960s have relied on the concept of reasoned action. Kok et al. (1996) looked at how the theory of reasoned action could be used to influence lifestyle choices like smoking, physical activity, and diet. The theory of reasoned action has been used in



marketing research by professionals like Fishbein and Ajzen (1980) and Fitzhenry (1976) to examine consumer behavior in various contexts. Consumer behavior was studied using the theory of reasoned action by Fishbein and Ajzen (1980) and Glassman and Fitzhenry (1976) in marketing research.

### **2.2.2 Diffusion of Innovation Theory**

Rogers (2003) defines technology diffusion as the "process by which innovation is transferred among the actors of a social system through specific channels" (emphasis added). Rogers' innovation diffusion model (1962) is the gold standard for this type of research. Rogers' book focuses primarily on the diffusion of agricultural innovations within farming communities in the United States and elsewhere (Rogers, 2003). A convex increase in adoption, an inflection point, and a concave increase in those levels off at some saturation point have all been observed to characterize the rate of imitation of a product over time. Rogers argues that "technology is a design for instrumental action that reduces uncertainty in the cause-effect relationships involved in achieving the desired outcome" (2003, p. 13). Research took into account the two main parts of most technologies: hardware, or the actual tool that uses the technology, and software, or the knowledge base for the tool.

Researchers interested in digital policy who subscribe to the theory of technological diffusion recognize the importance of technological diffusion at various societal scales as a factor in shaping economic growth (Wydra, 2015). They take it for granted that widespread adoption of new technologies will lead to greater equality in society (Mehta and Kalra, 2006). This is why much effort is put into identifying factors that promote the spread of new technologies. For instance, they recommend policy changes to improve and eliminate the barriers posed by factors such as political

conditions and regulations (Mwangi, 2006; Suárez, 2016), socio-economics (Wareham, Levy, and Shi, 2004), culture (Al-hadidi, and Rezgui, 2010), and market conditions (Wong, Chandran and Ng, 2016). Infrequently do we factor in the social context. Assumptions about how technology spreads mean that most interpersonal interactions focus on simple chat (Wang and Doong, 2010).

The Diffusion of Innovation (DOI) is a concept developed by Rogers in the field of sociology (2003). Dissemination of innovation, or DOI, is defined as the gradual spread of new ideas throughout a society by way of a predetermined set of intermediaries (Sampaio L, Varjao J, 2012). The central premise of the theory is that new innovations (ideas) or technologies are constantly being developed, making communication a crucial factor in disseminating the innovation to the general public. This is because people's perspectives on innovations and technologies greatly influence whether or not they are adopted. Additionally, local communities can opt to either embrace or reject the new development. The goal of the Dissemination of Innovations (DOI) theory is to shed light on the factors that contribute to the introduction of novel ideas and technologies into different cultural contexts and the speed with which they spread (Alqahtani and Wamba, 2012). Some businesses have responded to this difficulty by adopting new methods and theories, such as the Dissemination of Innovation (DOI), to direct their decision-making as they disseminate their strategic plans. DOI is a set of characteristics of innovations that can help guide and facilitate decision-making throughout the innovation and diffusion processes (Makovhololo and Ruxwana, 2017). These characteristics include relative advantage, compatibility, complexity, trialability, and observability. Figure 1 depicts the five steps that make up the innovation-decision process of DOI: information gathering, evaluation, selection, execution, and verification (Sang & Tsai 2009:18). This is the method by which the new idea is spread throughout the community. It

all comes down to a person's outlook on new things and whether or not they'll embrace it. Adopters can gauge the innovation's viability based on its characteristics. Although DOI was developed in sociology, it has found application in other disciplines, including information science.

Uncertainty amongst would-be adopters and society at large is a common effect of technological advancement. The diffusion of new ideas is characterized as a method of lowering risk, according to Rogers (2003:159). Thus, Dissemination of Innovation (DOI) is a theory of the who, why, and when of cultural innovation and technological diffusion at the individual and organizational levels (Oliveira and Martins, 2010). Perceived attributes of innovation, which were introduced by Rogers (2003:18), help to mitigate concerns about the future of innovations.

Using the D.O.I. theory effectively requires an awareness of the context in which potential Adopters are making their choice. Who makes the decision, and whether or not that person makes the decision voluntarily, freely, and without pressure, are all important considerations. In spite of this, "one of the most distinctive problems in the Diffusion of Innovation is that the participants are usually quite heterophyllous" (Rogers 2003:19). According to the theory of just-in-time interventions (DIO), important stakeholders' needs, values, and beliefs must be taken into account when designing interventions (Dingfelder and Mandell, 2011).

There has been widespread application of DOI theory in academic work over the past few years. For example, Zhang et al. (2015) used DOI to investigate what factors in a primary care clinic in Australia affect patients' willingness to adopt and use e-health innovations developed for consumers. This theory was overlooked by the study.



### **2.2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)**

The scope of UTAUT-led studies on tech uptake spans its infancy to its sunset (e.g., Venkatesh et al. 2011). UTAUT's four central concepts, as described by Venkatesh et al. (2003), are indicators of whether or not a person is likely to actually use the technology. Expectations of success, expected levels of effort, social influence, and enabling circumstances all play a role. Each of these concepts is explained in more detail below. To what extent a person believes that utilizing a new system will improve their job performance is an example of a performance expectancy; to what extent they believe that using the system will be easy is an example of an effort expectancy; to what extent they believe that essential others believe that they should use the new system is an example of a belief that an organizational and technical infrastructure exists to support the implementation of the new system is an example of a belief that the new system will be successfully implemented is an example of a belief that the new

Although the UTAUT model is widely used in the information systems industry to predict the adoption and usage behavior of information systems, it has given rise to some debate among academics in the field of information systems (Moghavvemi et al., 2011). Although decisions are preceded by the formation of intentions, the nature of the connection between the two suggests that it warrants further exploration (Krueger, 2007). Therefore, UTAUT was not employed in any way during this probe.

### **2.2.4 The Technology Acceptance Model (TAM)**

Spectators' propensity to embrace digital tickets can be conceptualized with the help of the Technology Acceptance Model (Davis, 1989). Knowing this has many potential applications. The theory of reasoned action (TRA) is the basis for the theory of reasoned action model (TAM), which



investigates the factors that influence deliberate, self-aware behavior. Davis, Bagozzi, and Warshaw (1989) proposed the TRA for studying the factors that influence computer usage behavior because it is a comprehensive approach designed to explain behavior through beliefs, attitudes, and intentions (Ajzen & Fishbein, 1980; Ajzen & Fishbein, 1985).

There were four internal factors that were taken into account in the original version of the technology acceptance model and their impact on information system adoption and usage (Davis, Bagozzi and Warshaw, 1989). Factors within include how comfortable a space is, how useful it is, how people feel about using it, and what they plan to do as a result of that. Perceived usefulness is an external factor. The term "perceived usefulness" refers to the confidence with which an individual believes that adopting a given piece of technology will boost their productivity at work. Perceived ease of use refers to how confident a person is that they can use a given piece of technology with minimal training or instruction (Davis, 1989). The term "attitude toward use" refers to a person's assessment of how they will act in a given situation (Taylor and Todd, 1995). Insight into a person's motivation and effort level for a given behavior can be gained by observing their behavioural intention to use (Ajzen, 1991). The original technology acceptance model theorizes that an individual's attitude toward the use and perceived utility of an information system is the most important predictor of that individual's actual use of the information system. One's attitude toward using something is also influenced by how simple and helpful they think it will be. Consideration of usefulness is affected by how easy it appears to use a given item. Due in large part to its accessibility and ease of use, the Technology Acceptance Model has quickly risen to prominence as a leading model in the field of information systems research. One of the most popular frameworks in the study of IT systems is the Technology Acceptance Model (King and

He, 2006). Many studies (Kim and Malhotra, 2005; Ifinedo, 2006; Roca, Chiu, and Martnez, 2006; Thong, Hong, and Tam, 2006; Liao, Palvia, and Chen, 2009; Venkatesh et al., 2011), among others, have shown that the technology acceptance model is the most likely reason for the continued use of information systems.

The streamlined TAM has been used in a wide variety of contexts to learn more about users' acceptance of new technologies. Several academics in the field of sports have voiced their disagreement with its simplistic determinants (Park et al., 2013, 2008; Venkatesh, 2000). To address the shortcomings of the TAM, newer researchers have modified it, as pointed out by Kang et al. (2015). They did so by either expanding the model with new constructs or fusing it with other theories that may shed light on the factors that influence people's adoption of new technologies. Their claims were supported by research conducted by other groups, including Ha et al. (2007), Moon and Kim (2001), and Venkatesh et al (2015).

In the sports literature, the TAM has been used to investigate a wide range of issues, such as the factors that influence consumers' acceptance of the information presented in sports websites (Kwak and McDaniel, 2011), the attitudes of fans who bought tickets online for the 2010 Men's FIFA World Cup (Dhurup et al., 2011), the antecedents to adopting fantasy sports league websites (Ha et al., 2007), and so on (Kang et al., 2015; Kim et al., 2017).

### **2.2.5 Signaling theory**

This theory evolved from research into the conditions under which marketers and customers handled information disparity while they transact and it is attributed to Spence (1973). This theory is highly employed in studies key to information skewness between two parties that emanates from

incongruity in knowledge in different contexts and perspectives like marketing (Kirmani and Rao, 2000), sociology (Gambetta 2009), entrepreneurship (Certo 2003; Lester et al., 2006), as well as aspects of human resource management by focusing on signals that are shown during recruitment (Suazo, Martinez and Sandoval, 2009). The field of management is recent and popular among them (Miller and Triana 2009; Conelly, 2011). Practically, customer's actual use of a product or service could be impacted negatively or positively by information from social media. When other customers who have experienced e-ticketing speak positively about it on social media like Facebook, Twitter, etc. that can serve as a signal which automatically becomes an informational cue to influence their intention to use. Sometimes, companies use celebrities with good reputation to advertise their products or services on social media. This can create the impression or give a signal of a good brand which influences customers to use the products or services. Demographic variables can also determine the purchase intention of a customer. Consumers will also refrain from using a product if they receive negative information on the product from social media. Hence the adoption of this theory. The study therefore adopts this theory to throw more light on factors influencing customer evaluation and decision making that leads to the adoption of e-ticketing.

### **2.3 Empirical Review**

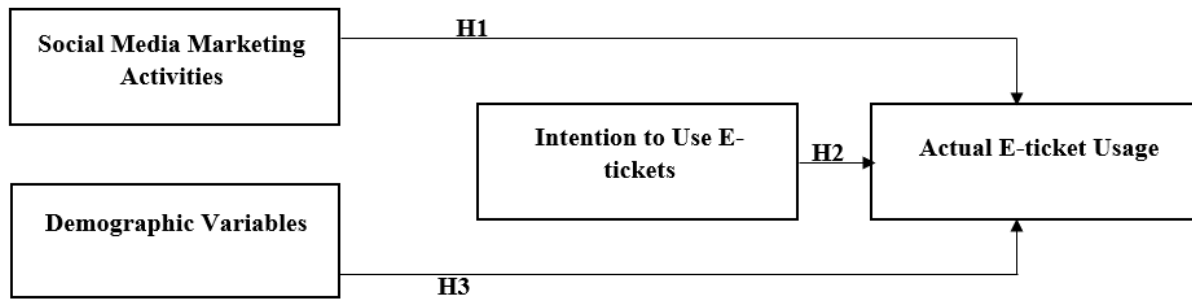
Consumers in the United States who make purchases online tend to be younger, more educated, wealthier, and more tech-savvy, as found by Lin's (2003) research. It was discovered that demographic factors affect Indians' propensity to make online ticket reservations (Sahney et al., 2014). Various aspects of the consumer's demographics, economy, society, environment, and technology all play a role in the final purchase decision (Burke, 2002). Researchers have found that factors like age, gender, level of education, and internet experience all play a role in how quickly people adapt to new technologies (Bhatnagar and Ghose, 2004). Research by

Mutengezanwa and Mauchi (2013) found a correlation between system adoption and demographic variables like age, occupation, salary, gender, and education. Online ticket buyers in Malaysia tend to be younger, more educated, more likely to be employed, and from higher socioeconomic backgrounds, according to a recent study (Sulaiman, and Mohezar, 2008). Researchers have drawn the conclusion that early technology adopters tend to be economically well-off, educationally affluent, and socially mobile (Chinn and Fairlie, 2004; Choudrie and Dwivedi, 2005; Marchionni and Ritchie, 2007). To counter this, Marfo and Quansah (2020) found that demographics are not a reliable predictor of e-ticketing adoption in Ghana.

Furthermore, Laksamana (2018) found a positive relationship between social media marketing and intention to purchase. The findings from a Malaysian study reveals their neutral mindset that social media marketing can create purchase intentions (Balakrishnan et al., 2014). Gaffoorand and Jothi (2017) discovered that social media activities affect the purchase decisions of customers. There is a significant and positive effect of social media marketing on consumers' decisions to shop online (Priansa and Suryawardani, 2020). There have been studies on factors that affect the adoption of e-ticketing in other areas like the transport industry in Ghana (Achiaa and Asante, 2018; Marfo and Quansah, 2020). Research on e-ticketing in the sports industry is limited in Ghana and this study seeks to fill that gap.



## 2.4 Conceptual Framework



Source: Author's construct, 2022

### 2.4.1 Social Media Marketing Activities and Intention to use E-tickets and Actual Usage

A fundamental component of the strategy known as social media marketing is an awareness of how modern technology makes social interactions easier. People have an inherent propensity for social interaction and the exchange of information. Platforms for social media such as Facebook, Twitter, and Instagram impact various societal connections, ranging from close friendships to less significant acquaintances (Francis & Yazdanifard, 2013). Consumers of today desire more knowledge about products before they buy them, and social media may assist them in comprehending those products and formulating views about them (Francis & Yazdanifard, 2013). Because of our growing reliance on technology for even the most fundamental forms of communication, we must investigate how social networking sites influence routine activities, such as the decision to implement a new practice. The power of social media to sway people's opinions and choices has the potential to have a beneficial effect on people's intentions to take action. According to Hennig-Thurau et al. (2010), the use of social media enables businesses to reach consumers, communicate with them, and track their interactions in browsing and purchasing, all of which will influence the consumers' intention to use e-ticketing platforms.

According to research conducted by Balakrishnan et al. (2014), Social Media Marketing (SMM) has a positive effect on brand loyalty, usage, and purchase intent, especially when it involves electronic word of mouth, online communities, and online advertisements. According to Gautam and Sharma (2017), there is a strong positive correlation between SMM and customers' intent to use. According to Yadav and Rahman (2017), SMM initiatives have a beneficial effect on customers' intent to use the service and on the value of the brand overall. According to Sheth and Kim (2017), SMM has a substantial effect on consumers' propensity to use a service. Hutter et al. (2013) showed that social media marketing on Facebook had a beneficial effect on consumers' perceptions of a company's brand, the number of recommendations they received, and their intent to buy. Additionally, Dehghani and Tumer (2015) found through their research into Facebook's function that Facebook advertising significantly affects both brand image and equity, which in turn significantly affects customers' usage intention. Ng (2013) claims that a social network's community significantly affects a customer's propensity to use the service. These results stimulated the hypothesis that:

*H1: Social Media Marketing Activities Actual E-ticket usage*

#### **2.4.2 Intention to use E-tickets and Actual Usage**

Fishbein and Ajzen (1997) presented the concept of behavioural intention, which is where the term "intention to use" originates. According to Fishbein and Ajzen's theory of reasoned action (TRA), which they developed, certain behaviours can be predicted based on the purpose that underlies the performance of those behaviours in an issue. The user's willingness to use the system might be understood as the user's purpose for using it in this context. Actual system use is the behaviour being analysed in the context of the theory of successful information systems. The hypothesis that

behavioural intention to use is the antecedent of actual system use has found the most vital support among researchers working in technology acceptance. Most research done to validate the technology acceptance model (TAM) has found evidence supporting the relationship described above (Yousafzai et al., 2007). Through a TAM meta-analysis study, Turner et al. (2010) found that behavioural intention is a good predictor for actual system use in both subjective and objective measurement. The concept of "system use" that has been in use, according to DeLone and McLean (1992), has been "too simple." despite decades of research, the idea has not been subjected to rigorous theoretical scrutiny. The creation of many measures of system use, as well as the measures themselves, has frequently been marked by idiosyncrasy and a lack of credibility or comparability. "The level of incorporation of an information system within a user's processes" is what we mean when we talk about "system use" (Ephraim McLean, 2010). The definition of "Information System Use for Systems Success" is: "The extent to which an Information System is incorporated into the user's business activities." i.e., the user has internalised the system, and it is now a part of their process knowledge. This allows them to evaluate the type and amount of the impact the system could have on their desire to use e-ticketing. The study therefore hypothesizes that;

*H2: Intention to Use E-ticketing Systems influences Actual Usage of the System*

#### **2.4.3 Demographic Variables on Intention to use E-tickets and Actual Usage**

According to James et al. (2010), demographic traits are good predictors of heavy internet usage in developing nations. The best predictor of heavy internet use in developing markets is a combination of demographic and psychographic factors. According to Munnukka (2007), young men between the ages of 15 and 35 who use the Internet often constitute the most promising market segment in economies that are still developing. Assael (2005) questioned whether demographic

indicators alone are sufficient for segmenting emerging markets. James et al. (2010) suggested that psychographic variables paired with demographic variables are more successful and accurate in segmenting emerging markets. Nevertheless, to establish the level of acceptance and use of internet technologies within the sports business in Ghana, this study takes into account both the active and older demographics. The study, therefore, posits that;

*H3: Demographic variables influence Actual Usage of the System.*

## **2.5 Summary of Chapter**

The discussion, concepts, applications, and development of technology adoption models and theories that have been presented above are based on a literature review. These discussions represent a variety of perspectives and interpretations. This chapter provided comparisons of a variety of models and theories for the spread of new technologies, as well as additional theoretical insights, research problems, variables, and measurements. The problems and objectives of the research, a gap analysis, the target market (users or developers, etc.), the goals of the organizations, and an understanding of technology adoption models and theories based on the available materials are all important considerations in the development of the new theoretical research framework. It is essential for interested parties (such as students, academics, researchers, government, and organizations) to have a solid understanding of both the theoretical and practical aspects of technology adoption models and theories. These analyses help future researchers better conceptualize, differentiate, and comprehend the underlying technology models and theories that may affect the applications of technology adoption in the past, in the present, and in the future by providing some light and potential applications. This is accomplished through the provision of some potential applications.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter explains the methodological approach used in this thesis. The research philosophy, strategy, and instruments of a researcher can all be regarded in terms of how they are applied to achieving a goal (the research objective) and finding an answer to an issue (the research question). This chapter addresses; i) the research strategy, including research procedures; and ii) introduce the research instruments developed for data collection. The chapter basically covers the research design, research methodology, and study population. In addition, the design of the data collection instrument is discussed. Pre-testing of the questionnaire was done, followed by the data collection procedure, and finally the data analysis.

#### **3.1 Research Philosophy**

Research philosophy, as defined by Saunders and Thornhill (2007), is the process by which one develops their research abilities, core body of knowledge, and theoretical framework. To defend the view of how data about a social reality should be acquired, analyzed, and interpreted to produce useful results, the research philosophy defines the origin, nature, and expansion of knowledge gained from the study (Dudovskiy, 2018). Researchers in the fields of management and business should understand the philosophical underpinnings of the strategies and choices they employ in their studies, as these are crucial to grounded, in-depth exploration of their chosen topics (Johnson and Clark, 2006; Denzin and Lincoln, 2011). Since the veracity and legitimacy of academic research are justified on philosophical grounds, it is also stated that a firm grasp of philosophy helps the researcher gain a more nuanced perspective on data collection, analysis, and the ultimate

interpretation that will be provided (Proctor, 2005; Blaikie, 2010). One's chosen philosophy serves as a representation of one's view of the social environment, and this in turn guides the research approach and the unique combination of methods used. The study's knowledge and its nature are at the heart of this question (Saunders et al., 2011). Accordingly, the research itself is rendered useless if the prevailing philosophy has no bearing on the issue at hand. To avoid misunderstandings when discussing theoretical debates and approaches to issues and to understand the connections between the key components of research, it is crucial for researchers to understand the philosophical underpinnings of a study, to be able to appreciate the existence of others while defending their own positions (Grix, 2002). Your ability to think critically about your research project's guiding philosophy and defend it against alternative approaches that were overlooked is more important than the philosophy you ultimately adopt or select (Clark, 2006).

The philosophical traditions that have come before us are distinguished from one another by their respective commitments to different ontological, epistemological, and methodological assumptions. Creswell (2014) opines that these hypotheses and findings define and differentiate them from one another. To paraphrase Kuhn (1969), it is the body of accepted scientific knowledge that allows a scientist to recognize problems and choose appropriate methods for resolving them over a limited period of time. Denzin and Lincoln (2005) claim that by asking just three questions, we can easily detect and make sense of this reality.

The ontological inquiry seeks answers to the question, "What is reality?" by investigating this question and its implications. In addition, the epistemological questions try to fathom how the researcher is connected to the information that will be uncovered. Last but not least, the

methodological question probes the researcher on how they plan to conduct the study to reveal the hidden.

### **3.1.1 Ontological**

There is a school of thought known as "ontological hypothesis" that tries to figure out what makes social reality tick (Delanty and Strydom, 2003; Easterby-Smith et al., 2012). This assumption is crucial for figuring out the form and structure of pre-existing social phenomena and the connections between them (Blaikie, 2009). It is unclear whether social reality is formed or influenced by the actions and perceptions of social actors (subjective) or whether it occurs independently of the social actors (objective), but King and Horrocks (2010) argue that ontology seeks to answer this question (objective).

#### **3.1.1.1 Objectivism**

For objectivists, the actions of social actors have no bearing on the reality or significance of social phenomena (Wilson, 2014). This means that prior understanding is impervious to the efforts of social actors, and that the researcher can probe the events dispassionately by observing the pattern and tracing the causal links to arrive at a novel interpretation (Burrell and Morgan, 1979; Bryman and Bell 2007; 2015). Basic realism, as upheld by objectivity's tenets, holds that social phenomena exist apart from humans, and that knowledge is objective and real because it is derived from data and facts through a quantitative method (Bernstein, 2008; Letherby et al., 2012).

#### **3.1.1.2 Subjectivism**

On the other hand, subjectivists hold that a social phenomenon's legitimacy depends on the approval of the social actor involved (Vaughn, 2012). In the realm of hard sciences, this is known as "relativism" (Easterby-Smith et al., 2012). There are two ways to look at subjectivism: first, as a bias where one version of social reality is consistently given rather than the actual; and second, as a connection between the researcher's impression of the social world and reality. Second, subjectivism rejects the study's objective premise because it views and categorizes social objects as socially created (Gray, 2013).

However, two ontology perspectives that moderate objectivism and subjectivism were proposed by Saunders et al. (2009). While realists agree with objectivists that social actors are not necessary to explain observed phenomena, they also acknowledge that their perspective is shaped by cultural norms.

### **Justification for adopting objectivism**

Taking into account the foregoing, this study's ontological foundations were the objectivist method, which encouraged researchers to maintain an open mind while seeking out the underlying causes of social reality.

### **3.1.2 Epistemology**

The term "knowledge theory" describes this situation. It delves into the bond between researcher and subject of study (Hussey and Hussey, 1997; King and Horrocks, 2010). It raises the issue of what constitutes appropriate expertise in a field to help determine the researcher-respondent relationship (Ponterotto, 2005). Bryman and Bell (2007) state that the ultimate purpose is to



determine whether or not phenomena or social reality can be evaluated using the same methodologies, ethos, and principles as the natural sciences (Jonker and Pennink, 2010). To infer the true social reality, however, it is expected that the investigator's objectivity and value distancing perspective will come to define their investigation (Denzin and Lincoln 1998). Specifically, it uses the strategy of gathering data, checking its accuracy, and then assessing its usefulness in order to learn something (Blaikie, 2000; Hatch, 2006). It has been argued by scholars that solutions to epistemological inquiries heavily depend on ontological assumptions about the phenomena, suggesting that there are strong parallels between ontological and epistemological theories (Denzin and Lincoln, 1998; Sale et al. 2002; Cohen et al. 2007). Positivism, realism, and interpretivism are the three central tenets of this theory, all of which contribute to a more complete grasp of the nature of reality (Saunders et al. 2007; Beverland and Lindgreen, 2010).

### **3.1.2.1 Positivism**

With the researcher taking on the role of a natural scientist, positivism is predicated on the application of scientific methods from the natural sciences to the study and explanation of social reality (Denscombe, 2008). (Maylor and Blackmon 2005).

French philosopher and social scientist Auguste Comte is credited with developing this idea, which is elaborated upon in his book "Course of Positive Philosophy" (Remenyi et al., 1998). This approach, which has its roots in objectivism, aims to measure and analyze social realities as they are observed, as they are thought to be stable and objective (Cooper and Schindler, 2013). Quantitative methods, including surveys, experiments, and statistical analysis, are of particular interest to positivists because they allow for the collection of broad, quantitative data that can be

used to enhance objectivity based on evidence gleaned from observation and reasoning (Gray, 2013). (Eriksson and Kovalainen, 2008; Saunders et al., 2009).

### **3.1.2.2 Realism**

Those who identify as realists look at society and how people actually think. Some parallels to positivism can be drawn. At the outset, they insist on the significance of incorporating quantitative data collection and statistical analysis into social research using techniques derived from the natural sciences. In addition, realists insist on the independence of the researcher and the social actors they study, Bryman and Bell argue (2007). On the other hand, realists reject the existence of anything that can be seen. The philosophical grounding of this work is direct, critical realism (McMurray and Pace, 2004). What you see is what you get; what your senses signal is the reality of the world; this is the focus of the direct form, which encompasses the message transmitted to the individual by the senses (see, hear, touch, smell, etc.). Critical realists argue that our perceptions, rather than objective reality, are what we take away from our experiences (Sekaran and Bougie, 2013).

### **3.1.2.3 Interpretivism**

Since the complexity of reality cannot be explained by regularity patterns or law-like generalization, interpretivism strongly opposes the arguments of positivism and realism on the use of natural scientific procedures in social phenomena. This theory further argues that the study of social science is distinct from that of natural science (Bryman and Bell, 2007). Because of this, continuing to employ the same research approach is unethical. Therefore, data from a small group needs to be carefully examined before being extrapolated to a much bigger one (Kasi, 2009).

## **Justification for adopting positivism**

The positivist approach was used to refine the hypothesis and remove all doubts about the collected data. Saunders et al. (2007) argue that positivism encourages researchers to gather data and formulate hypotheses based on existing theory, which in turn leads to the creation of new theory that can be tested in subsequent studies. To back up the aforementioned claim, this philosophy employs quantitative methods like survey research and experimental approaches, but it is based on the framework of observable social realities that are independent of the researcher and his/her instruments (Saunders et al., 2011; Collis and Hussey, 2013). (Sapsford and Jupp, 2006; Gray, 2013). An important aspect of positivism is that it promotes the large-scale data collection and experimentation that is required for objectivity in a study of this nature with origins in business and marketing (Orlikowski and Baroundi, 1991; Easterby-Smith et al., 2012).

### **3.2 Research strategy**

The research strategy is a part of the methodology that helps improve the conduct of the study by allowing the researcher to answer the questions posed by the objectives in a systematic fashion and by providing a road map for collecting and analyzing data in empirical studies of a phenomenon of interest (Marshall and Rossman, 1999; Saunders et al., 2009). Surveys, histories, experiments, archival analysis, and case studies are the five primary research methods proposed by Yin (2009). Saunders et al. (2011) updated the earlier study by adding seven possible research methods, all of which can be used for descriptive, exploratory, or explanatory research but are clearly distinguished in their approaches for inductive or deductive research: surveys, experiments, archival research, case studies, action research, grounded theory, and ethnography (Yin, 2003). The goals and research questions of a study, as well as the amount of time allotted, the resources

at the researcher's disposal, the state of the art in the field, and the philosophical underpinnings of the research, all weigh heavily on the methodological approach taken (Saunders et al., 2009). These strategies should not be compared and judged against one another. Most importantly, your chosen method must be able to help you answer your research questions and advance your goals (Saunders et al., 2009; 2011). For the purposes of the research, these strategies are discussed briefly.

### **3.2.1 Survey**

Questions including "who," "what," "where," "how much," and "how many," as well as the establishment of cause-and-effect linkages between variables, are all addressed by these methods of data collection (Ghauri and Gronhaug, 2005; Malhotra and Birks, 2007; Saunders et al., 2009; 2011; Sekaran and Bougie, 2013). It is well-suited to both exploratory and descriptive studies, and sees widespread application in the fields of business and management. Quantitative data analysis, which is typically associated with the deductive approach because it is explained in terms of descriptive and inferential statistics, is nonetheless widely used because it facilitates the cheap collection of data from a large population through the use of standardized questionnaires that allow for straightforward comparisons (Saunders, 2009). Standardized questions, cross-sectional or longitudinal designs, and structured observations are all compatible with surveys, but it must be demonstrated that these methods can be used together effectively (Saunders, 2011).

### **3.3.2 Experimental strategy**



It was borrowed substantially from the natural sciences and put to use in the social sciences to investigate potential causes and effects of observed changes in one variable on another (Hakim, 2000; McGivern, 2006; Saunders et al., 2011). This is done only when the researcher has complete control over the samples. In light of the aforementioned, this strategy is most effective for elucidative questions and less so for exploratory or descriptive questions (Sekaran and Bougie, 2013). It's done in labs to figure out "how" and "why" questions (Saunders et al., 2011).

### **3.3.3 Archival research**

Taking its cue from the word "archive," this method relies on written records and official files to complete its analyses. This data is secondary in nature because it was originally collected for another study (Saunders et al., 2011), but it is applicable to everyday tasks (Hakim, 2000). Bryman (1989) argues that the term "archival" can be used interchangeably with "modern" and "historical" records. These administrative records are analyzed to ask related questions about the past and recent changes, despite the limitations of the available information (Saunders et al., 2009). Obtaining the best outcomes from this approach requires that the design be optimized for the available data.

### **3.3.4 Case study**

Empirical investigation is the process of studying a modern event in its original environment by gathering information from a wide variety of reliable sources (Robson, 2002; Saunders et al., 2011). Researchers can use this method to examine complex interventions, connections, communities, and programs to gain insight into the motivations and outcomes of specific individuals or groups in relation to a given event (Morris and Wood, 1991). Due to their usefulness

in elucidating "what" and "how," case studies are widely employed in both exploratory and explanatory studies. Triangulation, the use of multiple data collection methods within a single study to ensure that the desired result is obtained, is most commonly associated with surveys, but is commonly used in case studies as well (Saunders et al., 2009).

### **3.3.5 Action research**

It's an inductive method that seeks to create a straightforward, usable, and ever-evolving procedure for recognizing, assessing, investigating, and analytically diagnosing difficulties and flaws in order to generate workable answers and better outcomes (Bogdan and Bilken, 1997; Ferrance 2000; Stringer, 2013).

### **3.3.6 Grounded theory**

This method relies on a theory-building framework that uses a mixed inductive and deductive methodology to better understand and foresee social phenomena (Goulding, 2002). It is frequently used in business and management problems because of the emphasis on examination and analysis. Research into how people act in social settings. According to Saunders et al. (2011), the primary focus of grounded theory is the collection of empirical evidence to aid in the prediction and explanation of behaviour (Goulding, 2002).

### **3.3.7 Ethnography**

It is typically categorized as naturalistic because it employs scientific method models like observations and interviews to examine social phenomena in their natural habitat (Reeves, Kuper, and Hodges, 2008; Saunders et al., 2011). Human cognition, communication, and the dynamics of

pre-existing social groups are all components of the strategy (Creswell, 2014). As an inductive method, it has its origins in anthropology (Saunders et al., 2011).

### **Justification for adopting the survey strategy**

Primary data were collected through a survey methodology with questionnaires administered to sports fans in Ghana. With a sizable enough sample size, a survey can yield useful information without breaking the bank (Saunders et al., 2009). This study's data was also collected rapidly, so the survey can be either longitudinal (where data is collected over time) or cross-sectional (where data is collected at a single point in time). It was beneficial to carry out the survey (Easterby-Smith et al., 1991). Malhotra and Birks (2007) state that surveys gather data about the demographics, lifestyles, and attitudes of a population or subset thereof. This allows the established idea to be broadly applied (Nasco et al., 2008). The survey method facilitates the collection and analysis of quantitative data via descriptive and inferential statistics. Business and management scholars find it useful for answering questions like "who," "where," "what," "how many," and "how much" and for tracing the correlations and causations among various factors (Saunders et al. 2009; Sekaran and Bougie, 2013). To statistically evaluate "factors affecting the adoption of e-ticketing system in Ghana," a survey methodology was chosen.

### **3.3 Research Design**

In order to collect, evaluate, and analyze data effectively, researchers often employ a specific framework known as a research design (Malhotra & Birks, 2007). It is important to ensure that the data you collect when designing a study directly relates to answering your research question. Getting your hands on the right data is the first, most important step in any social science study

that aims to verify a theory, analyze a system, or correctly identify and evaluate an observed phenomenon (Creswell and Creswell, 2017). Based on the goals of the study and the methods to be used, a study's design can be either exploratory (to discover new information) or descriptive (to describe existing information) or explanatory (to provide an explanation for why something occurs).

### **3.3.1 Exploratory research**

In exploratory research, researchers dive headfirst into a topic or context about which they know very little in order to learn as much as possible (Glicken, 2003; Mitchell and Jolley, 2010; Royse, 2011). It usually comes before a full study, but sometimes it's substantial enough to be used on its own (Alston and Bowles, 2003). Qualitative research is characterized by its focus on the "what?" question and its emphasis on gathering information through observation (Adler and Clark, 2008). In addition to its importance in elucidating social events shrouded in ambiguity, exploratory research is also applicable to the study of a steady phenomenon, where the feasibility of conducting an in-depth investigation is assessed in order to provide guidance on both methodological approach and conjectural hypotheses (Babbie and Mouton, 2010; Babbie, 2013). As Adams and Schvaneveldt (1991) put it, "it's like living the life of a nomad or explorer," and its flexibility is its main strength.

### **3.3.2 Descriptive research**

In order to provide an accurate depiction of social life, this is done (Robson, 2002). Having a clear mental picture of the phenomenon being studied is essential prior to collecting descriptive data because such information is more specific and accurate. It is an extension of exploratory research



and a prelude to explanatory research, so it falls in the middle of the knowledge continuum (Grinnel, 2001) and can use both qualitative and quantitative methods of data collection (Babbie and Mouton, 2010).

### **Justification for Chosen Research Design**

The methodology used in this study is a cross-sectional, descriptive exploration. Given the goals of this research, a quantitative methodology seems appropriate. To create a set of data (both quantitative and qualitative) pertaining to several different factors for the purpose of looking for patterns, Bryman (2004) suggests this method of data collection. This approach makes it possible to examine the role that demographic variables and social media marketing campaigns play in shaping consumers' propensity to use e-tickets and their actual adoption of this payment method. Importantly, this design allows the researcher to have a better understanding of the phenomenon at hand before any data is collected, and it also lends itself well to the collection and analysis of quantitative data (Babbie and Mouton, 2010).

### **3.4 Research approach (Deductive and Inductive approach)**

Depending on the nature of the study problem, academic research can be approached deductively or inductively (Wiles et al., 2011; Saunders, 2012)

#### **3.4.1 Deductive approach**

This technique generates hypotheses at the outset of the study based on a pre-existing theory, which are then put to the test once data collection is complete (Silverman, 2013). This is credited to experiments and studies in the natural sciences that led to well-tested hypotheses. Wiles et al. (2011) state that the deductive method is applicable when the phenomena being studied can be

compared to the presumptions of previous research in a similar setting. Often associated with positivist and quantitative approaches due to its emphasis on hypothesis formation and statistical testing of predicted outcomes (Snieder and Lerner, 2009). However, a deductive method can be useful in qualitative investigations when there is a discrepancy between the assumption and hypothesis testing stages (Saunders et al., 2007). The steps of a deductive study are to formulate a theory or hypothesis, then test that theory or hypothesis, and finally confirm or reject that hypothesis based on the data. According to Kothari (2004), the deductive method involves building on previously established knowledge and theory before comparing new information with previously established information to determine whether or not to accept it.

### **3.4.2 Inductive Approach**

The use of hypotheses is not required for this procedure. Because the inductive method does not have a predetermined framework to direct the collection of data, the research topic may emerge from the collected information, as stated by Flick (2011). The research process is portrayed as a progression from the particular to the universal, beginning with questions and ending with outcomes (Bryman and Bell, 2011). According to Kothari (2004), the events transpired as follows: patterns in observations-based testing. In practice, the inductive method begins with the researcher's observations and progresses through the identification of patterns in the data (Beiske, 2007). While this is often viewed as the starting point for developing novel hypotheses, it is important to note that the analyzed data may be consistent with an existing theory (Bryman and Bell, 2011). Conducting interviews is a common method of gathering data when trying to understand a phenomenon, and the results can be analyzed to reveal commonalities among the interviewed population (Flick, 2011). Therefore, it is frequently used in qualitative investigations

centering on the context in which the phenomena occur; in the absence of a prior theory, the bias emerging from the researcher's perspective in data collecting is constrained, especially when dealing with a small sample size (Bryman and Bell, 2011). In contrast, inductive methods can be employed within quantitative and positivist approaches to obtain results when analysis of data leads to the discovery of patterns.

### **Justification for adopting deductive approach**

This study employed a deductive method because it is commonly associated with positivist and quantitative approaches, which require the formulation of hypotheses and the statistical evaluation of anticipated results (Snieder and Lerner, 2009). This method is also applicable when the observed phenomenon can be compared to the presumptions of similar studies conducted in the same setting (Wiles et al., 2011). Specifically, this method helped the researcher verify or disprove the hypotheses they had formulated before conducting the investigation.

### **3.5 Methodological choices**

Research methods can be categorized as either mono (qualitative or quantitative) or mixed (combining the two) approaches or even multi (using several different approaches simultaneously) (Saunders et al. 2009; Collis and Hussey 2013). Alvesson and Sköldbberg (2009) state that the number of respondents and the intended analysis dictate the methodology chosen. Rather than using statistical methods and a large sample size, qualitative research prefers the use of a more in-depth and in-depth sample to better understand the phenomenon being studied (Delpont and De Vos, 2011). The primary focus is on gathering descriptive information about a natural phenomenon rather than numerical data (Kumar 2005; Creswell, 2009). Myers (2013) argues that the qualitative method for studying society and culture originated in social science. The quantitative method, on

the other hand, employs instruments like structured questionnaires to reduce bias and statistical methods to analyze the numerical data, all of which come from the natural sciences, to ensure objectivity and reliability in the data gathering process from a large sample size (Weinreich, 2009; May, 2011). Deductive reasoning is crucial to the quantitative method. In quantitative studies, the researcher does not have any control over the results, in contrast to qualitative studies. In the meantime, they resort to methods like selecting respondents at random from the general population.

### **Justification for adopting quantitative method**

To minimize the potential for bias, this study was conducted quantitatively with the help of a structured questionnaire and a sizable sample size (Weinreich, 2009).

### **3.6 Population and sample size**

Population refers to people who appeal to the researcher's interest in order to influence the study's outcome (Trochim, 2004) because they are objects or collections of elements with precise information about what the researcher intends to establish in terms of the research objectives (Malhotra, 2011). Cooper and Schindler (2006) and Parahoo (2014), define a population as the sum of units that include individuals, organizations, events, objects, or items that share common features and are available for sampling. Furthermore, Saunders et al. (2012) contend that the population is the set of instances from which a sample is drawn. Hence, this study aims to assess the adoption of e-ticketing in the sports industry of Ghana from the consumer perspective. In this regard, this study covers spectators in Ghana's sporting industry. In contrast to many other consumer markets, however, sports crowds are not coordinated or supported by any hard data, as claimed by Buhler and Nufer (2010). (Wilson, 2012). Due to the absence of supporting evidence,



it was difficult to implement a truly "random" systematic sampling strategy (Black, 1999). It is still crucial to collect a representative sample of the population (Denscombe, 2014).

### **3.6.1 Sample size**

Zikmund and Babin (2009) describe sample as a subset of a larger population, from which the characteristics existing in the population are estimated. The sample therefore, represents a subset or representation of the overall population. Because they share similar characteristics of the entire population, few will represent the whole which helps in the collection of small quantity of data to represent the entire population. Cooper and Schindler (2006) and Saunders et al. (2012) posit that through sampling greater accuracy of response is achieved, cost is reduced, and speed in the collection of data is ensured. Researchers like Field (2009) and Osborne and Costello (2009) argue that a credible factor analysis requires a higher sample size. This study engaged 250 sports spectators within Kumasi and Accra Metropolis that meets the requirement of the range between 200 and 300 as postulated by Garver and Mentzer (1999) to be acceptable for quantitative studies. However, Bradleys (2007) presupposes that the amount of money and time allotted to the survey will always influence the sample size for data collection.

### **3.7 Sampling frame**

This refers to the working population, which consists of a set of defined elements from which a predetermined number of observations are taken from a broader population. While the population is broad, the sampling frame is narrow. The broad nature of studies in subjects such as social science makes selecting a sample size a difficult undertaking (Denscombe, 2014). The researcher's capacity to reduce the sample size to the most efficient and effective group in order to save time and resources results in a sampling frame.

### **3.7.1 Sampling method or techniques**

To conduct a study, researchers must first pick a representative sample from a larger population (Barlett et al., 2001). Probability sampling and non-probability sampling are two of the 59 different types of selection methods (Saunders et al., 2009; Malhotra, 2011).

#### **3.7.1.1 Probability sampling**

Whenever every member of the population has a finite but non-zero chance of being sampled, we speak about a probability sample (Stuart, 1984; Zikmund and Babin, 2009). There are five major approaches to consider, but which one is best will depend on your research questions and goals (Saunders et al., 2009). This method of sampling is widely employed in both experimental and survey studies (Saunders et al., 2012).

#### **3.7.1.2 non-probability sampling**

When the chance of selecting a specific member of the population is low, we speak of non-probability sampling. The researcher has considerable leeway in selecting from among a number of possible methods (Malhotra and Birks, 2007; Saunders et al., 2009; Zikmund and Babin, 2009). Techniques like quota, self-selection, purposive (judgment), snowball, and convenience sampling fall under this category. There are no hard and fast rules when it comes to non-probability sampling; instead, what matters is how well the chosen sampling method fits in with the overall purpose of the research (Saunders, 2012).

#### **Justification for the selected sampling technique**

Non-probability sampling was performed because the researcher was unable to define the precise scope of the study's sample population. For this reason, the researcher was motivated to use this method for a quantitative study of this kind.

Because Zikmund et al. (2009) assert that under this sampling technique, an experienced person selects the sample based on his or her judgment about some appropriate characteristics required of the respondents, the metropolises of Accra and Kumasi were chosen as the target population out of all other districts and metropolises in the country. Sports participation and membership in a sports group were cited as important features of responders. The city's inhabitants exemplified these traits, making them a perfect sample for the study. Because of its advantages in terms of access to a sample size of 250 respondents, overcoming time constraints, reaching the targeted target at a reduced cost, and so on, convenience sampling was used to pick the respondents (Zikmund, 2013).

### **3.8 Data collection instrument**

It uses four primary data collection techniques: face-to-face interviews, telephone interviews, field observations, and online surveys (Malhotra and Briks, 2007). Keep in mind that data collection and analysis needs vary between approaches (Becker and Bryman, 2012). This study is quantitative in nature; hence a self-administered questionnaire was used to collect data (Saunders et al., 2012). Evaluation of participant replies will be consistent because of how the questionnaire is administered (Hair et al., 2013).

#### **3.8.1 Questionnaire design**

It is common to believe that creating a questionnaire is a straightforward effort, but this is not the case. The significance of question wording cannot be overstated because it is the most important stage of the survey research process (Zikmund et al., 2009). This study created a closed-ended questionnaire for respondents to complete.

The first portion collected demographic information about the respondents, such as their names, age, gender, age, educational level, income and employment status. The subsequent parts captured the other constructs of the conceptual framework offered early in the study when four variables were taken into account. All of the questions were adopted and modified from past empirical investigations, and they were all graded on a five-point Likert scale.

### **3.9 Measurement instrument**

Four constructs were utilized to examine the efficacy of the research based on the hypotheses produced during the course of the investigation. They included social media marketing activity, demographic characteristics, e-ticket intention, and actual use. The instruments used to measure the numerous variables had all been adopted and modified from prior empirical research of business scholars with similar studies that had been tried and proved.

#### **3.9.1 Social Media Marketing Activities**

The study observed this variable by adapting the measuring of Matak et al. (2020). This measured five dimensions of social media marketing activities and it contained six items and in altering it to fit the study, the researcher highlighted on the perception of respondents with regards social media marketing activities influencing their usage of e-tickets.

#### **3.9.2 Demographic Variables**



This study measured demographic variables by observing age, educational background, income and gender, following the study by Chawla (2018). We used a continuous measure of age, discrete categories of educational attainment, the difference between males and females as a proxy for gender, and five-point scales ranging from less than 500 cedis to over 10,000 cedis to quantify levels of income. On the other hand, gender and work status were classified as dummy variables in the study, Employed = 1, Unemployed = 0; Male = 1, Female = 0. Whereas we assigned discrete values to ordinal factors like age, education, and income.

### **3.9.3 Intention to Use E-tickets**

The items used to measure this variable were adapted from different authors. Two items were sourced from Davis (1989), one item from Bauer et al. (2005) and the last item from Martí-Parreño et al. (2016). The researcher had four items related to the respondent's opinion on future use of e-tickets for this variable and they were modified to fit the study.

### **3.9.4 Actual E-ticket Usage**

This variable was measured with items adapted from Martí-Parreño et al. (2016). This section had three items and they were adjusted to suit the study. They measured the respondent's behaviour related to his experience with e-tickets.

### **3.10 Data collection procedure**

In administering a questionnaire, several methods can be adopted like the internet mediated questionnaire, telephone call questionnaire, self-administered through delivery and collection of questionnaire and other means. The study employed the self-administered through delivery and collection of the questionnaire. Taking into account the time and financial constraints, the researcher recruited the help of other trained research assistants and ultimately reached 250 respondents using the convenience sample method we outlined previously and with their permission and assent. A total of 200 questionnaire were retrieved representing 80% response rate. Out of that four (4) of the collected questionnaires were discarded as a result of errors that were realised representing 5%. The remaining hundred and ninety-six (196) were deemed accurate for the data analysis.

### **3.11 Data analysis**

Without processing, analysis, and transformation, the data collected serves no purpose (Burns and Burns, 2008). The evaluation of the data is what allows the hypotheses to be tested and the goals of the study to be met. Descriptive statistics were employed to look at averages, standard deviations, frequencies, and outliers since, as stated by Frankfort-Nachmias and Nachmias (2008), this type of data analysis is crucial for quantitative business and social science studies. The research followed a descriptive plan, with demographic data coded and cross-referenced using SPSS 20.0, and statistical tests for correlation and regression run to establish the study's hypotheses. Research aims to develop the following regression models;

Model 1

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon \quad \text{eqn1}$$

Model 2

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \epsilon \quad \text{eqn2}$$

Where Y= adoption of e-tickets based on actual usage,  $\beta_0$  = constant term,  $X_1$  = Social media marketing activities,  $X_2$ = Intention to use e-tickets,  $X_3$ = Age,  $X_4$ = Gender,  $X_5$ = Education Level,  $X_6$ =Employment status,  $X_7$ = Income levels.

The study also employs Kendell's Coefficient of Concordance to rank the identified challenges associated with the adoption of e-tickets in Ghana's sports industry.

### **3.12 Reliability and validity**

To determine whether the measuring tools are reliable, one must examine their validity, consistency, and accuracy to see whether they produce consistent results (Saunders et al., 2011). Internal consistency and the test item's applicability to the construct under study are both guaranteed by high reliability (Zikmund et al., 2012). It has been argued that Cronbach's alpha can be used to ascertain whether or not the selected scale items adequately measure the target variable, as proposed by Khine et al., (2015). If your alpha is larger than .70, your study is considered reliable (Hair et al., 2014). Yet, there are many who believe that Cronbach's alpha may be too conservative of a measure of a scale's trustworthiness (Cronbach and Shavelson, 2004). Hence, the composite dependability improves structural equation modeling by gauging the internal consistency of similar elements. Both Cronbach's alpha and the composite reliability were used in this investigation. But

validity is used to determine if the instrument actually measures the constructs for which it was designed (Cooper et al., 2006). Two common types of validity tests are discriminant and convergent (Hair et al., 2014). These examinations were included in the research.





## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS AND DISCUSSIONS**

#### **4.0 Overview**

This section aims to transform raw data into meaningful results. This was accomplished through the use of statistical tools in the analysis of data collected from respondents regarding factors influencing e-ticket adoption in Ghana. The chapter is divided into sections. The first phase focuses on the respondents' demographic characteristics. The following phase considers the key variables under study and their existing relationship based on the study's objective.

#### **4.1 Demographic Characteristics of Respondents**

The demographic profile of respondents required for the study is shown in Table 4.1 below. Gender, age, level of education, employment status and income levels were used to profile respondents. The demographic profile of respondents who participated in the study is shown in the table below. In terms of gender distribution, 140 males (71.4%) and 56 females (28.6%) were recruited for the study. As a result, the total number of respondents was 196 (100%). In terms of age distribution, there were 106 respondents aged 18 to 25, accounting for 54.1% of the total. There were 70 respondents between the ages of 26 and 35, accounting for 37.7% of the total. The age groups 36-45 years was 12 representing 6.1% and 46-55 were 6 representing 3.5%. The age group "above 55 years" was 0.6% of the study population. At first glance, it is clear that 94.8% of the respondents in the study belonged to the younger generation, also known as "Generation Y," who are working-class and mostly urban dwellers who spend a lot of time and money. With regards to the educational level, 28 of the respondents are non-degree holders, representing 14.3%. 154 respondents were degree holders (undergraduate), this summed up to 78.6% of the study. Whereas,

14 of the respondents were Postgraduate degree holders, representing 7.1%. It was revealed that most of the study's participants were employed with 182 respondents summing up to 92.9% of the study's population and 14 were unemployed (7.1%). It can also be seen that, 7.1% of the respondent earned below GHC 500 cedis. 90 respondents representing 45.9% of the study earned within the range of GHC 500-699, 28.6% of the respondents earned between GHC 700-899 and 4.2% between GHC 900-1099. 14.2% of the study's respondents earned above 1099.

**Table 4.1 Demographic Characteristics of Respondents**

Demographic profile		Frequency	Percentage %
Gender	Male	140	71.4
	Female	56	28.6
Age	18-25	106	54.1
	26-35	70	35.7
	36-45	12	6.1
	46-55	6	3.5
	Above 55	1	0.6
Education level	Non-degree Holder	28	14.3
	Degree Holder	154	78.6
	Postgraduate Degree Holder	14	7.1
Employment Status	Unemployed	14	7.1
	Employed	182	92.9
Income Level	Below 500	14	7.1
	Ghc 500-699	90	45.9
	Ghc 700-899	56	28.6

	Ghc 900-1099	8	4.2
	Above Ghc 1099	28	14.2

**Source: Field survey (2022)**

#### **4.1 Measurement Model Analysis**

Researchers have argued that until it is established that measurement model is effective and fit for the study, testing a structural model is baseless (Bagozzi and Yi, 2012). It must therefore be established that items or indicators selected to measure a construct, does so accurately or else, modification becomes essential before further analysis are carried. This background makes it imperative to report the characteristics of the measurement model that will subsequently be used for addressing the structural hypotheses. The measurement models of the four constructs were assessed through a EFA and CFA.

##### **4.1.1 Descriptive Statistics of Variables**

Because SEM is very sensitive to data distribution, the researcher verified that the data met the premise of normality (Hair et al., 2010). The term "normality" describes whether or not a given set of data follows a normal distribution for a certain metric variable (Hair et al., 2010, p.71). Since normality is necessary for F and t statistics, significant deviations from normality can invalidate statistical conclusions (Hair et al., 2010). The skewness and kurtosis tests were proposed by Hair et al. (2010) to ensure data is normally distributed. The skewness of a distribution indicates whether or not its values are spread out evenly (Black, 2012; Hair et al., 2010). When the coefficient of skewness is positive, the data are skewed toward being less centered around the mean, and when it's negative, the data are more centered around the mean (Kline, 1998). The degree to which a distribution deviates from a normal distribution is described by a statistic called kurtosis (Black, 2012; Hair et al., 2010). If the coefficient of skewness is positive, the distribution

has a peak, and if it's negative, the distribution lacks a peak (Black, 2012; Kline, 1998). Kline (1998) suggested that a skewness absolute value of less than 3 and a kurtosis absolute value of less than 10 were also suitable thresholds. Descriptive statistics for measurements are presented in Table 4.2, where values for skewness and Kurtosis are all below the thresholds established by Kline (1998).

**Table 4.2: Descriptive Statistics of Variables**

Construct	Variable	Mean	Standard deviation	Excess kurtosis	Skewness
Social Media Marketing Activities	SMMA 1	4.357	0.479	-1.668	0.606
	SMMA 2	4	0.655	-0.638	0
	SMMA 3	4.571	0.495	-1.954	-0.293
	SMMA 4	4.429	0.606	1.195	-0.838
Intention to Use	INTENT 1	4.378	0.736	3.168	-1.363
	INTENT 2	4.388	0.723	3.548	-1.406
	INTENT 3	4.459	0.939	3.424	-1.948
	INTENT 4	4.418	0.768	6.171	-1.983
Actual Usage	AU1	4.214	0.773	2.385	-1.339
	AU2	3.643	0.895	3.098	-1.654
	AU3	3.5	0.906	1.907	-1.169

#### **4.1.2 Reliability and Validity**

Cronbach's Alpha, Average Variance extracted, Exponent Factor analysis, and Confirmatory factor analysis were used to determine the validity and reliability of the study's data. All items included in this study were validated and documented as assessing their intended constructs; however, exploratory factor analysis was used to help detect and minimize cross-load of some measures on other factors. The possibility that a given factor does not adequately explain all of the constructions (i.e., does not load well on its stated construct) will also be avoided by using exploratory factor analysis. Principal Factor Axis was used as the method for factor extraction.



Straight Oblimin Kaiser Normalization was used as the rotation approach. Additionally, the system was configured to only retain loadings above 0.50 and to ignore any Eigenvalues below 1.00 when extracting factors. Kaiser-Meyer-Olkin (KMO) was used to determine if the sample size was sufficient for EFA. Bartlett's Test of Sphericity reached 1% statistical significance at  $\chi^2(210) = 817.790$ ,  $p < 0.001$ , and the KMO value obtained (0.649) was greater than the required value of 0.60, indicating adequate sample adequacy for the analysis (Pallant, 2009). (Field, 2007). A total of 80.6% of the variance was explained by the four factor solutions, with components 1, 2, and 3 each accounting for 49%, 16.9%, and 14.6%. Seven of the eleven items evaluated by EFA were kept for use in the CFA (see Table 4.2).

**Table 4.3: Exponent Factor Analysis**

	<b>1</b>	<b>2</b>	<b>3</b>
AU1			
AU2	0.954		
AU3	0.856		
INTENT1		0.934	
INTENT2			
INTENT3		0.71	
INTENT4			
SMMA1			
SMMA2			0.741
SMMA3			0.882
SMMA4			0.895
SMMA5			

Using the EFA's remaining items as a starting point, a confirmatory factor analysis (CFA) was conducted to further refine the items and aid in validating the scales. Table 3 shows the components that were kept for model estimation together with their corresponding loadings. There was a 1% level of significance for all factor loadings. Convergent validity of the retained measures is supported by positive and statistically significant loadings (Pallant,2007).

**Table 4.4 Confirmatory factor Analysis**

	1	2	3
AU2	0.981		
AU3	0.951		
INTENT2		0.826	
INTENT3		0.75	
SMMA 2			0.746
SMMA 3			0.881
SMMA 4			0.897

**Table 4.5 Scale Reliability and Validity**

	Cronbach's Alpha	Composite Reliability	Rho_a	AVE
AU	0.722	0.747	0.743	0.548
SMMA	0.876	0.793	0.775	0.634
INTENT	0.837	0.836	0.791	0.627

Cronbach's alpha was used to calculate the reliability of our survey instrument, and all of the results were over the .70 cutoff, indicating a high degree of reliability across all of the assessed constructs (Nunnally, 1978). Furthermore, the average variance extracted was greater than .50 across all constructs, showing good internal consistency of the constructs and convergent validity (where several items measuring the same concept agree) (Fornell and Larcker, 1981; Hair et al., 2012; Babin and Zikmund, 2016). Make reference to (Tables 4.3; 4.4).

### 4.3 Correlation Analysis

The purpose of the correlation analysis was to examine the degree to which two or more independent variables were linked. Although both methods focus on revealing the hidden relationship between variables, correlation and regression analysis are closely related. The correlation coefficient is a number between -1 and +1 that measures the linear relationship between two variables. A correlation value of +1 implies a perfect positive linear relationship between the two variables, a correlation coefficient of -1 a perfect negative linear relationship, and a correlation coefficient of 0 no linear relationship. The results of the correlation analysis are reported as follows using Pearson Correlation and Sig. (2-tailed approach):



Table 4.6: Correlation Analysis

## Correlations

		Age	Gender	Highest Education Level	Employment Status	Income	Social Media Marketing Activities	Intention to Use	Actual Usage
Social Media Marketing Activities	Pearson Correlation	-.217**	.176*	.577**	.381**	.359**	1	.600**	.294**
	Sig. (2-tailed)	.002	.013	.000	.000	.000		.000	.000
	N	196	196	196	196	196	196	196	196
Intention to Use	Pearson Correlation	-.151*	.317**	.367**	.462**	.424**	.600**	1	.226**
	Sig. (2-tailed)	.035	.000	.000	.000	.000	.000		.001
	N	196	196	196	196	196	196	196	196
Actual Usage	Pearson Correlation	.117	-.127	.615**	.698**	.238**	.294**	.226**	1
	Sig. (2-tailed)	.101	.076	.002	.000	.000	.000	.001	
	N	196	196	196	196	196	196	196	196

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).





The sample size, significance level, and Pearson correlation coefficient for the study are all displayed in table 4.6 above. Table 4.6 reveals a positive correlation between educational attainment and participation in Social Media Marketing campaigns ( $r = 0.577$ ,  $p < 0.01$ ). In addition, a high positive correlation ( $r = 0.600$ ,  $p < 0.01$ ) exists between social media marketing and the intent to purchase electronic tickets. The findings also point to a remarkably minimal correlation between social media marketing efforts and demographic variables like gender, occupation, income, and frequency of use (refer to table 4.6). E-ticket adoption is positively related to demographic variables such as education, employment, income, and age. However, these relationships are not strong. There is a strong positive correlation between the extent of formal education and employment. Most of the primary constructs have been found to have a positive, statistically significant association with actual application.

#### **4.4 Regression Analysis**

The Ordinary Least Square Regression analysis was also used to see if there was a correlation between the demographic data, social media marketing activity, and e-ticket usage intentions. The analysis also provides an estimate for the parameter value employed in the formulation of the regression equation. Using the results of the regression analysis, we determined that an alternative hypothesis with a p value of less than 0.05 was statistically significant and warranted rejecting the null hypothesis. Tables 4.7, 4.8, and 4.9 are shown below with the analysis results, and explanations follow.

Table 4.7: Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
1	.208 <sup>a</sup>	.043	.033	.68707	.043	4.357	2	193	.014
2	.748 <sup>b</sup>	.560	.544	.47201	.517	44.188	5	188	.000

a. Predictors: (Constant), INTENT, SMMA

b. Predictors: (Constant), INTENT, SMMA, Age, Gender, Highest Education Level, Income, Employment Status

Table 4.8 ANOVA<sup>a</sup> Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.113	2	2.057	4.357	.014 <sup>b</sup>
	Residual	91.109	193	.472		
	Total	95.222	195			
2	Regression	53.337	7	7.620	34.200	.000 <sup>c</sup>
	Residual	41.885	188	.223		
	Total	95.222	195			

a. Dependent Variable: AU

b. Predictors: (Constant), INTENT, SMMA

c. Predictors: (Constant), INTENT, SMMA, Age, Gender, Highest Education Level, Income, Employment Status

A regression model's goodness of fit can be determined by looking at its R, R<sup>2</sup>, modified R<sup>2</sup>, and standard error of the estimate, all of which are displayed in Table 4.7. Correlation coefficient value, denoted by the letter "R," is found in the "R" column. To some extent, the value of R can be interpreted as a measure of the accuracy with which the independent variable, in this case, the number of e-tickets purchased, has been predicted. The correlation between the explanatory and regressive factors is likewise represented by R. If R is greater than one, then there is a strong linear relationship between the dependent and independent variables, and if it is less than one, then there

is no linear relationship. It can be observed from model 1 (where social media marketing activities and intention to use was tested on adoption) that there was a significant and weak association between the variables where  $R = 0.208$ . In Model 2, however, where demographic variables were included in the relationship,  $R = 0.748$ , indicating a high level of prediction and hence a greater linear association between the independent and dependent variables of the study.

The coefficient of determination ( $R^2$ ), which is the variable that best explains the variance in the regression, is displayed in the "R Square" column. ANOVA data, including the F-statistic for significance testing of  $R$  and  $R^2$ , are shown in Table 4.8. When the significance value of the F-statistic is low (i.e.  $< 0.05$ ), this indicates that the independent variables do a decent job of explaining the variance in the dependent variable. The F statistic is calculated by dividing the Regression Mean Square (MSR) by the Residual Mean Square (MSE). Analysis of model 1 shows that the Sig. value (P) is significantly less than .005 ( $P = .014 < .05$ ). Furthermore, the calculated F (4.357) was bigger than the minimum value,  $F = 2.345$ . Hence, there are strong correlations between social media marketing operations and the actual adoption of e-tickets in the Ghanaian sports industry. Also, in model 2, the computed F (34.200) was larger than the crucial value of  $F = 2.345$ , and the P value was  $P = 0.00 < 0.05$ . Use of e-tickets in Ghana's sports industry is thus significantly correlated with demographic characteristics, social media marketing, and intention to use.

From Table 4.7, the model 1 of the study had an Adjusted  $R^2$  of 0.033 which inferred that variation in actual usage studied is caused by changes in the different factors affecting the usage. Thus, adoption factors comprising social media marketing activities and user behaviour, or intention cause just 3.3 percent of change in adoption of e-tickets in Ghana. However, from model 2, where

the adjusted R<sup>2</sup> is 0.544, which infers that adoption factors which is affected or influenced by the user's demographics is able to change adoption of e-tickets by 54.4%.

Table 4.9 **Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.964	.709		6.998	.000
	SMMA	.543	.184	.259	3.947	.004
	INTENT	.268	.164	.144	2.640	.003
2	(Constant)	3.685	.866		4.253	.000
	SMMA	.753	.151	.421	5.286	.076
	INTENT	.375	.158	.202	3.382	.018
	Age	.320	.113	.220	2.830	.005
	Male Gender	.175	.093	.114	4.879	.062
	Highest Education Level	.154	.146	.291	7.194	.000
	Employment Status	.370	.429	.137	3.862	.090
	Income	.121	.091	.196	3.336	.083

It can be observed from table 4.9 above that the established regression models for the study using the standardized coefficients were

Model 1

$$Y = 4.964 + .543X_1 + .268X_2 \quad \text{enq 3}$$

Model 2

$$Y = 3.685 + .753X_1 + .375X_2 + .320X_3 + .175X_4 + .154X_5 + .370X_6 + .121X_7 \quad \text{eqn 4}$$

The result from Table 4.9 reveals that in model 1, the adoption of e-tickets will be 4.964 everything being equal. Standardized coefficient studies demonstrated that a one-unit increase in social media marketing activities (SMMA) will cause a .543 change in adoption at a significant level of 0.01 ( $p = 0.004$ ). This confirms the findings of Aspasia and Ourania (2014), who discovered that



managers' involvement with social media affects their understanding of the medium and its use in a variety of contexts, including the promotion of brands, the discovery of real-time information about products, competitions, awards, and the integration of customer services. Hence, this study supports H1.

Furthermore, a unit increase in user behaviour or user intention to use e-tickets (INTENT) will result in .268 changes in adoption at a significant level of 0.01 ( $p=0.003$ ), which is also in line with Aspasia and Ourania (2014). Hence, H2 is supported based on model 1.

The analysis of model 2, the main model of the study reveals, that adoption of e-tickets will be 3.685 provided no other variable change. The standardized coefficient results in the study showed that a one increase in SMMA will cause a .753 change in e-ticket adoption which is significant at 1% thus,  $p=0.076$ . This supports the research of Bruque and Moyano (2007), who discovered that the transfer of information necessary to use the new instruments is facilitated by social media. Also, a unit change in user intention will cause a .375 change in adoption which is also significant at 1% ( $p=0.018$ ). Kalogiannakis & Papadakis (2019) found that teacher's intention to use ICT had a positive influence on the actual usage of the system. This is in line with this study's finding.

With regards to a user's demographic variables, an increase in age causes a 0.175 change in adoption. The impact of male on the adoption of e-tickets is 0.320 all other things being equal. A change in employment status will cause a 0.370 change in adoption. Also, a change in level of education will cause .154 changes in adoption. Lastly an increase in the income level of users will lead to 0.121 changes in adoption. These validates the findings of Sahney et al. (2014). Bhatnagar and Ghose (2004) also found that Age, gender, education and internet experience are found to

impact the acceptance of a new technology significantly. Mutengezanwa and Mauchi (2013) conducted a study which revealed a positive relationship between system adoption, age, job, income, gender, and level of education.

Adoption was affected most by social media marketing activities ( $r = .753$ ), then by user behavior or intention to adopt ( $r = .375$ ), then by job position ( $r = .370$ ), etc. Table 4.9 summarizes the results of a statistical analysis to determine whether or not the independent variables are related to the dependent variable, which is the adoption rate based on actual usage of e-tickets. For statistical significance, a value of  $p$  less than 0.05 indicates a level of 5%. The point at which the null hypothesis is rejected is generally recognized. Table 4.9 reveals that all of the independent variables are significantly related to the adoption of E-tickets.

#### 4.5 Kendell's Coefficient of Concordance

The Kendell's  $W$  was used to assess the level of agreement between the respondents of the study based on the challenges they faced with e-tickets adoption.

Table 4. 10 Test Statistics

Test Statistics	
N	196
Kendall's $W^a$	.171
Chi-Square	134.400
Df	4
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

It can be seen from the table that the coefficient was 0.171, which is very low as compared to the rule of thumb of, closer to 1 meaning complete agreement and closer to zero meaning low

agreement. Hence, there was a low agreement in rating the challenges associated to e-tickets adoption.

Table 4. 11 : **Rank of Challenges**

<b>Ranks</b> Challenges	Mean Rank	Rank
Lack of Customer Technical Support	1.93	1st
Lack of Stadium Infrastructure	3.07	2nd
Data Security Issues	3.21	4th
Lack of User friendliness	3.71	5 <sup>th</sup>
Lack of accessibility (Connectivity issues)	3.07	2nd

However, it can be inferred that, lack of customer technical support emerged as the most ranked challenge facing customers. Followed by Lack of stadium infrastructure to validate e-tickets and lack of accessibility. The 4<sup>th</sup> ranked challenge was data security issues and lastly, lack of user friendliness being the least ranked challenge. This research lends credence to the claim made by Stockdale and Standing (2006), who discovered that inadequate and absent technical knowledge and support, as well as a lack of appreciation for the advantages of e-commerce, persist as important obstacles.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATION**

#### **5.0 Introduction**

This section summarizes the study's key findings, draws conclusions consistent with those objectives, offers suggestions for future research, and addresses the study's limitations.

#### **5.1 Summary of Findings**

The preliminary purpose of this research was to determine what factors led to the introduction of electronic ticketing in the Ghanaian sports industry. The introduction of e-tickets in Ghana's sports industry made this study worthy of investigation because it provided a new opportunity to learn more about the factors influencing the adoption of an IT system, which is not exactly new to the existing literature. To identify what factors, influence customers' adoption of e-tickets, the study drew on the Technology Acceptance model (Davis,1989) and Social Media marketing activities (Matak et al.,2020). The study's findings are summarized below.

##### **5.1.1 Factors that influence the adoption of e-tickets in the sporting industry of Ghana**

The study identified demographic variables (Marfo and Quansah,2020), social media marketing activities (Matak et al.,2020) and the user intention (Davis,1989) as the main adoption factors. It was found that within the sporting industry, SMMA 4, which meant that “social media platforms provided the users with information they needed on e-tickets”, was the highest rated measure of social media marketing activities with a mean of 4.429 (table 4.1.1). Furthermore, it was revealed that INTENT 3 with mean 4.459 was the highest rated measure of intention to use, which represented “My general intention to use e-ticketing services is very high”. The demographic



variables adopted for this study includes age, gender, educational level, income level and employment status as identified from literature.

### **5.1.2 Effect of the factors on adoption of e-ticketing in the sporting industry of Ghana**

The study adopted the regression analysis to analysis the effect of the stated factors on adoption of e-ticketing in the sporting industry of Ghana. The study's main model predicts that e-ticket adoption will be 3.685 if all other factors remain constant. According to the standardized coefficient results, a unit increase in social media marketing activities causes a 75.3% change in e-ticket adoption, which is significant at 1% and thus  $p=0.076$ . This finding supports Bruque and Moyano's (2007) study, which discovered that social media facilitates the transfer of knowledge required to use new tools. Furthermore, a unit change in user intention results in a 37.5% change in adoption, which is significant at 1% ( $p=0.018$ ). Kalogiannakis and Papadakis (2019) discovered that teachers' intentions to use ICT had a positive influence on actual system usage. This aligns with the findings of this study.

The demographic factors had varying effect on e-tickets adoption. For example, a user's adoption rate increases by 17.5% percentage points for every year added to their age. When other factors are held constant, the influence of male gender on the uptake of electronic tickets is 32%. Adoption rates fluctuate as a result of changes in employment status by about 37%. As one's level of education rises or falls, one can expect to see a 15.4% shift in adoption rates. Lastly, a 12.1% shift in adoption is expected when user income increases. This corroborates the results obtained by Sahney et al (2014). According to research by Bhatnagar and Ghose (2004), there is a strong correlation between demographic factors and the likelihood of adopting new technologies. According to studies conducted by Mutengezanwa and Mauchi (2013), there is a correlation

between system adoption and demographic factors such as age, occupation, salary, gender, and education level.

### **5.1.3 To explore the potential challenges of e-ticketing on the sporting industry and other stakeholders involved**

The Kendall's W was employed to assess the respondent's agreement in ranking the challenges associated with e-ticket adoption in the sporting industry. It was found that there was little consensus regarding the difficulties of implementing e-tickets as Kendall's coefficient of concordance was 0.171. However, it can be deduced that the most prominent challenge confronting customers is a lack of customer technical support. The lack of stadium infrastructure to validate e-tickets was followed by a lack of accessibility. The fourth-ranked challenge was data security issues, and the least-ranked challenge was a lack of user friendliness. This finding supports the findings of Stockdale and Standing (2006), who discovered that a lack of expertise knowledge and support, together with a lack of appreciation for the benefits of e-commerce, remains a major challenge.

## **5.2 Conclusions**

Changes in technology have had a major impact on the Ghanaian sports business. Event organizers can save money by not printing and shipping tickets when they sell electronic tickets instead. However, customers must get a computer and the internet in order to print their tickets. It is interesting to see how the major players in Ghana's football industry have fought against the introduction of new ideas and technologies. Therefore, the purpose of this research was to identify the factors that influence user adoption of e-tickets and to analyze how those factors affect user behavior.

Social media marketing efforts were found to be the single most significant factor in determining whether or not consumers would switch to using electronic tickets. The findings also suggest that promotional tools like media advertisements may have a notable effect on the decision-making process of prospective system users. It also became clear that demographic variables and a user's adoption intention play a positive role in deciding whether or not e-tickets are used in practice. However, not all demographic factors were significantly associated with the use of electronic tickets. The demographic variables that strongly correlated with adoption was employment status. Since this is the case, it follows that employed people are more likely to use or adapt electronic tickets for sporting events. A person's age also shifts as they become more comfortable with using e-tickets, the study found.

### **5.3 Recommendations**

This study has concluded that there is a significant relationship between social media marketing activities, demographic variable and e-ticket adoption. Hence the study makes the following recommendations for businesses and organizations that are looking to increase e-ticket adoption. Firstly, the study recommends that business and organisations increase investment in social media marketing. The study's findings state that social media marketing activities can play a significant role in driving e-ticket adoption. Therefore, organizations should consider increasing their investment in social media marketing campaigns to promote e-ticketing options to customers. Secondly, these organisations should target specific demographics. The study have identified employed respondent, youthful population, employees earning above 1099, are more likely to adopt e-tickets as a result of social media marketing activities. Organizations should target these demographics with tailored marketing campaigns to promote e-ticket adoption. Furthermore,

Leverage influencers and brand ambassadors. Organizations can leverage influencers and brand ambassadors on social media platforms to promote e-ticket adoption. These individuals have a large following and can help to increase awareness and interest in e-ticketing options. Lastly, organisations can offer incentives for e-ticket adoption. Incentives such as discounts, rewards, or special promotions to customers who adopt e-tickets. This can help to increase adoption and provide a tangible benefit for customers who choose to use e-tickets.

#### **5.4 Limitations of the Study**

The limitations of this study are centered on the methodological choice of the study. Firstly, the study relies on quantitative research which is based on a positivist paradigm. This approach assumes that social reality is objective and measurable, this may not be suitable for understanding the complex and dynamic nature of e-ticket adoption, which can be shaped by multiple factors like cultural orientation and others, and may not be fully captured by numerical data. This can make it difficult to understand how and why e-tickets is adopted or not adopted nationally in Ghana. It is worth noting that, the research design and sampling strategy of the study was employed to mitigate these limitations.



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## APPENDIX

### Questionnaire

The purpose of this questionnaire is to assess the factors that influence the adoption of E-ticketing Systems in Ghana's Sporting Industry. Kindly respond by either selecting the response among choices that best represent your views or by filling the spaces provided.

#### Part A: Demographic Variables

Please indicate your answer by ticking (X) Or (✓) on the appropriate box.

##### 1. How old are you from the age range below?

18-25	1
26-35	2
36-45	3
46-55	4
Above 55	5

## 2. Gender

Male	1
Female	0

## 2. What's your highest educational level?

Non-degree holder	1
Degree holder	2
Postgraduate degree Holder	3

## 3. What's your employment status?

Unemployed	0
Employed	1

## 4. What is your average monthly income/allowance?

Below GHc 500	1
GHc 500-699	2
GHc 700-899	3
GHc 900-GHc 1099	4
Above GHc 1099	5

## Part B:

The study sought to examine the respondent's level of agreement or disagreement on the various factors that influence user's perception of E-ticketing systems in Ghana. Kindly respond to the statements in the table below by ticking (X) Or (✓) on the appropriate box (5- Strongly agree, 4- Agree, 3-Neutral, 2-Disagree, 1- Strongly Disagree).

	<b>Social media marketing activities (SMMA)</b>	<i>Strongly disagree</i> <i>strongly agree</i>				
1	Content on e-ticketing on social media is interesting. (SMMA 1)	1	2	3	4	5
2	I like e-ticketing ads on social media. (SMMA 2)	1	2	3	4	5
3	E-ticket's social media platform provides the information I need (SMMA 3)	1	2	3	4	5
4	It is easy to deliver my opinion through e-ticketing's social media platform (SMMA 4)	1	2	3	4	5
5	Interacting with e-ticketing's social media platform is trendy (SMMA 5)	1	2	3	4	5

	<b>Intention to use (INTENT)</b>	<i>Strongly disagree</i> <i>strongly agree</i>				
1	I will frequently use e-tickets in the future. (INTENT 1)	1	2	3	4	5



2	Assuming e-tickets are available, I will likely use it. (INTENT 2)	1	2	3	4	5
3	My general intention to use e-ticketing services is very high. (INTENT 3)	1	2	3	4	5
4	I will use e-tickets on a regular basis in the future (INTENT 4)	1	2	3	4	5

	Actual usage (AU)	<i>Strongly disagree</i> <i>strongly agree</i>				
1	I have never used e-ticketing (AU 1)	1	2	3	4	5
2	I use e-ticketing sometimes (AU 2)	1	2	3	4	5
3	I always use e-ticketing (AU 3)	1	2	3	4	5

### Part C: Challenges of E-ticketing Usage

Kindly select the rank of the stated challenges, in the form of how pressing they are to you?

(1- most pressing to 5- Least pressing)

Challenges	1	2	3	4	5
Lack of Customer Technical Support					
Lack of Stadium Infrastructure					
Data Security issues (Lack of privacy, exposure of personal IDs to third parties)					
Lack of User friendliness					
Lack of accessibility (connectivity issues)					

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