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THE BACHELOR OF SCIENCE DEGREE (BSc.) IN INFORMATION TECHNOLOGY.**

TOPIC:

**PSYCHOLOGICAL FACTORS INFLUENCING STUDENTS' PATRONAGE OF SPORTS
BETTING: A CASE STUDY ON KOFORIDUA TECHNICAL UNIVERSITY STUDENTS**

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This research would not have been possible without the collective efforts of all those mentioned above. Your support and contributions are deeply appreciated.

Sincerely,

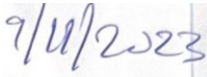
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DECLARATION

STUDENTS' DECLARATION

I, the undersigned, certify that the above is my original work and has not been presented for a certificate in this institution or elsewhere.

Signed: 

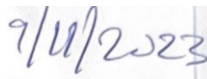
Date: 

AMFO DANIEL

SUPERVISOR'S DECLARATION

I hereby attest that this project work was supervised in accordance with the University's established standards for project work supervision.

Signed: 

Date: 

Dr. Martin Offei

ABSTRACT

This study examines the prevalence and influencing factors of sports betting behavior among students at Koforidua Technical University in September 2023. Through extensive data analysis, the research unveils that sports betting is a widespread activity among the student body, influenced by a complex interplay of psychological, technological, and motivational factors.

Psychologically, cognitive biases such as availability heuristics, gamblers fallacy, outcome bias, hindsight bias, and confirmation bias, coupled with emotions, play a significant role in shaping students' betting decisions. The study also highlights the substantial influence of Information Technology (IT), including online platforms, digital advertisements, mobile applications, social media, mobile money and features such as in-play-betting, cashout and partial cashout in facilitating easy access to sports betting opportunities.

Motivational factors behind students' sports betting engagement include the desire to win money, peer influence, financial strain or unemployment, entertainment, and curiosity. The study underscores the need for awareness campaigns, educational programs, and support services to address these motivations and promote responsible gambling behavior.

CHAPTER ONE

1.0 Introduction

Today's world is largely dominated by online sports betting. Many people partake in various forms of sports betting, each for a different reason. Over the past ten years, online gambling has become significantly more popular, and it is expected to continue to grow in the years to come (Gray et al., 2012). Many nations throughout the world have already seen an increase in the acceptance of online sports betting as a legal form of gambling (Lopez-Gonzalez and Griffiths 2016a). People can now place wagers whenever it suits them thanks to online sports betting. There are many interrelated reasons why people bet on sports. Thanks to technological advancements and the widespread accessibility of online gambling platforms, sports betting has seen a significant increase in popularity in recent years. Technology crosses national boundaries, creating an international market for gambling, particularly sports betting (Real, 2013). In contrast to land-based gambling, online gambling demonstrates distinct traits that are in line with the severity of problem gambling (McCormack and Griffiths, 2013). At first glance, it's simple to access gambling websites thanks to modern technology, which enables users to do so from anywhere

in the world at any time of day using devices like smartphones, tablets, interactive televisions, and laptops that are all connected to the Internet. This quality is frequently linked to the desire to play (McCormack and Griffiths, 2012; Zaman et al, 2014).

Students now have a plethora of betting options at their fingertips thanks to the proliferation of online betting platforms and mobile applications. With the availability of several short loans that are also available on the internet, students are even encouraged to bet (Diyaolu, 2022). Social media platforms and digital marketing strategies have helped to normalize sports betting among students, making it an essential part of their online experiences. An overview of the changes brought about by online technologies in the gambling industry shows that it is becoming more asocial due to the availability of more interactive betting options (Griffiths, 2003). Understanding what drives college-aged people's sports gambling behavior is crucial given the long-lasting effects of problem gambling and the expansion of the sports gambling market, especially in light of the detrimental effects that problem and at-risk gambling have on one's self, society, economy, and health (Martin et al, 2018; Neighbors et al, 2002).

As a result, the role of information technology in facilitating and influencing students' participation in sports betting

cannot be overstated. Furthermore, students are particularly vulnerable to various influences and face unique psychological challenges, it is essential to explore the underlying factors that contribute to their involvement in sports betting activities.

1.1 Subject and field of study

The subject of study is "Psychological Factors Influencing Students' Patronage of Sports Betting," and the field of study is a combination of Psychology and Information Technology (IT). The research explores the psychological aspects, such as motivations, cognitive biases, emotions, and social influences, which drive students' engagement in sports betting. Additionally, it examines the role of IT elements, including online betting platforms, mobile applications, and digital marketing strategies, in shaping students' attitudes and behaviors towards sports betting.

1.2 Study objectives

1.2.1 General objectives

The general objective of this research is to examine the psychological factors influencing students' patronage of sports betting among Koforidua Technical University students, with a

focus on the role of information technology (IT) in shaping their attitudes and behaviors.

1.2.2 Specific objectives

- To identify the motivational factors driving students' engagement in sports betting activities.
- To identify the impact of IT tools on students' attitudes and behaviors towards sports betting.
- To identify the impact of cognitive biases and risk perception on students' decision-making in relation to sports betting.

Research hypotheses

H₁: There is a positive relationship between psychological factors and IT enabled influence (IT tools).

H₂: There is a positive relationship between psychological factors and bet intentions.

H₃: There is a positive relationship between IT enabled influence and bet intentions.

1.2 Background of the study

Online sports bettors may perceive their gambling as being more influenced by their own skills, knowledge, and analysis and less by chance or luck than more conventional offline sports bettors, according to research on online sports betting (Gordon et al. 2015). You can make any wager at any time when you gamble online. This has significantly changed sports betting by enabling players to wager on events that are currently taking place. Players may have many opportunities as a result (Market Trends, 2022). According to the CEO of Ghana's Gaming commission, over the past ten years, the gaming industry in Ghana has experienced phenomenal growth. The abundance of casinos, sports betting facilities, and other venues for games of chance in the nation serves as proof of this. The availability of technology that facilitates Internet use, as well as affordable, high-speed, and easily accessible Internet access, has led to a global increase in Internet usage (Gainsbury et al., 2013). Over the past ten years, the IT industry has experienced a significant boom, partly due to the introduction of smartphones and tablets. The way we consume it has changed; as the Internet has become more integrated into daily life, betting services have gone digital (Wellman, 2011). Nowadays, sports betting is a more sophisticated kind of gambling that young people can easily access, and it is a part of the experience of watching

sports (Gainsbury & Derevensky, 2013). As wagering methods become more interactive, betting becomes more of a social activity. Instead of being played in more traditional social settings like bars, gambling is now played in private settings at home and at work. The use of particular websites has shifted to being in a cyberspace due to online gambling (Griffiths, 2003). The gambling market is undoubtedly evolving as new gambling products are launched, advertised, and distributed online via mobile phones and associated devices. As long as they have access to the Internet, customers can now place bets at any time of day or night and thus access sports events or results (Abbott et al., 2013). Nowadays, bettors can wager on a variety of outcomes as they happen during a game, such as who will score the most goals in a football match at halftime or which team will score the first goal. These outcomes include in-the-run, in-play, and microbetting. The majority of sports bettors are fans of sports who watch live games on television, watch games online, listen to radio commentary, or attend sporting events. In the past, betting was prohibited and involved making a bet on the result of a greyhound or horse race (Palmer, 2013).

In recent years, sports betting has become increasingly popular among college students, who are drawn to the thrills and potential financial gains it offers. Students now participate in sports

betting on a large scale thanks in part to the growth of online gambling platforms and simple access to betting opportunities.

At least eight universities, including Michigan State, the University of Colorado at Boulder, and Louisiana State University, were involved in the unusual agreements that gambling sites reached to market their expansion of sports betting. With the companies' millions of dollars in payments, the schools joined as partners. These transactions raised concerns about whether encouraging gambling on campuses, particularly among those who are at a young age when they are more likely to develop gambling disorders, is consistent with the goals of higher education (Lipton, 2022). Due to their gambling addiction, the majority of students who gamble, whether they do so online or in person, run the risk of losing their savings and allowance (Sakala et al., 2019).

According to Problem Gambling Resource Centers (PRGC), we don't often consider things like gambling when we consider going to college, but we should. It is a growing issue that needs to be discussed. Gambling's increased accessibility and availability may cause problems for some people. In particular, online and mobile gaming, gambling, and sports betting are now more accessible than ever. Due to the fact that it offers a simple and convenient way to place sports bets, mobile technology has played a crucial role in the growth of online sports betting. Sports wagering has typically been conducted inside of bookmakers. The ability to wager

on sports in real time online through smartphones, laptops, and tablets has changed as a result of technological advancement (Killick & Griffiths, 2021). The global introduction of the internet has increased the number of teenagers and college students who partake in gambling activities (Petry & Gonzalez-Ibanez, 2015). In contrast to previous generations, today's youth have grown up with more widespread gambling opportunities (Volberg et al., 2010); they also have easy access to gambling through remote platforms like the internet and mobile devices (Griffiths and Parke, 2010).

The biggest innovation in the sports betting world today may be mobile betting. The sports betting industry has improved since smartphones first appeared. Sports betting businesses like Betway understood the impact of putting games in their customers' hands (Otoo, 2020).

IT plays an important role in many aspects of sports betting in today's digital age. The rise of online betting platforms and mobile applications has transformed the way students bet on sports. Students can easily access a wide range of betting options, track real-time odds, and place bets from their smartphones or computers with just a few clicks. Students' participation rates have increased as a result of the integration of IT tools, which has made sports betting more accessible, convenient, and appealing to them.

Furthermore, the importance of social media platforms and digital marketing strategies should not be overlooked. Sports betting companies use information technology to target specific demographics, such as university students, with personalized advertisements and promotions. The pervasiveness of online advertisements and social media campaigns has contributed to an environment in which sports betting is becoming increasingly normalized and perceived as an essential part of the student experience.

Additionally, IT tools enable students to participate in online communities centered on sports betting. These online communities enable peer-to-peer interaction and the sharing of sports betting tips, predictions, and experiences. Within these communities, the exchange of information, opinions, and success stories can shape students' attitudes, perceptions, and decision-making processes regarding sports betting. Students' involvement in sports betting may be strengthened further by the sense of belonging, validation, and social acceptance fostered by IT-mediated interactions.

Even so, the pervasive presence of IT in sports betting raises concerns about responsible gambling. While technology provides convenience and access to betting platforms, it also increases the risk of students engaging in excessive and problematic gambling behavior. Nonetheless, IT tools can be used to mitigate these risks by incorporating responsible gambling features such as self-

exclusion options, spending limits, and automated alerts that encourage students to engage in responsible gambling practices. Finally, the combination of psychological and IT-related factors has a significant impact on students' sports betting patronage. This study aims to investigate these intricate relationships by investigating the psychological factors at work as well as the impact of IT tools such as online platforms, mobile applications, digital marketing, and online communities on students' attitudes, behaviors, and decision-making processes related to sports betting.

1.4 Scope of the study

The scope of this research is concentrated on Koforidua Technical University final-year students in computer science department who bet on sports.

1.5 Significance of the study

The importance of this study stems from its potential to provide valuable insights into the intricate relationship of psychological factors and information technology in influencing students' sports betting patronage. The findings are expected to have practical applications in promoting responsible gambling behavior, improving student well-being, and informing policies and interventions that create a safe and supportive

gambling environment for Koforidua Technical University students and others.

The study is also noteworthy because it is being conducted in Ghana. This means that it will take into account the specific cultural and social factors that are important to Ghanaian students. This is significant because the factors that influence students' participation in sports betting may differ from country to country.

1.6 Methodology

A questionnaire will be used to administer this research. Thus, structured questionnaires will be given out to Koforidua Technical University students in order to get quantitative information about their motivations, attitudes, and behaviors related to sports betting.

1.7 Expected results of the study and possible use

The findings may help to create a safer and more responsible gambling environment for university students. The findings of the study are expected to inform practical strategies, policies, and initiatives that promote responsible gambling and protect students from potential gambling-related harms.

1.8 Presentation of thesis

This research is divided into five chapters:

The first chapter provided introduction, subject and field of study, followed by the general and specific objectives, background of the study, scope, significance of the study, expected results of the study and study work plan were all provided.

The second chapter defined terms and conducted a literature review based on the study's specific objectives.

The third chapter discusses the study's research methodology: research design, population and sampling design, data collection methods, research procedures, and data analysis.

The findings, presentation and analysis based on the study's objectives are presented in Chapter four.

The fifth chapter discusses conclusions and recommendations.

1.9 Study work plan

Chapter 1: Introduction (Duration: 1 week)

1.1. Define Research Objectives and Questions

- Clarify research goals and formulate specific questions.

1.2. Literature Review

- Conduct an extensive review of relevant literature.
- Create a bibliography of sources.

1.3. Justification and Significance

- Explain the importance and relevance of the research topic.

Chapter 2: Literature Review (Duration: 4 weeks)

2.1. Refine Literature Review

- Expand and refine the literature review by incorporating recent studies and additional sources.

2.2. Synthesize Literature

- Summarize and synthesize key findings from the literature relevant to the research questions.

Chapter 3: Research Methodology (Duration: 3 weeks)

3.1. Research Design

- Specify the research design (e.g., qualitative, quantitative, mixed-methods) and justify my choice.

3.2. Data Collection

- Detail the data collection methods and tools, including surveys, interviews, or data sources.

3.3. Sampling

- Describe the sampling strategy, including the population, sample size, and sampling technique.

3.4. Data Analysis

- Explain the data analysis techniques, software, and statistical methods to be used.

Chapter 4: Data Analysis, Findings and Presentation (Duration: 5 weeks)

4.1. Data Preparation

- Clean, preprocess, and structure the collected data for analysis.

4.2. Data Analysis

- Conduct data analysis using the specified methods and tools.

4.3. Presentation of Findings

- Present the research findings systematically.
- Interpretation of Results
- Interpret the research findings in the context of the research objectives and literature.

4.4. Discussion of Findings

- Discuss the implications of the findings, their significance.

Chapter 5: Conclusion and Recommendations (Duration: 1 week)

5.3. Conclusion

- Summarize the main findings and contributions of the research.
- Offer recommendations for future research or practical applications.

CHAPTER TWO

Literature review

1.0 Introduction

Based on the goals of the study, this chapter reviews relevant literature. It investigates the variables influencing the behavior of online bettors. It examines, in more detail, how psychological variables, motivations, and IT tools affect students at Koforidua Technical University's betting behavior

1.1 Psychology

In accordance with the American Psychological Association, psychology is the scientific study of the mind and behavior. The study of psychology spans a wide range of topics, including human development, sports, health, clinical, social behavior, and cognitive processes. The study of human behavior, cognitive attitude, performance, and mental functioning is known as psychology. It is used to treat mental health issues, better understand and assist those who suffer from psychological disorders, as well as to enhance relationships, workplace behavior, and the educational system. Any area of life can benefit from the study of psychology.

While psychological expertise is frequently used to diagnose and treat mental health issues, it is also used to comprehend

and resolve issues in a wide range of human endeavors. Psychology explains human behavior and aids in our understanding of why certain behaviors occur. The field provides insights into our human experiences, fosters interpersonal connections, and has the power to make the difference between a life well-lived and one filled with difficulties.

2.1 Psychological factors influencing students to engage in sports betting

2.2 Cognitive biases

Most people believe that their opinions are well-reasoned and rational. But in truth, we are all susceptible to a wide range of cognitive biases that cloud our perception of the world. We don't pay equal attention to or consideration to all facts and pieces of information, and we have an ingrained tendency to seek out and interpret information in a way that confirms our preconceptions ("Confirmation Bias & Motivated Reasoning [Infographic]," 2022).

Everyone demonstrates cognitive bias, which are deliberate mistakes made in thinking when processing and interpreting data. Despite its strength, the brain has limitations, and we are more prone to biases when we become more dependent on memory, when we must act quickly, when we have too much information to process, or when we haven't formed enough meaning in a situation

or context. Heuristics are mental shortcuts used to speed up decision-making because of how complex the world around us is and how much information is at our disposal. Heuristics, which may or may not be accurate, are frequently the basis of cognitive biases and can influence thinking mistakes. Our emotions, motivations, and social pressures are additional factors that contribute to bias (Sandrelli & Hargreaves, n.d). The occurrence of biases is essentially the same across a wide range of decision-making contexts (Shafir and LeBoeuf, 2002; Kahneman, 2011a; Korteling et al., 2018). They feel quite natural and self-evident, cause very specific anomalies in our thinking, and are mostly implicit and unconscious (Risen, 2015; Korteling et al., 2018). These distortions are thought of in the context of gambling as incorrect or illogical ideas, presumptions, self-statements, and beliefs that have the potential to encourage continued gambling in the face of setbacks (Ledgerwood et al., 2020). The irrational thoughts known as cognitive distortions in gambling lead people to overestimate their level of control over the game's outcome and minimize the significance of chance (Barrault & Varescon, 2013). Researchers in psychology have identified a number of cognitive biases that frequently cause bettors to lose money. You cannot get past them, is the straightforward response. All you can do is control your behavior by placing wagers based on their

Expected Value rather than your emotions or presumptions (Pinnacle, n.d.).

The general public frequently views sports betting as having no redeemable value for society, demeaning those who engage in the business and labeling those who discuss it as "touts." Beyond all the shady undertones, however, the world of sports betting offers an intriguing setting for research into how human biases and emotion cause us to make poor decisions (Ma, 2014). According to Ma (2014) the five cognitive biases that cause errors in sports gamblers are as follows: the availability heuristics, the gamblers's fallacy, confirmation bias, outcome bias and hindsight bias.

2.2.1 Availability heuristics

According to Tversky and Kahneman (1973), the availability heuristic is a cognitive bias in which you base a decision on evidence, knowledge, or recent experience that is easily accessible to you, even if it isn't the best example to use. Most of the time, people make decisions with the best of intentions. The availability bias is an inclination for people to evaluate situations or make decisions based on information that immediately comes to mind (Sheldon & Wigmore, 2022). You want to make a choice that ensures the best outcome possible by

taking into account everything you know. But it's challenging to maintain objectivity, even when you want to. Your individual perspective may color your judgment and skew your decision-making process. The availability heuristic is one of the reasons why this is so (Waters, 2021).

2.2.2 Gambler's fallacy

The gambler's fallacy is the false notion that past events, which are wholly unrelated to future events in reality, can have an impact on those events. The gambler's fallacy, for instance, could lead someone to think that if a coin just landed on heads twice in a row, it's likely to land on tails on the subsequent toss (*The Gambler ' s Fallacy: On the Danger of Misunderstanding Simple Probabilities*, n.d.).

2.2.3 Confirmation bias

Confirmation bias is the propensity for people to look for evidence that confirms their beliefs while ignoring or manipulating evidence that contradicts those beliefs (Nickerson 1998; Myers and DeWall 2015: 357). Confirmation bias is the innate, unconsciously occurring tendency of people to notice and accept information that supports or confirms their existing beliefs while ignoring or doubting information that complicates

or contradicts those beliefs. For example sports fans pay closer attention to and remember referee close calls that go against their team than they do those that favor their team("Confirmation Bias & Motivated Reasoning [Infographic]," 2022).

2.2.4 Outcome bias

The tendency to judge a decision based on its result rather than the circumstances that led to it is known as outcome bias. According to Interaction Design Foundation, It makes sense to evaluate the results of our actions. However, there is a cognitive bias that causes us to overlook the result while undervaluing the method by which we arrived at it. This is cognitive bias is termed outcome bias. Additionally, Toby (2022) highlighted that due to two main factors, outcome bias has a significant impact on a large portion of gamblers: first, our society associates success with money and profit. Sports is a market that is focused on results.

2.2.5 Hindsight bias

Hindsight bias is a psychological phenomenon that enables people to persuade themselves after an event that they correctly

predicted it before it occurred. People may draw the conclusion that they can predict other events with accuracy as a result (Chen, 2013). For instance, many sports enthusiasts think they predicted the outcome of an event before it occurred. The phrase "knew-it-all-along phenomenon" describes this situation. As they say, however, "hindsight is 20/20." Toby (2022).

2.3 Emotions

Gambling involves feelings like winning, mingling with others, and regular downtime. But it can also lead to anxiety, regret, and guilt. These emotions may intensify and result in depressive, irritable, and stressed feelings. It's critical to realize that gambling is not about making money; rather, it's about the impact it has on one's feelings and behavior (Gambler's help). Sports betting heightens emotions because we stand to gain personally from results, whereas failure means we lose personally. Sound reasoning and logic are necessary for successful betting. A mistake caused by emotional involvement might be overconfidence, chasing losses, or giving up betting altogether. Betting carries a high level of risk because there are few opportunities for success (bestbettingapplications). Overconfidence, fear, and greed are some of the most frequent emotions that can influence a bettor's decision-making process. Emotions can play a significant role in sports betting

decisions. Overconfidence can cause a bettor to place bets on events that are less likely to happen, while fear can make a bettor decide not to place a bet at all. On the other hand, greed may lead a bettor to chase losses or place bets that are too big for their bankroll (Davis, 2023).

2.4 Risk perception

Gambling's inherent risky nature, where outcomes are frequently uncertain and potentially harmful, is one of its key characteristics. When faced with risky options, agents' perceptions of risk significantly influence intention and subsequent behavior, according to research on risk and health behavior (Ajzen 2011; Breakwell 2007; Morgan et al. 2002; Oei and Jardim 2007; Siegrist et al. 2005). How agents perceive critical risk parameters, such as the range of possible outcomes, the meaning of those outcomes, and factors that determine the likelihood of outcomes (such as the agents' cognition and behavioral control, or game mechanics determining probability), is crucial to risky choice and behavior (Ajzen 2011; Weber et al. 2002). Gambling cognitive research has demonstrated that gamblers' perceptions of risk have a big impact on their behavior. Gamblers have preferences for specific game outcomes (Lee et al. 2007; Binde 2009); they also predict these outcomes (Fortune and Goodie 2011).

2.5 IT enabled influence on students' betting

2.5.1 Social media

The use of computers and the Internet has significantly changed the gambling landscape over the past ten years. The gambling industry is no longer restricted to land-based gambling establishments (such as casinos and racetracks). Today, a few keystrokes on a computer are all it takes to access gambling activities. Social media sites like Facebook are one point of access that has drawn more attention from researchers in the field of gambling studies (Wohl et al. 2017). This increased focus is partially attributable to the fact that social media sites have gained popularity as a means of accessing online gambling websites via hyperlinks hidden within advertisements (Abarbanel et al. 2016).

It is simple to find and connect with like-minded people on social media and the online world at large because young people are savvy at utilizing advanced technology and are skilled Internet users (Lehdonvirta and Räsänen, 2011; Lenhart et al, 2010). Around the world, young people, in particular teenagers and emerging adults between the ages of 15 and 25, frequently use social media frequently. They adopt the new technologies that social media rely on, and they use these technologies on

a regular basis (Ahn, 2011, Davis, 2012, Lenhart et al., 2015). Peer influence is significant for young people, which highlights the importance of peer activity on social media (Boyle et al., 2016; Gardner and Steinberg, 2005). Social media's widespread use has made it possible for communities of like-minded individuals to grow. In the case of gambling, discussion groups about subjects and problems pertaining to both problematic and leisurely gambling activities have emerged. This has sparked interest in the type of information discussed as well as the dynamics of these communities (Bradley and James, 2020). According to Lehdonvirta and Rasanen (2011) and Mikal et al. (2016), social media is a significant context for identity development and a source of information for today's youth. According to (Ofcom, 2020) since the majority of people now use social media in their daily lives and have access to it through a variety of devices, social media has undergone significant change over the past ten years. Social media has been embraced by gambling businesses as a channel for reaching out to prospective customers (Regulus partners, 2018). On social media and online networks, information and content can often be false and harmful. The increased accessibility of gambling-related content on social media is a significant issue in this regard. Gambling operators frequently portray gambling as a glamorous lifestyle on social media platforms while

omitting to mention the risks and negative effects associated with it. In doing so, they normalize and promote gambling activities (Gainsbury et al., 2015), which may appeal to young people in particular (Binde, 2014; Derevensky et al., 2010). Youths may be exposed to gambling-related activities such as sharing gambling-related content by their online friends in addition to gambling advertisements. Since young people are a group at risk for gambling problems, their propensity for exposure to different gambling content as active online users is concerning (Calado et al., 2017). The development of gambling communities with a focus on particular apps, affiliates, tipsters, content creators, and problematic gambling has been facilitated by social media. These multicultural groups give gambling behaviors a new social dimension by disseminating knowledge, promoting activities, and establishing standards and values (Miller, C et al, 2016).

Users of social media frequently believe information shared by people who are like them and other members of their inner circle (Flanagin et al., 2014). As a result, users' attitudes toward gambling may be shaped and influenced by exposure to gambling content and associated norms, especially if the information is provided by reliable in-group members (Kaakinen et al., 2020; Keipi et al., 2017). Collective social media reactions typically reflect and bolster widely held social norms, whereas norm

challenging content generates, at times ferocious, opposition and criticism (Oksanen et al., 2015; Rost et al., 2016). Social media's selective nature enables users with marginalized interests to look for information that aligns with their values and connect with others who share those values (Basky et al., 2015; Keipi et al., 2017). Users who are very interested in gambling, for instance, may search for online information and communities that support and encourage gambling behavior (Sirola et al., 2018). Particularly among young online users, peer groups and shared peer experiences are valued even more than factual information (Huang et al., 2014; Syed-Abdul et al., 2013).

2.5.2 Mobile applications

Smartphone gambling is more accessible than land-based and online computer gambling, according to a qualitative study with seven gamblers (Drakeford & Hudson-Smith, 2015), because it is more nearby, socially accessible, private, and instantly accessible. Participants talked about how these characteristics encouraged more frequent gambling, impulsive gambling, and ongoing gambling that became ingrained in their daily routines. Additionally, mobile technologies were identified as having the potential to increase frequency, expenditure, and persistence

in a study of risky environments for sports betting. This is due to the fact that they offer instant, continuous, and anywhere access to betting around-the-clock (Deans et al., 2016).

The emergence of mobile apps has significantly changed the gambling and betting industry in recent years. Users' interactions with their preferred gambling platforms have been completely reimagined thanks to the accessibility and convenience of smartphones. On their mobile devices, players can now place bets, access live odds, and play casino games with just a few taps. The proliferation of mobile apps has led to an unprecedented increase in user engagement and activity (Reilly, 2023). Online gambling on sports is a rapidly expanding industry that has been made possible by the widespread use of smartphones and the availability of numerous mobile betting apps (Hing et al., 2018a; Lopez-Gonzalez & Griffiths, 2018; Winters & Derevensky, 2020).

Gambling businesses have been known to highlight mobile betting over other forms of gambling in their advertisements (Lopez-Gonzalez et al., 2017a, b, c, d) by exaggerating the sense of control bettors get when placing wagers on their smartphones (LopezGonzalez et al., 2017b).

Sports fans can bet on their favorite teams from anywhere at any time with the help of mobile betting apps, which is

convenient. They provide many different betting options, such as live streaming, in-play betting, and immediate odds and score updates (Naresh, 2023). In many countries, smartphones are now the most widely used device for sports betting (Lopez-Gonzalez & Griffiths, 2018). Young adult males are the most likely to bet on sports, and this group prefers smartphones to other betting sites (Browne et al., 2020; McGee, 2020; Raymen & Smith, 2020). Research has looked at links between using mobile betting platforms and harmful gambling. Online gamblers who preferred to use mobile devices to place their bets had higher rates of gambling problems, according to an Australian study (N=4,482) (Gainsbury et al., 2016).

2.5.3 Digital advertisement

In terms of communication methods and content, contemporary gambling advertising is becoming more geared toward target audiences (Binde, 2014; Newall et al., 2019). Online sports betting advertisements have become more prevalent along with the expansion of online gambling, particularly sponsorship, television advertisements, and marketing content shared on social media platforms (Lamont et al., 2011; Torrance et al., 2021). Advertising for gambling products, including sports betting, is now spread throughout regular community and media

spaces and is no longer limited to spaces that are only used for gambling (Deans et al., 2017).

On mobile or other internet-capable devices, advertisements frequently tout the ease of access to online sports betting (Hing et al., 2017a, b; Lopez-Gonzalez et al. 2017a).

Gambling advertising is also common on social media, where it is possible to create customized ads like posts with hyperlinks to specific promotions and gambling-related items, humorous content, and content that is difficult to recognize as gambling advertising (Gainsbury et al., 2016; Thomas et al., 2015).

Gambling advertisements frequently use humor, celebrities, and/or experts to market their products, portray winning as simple, and suggest that gambling is a realistic way to amass wealth and/or lead a "glamorous" lifestyle (Binde, 2014; Sproston et al., 2015). Sports dominate digital gambling advertising. One marketing tactic used in digital sports betting advertising is odds advertising. This is in reference to advertising that mentions the likelihood of winning (Greo, 2022). For instance, studies have shown that advertisements for sports betting that are shown during sporting events trigger a variety of positive, negative, and neutral influences in sports bettors (Lamont et al., 2016).

According to several studies (Clemens et al., 2017; Gavriel-Fried et al., 2010; Hanss et al., 2015), people who engage in

risky or problematic gambling report more exposure to gambling advertisements. One explanation for this is that those who engage in high-risk or compulsive gambling may pay closer attention to advertisements for gambling (Gainsbury et al., 2016). As a result of the locations they frequent (such as gambling sites) and the fact that gambling companies specifically target their advertisements at them, those with gambling risk/problem gambling may be exposed to more gambling advertisement (Gainsbury et al., 2016). Due to exposure to various and more effective types of marketing, such as promotional advertising featuring free credits, boosted odds, bonuses, and loss returns (Hing et al., 2018, 2019), those with gambling risk/problems may report a greater involvement impact. Promoting wagering inducements is one common type of gambling advertising. These incentives are frequently advertised during a live event, and it has been hypothesized that doing so may encourage impulse betting because those placing a bet have an immediate opportunity to do so via a platform (Lamont et al. 2016).

Bookmakers promote an immersive, synchronous sport watching experience when they highlight the responsiveness, ease of use, and speed of their online platform in their marketing and advertising materials (Lopez-Gonzalez, Estévez, & Griffiths, 2018a).

2.5.4 In-play - betting

Football wagering and "in-play" betting have been the main drivers of growth in the value of remote betting, which includes betting online via PC, laptop, tablet, smartphone, television, etc. (Lopez-Gonzalez and Griffiths 2016a).

The term "in-play" betting, which is synonymous with "live action" or "in-running" betting, describes placing bets on events that have begun but have not yet concluded. Here, bettors can choose to keep betting once an event has begun and modify their wagers based on how the event develops (for example, on a sporting event like a football or cricket match). When a sports event was in progress, some bookmakers would accept bets over the phone at the end of the 1990s, giving rise to in-play betting, which is now a well-liked online service in many nations (Odds Checker 2017). Bookmakers are now able to offer more markets for wagering during sporting events thanks to the introduction of in-play betting, which also allows players to place bets based on a variety of in-game activities that occur during the games. For instance, bets can be placed on in-play markets for football games that include the score at halftime, the number of goals scored in the first or second half of the game, the total number of yellow cards given out during the game, and the names of the goal scorers. Every bookmaker has a different selection of in-play markets and sports

available (Killick & Griffiths, 2019). Second screen devices, such as smartphones, tablets, and laptops to a lesser extent, are associated with in-play betting. These devices allow for an immersive betting experience in addition to watching televised or streamed sport, which is normally the primary screen. However, some fans choose to bet on their mobile devices while watching the sport in stadiums or while listening to a match on the radio. Bookmakers have profited from people's increasing use of second screen devices in daily life. According to the most recent publicly available data on sport consumption, people in Western nations use second screen devices while watching sports quite frequently (45% in the US, 43% in the UK, 42% in Australia, 35% in Germany, and 40% in France). These figures are significantly higher in recently industrialized nations like Indonesia, China, Turkey, India, and China (SportBusiness Group, 2014). Using "eyes-free" technology as an example, one can watch sports and place bets on a second screen device without averting their gaze from a television or computer-based streaming (Centieiro, Romão, & Dias, 2014).

It was reported by the online sports betting company Bet365 that in-play bets account for 80% of their total revenue from sports betting (Jackson 2015).

2.5.5 Mobile money

New opportunities for businesses to sell their goods and services have been made possible by the expansion of mobile money services. One of these is the quickly expanding sports betting industry, which has swept through several African nations. The growth has been further accelerated by the rapid uptake of the internet. Even in remote locations, customers can now easily access online sports betting services. Sports betting and other forms of gambling are growing significantly in popularity in nations like Tanzania, Kenya, Ghana, Uganda, Senegal, and the Democratic Republic of the Congo (Owuor, 2018). The concern is that with the quick uptake of mobile money, more people than ever will attempt sports betting, a global digital phenomenon. Gambling is now more accessible than ever thanks to mobile money, and those looking to make quick money are turning to it (Bulski, 2022). Due to the proliferation of mobile money and rising mobile phone ownership in Ghana, mobile betting has increased dramatically. 133% of the population has more than one network connection, with nearly 42 million mobile connections. By providing convenient deposit and withdrawal options, such as MTN, Vodafone, and Airtel, betting companies have adapted to the mobile money revolution. A bank account or internet connectivity is not required to deposit money; a simple

USSD code suffices. For Ghanaian gamblers, this has made betting convenient (GhanaBusinessNews, 2021).

2.5.6 Cash-Out and Partial Cash-Out Features:

For gamblers to minimize risk and increase profits, cash out is an essential tool. Most online bookmakers now provide it for major markets, and it has become the industry standard. Although there are differences between websites, some offer partial cash out, and some operators permit auto cash out rules even offline (onlinebetting.or.uk). According to Bookmakers.bet, using the betting service partial Cash Out, users can earn some money right away. A portion of the initial wager can be cashed out by players, who keep the remaining amount until the final buzzer. With this thrilling feature, you have the opportunity to win "twice" on the same wager, securing profit if the initial bet meets the conditions for a partial Cash Out and maximizing returns if the subsequent bet is successful.

2.6 Betting intentions influence on students' betting

2.6.1 Motivation

The presence of internal and/or external forces that cause the onset, direction, persistence, and intensity of a particular behavior is what is known as motivation (Deci and Ryan, 2002). Even though gambling always involves the expectation of winning

money, other gambling motives may exist in addition to or independently of the expectation of doing so (Flack and Morris, 2015). Many reasons for gambling have been highlighted in the literature, including enjoyment, amusement, avoiding boredom, escaping recurring or bothersome negative effects, socializing, excitement, and competition with others (Back et al., 2011; Barrada et al., 2019; Lam, 2007; Lee et al., 2007). There are numerous justifications for recreational gambling. The desire for positively reinforcing subjective excitement and arousal, as well as the need to flee stress or unpleasant emotional situations, can be broadly categorized into two non-mutually exclusive categories of motivation. The ability to enhance or regulate positive affect and the learned association with it make both social and monetary reward expectancies conducive to gambling (APS Gambling Working Group, 2010).

People gamble for four main reasons: social, financial, entertainment, and coping. Social reasons involve social gatherings or enjoyment, while financial reasons involve winning money or changing lifestyles. Entertainment reasons provide a rush or feeling good, while coping reasons help forget worries or feel more confident (gambler's help). Risk-taking, relaxation, socialization, thrill, suspense, and memories are a few reasons to engage in sports betting. It offers the chance to win big, is an entertaining and exciting way to relieve

stress, and allows one to interact with others who also enjoy betting. An exciting sporting event is made more so by its unpredictable result. It can be a worthwhile learning experience to win money when you bet on sports (Rae, 2020). Young people bet on sports for a variety of reasons, including enjoyment, the chance to win money, and the thrill of doing so. In the opinion of Keovisai and Wooksoo (2019) betting generates a buzz that sets off a range of emotions in those involved.

Neighbors et al., (2002) noted a few justifications offered by university students for their betting habits. The findings show that people gamble in an effort to win money in order to pass the time when they're bored and to have fun. Early wins can lead to the perception that gambling is a simple way to make money, or a person may be motivated to keep playing in an effort to chase losses or recover losses in response to losses. Winning contributes to the perpetuation of delusions of control and belief in fate or luck. Superstitious beliefs and practices arise when random correlations between outside factors are mistakenly understood as causal relationships (APS Gambling Working Group, 2010). Additionally, it was shown by Raylu and Oei (2002) that there was a connection between gambling and psychological needs like stress relief and anxiety relief. It has been suggested that winning (or chasing losses) and easing tension, stress, and emotional distress are factors that

encourage persistent gambling. Gaining money excites people, which encourages them to keep playing and gets them rewarded. Likewise, the dissociative experience that permits brief emotional escapes from an unpleasant negative affective state is a negative reinforcer that encourages playfulness.

Additionally, winning serves as a second order reinforcer because it causes excitement and arousal to be experienced after exposure to unconditioned cues. This is because winning causes gambling-related paraphernalia and environmental cues to be repeatedly associated with gambling-induced excitement and arousal (conditional cues). The act of betting has the power to offer a psychological or emotional release. Hopes for societal and financial rewards are also important factors in the motivations behind betting. Encouraging surroundings that improve social and peer-group interactions are provided. Since winning money seems to be more important than just having fun, some of these young people without jobs turn to betting as their primary source of income (Masaba et al., 2016).

In addition to these motives, some teenagers believe that wagering on sports is a way to socialize, make friends, unwind, get rid of boredom, feel older, escape from everyday issues, treat depression, and deal with loneliness (Anthropologica, 2015). Additionally, Keovisai and Wooksoo (2019) clarify that some people use betting as a coping mechanism, a way to meet

new people, or a way to flaunt their skill or good fortune. In a similar vein, some turn to gambling to help them cope with life's stresses. According to Rodriguez et al., (2015) there is recent research that links betting to charitable causes and financial gains as common justifications for betting. Contrarily, it is believed that sports betting is a highly skilled gambling activity (Buchdahl, 2003; Khazaal et al., 2012), which might enable those who are knowledgeable about the sport to locate wagers that have a chance of producing profitable long-term results (Andersson et al., 2005; Brown & Reade, 2019; Butler et al., 2020).

A number of researchers have argued that the primary motivation for gambling is money. Financial gain is a significant factor that influences all gambling activities, according to Blaszczynski and Nower (2002) gambling offers the chance to win money and, depending on the size of the prize, to alter one's way of life. Excitation is created when people imagine and fantasize about the potential effects of large prize winnings (expectations of reward) on their work, finances, leisure, and ability to support their immediate family. Little wins are also thrilling because they give the player something to gain and encourage them to keep playing in an effort to hit bigger wins. According to Wood et al., (2007), some individuals might prefer online gambling because they believe these sites have higher

payout percentages. Additionally, the difficulty people are having financially may be a catalyst for people to start gambling on sports. This may be due to a number of factors, including unemployment, poor governance, the economic downturn, and many others. Therefore, many people view sports betting as a means to an end in order to survive (Flack & Morris, 2017). Wojcik and Hodge (2019) also point out that financial incentives play a role in student betting; many of them want to supplement their income in light of growing living expenses. Students who partake in gambling convey anxiety regarding the unsettling aspects of their monetary circumstances. Their only motivation for doing this is to make their college finances easier and better (Rodriguez et al., 2015).

2.6.2 Peer influence

Experiences with friends and affiliates can have an influence on an individual's behavior or thought processes, causing them to act or think in ways they might not have otherwise (Laursen, 2018, p. 447). Most of our lives are spent forming close relationships and interacting with others because we are social creatures. Parents, siblings, teachers, and friends are among the important people who surround every individual. According to Cherniss and Sluke (2002), these are the social forces that

have varying effects on a person's life and force him to acquire suitable behavior. Peer groups are widely acknowledged to have a crucial and delicate role in influencing and shaping the risky activities that young people engage in (Abdulhameed et al., 2020). According to (Shead et al., 2010), young people frequently start gambling with friends before they start taking part in legalized gambling. Therefore, it is less likely that betting will be seen as a high-risk activity if you have friends who bet. In Gupta and Derevensky's (1997) study, it was discovered that 75% of the participants said they wagered with friends. This demonstrates the close and degree of association between possible betting behavior and peer relationships. In their qualitative study, Volberg et al., (2010) found that peer competition was the driving force behind their sports betting. They go on to say that among the explanations are the display of intelligence in their in-depth understanding of the game and the loyalty to favorite teams and players.

According to Deans et al., (2016) and Boyer (2006), youths going through this stage of life transition are exposed to a range of risk-taking behaviors, including engaging in risky sexual behavior, acting out criminally, placing bets with friends, drinking alcohol, and smoking tobacco. Because they spend more time with friends and less time with parents, this is a time

when decisions and choices are typically influenced by peer groups.

Purdie et al. (2011) proposed that six out of ten youth respondents who reported betting said they bet with at least one other person, typically a friend. A friend who bets frequently can play a big influence in encouraging a friend to start betting or gambling, according to Delfabbro and Thrubb (2003). Group interaction was taken into consideration by Mwesigwa (2018) as a factor requiring youth participation in sports betting. The participants stated that friends who happened to be frequent bettors introduced them to sports betting, and they frequently encouraged them to partake in the activity due to the financial potential of winning. Similar to this, some young people saw betting establishments as a place to socialize with peers, but eventually those peers conned them into engaging in gambling.

In his research, Alfred (2015) discovered that approximately 64% of participants had learned about sports betting from their social circles, 8% had learned from family members, 10% had witnessed friends filling out betting tickets, and 18% had seen it in sports publications. The aforementioned study reveals that most bettors (64%) were persuaded to place a wager by friends.

2.6.3 Poverty/ unemployment

Sport betting and education level are positively correlated, claim Ahaibwe et al., (2016). Their opinion was that those who had completed post-secondary education were more likely to bet than people who had not. Limited access to regular household income is another factor that encourages some young people to bet on sports. Some young people turn to sports betting as a means of arguing for the essential amenities that their parents are unable to provide because some parents find it incredibly difficult to meet their basic needs (Mwesigwa, 2018). The majority of gamblers are from the lowest socioeconomic strata of society, according to research by Olashore et al. (2017); Eboh and Babatunde (2015).

According to this, people from the lowest socioeconomic groups are more likely to gamble, particularly in developing nations where the rate of poverty is exceptionally high. Individuals without jobs are more likely to bet than those with jobs, presumably because jobless people are constantly looking for other ways to make ends meet. (Ahaibwe et al., 2016). According to research by Akinlosotu et al., (2019), most young people who bet on sports are unemployed. Regarding youth participation in sports betting and other forms of betting, they cited the high rate of youth unemployment as a marker. Sport betting, though, is seen by some young people as a way to further their love of

sports. This suggests that some young people bet on sports because they were particularly passionate about the activity. The importance of sport as a recreational activity for human health has varied throughout human societies in terms of complexity, nature, purpose, and essence over time. Sports, a major craze on the continent, are an easy way to stimulate these youths who are unemployed or underemployed. And it appears that gambling can help people escape poverty (Owuor, 2018).

2.7 Chapter summary

This chapter reviewed pertinent literature on the psychological factors, such as cognitive biases, emotions, and risk perception that affect students' betting behavior. Additionally, IT enabled influence on students' betting such as mobile applications, social media, digital advertisements, in-play-betting, mobile money, cashout and partial cashout features were also reviewed. Finally, what drives students to partake in sports betting such as motivation, peer influence and poverty/unemployment were also reviewed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The research strategy covered in this chapter was employed to carry out the study's goals.

The plan for the current study is presented there. This chapter covers a variety of topics, including sample size, population, sampling technique, and design, among others.

3.1 Type of research

The type of research used in this study is a descriptive research. Scientists and researchers use descriptive research design as a potent tool to learn more about a particular population or phenomenon. This kind of study offers a thorough and precise picture of the traits and habits of a specific population or subject. Descriptive research enables researchers to better understand a particular problem by observing and gathering data on it. It also offers insightful information that can guide future research (Sirisilla, 2023). In order to ascertain the study objectives, this approach was chosen as appropriate.

3.2 Population

The entire group of people who meet the study's sample criteria is considered the research population (Walliman, 2011). The population of the study was made up of groups of Koforidua Technical University final-year students in computer science department.

3.3 Sample

It is uncommon for researchers studying a group of people to be able to collect data from every member of that group; instead, they choose a sample, or the group of people who will actually take part in the study (McCombes, 2019). Two hundred (200) final year students in computer science department were selected as a sample in order to produce accurate data.

3.4 Sampling technique

Due to the narrow focus of the research topic, snowball sampling was used as the sampling technique. Snowball sampling can be used to find participants by recruiting them through other participants if the population is difficult to reach. As you interact with more people, your network of contacts "snowballs" in size (McCombes, 2019).

3.5 Data collection method

Primary and secondary sources were used to gather the data. Websites, reports, journals, and other sources were used to gather

secondary data for the literature review. Students in Koforidua Technical University's final-year computer science, computer network management, and information technology programs provided the primary data. Students who were available, nearby, and who had been recommended by peers who were aware of their betting activity were given questionnaires. 91 questionnaires were received and used for data analysis out of the total (200) questionnaires distributed.

3.6 Type of data to be collected

Quantitative data was collected for this study. Quantitative data is information that is expressed as counts or numbers, each of which has a specific numerical value. This data is any quantifiable information that can be used by researchers for statistical analysis and mathematical computations so that they can derive practical conclusions (Surendran, 2018).

3.7 Instrument for data collection

Questionnaires were used as the data collection tool. A questionnaire is a structured method of gathering data for research or surveys that consists of a list of questions that respondents must answer. The use of a questionnaire in this study was justified because it improved the collection of quantitative data. A questionnaire also made it possible to collect data easily, cheaply, and without the researcher's influence on the results.

3.8 Instrument validity and reliability

The questionnaire was developed with great care in order to guarantee the validity and reliability. Expert judgment and pertinent literature served as the foundation for the questionnaire. The questionnaires were distributed to a small group of colleagues as part of a pilot study. This is a result of their comprehension of the study, in which the instrument was modified based on their feedback.

3.9 Instrument structure to meet research objectives

The questionnaire was closed-ended and was written on a five-point Likert scale (1=Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, and 5= Strongly Agree), which was intended to make responding to the questions quick and easy. To meet the research objectives, the questionnaire was structured into four parts.

Participants' demographics and prior experience with betting were gathered in the first section.

The second section looked at psychological aspects, risk perception, emotion, and betting skills that affect students. The third section examined the impact of IT on students' betting.

The last section looked at the factors that motivate students to bet.

3.10 Method of data analysis

Descriptive statistics, correlation analysis and multiple regression were chosen to analyze data. Descriptive statistics was used to provide a clear understanding of patterns, trends, and distributions within the dataset. Correlation analysis was used to examine the relationships between the variables under investigation and multiple regression was used to determine the combined and relative effects of the independent variables on the dependent variable.

3.11 Instrument

A structured questionnaire was employed in the study to collect qualitative data for analysis.

3.12 Computer simulation of instrument

The process of giving the gathered data structure, order, and meaning is known as data analysis. 2013 (Sekaran & Bougie). Data was collected through questionnaires, sorted, edited to find errors, and then organized for analysis. The Statistical Package for Social Sciences (SPSS) was used to analyze the data, and descriptive statistics were used to interpret the findings.

CHAPTER FOUR

DATA PRESENTATION, FINDINGS AND DISCUSSIONS

4.0 Introduction

The general objective of this research was to examine the psychological factors influencing students' patronage of sports betting among Koforidua Technical University students, with a focus on the role of information technology (IT) in shaping their attitudes and behaviors. This study was necessitated as a result of betting becoming highly prevalent and students in particular being heavily involved in betting.

4.1 General Demographics

This section sought to find out the gender, age, betting frequency and level of education.

Table 4.1.1 Gender of respondents

Category	Frequency	Percent
Male	67	73.6
Female	24	26.4
Total	91	100.0

Field data: September, 2023

Table 4.1.1 represents the frequency of respondents according to

their gender, 67 respondents representing 73.6% were males while 24 representing 26.4% were females. This implies that online betting is a male dominated activity.

Table 4.1.2 Age of respondents

Age in years	Frequency	Percent
Under 25years	35	38.5
25 - 35years	52	57.1
36 and above	4	4.4
Total	91	100.0

Field data: September, 2023

Table 4.1.2 represents the age categories of respondents, out of the 91 respondents, 35 respondents representing 38.5% fell below 25 years, and 52 representing 57.1% fell between the ages 25 - 35years. Finally, 4 respondents representing 4.4% were 36 and above. This shows majority of the respondents were 25 - 35years.

Table 4.1.3 Have you ever placed a bet of any kind?

Betting Practices	Frequency	Percent
Yes	91	100.0
No	0	0.0
Total	91	100.0

Field data: September, 2023

Table 4.1.3 represents the betting practices of respondents, all 91 respondents representing 100% agreed they had placed a bet of any kind before.

Table 4.1.4 How often do you bet?

Betting Frequency	Frequency	Percent
Almost always	33	36.3
A few times a day	6	6.6
Once a day	18	19.8
A few times a week	17	18.7
Once a week	3	3.3
Rarely	14	15.4
Total	91	100.1

Field data: September, 2023

Table 4.1.4 shows the betting frequency of respondents, the findings indicated that 14 respondents representing 15.4% rarely bet, 17 respondents representing 18.7% bet a few times a week and 33 representing 36.3% bet almost always, 6 representing 6.6 % bet a few times a day, 3 representing 3.3% bet once a week and 18 representing 19.8% bet once a day. The findings show those who bet almost always are the majority.

Table 4.1.6 Educational level of respondents

Levels	Frequency	Percent
HND	41	45.1
B-TECH	24	26.4
BSC	26	28.6
Total	91	100.1

Field data: September, 2023

Table 4.1.6 shows the educational level of respondents, 41 respondents representing 45.1% were HND students, 24 representing 26.4% were B-tech students and finally 26 representing 28.6% were

BSC students. This shows that majority of the respondents were HND students.

Table 4.2 Psychological factors that influence student's betting

Statements	N	Mean	Std.
I am more likely to bet on teams or events that I have heard about recently or that have had a big impact on me.	91	3.72	0.84
After a series of losses, I'm more likely to believe that I'm "due" for a win in the next bet.	91	3.46	1.00
I'm more likely to believe sources that predict the outcomes I've bet on, even if they have been inaccurate in the past.	91	3.50	1.13
I believe that the outcome of a sports event justifies the quality of my prediction, regardless of the reasoning I used to make that prediction.	91	3.58	0.87
I'm likely to say "I knew it was going to happen" after a sports event, even if I didn't predict it beforehand.	91	3.58	1.09
My emotions influence my betting decisions.	91	3.28	1.20
I believe that my betting decisions are influenced more by my knowledge or ability to predict outcomes accurately.	91	3.75	0.91
I like taking big risks when it comes to betting.	91	3.57	1.06

Field data: September, 2023

The Table 4.2 depicts statements on psychological factors that influence students' betting behavior. The results from the table shows that the statement "I am more likely to bet on teams or events that I have heard about recently or that have had a big impact on me" has a mean of 3.72 and a SD of 0.84, this means that majority of the respondents agreed. Again, the findings indicated

that "After a series of losses, I'm more likely to believe that I'm "due" for a win in the next bet" has a mean of 3.46 and a SD of 1.00, which indicates that majority of respondents agreed. The statement "I'm more likely to believe sources that predict the outcomes I've bet on, even if they have been inaccurate in the past" has a mean of 3.50 and a SD of 1.13 which indicates that majority of respondents agree. The statements "I believe that the outcome of a sports event justifies the quality of my prediction, regardless of the reasoning I used to make that prediction." And "I'm likely to say "I knew it was going to happen" after a sports event, even if I didn't predict it beforehand" had the same mean of 3.58 and SD of 0.87 and 1.09 respectively, which means that majority of the respondents agree. Furthermore, the statement "My emotions influence my betting decisions" had a mean of 3.28 and a SD of 1.20, which indicates that majority of the respondents agree. Finally, the statements "I believe that my betting decisions are influenced more by my knowledge or ability to predict outcomes accurately" and "I like taking big risks when it comes to betting" had mean of 3.75 and 3.57 and SD of 0.91 and 1.06 respectively which indicates the majority of respondents also agree to this assertion.

Table 4.3 IT ENABLED INFLUENCE ON STUDENTS' BETTING

Statements	N	Mean	Std.
I am more likely to place a bet on a sports event that I've seen discussed or recommended by others on social media.	91	3.79	1.00
The information I encounter on social media influence my sports betting decisions.	91	3.62	1.13
I often use mobile applications or online platforms for sports betting.	91	4.05	1.13
Using mobile applications or online platforms for sports betting increases my overall betting frequency.	91	3.82	1.16
Digital advertisements play a role in influencing my decisions to engage in sports betting.	91	3.69	1.09
I Have signed up for a sports betting platform or placed bets as a result of seeing a digital advertisement.	91	3.74	1.13
I feel that in-play (live) betting provides an opportunity to recover losses from earlier bets.	91	3.53	1.02
I am likely to place impulsive bets during in-play (live) betting due to the excitement of the ongoing event.	91	3.47	1.20
Easier deposit and withdrawal with mobile money increases my overall betting frequency.	91	3.91	1.09
The availability of cashout and partial cashout features influences my betting decisions.	91	3.78	1.13

Field data: September, 2023

Table 4.3 depicts statements on how IT influences students' behavior.

The results from the table shows that the statement "I am more likely to place a bet on a sports event that I've seen discussed or recommended by others on social media" has a mean of 3.79 and SD of 1.00, this indicates that majority of respondents agree.

"The information I encounter on social media influence my sports

betting decisions" has a mean of 3.62 and a SD of 1.13, which indicates that majority of respondents agree. Again, "I often use mobile applications or online platforms for sports betting" has a mean of 4.05 and a SD of 1.13, which indicates that majority of respondents agree. "Using mobile applications or online platforms for sports betting increases my overall betting frequency" has a mean of 3.82 and SD of 1.16, which indicates that majority of respondents agree. The results also indicated that "Digital advertisements play a role in influencing my decisions to engage in sports betting" has a mean of 3.69 and SD of 1.09, which shows that majority of respondents agree. Furthermore, the findings indicated that "I Have signed up for a sports betting platform or placed bets as a result of seeing a digital advertisement" has a mean of 3.74 and a SD of 1.13, this shows that majority of respondents agree. "I feel that in-play (live) betting provides an opportunity to recover losses from earlier bets" has a mean of 3.53 and a SD of 1.02, which indicates that majority of respondents agree. "I am likely to place impulsive bets during in-play (live) betting due to the excitement of the ongoing event" has a mean of 3.47 and a SD of 1.20, which shows that majority of respondents agree.

Lastly, the results indicated that "Easier deposit and withdrawal with mobile money increases my overall betting frequency" has a mean of 3.91 and a SD of 1.09 and "The availability of cashout

and partial cashout features influences my betting decisions” has a mean of 3.78 and a SD of 1.13. These both shows that majority of respondents agreed.

Table 4.4 Betting intentions influence on student’s betting

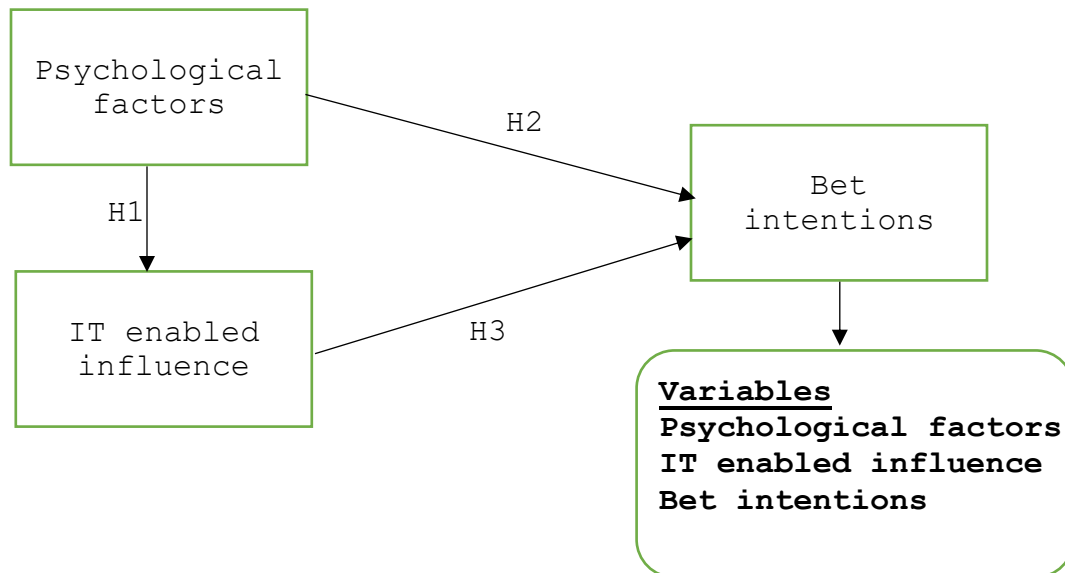
Statements	N	Mean	Std.
Sports betting provides an opportunity for me to win money to earn a living	91	3.61	1.16
My friends or peers influenced my decision to participate in sports betting.	91	3.68	1.15
Financial strain or unemployment has influenced my involvement in sports betting.	91	3.62	1.21
I engage in sports betting for entertainment.	91	3.43	1.26
I engage in sports betting to relieve stress.	91	3.23	1.30
I engage in sports betting out of curiosity.	91	3.39	1.27

Field data: September, 2023

The findings as shown in table 4.4 depicts the motivations that influence students’ betting behaviour. As indicated, “Sports betting provides an opportunity for me to win money to earn a living” has a mean of 3.61 and a SD of 1.16, this shows that majority of the respondents agree. The findings also indicated that “My friends or peers influenced my decision to participate in

sports betting” has a mean of 3.68 and SD of 1.15, this shows that majority of the respondents agree. The findings further indicated that “Financial strain or unemployment has influenced my involvement in sports betting” has a mean of 3.62 and has a SD of 1.21, this shows that majority of the respondents agree. Again, “I engage in sports betting for entertainment” has a mean of 3.43 and SD of 1.26, this shows that majority of the respondents agree. Lastly, “I engage in sports betting to relieve stress” has a mean of 3.32 and a SD of 1.30, this shows that majority of the respondents agree. The statement “I engage in sports betting out of curiosity” has a mean of 3.39 and a SD of 1.27, which also indicates majority of respondents agree.

4.5 Hypotheses model



Analysis of hypotheses

H₁: There is a positive relationship between psychological factors and IT enabled influence.

Table 4.6 Correlation between Psychological Factors and IT-Enabled Influence on Sports Betting among Students

	Psychological factors	IT-enabled influence
Psychological factors	.	
IT-enabled influence	.67**	.

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

The findings in table 4.5 indicates a significant positive relationship between psychological factors influencing students' sports betting and the IT-enabled influence on their betting habits ($r = .67, p < .01, \text{two-tailed}$). Therefore, making the hypothesis supported.

H₂: There is a positive relationship between psychological factors and bet intentions.

Table 4.7 Correlation between Psychological Factors and Bet Intentions on Sports Betting among Students

	Psychological factors	Bet intentions
Psychological factors	.	
Bet intentions	.54**	.

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

The findings in table 4.6 indicates a significant positive relationship between psychological factors influencing students' sports betting and the influence of betting intentions ($r = .54$, $p < .01$, two-tailed). Therefore, making the hypothesis supported.

H₃: There is a positive relationship between IT-enabled influence and bet intentions.

Table 4.8 Correlation between IT-Enabled Influence and Bet Intentions on Sports Betting among Students

	IT-enabled influence	Bet intentions
IT-enabled influence	.	
Bet intentions	.77**	.

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

The findings in table 4.7 indicates a significant positive relationship between IT-enabled influence on students' betting and the influence of their betting intentions ($r = .77$, $p < .01$, two-tailed). Therefore, making the hypothesis supported.

Table 4.9 Simple Linear regression showing psychological factors and IT-enabled influence, psychological factors and bet intentions; and finally, IT-enabled influence and bet intentions.

Variables/hypothesis	R²	B	T	F	P
PF -> ITE	.45	.88	8.52	72.66	.000
PF -> BI	.29	.69	5.99	35.91	.000
ITE -> BI	.59	.77	11.30	127.68	.000

Variables:

PF - psychological factors

ITE - IT-enabled influence

BI - Bet intentions

Results in table 4.9 shows that Psychological factors (PF) have a significant impact on IT-enabled influence (ITE), as indicated by an $R^2=0.45$, ($F(1,89)= 127.68$, $p < .001$).The beta coefficient and the t-statistic indicates a strong positive relationship between ITE and BI ($B = 0.77$, $t= 11.30$, $p < .001$).

Secondly,the table shows that Psychological factors (PF) have a significant impact on Bet intentions (BI), as indicated by an $R^2=0.29$, ($F(1,89)= 35.91$, $p < .001$).The beta coefficient and the t-statistic indicates a strong positive relationship between PF and BI ($B = 0.69$, $t= 5.99$, $p < .001$).

Lastly, the table shows that IT-enabled influence (ITE) has a significant impact on Bet intentions (BI), as indicated by an $R^2=0.59$, ($F(1,89)= 35.91$, $p < .001$). The beta coefficient and the t-statistic indicates a strong positive relationship between PF and BI ($B = 0.69$, $t= 5.99$, $p < .001$).

4.10 Discussions

4.10.1 Psychological Factors: In Table 4.2, various psychological factors that influence students' betting decisions were examined. The data revealed several noteworthy findings. Firstly, students appear to be influenced by recent events and emotionally impactful outcomes, as evidenced by their inclination to bet on teams or events they've recently heard about or that have had a significant impact on them. This suggests that emotional attachment and availability heuristics play a substantial role in their betting decisions.

Moreover, the data suggests that cognitive biases such as the gambler's fallacy (believing they're "due" for a win after a series of losses) and hindsight bias (claiming they knew the outcome all along) are present to some extent among students. This implies that students tend to rely on these biases which influence their betting behavior.

Emotional influence on betting decisions is apparent, with students acknowledging that their emotions play a significant

role. Emotional decision-making can lead to impulsive and irrational bets, often driven by excitement or frustration. This finding is in line with (bestbettingapplications) which indicated that a mistake caused by emotional involvement might be overconfidence, chasing losses, or giving up betting altogether. Interestingly, students seem to value their predictive abilities and knowledge when making betting decisions. This belief in their ability to predict outcomes accurately can be both a strength and a potential pitfall, as overconfidence might lead to riskier bets. Furthermore, the inclination towards taking big risks in betting is an important finding. It indicates that students might be prone to engaging in riskier betting behavior, potentially resulting in financial consequences. This finding is in line with (Ajzen 2011; Breakwell 2007; Morgan et al. 2002; Oei and Jardim 2007; Siegrist et al. 2005) in their study which indicated that When faced with risky options, agents' perceptions of risk significantly influence intention and subsequent behavior.

4.10.2 IT-Enabled Influences: Table 4.3 sheds light on the significant impact of IT-enabled factors on students' sports betting. Students indicated that they are highly influenced by social media discussions and recommendations regarding sports events, highlighting the power of digital platforms in shaping betting choices. This finding is in line with (Flanagin et al., 2014) indicating that Users of social media frequently believe

information shared by people who are like them and other members of their inner circle. The convenience of mobile applications and online platforms is also evident, with students frequently using them for sports betting, leading to increased betting frequency. This finding is in line with (Deans et al., 2016) which indicates that mobile technologies were identified as having the potential to increase frequency, expenditure, and persistence in a study of risky environments for sports betting. This is due to the fact that they offer instant, continuous, and anywhere access to betting around-the-clock.

Digital advertisements play a notable role in influencing students' decisions to engage in sports betting, and some have even signed up for betting platforms due to exposure to these ads. This finding is in line with (Clemens et al., 2017; Gavriel-Fried et al., 2010; Hanss et al., 2015) which indicates that people who engage in risky or problematic gambling report more exposure to gambling advertisements. In-play (live) betting, driven by the excitement of ongoing events, is seen as an opportunity to recover losses, indicating the allure of dynamic betting experiences.

Additionally, the ease of deposit and withdrawal through mobile money methods contributes to higher betting frequency. This finding is in line with (Bulski, 2022) who indicated that gambling is now more accessible than ever thanks to mobile money, and those looking to make quick money are turning to it. The availability

of cashout and partial cashout features also influences betting decisions, demonstrating the effects of these features in the betting industry.

4.10.3 Betting Intentions: Table 4.4 explores students' motivations and intentions when it comes to sports betting. It reveals that students have varied reasons for engaging in sports betting. Some view it as a potential source of income, while others are influenced by their friends or peers. Financial strain and unemployment also contribute to their involvement in sports betting. This suggests that socioeconomic factors play a role in students' betting decisions. This finding is in line with (Olashore et al. (2017); Eboh and Babatunde (2015) which indicated that the majority of gamblers are from the lowest socioeconomic strata of society.

Entertainment is a significant motivator for sports betting among students, as it is considered a source of amusement. Moreover, students use sports betting as a means to relieve stress, indicating that it serves a coping mechanism for some. This finding is in line with (Back et al., 2011; Barrada et al., 2019; Lam, 2007; Lee et al., 2007) which indicated that many reasons for gambling includes enjoyment, amusement, avoiding boredom, escaping recurring or bothersome negative effects, socializing, excitement, and competition with others.

Curiosity is another factor that drives students to participate in

sports betting, indicating a sense of exploration and intrigue around the activity.

Findings also indicated that psychological factors have significant influence on IT-enabled influence and bet intentions. Which indicates that students who exhibit certain psychological factors may be more susceptible to the influence of IT and motivations in their betting activities. Finally, IT-enabled influence also has significant influence on bet intentions. Indicating that, technological factors play a substantial role in shaping students' betting behaviors in conjunction with their betting intentions.

In conclusion, the data analysis provides valuable insights into the multifaceted factors that influence students' sports betting behavior. These factors encompass psychological biases, the pervasive influence of IT-enabled platforms, and a range of motivations driving participation in sports betting.

CHAPTER 5

1.0 Conclusion

Sports betting is prevalent among students of Koforidua Technical University. As per the findings, they engage in sports betting for different reasons with psychological factors such as availability heuristics, gamblers fallacy, outcome bias, hindsight bias and confirmation bias which are all cognitive biases that influence their behavior; not forgetting emotions also.

Furthermore, the influence of IT such as online betting platforms, digital advertisements, mobile applications, social media, mobile money and certain features such as in-play-betting, cashout and partial-cashout also influence their behavior. Sports betting is easily accessible to students through technology which makes their involvement in sports betting an issue.

Finally, motivational factors such as money, peer influence, poverty/unemployment, entertainment and curiosity also influence their behavior to partake in sports betting. All these factors encourage students in sports betting as they are what necessitates their involvement.

1.1 Recommendations

Based on the findings, the following recommendations can be made:

- Develop and implement educational programs on responsible gambling, including awareness of cognitive biases and emotional factors.
- Create on-campus counseling services specializing in addressing gambling-related issues. These services should be confidential and easily accessible to students seeking help.
- Introduce financial literacy programs that help students manage their finances effectively and understand the financial risks associated with sports betting.
- Organize and promote alternative recreational activities on campus to provide students with healthy and engaging alternatives to sports betting.
- Explore ways to provide financial support or employment opportunities for students facing financial strain or unemployment, addressing one of the motivations for sports betting.

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APPENDIX

A CASE STUDY ON PSYCHOLOGICAL FACTORS INFLUENCING KOFORIDUA TECHNICAL UNIVERSITY STUDENTS WITH A FOCUS ON THE ROLE OF IT IN SHAPING THEIR ATTITUDES AND BEHAVIOUR.

I would appreciate it if you could take a few minutes to fill out this survey. You are guaranteed confidentiality and anonymity, and this research will only be used for academic purposes. I greatly appreciate your help. Please accept my sincere gratitude.

PART 1: DEMOGRAPHICS

Kindly fill all the questions by ticking in the spaces provided

1. Participant (a) Male [] (b) Female []
2. Age (a) Under 25 [] (b) 25-35 [] (c) 36 and above []
3. Have you ever placed a bet of any kind? (a) Yes [] (b) No []
4. How often do you bet? (a) Almost always [] (b) A few times a day [] (c) Once a day [] (d) A few times a week [] (e) Once a week [] (f) Rarely []
5. Level of education (a) HND [] (b) B-TECH [] (c) BSC []

PART 2: PSYCHOLOGICAL FACTORS INFLUENCING STUDENTS' BETTING

On a scale of 1 to 5 (**1-Strongly disagree, 2 - Disagree, 3- Neutral, 4- Agree, 5- Strongly agree**) Please respond to the following statements by ticking (√) where appropriate in the following statements

		1	2	3	4	5
s/n	Statements					
1	I am more likely to bet on teams or events that I have heard about recently or that have had a big impact on me.					
2	After a series of losses, I'm more likely to believe that I'm "due" for a win in the next bet.					
3	I'm more likely to believe sources that predict the outcomes I've bet on, even if they have been inaccurate in the past.					
4	I believe that the outcome of a sports event justifies the quality of my prediction, regardless of the reasoning I used to make that prediction.					
5	I'm likely to say "I knew it was going to happen" after a sports event, even if I didn't predict it beforehand.					
6	My emotions influence my betting decisions.					
7	I believe that my betting decisions are influenced more by my knowledge or ability to predict outcomes accurately.					
8	I like taking big risks when it comes to betting.					

PART 3: IT ENABLED INFLUENCE ON STUDENTS' BETTING

On a scale of 1 to 5 (**1-Strongly disagree, 2 - Disagree, 3- Neutral, 4- Agree, 5- Strongly agree**) Please respond to the following statements by ticking (√) where appropriate in the following statements

<i>s/n</i>	<i>Statements</i>	1	2	3	4	5
9	I am more likely to place a bet on a sports event that I've seen discussed or recommended by others on social media.					
10	The information I encounter on social media influence my sports betting decisions.					
11	I often use mobile applications or online platforms for sports betting.					
12	Using mobile applications or online platforms for sports betting increases my overall betting frequency.					
13	Digital advertisements play a role in influencing my decisions to engage in sports betting.					
14	I Have signed up for a sports betting platform or placed bets as a result of seeing a digital advertisement.					
15	I feel that in-play (live) betting provides an opportunity to recover losses from earlier bets.					
16	I am likely to place impulsive bets during in-play (live) betting due to the excitement of the ongoing event.					
17	Easier deposit and withdrawal with mobile money increases my overall betting frequency.					

18	The availability of cashout and partial cashout features influences my betting decisions.					
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PART 4: BETTING INTENTIONS INFLUENCE ON STUDENTS' BETTING

On a scale of 1 to 5 (**1-Strongly disagree, 2 - Disagree, 3- Neutral, 4- Agree, 5- Strongly agree**) Please respond to the following statements by ticking (√) where *appropriate* in the following statements

s/n	Statements	1	2	3	4	5
19	Sports betting provides an opportunity for me to win money to earn a living					
20	My friends or peers influenced my decision to participate in sports betting.					
21	Financial strain or unemployment has influenced my involvement in sports betting.					
22	I engage in sports betting for entertainment.					
23	I engage in sports betting to relieve stress.					
24	I engage in sports betting out of curiosity.					



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CHAPTER ONE

1.0 Introduction

Today's world is being dominated by online sports betting. Many people mistake it for a form of sports betting, but it is a different matter. Over the past few years, online betting has become a multi-billion dollar industry, and it is expected to continue to grow in the years to come. It is not just a form of entertainment, but it is also a way to make money. Many people have already seen an increase in the popularity of online sports betting as a result of the COVID-19 pandemic and the resulting lockdown. People are now staying at home more often, and they are looking for ways to pass the time. Online sports betting is one of the most popular ways to do this. There are many reasons why people bet on sports. Some are interested in the game and the players, while others are interested in the money. There is a large market for online betting platforms, and many people have seen a significant increase in popularity in recent years. Technology has made it easier for people to bet on sports, and this has led to a significant increase in the number of people who bet on sports. The popularity of online betting has also led to a significant increase in the number of people who bet on sports. This has led to a significant increase in the number of people who bet on sports. This has led to a significant increase in the number of people who bet on sports.

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