

**ECONOMIC IMPACT OF COVID-19 PANDEMIC OF INTERNET GAMBLING IN
KENYA**

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P54/11492/2018

**A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN INFORMATION
TECHNOOY MANAGEMENT AT THE UNVERSITY OF NAIROBI.**

JULY, 2022

DECLARATION

The project, as presented in this document is my original work and has not been presented for any other university award.

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This project has been submitted in partial fulfilment of the requirements for Master of Science Degree in Information Technology Management at the University of Nairobi with my approval as the University Supervisor.

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ACKNOWLEDGEMENT

I wish to convey my appreciation and special thanks to my supervisor Dr. Robert Oboko for his dedication and assistance throughout the research process, the members of the panel whose knowledge and experience in this field has been of great help to my research and the whole school of Computing and Informatics for their support that made me deliver this work. Special thanks to my family for their love, encouragement and support towards delivery. Lastly, I would like to appreciate my colleagues who supported me to deliver this research project

ABSTRACT

Gambling is among ancient activities people take part in either for economic endeavor, leisure or both. In recent years, increased gambling legalization globally has resulted in high internet gambling rates in developing countries, including Kenya. More specifically, online gambling has become more popular with IT advancements such as mobile phones, iPhones, laptops, computers and tablets. As technology evolved, online betting became a more popular form of gambling compared to other traditional forms. However, the COVID-19 crisis, which has led to significant constraints on society world-wide, has changed things dramatically. In the course of the pandemic, many countries prohibited public gatherings, making sports events virtually impossible to attend. As a result, the sports-betting industry has been hit hard. This study will be aiming to understand the economic impact of covid-19 pandemic on internet gambling in Kenya. It will target 100 individuals who use the Betika online platform to place their bets. Questionnaires will be used to gather information from them regarding societal effects of internet gambling, the significance of internet gambling in various aspects of the economy as well as the internet gambling trends among bettors in the midst of covid-19 pandemic in Kenya. This information will then be analyzed using SPSS in order to draw conclusions about the economic impact of Covid-19 on internet gambling in Kenya.

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Chapter One: Introduction

1.0 Introduction

Williams et al. (2017) defines gambling as “staking money or something valuable on chance events with uncertain outcomes, with the hope of winning valuable items or additional money.” Gambling is among ancient activities people take part in either for economic endeavor, leisure or both. According to Taylor (2017), the Keno slips in china were evidence of lottery funds utilized in funding private and government project. Prestigious institutions such as Harvard and Yale were established using lottery funding. This brief history on gambling suggest the act has been present, even in organized societies. According to Schwartz (2019), gambling evolved from being classified as a social crime to legalization, then from land-based casino to internet gambling. Increased gambling legalization globally has resulted in high internet gambling rates in developing countries, including Kenya. Gambling is a chance for relieving boredom and excitement, but with its fair share of economic challenges.

Gambling ranges from simple routine activities like wheel rolling, card playing, simple betting and machine gambling to complex activities like online betting and casino gaming. The gambling sector has changed greatly, especially with technology. Online gambling has become more popular with IT advancements such as mobile phones, iPhones, laptops, computers and tablets. Statista (2016) defines internet gambling as wagering valuable items, often digital currency or money, for the outcome of a given event through online platforms. Online gambling entails sports betting, casinos, bingo, poker and lotteries. Sports betting accounts for a huge share in the betting market and global gambling.

Sports betting is the most popular internet gambling culprit in Kenya. Gambling in Kenya operates online through SMS and internet services. Gambling operators have opened online betting shops where bettors flock 24/7 to try their luck (Ihuoya, 2016). Media houses aren't lagging behind in encouraging their fans to promotional & non-promotional internet gambling. They often entail sending answers to simple quizzes where one is charged double the price of a regular SMS or using mobile money to send a given pay-bill with promising cash rewards. This is how advanced gambling in Kenya has gotten, more so with the covid-19 outbreak.

The on-going coronavirus pandemic has had deep and deep impacts on the way of life globally. Other than the physical harm resulting from this pandemic, mental health issues have been apparent

(Holmes et al., 2020). The pandemic has led to increased addictive trends such as online gambling (Marsden et al., 2020; King et al., 2020). The world has never experienced a crisis that affected the gambling industry, with covid-19, the industry has been impacted, though along different lines. This study will be dissecting the economic impacts of internet gambling before and after a pandemic.

1.1 Background of the study

Sports betting has grown exponentially over the past few years. According to Global Betting and Gaming Consultants (2014) betting is playing a significant role in the global economy. This is explainable as; in 2012, \$ 34.7 billion went to purchasing cinema tickets while \$ 430 billion was spent on gambling. Cassidy et al. (2014) notes that gambling is often the revenue source for regions with a retracting economy. PWC (2016) estimated Kenya's annual gross turnover from the gambling industry at \$20 million. To date, the government has been trying to keep up to pace with this multi-million industry, with many laws revolving around taxation, entrant control and licensing, but not regulations and protecting vulnerable users. PWC (2016) further adds that new technologies pose challenges on control and access on the laws, leading to bettor manipulation by gaming & betting companies. Online gambling portals, internet banking and mobile money have affected the betting setup and its regulations. Cassidy et al. (2014) noted the need for societies to recognize challenges with sports betting, and adapt to them.

Gambling is a risky decision with immense financial consequences to the participants. It's a contested notion with problematic and porous boundaries (Cassidy et al., 2014). According to Gikenye and Ocholla (2014), in Kenya, mobile phones are the most utilized ICT gadgets in internet gambling due to their wide reach. By the end of year 2015, there were 37.7 million mobile subscriptions (CAK, 2015). Gikenye and Ocholla further note that betting technologies is restricted to mobile devices. Mwangi and Moshi (2016) state though there is minimum research on the Kenyan gambling scene, it's a robust sector. BCLB in their 2015 report had estimated the industry to be at \$50 million by 2017 (Mwangi and Moshi, 2016). In Kenya, many gambling operators utilize SMS and online platforms to reach bettors. According to Wambua (2017), mobile technology changed gambling in Kenya, giving betters the continent at their fingertips to access their best betting sites. He further adds that, though there are immense significant positive impacts of gambling, licensing should only be done where an informed costbenefit analysis indicates

economic impacts will outweigh social costs. In Kenya, mobile money has been adopted by gambling operators due to its convenience.

Bettors are aggressive with a competitive spirit, evident in the gambling industry. A Standard Media Group report estimate about three hundred thousand users take part in the multi-shillings weekly jackpot (PWC, 2016). Their report was on betting outcomes of local and international games. To register in the gambling platform, one has to be registered on mobile money and ensure their virtual wallet is loaded. Kenyans, regardless of their walk of life have been taking part in the gambling arena.

According to Cucinotta & Vanelli (2020), the outbreak of covid-19 (the novel coronavirus-2019) was declared a worldwide pandemic on 11th March 2020 by the WHO (2020). Different societies worldwide have been impacted differently, with governments implementing policies to curb the spread of this virus. According to Pakpour & Griffiths (2020), some of the implemented policies include spatial distancing, banning crowded events, lockdowns, quarantining and others. A major blowback of the safety measures put in place include cancelation or postponement of global sporting events from March 2020 which has greatly impacted the betting industry globally. Some of the cancelled events include soccer (football) leagues in some countries like France and Belgium, postponement of soccer leagues in Germany and UK, cancellation of tennis events such as Wimbledon, UK and postponement of 2020 Olympics in Tokyo, Japan.

Business experts and regulators speculated on how players would react on the fact that sports betting will be unavailable. Davis (2020) reports that speculations in the media by some policymakers, treatment organizations and regulators show online gambling rates will rise due to lockdown and people spending much time indoors. They further argue that sports betters who can't bet on sporting events might switch to other gambling activities such as online casino games. The Covid-19 pandemic has resulted in life-threatening consequences and mental health issues. According to Holmes et al. (2020), mental health issues includes increasing online behaviors such as addictive internet use (Sun et al., 2020) and increased video gaming (King et al., 2020). Many issues have been raised on the impact of Covid-19 on gambling. According to Calado & Griffiths (2016), gambling problems and disorders are widely spread globally. Gambling disorders are linked to severe social, psychological and financial consequences, which are mainly treated with motivational interventions and cognitive-behavioral therapy (Potenza et al., 2019). Economou et

al. (2019) documented how national financial crises impacts gambling. Olasen et al. (2015) however notes that some of the crisis's findings might be inconclusive. The Covid-19 crisis and restrictions and confinements linked with it represent unforeseen situations with financial consequences to the population.

With the pandemic, more time was spent indoors, resulting in increased internet use, which may have a link to gambling trends post covid-19 (Håkansson et al., 2020). With the confinement, King et al. (2020) notes that some gambling types would be favored to others. In Kenya, Sportpesa recorded highest figures for a single winner at Ksh. 230 million on a mega jackpot (2018). Lotto (2018) states they reward winners with five and six figures winning on the person's stake. This is just the economical part of gambling. Yetu (2018) reports that the 2017 Kenya's parliament increased gambling tax rates to 35%. Well, does this shelter the people from the economic impacts of internet gambling?

1.2 Statement of the Problem

In the past decade, gambling in Kenya had moved towards a higher degree not only because advertising has expanded considerably but also because this advertising is strongly predominated by online-based gambling companies that have taken advantage of the internet. As technology evolved, online betting became a more popular form of gambling compared to other traditional forms. However, the COVID-19 crisis, which has led to significant constraints on society worldwide, has changed things dramatically. In the course of the pandemic, many countries prohibited public gatherings, making sports events virtually impossible to attend. As a result, the sportsbetting industry has been hit hard. This study will be aiming to understand the economic impact of covid-19 pandemic on internet gambling in Kenya.

Like in other countries, Covid-19 has significantly changed the gambling market. Before Covid19, gambling was reported to attract international operators in surprisingly low-tier training games in developing countries such as Kenya. However, concerns over a possible negative impact on gambling behaviors in the population due to the pandemic has led to many government and private sector initiatives aimed at adopting a more accommodative gambling market policy. This calls for a study to be conducted on the economic impact of covid-19 among gamblers. Griffiths (2020) stated that to understand the online gambling patterns and economic impacts to bettors in a pre and post Covid-19 era, behavioral tracking data can be used. He adds that this tracking technique is

often used in studying the gambling field. This study will therefore use data to establish online gambling trends before and covid-19 in order to understand the economic impacts of internet gambling in Kenya.

1.3 Study Objectives

1.3.1 General Objectives

This study aims at understanding the economic impacts of covid-19 pandemic on internet gambling in Kenya.

1.3.2 Specific Objectives

This study will be guided by:

- i. To investigate the societal effects of internet gambling among various age groups in Kenya
- ii. To unravel the significance of internet gambling in various aspects of the economy
- iii. To assess the internet gambling trends among bettors in the midst of covid-19 pandemic in Kenya

1.4 Research Questions

- i. What are the societal effects of internet gambling among various age groups in Kenya?
- ii. What is the significance of internet gambling in various aspects of the economy?
- iii. What are the internet gambling trends among bettors in the midst of covid-19 pandemic in Kenya?

1.5 Research Hypothesis

This study is founded on the basis of the following hypothesis:

H0: Internet gambling is related to increased economic challenges in Kenya post covid-19

H1: There isn't a correlation between internet gambling and economic challenges in Kenya

1.6 Significance of the Study

This study builds on the economic impacts of internet gambling in Kenya. It offers the avenue for forming legislation protecting citizens against exploitative betting operators. With this study, the

government can establish regulation with the bettors' economic welfare in mind, not just taxation of the betting operators. It can also be used in civic education, enlightening citizens of effects of gambling addiction and overcoming them. It's a basis for future research on financial impacts of internet gambling on people in a developing country.

1.7 Scope of the Study

The study will be conducted online through dissemination of online questionnaires, interview calls and video meetings with different stakeholders in this industry. A physical interview will be conducted on at least betting companies to understand the economic effects of internet gambling.

1.8 Limitations of the Study

The main study limitation will be identifying reliable informants on their betting trends. Many shy off from sharing such information due to public criticism on their betting patterns. Furthermore, with many people having lost their source of income, the correlation graph on the impacts of internet gambling before and after covid-19 pandemic may be biased. With this study, some participants will shy off from disclosing their incomes or the amount spent gambling, which will skew the test findings.

1.9 Study Assumptions

The study will be conducted under the assumptions that target population will take part in the data collection stage. Also, every response given by a respondent will be assumed to be accurate and honest and all responses are reliable for the study to draw valid conclusions. Also, the research will assume the participants have adequate knowledge on gambling activities, whether online or offline. Also, this study will be assuming a positive correlation between internet gambling and the socio-economic challenges faced by Kenyans during and after the covid-19 pandemic.

1.10 Summary

This paper will attempt to answer questions on the economic impacts of internet gambling, couple with different challenges. The impacts will span across the financial impacts to the bettors and gambling operators to the mental implications of bettors due to financial loss.

Chapter Two: Literature Review

2.0 Introduction

Participation in online gambling has been on a steady rise due to technological advancements. This section dissects literature on internet gambling before and after covid-19, finding the socioeconomic impacts from utilization of the platform. It reviews impacts of gambling as reported by other scientists, but drawing from the study objectives.

2.1 Internet Gambling

The commercial utilization of the internet started in the 1990s. With technology, it was clear it was a reliable gambling medium. Micro-gaming created a gambling software in 1994/1995 with Cryptologic developing encrypted communication channels allowing secured online cash transactions in 1995. For instance, Gaming Club offered casino games online but nor real cash was wagered. Websites were created, listing odds and toll-free numbers for placing bets. Internet gambling using real money was in 7th October 1995 where lottery tickets were purchased online.

Internet gambling is also called online gambling. It refers to any gambling form on a chance event for cash through the internet. According to GBGC (2011), internet gambling has witnessed tremendous growth, currently representing about eight percent in the betting market. The annual growth was estimated at 12% by 2015. By 2011, internet gambling participation was estimated at 1% to 13% (Wardle et al., 2011).

In Africa, the prominent gambling activity in online sports betting. Hing et al. (2017) indicated sports betting has increased worldwide through the increasing turnover in the existing betting markets and the expansion into new markets due to liberal legislation. In the past decade, online sports betting in Kenya has been on a rapid growth. According to Geopoll (2017; 2019), 57% to 67% of Kenyans have taken part in online gambling, with 29% of this group still in school (Wangari, 2018). Youths with the post-basic education certificate are the bulk in the 29%. Hing et al. (2017) observed university students were the most vulnerable and addicted to online gambling. Koross (2016) noted more than 78% university students gamble a minimum of once per week with Mwadime (2017) adding that most gamblers in Kenya are below 40 years.

Internet gambling has been propagated by various factors in the modern world, especially mass media advertisement. Mobile gadgets in Africa have allowed increased access to betting platforms. A bet can be placed when a person is at work, home or anywhere else with mobile money platforms such as Mpesa, Tlash and AirtelMoney. Bets can also be placed offline through text messages, making gambling more appealing and interesting. Before the covid-19 pandemic, internet gambling in the mass media in Kenya was in form of answering quizzes for money or other rewards, taking part in loyalty rewards programs and sending money with the aim of being the lucky winner. Since the introduction of sports betting in Kenya, the adoption rate of internet gambling rose as bets could be placed using SMS and toll-free lines.

Internet gambling and gambling in general has had more males hooked in comparison to females (Elliot, 2019). With a wide range of technologies allowing viewing of football games, this led to increased internet gambling. Cassidy & Ovenden (2017) noted internet gambling was influenced by inducement and advertisements for persons taking part in gambling. Many internet gambling sites during the initial introduction of online gambling were based online without a physical gambling establishment. Initially, the gambling sites were racing/sports books, online casinos and lotteries. Currently, online gambling involves a market place where gambling operators post odds for certain events, hoping a bettor will take up their offers. Online betting has evolved from the yester years, incorporating wagers on politics and television events. Skills game have also been included where one stakes an amount and after a win, the amount is multiplied with a given odd.

Skills games include strategy gaming, card games, puzzle games and sports games.

2.1.1 Gambling Patterns

Affective or cognitive decisions make a person gamble, and with motivation, there is chance for a person to develop unhealthy gambling patterns. In gambling, a pattern is replaying the gambling activity over a period of time. When a gambler plays and keeps getting the desired results, this might result in a pattern. Convenience in internet gambling is a great contributor to addictive gambling. Instances resulting in gambling addiction are player's skills, availability of resources, pathological gambling, players' intentions, frequency and drug use. These factors have been playing a role in creating gambling patterns. For instance, when one has adequate resources and plays frequently, this increases the chance for pathological gambling.

2.1.2 Types of Gamblers

There are 6 types of Gamblers according to Custer. These categories are causal-social, personality or antisocial, professional, compulsive, serious-social and escape gamblers. Professional gamblers take it up as a job and are skilled in the gambling they engage in. The professional calculates what is affordable to them before placing a bid and can control their patterns, even stopping when it's no longer profitable. Professionals aren't addicted to any form of gambling. The antisocial gamblers are somehow similar to the professional gamblers in using money to gamble, however, they often scam or cheat casinos or people to make the money. The casual gambler will take part in these activities for fun or relaxation. They are the people occasionally taking part in poker games, play a lottery given the jackpot is huge and will only sports bet in infrequent sport events like the World Cup. The serious social gamblers gamble as a hobby, using it as a key recreation form. For a serious gambler, they can control their betting and their families and jobs reign supreme.

An escape gambler prefers gambling not involving real skills such as bingo or machine gambling. Taking part in the games relieves them from loneliness, boredom, depression and anxiety. To them, gambling provides numbing effects, allowing them an escape route from their problems. With the compulsive gamblers, every aspect of their life is impacted by gambling. They view gambling as an essential part of their life, making it precede work and family. They sometimes borrow to satisfy this insatiable gambling need. Regardless of how hard they try, stopping this habit is a challenge. In Kenya, most gamblers will fit in all the six categories. For instance, a compulsive gambler might neglect their daily activities due to winning or losing in a game while some professional gamblers quit routine jobs to concentrate on gambling. Then many gamblers will fall in the category of casual gamblers who to them, it's just for relaxation and fun.

2.2 Shift in Online Gambling Trends in Kenya in a Decade

2.2.1 Online Gambling Pre Covid-19

Technology has led to disruptions and enhancements in the gambling and gaming arena (Griffiths, 2015). Gambling isn't immune to technological advancements experienced in the other fields. IT

has been pivotal in developing gambling techniques and activities. Technology has been used in gambling as a marketing tool, probably time to utilize it for regulating the sector. The global internet gambling market had a value of \$ 34.8 billion and a growth rate of 8.7% per annum. Mobile devices have been the key drivers in the industry due to increased access to smartphones. Technology has been providing shape to the betting world through the provision of new marketing opportunities. There is a positive correlation between sports gambling and technology. Panis et al. (2013) agreed to availability, efficiency and convenience of technology playing a major role in the positive correlation in gambling. Reith (2016) notes mobile phones and gambling brought betting closer to the people, resulting in high rates of impulse betting.

With mobile banking, Gikenye & Ocholla (2014) note it has been a breakthrough in internet gambling. According to Jack and Suri (2011), mobile phone technology is affordable, and with technological adaptations supporting financial services, the phone technologies have spread all over, including to poor nations. GSMA (2015) notes phone affordability and low banking rates allow access to the internet by people from different walks of life. The mobile devices have led to the positive growth of the gambling industry in Kenya. There isn't an adequate legal regulatory framework in Kenya protecting vulnerable citizens from gambling operators. Menya (2016) notes betting in Kenya isn't illegal, which might be accounting for increased internet gambling in the country.

According to Yawe and Ssenooba (2014), there isn't an adequate legal framework in Africa protecting vulnerable gamblers, ensuring fair games and addressing law enforcement concerns around internet gambling. Gambling operators aren't under any law obligations to have systems preventing money laundering. GoK (2015) established regulations guiding remote gambling which entails internet gambling. The legislation aimed at preventing gambling crimes, ensuring fair and transparent gambling and protecting vulnerable citizens from exploitation. Menya (2016) there is need for closing regulatory gaps for the protection of Kenyan citizens from exploitation by gambling operators. Internet gambling in Kenya has posed new legislation and regulations resulting in different socio-economic effects

2.2.2 Online Gambling Post Covid-19

Håkansson et al. (2020) notes that gambling trends may have been altered by the covid-19 pandemic. Gambling is potentially addictive, resulting in gambling problems and disorders (Potenza et al., 2019). With covid-19, the financial crisis has affected different industries in the world. Gambling behavior and trends have been impacted at local and international level. In 2008, Greece experienced a deep financial crisis. Reports indicate this was when gambling started, developing risk for one developing gambling problems (Calado and Griffiths, 2016). Reports on Iceland's financial crisis which sparked with the 2008 bank crash demonstrates gambling trends will rise during and after a crisis. According to Olason et al. (2017) noted lottery gambling might increase in financial hardship, though there isn't clear evidence that a financial crisis impacts the population's gambling rates. Previous findings indicate during recession, casino gambling is likely to reduce under challenging times while lottery gambling isn't sensitive to reduced income (Harvath & Paap, 2012).

The coronavirus crisis has presented potential challenges which theoretically has impacted gambling trends. King et al. (2020) notes that despite the financial crisis due to covid-19, it has resulted in dramatic changes in online gambling as more time is spent online. The gambling market has dramatically being altered in a year, with major sporting events either postponed or cancelled. Decreased sport gambling will theoretically either result in reduced gambling among sport bettors, or increase a gamblers' involvement in alternative gambling they would or wouldn't use. According to Swedish Government (2020), under the current covid-19 policy makers have described the fear with many sports bettors using hazardous gambling, especially online gambling casinos. Several governments have expressed concerns on altered gambling trends. They have established actions limiting online gambling. For instance, SBC News (2020) report Spain limited gambling advertisements with Belgium limiting deposit amount (The Guardian, 2020) and Latvia imposing a total ban on gambling (Reuters, 2020). Different policies by various governments has to be studied systematically for the data to show the relation between gambling and the crisis. With market data reports, Financial times (2020) indicate increased horserace betting during the pandemic, though, it's challenging to assess its impact on gambling trends and the sub-group more affected. According to Radio Sweden (2020), there were concerns that lockdown regulations would make people with predominant sports gambling habits turn to potentially more addictive

gambling trends such as online gambling games and casino gaming. Fear of the transition led to limitations in gambling advertisement by different governments.

According to Chóliz (2016), the fear of transitioning to hazardous online gambling is supported by impressions on how addictive internet gambling is. A general study conducted in Sweden indicated increased internet gambling amid a pandemic. Price (2020) conducted a study in Ontario Canada during the initial weeks of the lockdown. The findings indicate a substantial number of people migrated to internet gambling with the closure of physical land-based gambling. Sun (2020) notes that illegal betting sites have cropped up in Singapore with the pandemic. There has been an increase in consumers taking part in e-betting. Thompson (2020) notes that in South Africa, with the absence of live sporting events, betting operators turned to e-sports, simulating matches and creating odds for them. Auer et al., (2020) notes in Europe, internet gambling participants reduced during the covid-19 confinement period.

2.3 Impacts of Internet Gambling

The impacts of internet gambling can be classified into two broad categories; social impacts and economic impacts. The social impacts are often routed in habits and how they affect those living and relating with a person. They extend to the general health in the society, entailing different public health aspects of members in a community. The social impacts include mental health, later translating to the economic aspect in a society such as poverty rates. This implies, social challenges in a society will always be linked to the economy of the society in question.

2.3.1 Internet Gambling and Public Health

Globally, the gambling industry was impacted in one way or another. Social distancing and other preventive measures were put in place shutting down the avenue for physical gambling and suspension of various sport events. For instance, in Canada, compliance with the public health interventions resulted in the closure of all bingo halls, horse racing, casinos and VLT networks (Steven, 2020). Many provinces allowed lottery sales except Quebec which halted sales and closed the lotteries (Conneller, 2020). In Labrador & Newfoundland, some lottery forms were suspended (Covid-19 update, n.d). Different parts of the world established different regulations on gambling avenues to curb the virus. In Singapore, CNA (2020) reports there was temporary closure of gaming avenues include the iGaming hubs. Todorov (2020) observes many countries suspended

gambling within their jurisdiction. Did this in any way result in a shift to internet gambling? The UK Governments, iGaming Business (2020) closed physical betting shops and bingo halls, while iGaming Business (2020) reports that internet sports betting was halted with the outbreak.

With containment measures, online gambling activities increased in various parts of the world.

Since many physical establishments had been suspended, operators went digital. O’Conner (2020) notes that Rhode Island allowed online gambling during the pandemic, iGaming Business (2020) adds that Norway bingo operators moved online, thereby benefiting from the in-person mandatory registration. Conneller (2020) also notes that many operators in Quebec were concentrating their activities online. The migration to internet gambling post covid-19 has been inevitable, with the revenue from online gambling expected to increase to about 13.2% for year 2020 (Online Gambling Global Market research, 2020). The research further notes that revenue growth in internet casino and poker gambling is primarily attributed to the pandemic. Kukkonen (2020) notes that with the pandemic, the online casino has grown by 77%. Casino.org (2020) notes an increased spending on internet gambling during the pandemic, after the closure of various non-essential services.

Other than the changing offers by gambling operators, it’s notable that gambling habits have changed. In regions with prohibited online gambling, there’s renewed interest to engage with different web platforms (Miller, 2020). Snook (2020) observed a 17% rise in internet gambling amidst the pandemic in Great Britain. The survey further indicates that, a third of all gamblers during the pandemic took part in internet gambling for the very first time. It indicates players had taken part in diverse gambling activities, spending more money gambling. The Gambling Commission (2020) indicates virtual sporting bets and online pokers increased in comparison to 2019. Many gamblers using internet gambling stated they engaged in online gambling due to the covid-19 crisis and emergency containment measures. The Responsible Gambling Council (2020) reported that the key gambling motivations during the pandemic were winning rewards, passing time, excitement and fun. The upward trend wasn’t global, Maiorca (2020) notes in Denmark and Finland, there was loss of revenue.

2.3.2 Economic Impacts

Downs & Woolrych (2010) observed that in the modern world, gambling related problems are real, ranging from work and family relationships to financial debt. They also add that, with gambling addiction, a person can’t efficiently plan their financial commitments. A study by Breen (2012) in Australia indicate economic challenges at the family and individual level might arise through commercial gambling due to uncontrolled or unplanned spending. Another study conducted in the

USA by Abbott & Volberg (2012) indicate many people do not like associations with people working in casinos. A gambler is likely to sell family and personal properties, get into debt to finance their gambling patterns, which thus increases their chances of taking part in economic crimes such as funds embezzlement (Matthew and Volberg, 2012). Their study further indicates that families with a gambler often go through emotional tension due to harassment from lenders and suicidal threats by gamblers. The study had been conducted in different Asian communities.

Clearly, previous studies have been indicating gambling results in social, emotional and financial strains in a society. Binde (2016) notes that gambling addiction might cause severe harms to the gambler, their family or employer. In case of funds embezzlement, the gambler will lose their jobs, attract criminal sentences which will have a negative impact to their family members. Another study by Howard (2015) indicates casinos had started advocating for healthy relaxation joints by banning smoking. All previously conducted studies in the line of gambling indicate gambling has its pitfalls to the family and society. With covid-19, the gambling scenes changed a little with more casino gaming being conducted online and due to less sporting events, sport betting having a slight decrease. With this study, the economic impacts of gambling will be dissected in a pre and post covid-19 to understand trends in Kenya.

2.4 Theoretical Framework

This study builds its foundation on the decision-making theory and the prospect theory in understanding impacts of internet gambling on the economic aspect of a people.

2.4.1 Prospect Theory

This is a theory focusing on gambling trends. It states gamblers are always willing to take a gamble even when the expected value is either negative or zero (Barberis, 2012). This theory indicates heterogeneous gambling patterns. It indicates gambling would be unpopular in a reality where an agent is more sensitive to loss, rather than the game gains. A gambler employs different strategies depending on gambling medium, plans and time inconsistency. It classifies gamblers as naïve and sophisticated. A naïve agent never commits to his initial plans while the sophisticated gambler can either be classified as one who never sticks to his initial plans but checks on time inconsistency and one who always commits to initial plans. Naïve gamblers will gamble provided there is a win, only stopping after a loss. Even with a loss, he will still gamble until a win pop. A sophisticated

agent can refuse to enter a gambling site to prevent placing a bet. He can also find ways of committing to initial plans, only gambling on winning and stops the moment he loses. For instance, with internet gambling, a sophisticated gambler will only deposit the amount he intends to use and on losing, he will stop and not stake any more money. Naïve gamblers will dig deep into their pockets, depositing more money into the virtual betting accounts with hope of recovering money lost on the bets. This often results to uncontrolled financial spending. From the prospect theory, there is adequate evidence that access to mobile money and online betting platforms will influence the amount a person spends funding their gambling addictions and behaviors.

2.4.2 Decision-Making theory

This is founded on preferences and beliefs on risky alternatives dependent on monetary gains. It often applies in analyzing decisions based on required information is before making the final decision. In internet gambling, decisions to place a bet on team A and not team B is based on the rational decision-making theory. This entails making the best decision by reviewing past choices and performance. On using the rational model, it's assumed one is well aware of alternatives provided to them and consequences likely to be and can deal with them. Decision-making theory best explains how with online gambling, uncontrolled spending and disrupted relationships with employers, colleagues and family may happen. A gambler will decide with negative impacts on them, still go ahead in hope of recovering lost money, relationships and trust.

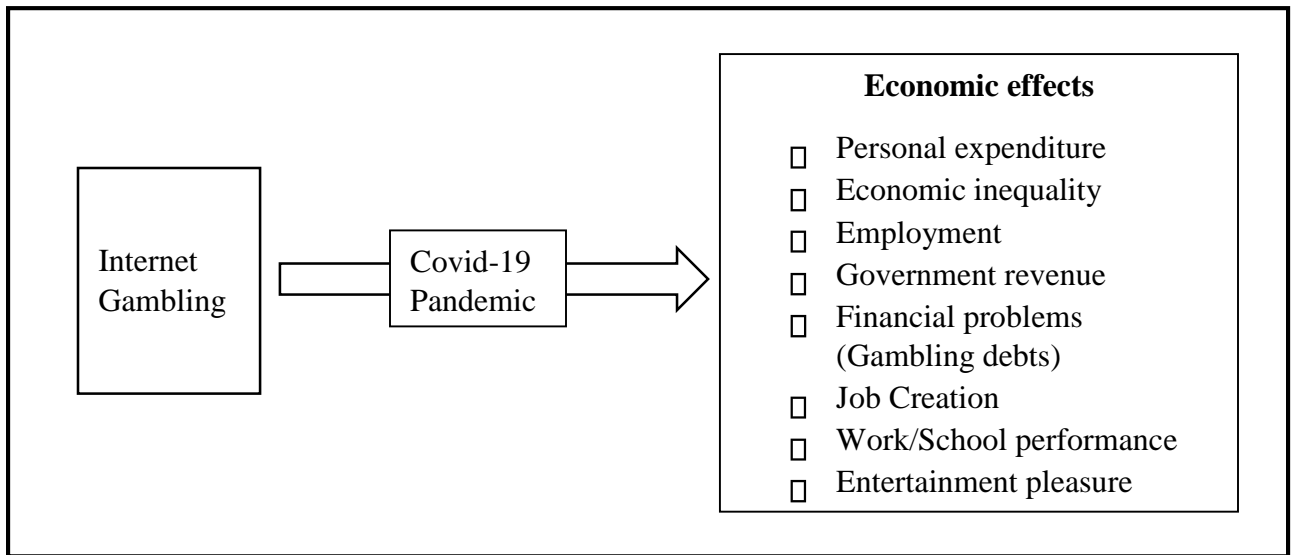
2.5 Conceptual Framework

This outlines the relationship between internet gambling and economic aspects in Kenya in a pre and post pandemic setting. The framework expounds on specific economic aspects in Kenya and how the pandemic altered the previous trends

Dependent Variable

Intermediary

Independent Variables



Economic effect				
Variable	Indicator	Data required	Data collection method	Unit of analysis
Personal gambling expenditure	Gambling expenditure as a percentage of personal income	Estimates of monthly income and monthly gaming expenditure.	Household survey	Individual
Government revenue	Government revenues from gambling as a percentage of total revenues	Government gaming revenues	KRA secondary data	National
Financial problems (Gambling debts)	Self-reported financial problems, including gambling debts, borrowing to finance gambling.	Level of gambling related debt	Household survey	individual
Job Creation	Direct employment (Job creation) in gaming industry	Employment statistics for gaming industry (No of employees)	Branch managers survey	Outlet/Branch
Work/School performance	Productivity loses, absenteeism due, and increased likelihood of unemployment due to gambling.	Prevalence of negative effects on work and school.	Survey	Individual
Entertainment pleasure	Level of enjoyment in time spent gambling	Gambler self-rated enjoyment in spending time gambling.	Household survey	Individual

Conceptual Framework for analyzing economic effects of gambling

Chapter Three: Research methodology

3.0 Introduction

This chapter looks into study methodology, outlining important sections for this research. It clearly explains the design guiding this research study.

3.1 Research Design

A study's design is the blue print defining how the research will be conducted. It outlines the general strategy and plan informing key decisions that the study will adopt. This study will be a panel web survey study. This design is preferred because it best describes how the researcher will collect the data that will be used to provide the analysis and discussion of the study. Panel studies are a particular design of longitudinal study in which the unit of analysis is followed at specified intervals over a long period. The key feature of panel studies is that they collect repeated measures from the same sample at different points in time which will be important when determining the economic impact of Covid-19.

Therefore, data will be collected from pre-covid-19 and post-covid-19 after which it will be assessed in order to determine its impact. A survey will be sent out to the desired target population in Kenya using email and various social media platforms. The survey will gather the demographic information of participants. It will also contain questions discerning their opinions on the economic impacts of internet gambling. The obtained results will be analyzed using various statistical software. The obtained results will be generalized to the general Kenyan population. Data obtained from the survey will be used to calculate summarize and descriptive statistics such as mean.

3.2 Target Population

The study is aimed at young people often taking part in online gambling ventures. The target youths are those residing within Nairobi County and place their bets using the Betika online platform available at www.betika.com. Founded in 2016, Betika is licensed by the Betting Control and Licensing Board (BCLB) under the Betting, Lotteries and Gaming Act, CAP 131, laws of Kenya. The company has since established itself as the largest overall sports betting website in Kenya with 18 million users as of August 2019 (BCLB, 2019).

3.3 Sample Size and Sampling Techniques

The sample size for this study will provide accurate data on the entire population of Betika Users, specifically those who reside in Nairobi County. The sample will have bettors and non-bettors. Only two gambling operators and one psychotherapist will take part in this study. Using purposive sampling, the study will be centered on Nairobi County, as it has the highest number of online betting shops in the country. Furthermore, many people in Nairobi supplement their monthly income through betting. Simple random sampling will be used to select study participants within Nairobi County. The study will target 100 individuals.

3.4 Pilot Study

Pilot studies aim at testing reliability and validity of a research instrument. The pilot study will be done on ten members of the public to understand their views on economic impacts of internet gambling. It will be checking how reliable the questionnaires are in eliciting needed information from a participant.

3.5 Data Sources

To estimate the level of participation and prevalence of internet gambling among Kenyan residents we will do a household survey. Survey Design: the survey will be based on a two stage, stratified, random-sampling procedure. The survey will be complimented by a qualitative component comprising of a target focus group discussion to supplement the quantitative survey component by providing more in-depth feelings, attitude, perceptions and beliefs. Key informant interviews will be conducted with relevant stakeholders which include major players in the gambling industry. The survey did not include any information that could directly or indirectly identify an individual.

The first level of stratification will be based on the level of participation in online gambling activities. The second stage of stratification will be the enumeration area. At this level, the study will randomly select household to participate in the survey. To understand the online gambling industry better, we will visit the gambling outlets in different areas to administer questionnaires to gamblers on site. For each gambling outlet that will be visited, a questionnaire will be issued to the person in charge of the outlet or the branch manager. Basic socio-demographic variables will include gender, age (in broad age groups), monthly income, living conditions, and occupation. The questionnaire will also collect dichotomous data on whether a respondent had or had not gambled

on each specific gambling platform during the past year. Moreover, detailed questions will be asked for each type of gambling: online casino; online sports betting; land-based sports betting (in betting shops); online horse gambling; land-based horse gambling; online lotteries; land-based lotteries; and land-based electronic gambling machines, respectively. In addition to the questions above, the level of potential gambling problems was measured based on a 5-point scale.

3.6 Data Collection Techniques

Data will be collected using online questionnaires with open and close-ended questions. The questionnaires will be administered to the general public. Interviews will be on the key informants who will expound on the economic implications of internet gambling post-and-pre covid-19 and gambling operators to understand financial implications after covid-19.

3.7 Data Analysis and Presentation

The questionnaires will be checked for completeness and appropriate number of responses. Tracking errors in the questionnaires will be facilitated through numbering. Data cleaning will be done to correct data entry errors. The interview data will already be validated since responses are expected to be straightforward. All responses given will be verified before data entry. Data analysis will be on excel and SPSS. After analysis, the data will be in graphical and tabular forms. Graphs and charts will be the main tools for data presentations. The analyzed data will be consistent since errors and omissions in the responses given will be corrected.

3.8 Ethical Considerations

The identity of respondents will be protected in the entire study. Answers given by respondents will ensure their confidentiality and anonymity is upheld. This is because, many people bet secretly, fearing being discovered by their parents or partners. The study is voluntary and a participant can always withdraw from this study. Respondents will voluntarily take part in the study, and can drop out when they wish to. Every participant will be informed on the main objective for conducting this study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presented the results from the data analysis as well as their interpretation.

Information derived from this section will be used to draw conclusions regarding the objectives of the study.

4.2 Reliability Test Results

Results from the reliability test that was conducted for the study informed the researcher about the consistency of the research instrument that was used to measure the variables. In this case, the study adopted a questionnaire, whose reliability test revealed a high level of internal consistency as provided for by a Cronbach's alpha value of 0.796. Therefore, this means that the questions are closely related as a group, consequently implying high reliability as far as the quality of the information provided is concerned.

Table 4. 1 Reliability Test

Reliability Statistics		
Cronbach's Alpha	Cronbach's alpha based on Standardized Items	N of Items
0.805	0.796	25

4.3 Response Rate

The response rate for the study refers to the percentage of respondents who participated in the study. Out of 100 questionnaires, 70 were filled and included in the analysis. The remaining 30 were either not filled at all or were not filled according to the instructions. This represented a 70% response rate.

Table 4.2 Response Rate

Response	Frequency	Percentage
Responded	70	70%
Not Responded	30	30%
Total	100	100%

4.4 Descriptive Statistics

This section presented the general information obtained from the respondents. This includes an analysis of the answers obtained from Section A of the questionnaire. This included questions regarding the gender, age group, marital status, highest level of education, main source of income, frequency on the internet, gambling period, the number of gambles placed in a month, as well as the kind of gambling that they undertake in. This information describes the kind of respondents chosen to take part in the study.

4.4.1 Gender of Respondents

The results indicated that majority of the respondents were male, 67.1%, while the remaining 32.9% represented the female respondents. This implies that the study considered opinions from both genders. This information is represented in table 4.3

Table 4.3 Gender of the Respondents

Gender	Frequency	Percent
Male	47	67.1%
Female	23	32.9%
Total	70	100.0%

4.4.2 Age Group Respondents

The study also inquired about the age group of the respondents. Based on the results provided in table 4.4, the study found that majority of the respondents were between 18-31 years, 52.9%, followed by those between 31-45 years, 37.1%. Only 10% of the respondents were above 46 years old.

Table 4.4 Age Group

Age Group	Frequency	Percent
18-30 Years	37	52.9
31-45 Years	26	37.1
Above 46 Years	7	10.0
Total	70	100.0

4.4.3 Marital Status

In order to establish the effect of online internet gambling at household level, it was necessary to identify the marital status of the respondents who took part in the study. Results in table 4.5 indicate that 41.4% of the respondents had never been married before, implying that they are currently single. 28.6% pointed out that they are currently married, while 17.1% are separated. The remaining respondents are either widowed, 4.3% or divorced, 4.3%.

Table 4.5 Marital Status

Marital status	Frequency	Percent
Never Married	29	41.4
Married	20	28.6
Separated	12	17.1
Widowed	3	4.3
Defacto	3	4.3
Divorced	3	4.3

Total	70	100.0
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4.4.4 Highest level of Education

The researcher wanted to identify the highest level of education attained by each of the respondents chosen to take part in the study. This would inform the researcher regarding the quality of answers provided which in turn determines the reliability of the results. As indicated in table 4.6, majority of the respondents had attained a college diploma, 38.6%, a certificate 30% or a bachelor's degree, 20%. Only 11.4% of the respondents had attained a high school certificate. This implied that the respondents were in a good position to answer the questionnaires and therefore the results obtained are reliable.

Table 4.6 Level of education

Level of Education	Frequency	Percent
College Diploma	27	38.6
College Certificate	21	30.0
Bachelor's Degree	14	20.0
High School	8	11.4
Total	70	100.0

4.4.6 Main Source of Income

In order to establish the economic status of the respondents, the researcher inquired about their source of income. It was established that most of the respondents depended on their wages/salary, 51.4%. 32.9% have their own business while 14.3% depend on other forms of income, including investments.

Table 4.7 Main Source of Income

Source of Income	Frequency	Percent
Wage/Salary	36	51.4

Own Business	23	32.9
Other Income	10	14.3
Investments	1	1.4
Total	70	100.0

4.4.7 Frequency on the Internet

The researcher also needed to know how frequent the respondents use the internet to gamble.

38.6% of the respondents indicated that they use the internet sometimes, while 28.6% indicated that they used it frequently. Only 10% of the respondents indicated that they have either never used it, and when they do its only occasionally/rarely. This information is summarized in table 4.8.

Table 4.8 Frequency on the internet

Use of Internet	Frequency	Percent
Sometimes	27	38.6
Frequently	20	28.6
Never	8	11.4
Occasionally	8	11.4
Rarely	7	10.0
Total	70	100.0

4.4.8 Gambling Period

The researcher also sought to find out how long it had been since each of the respondents participated in online gambling. It was revealed that majority of the respondents had 1-2 years' experience, 35.7%. Moreover, 25.7% and 21.4% of the respondents had less than a year and between 3-4 years respectively. Only 5.7% had been gambling for more than 5 years. This information is summarized in table 4.9

Table 4.9 gambling Period

Gambling Period	Frequency	Percent
1-2 years	25	35.7
Less than a Year	18	25.7
3-4 Years	15	21.4
Not Applicable	8	11.4
Above 5 Years	4	5.7
Total	70	100.0

4.4.9 Number of Gambles in a Month

The researcher also wanted to find out the number of times the respondents gamble within a month, 4 weeks. Results indicate that of those who gamble, 45.7% of them place between 1-3 gambles over the internet. An additional 27.1% place 4-6 bets in a day while 12.9% place between 7-10 bets within a month. Only 2.9% of the respondents indicated that they placed more than 10 bets within a month. This information is summarized in table 4.10.

Table 4.10 Number of Gambles

Number of Gambles in a Month	Frequency	Percent
1-3	32	45.7
4-6	19	27.1
7-10	9	12.9
0	8	11.4
Over 10	2	2.9
Total	70	100.0

4.4.10 Type of Gambling

The study also sought to know where the respondents usually gamble their money, especially during the covid-19 pandemic period. As indicated in table 4.11, it was established that majority of them place their bets on online betting platforms, 38.6%. Another 20% of the respondents

indicated that they gamble using slot machines,18.6% play lotteries while 10% said they do it in casinos.

Table 4.11 Type of Gambling

Gambling Type	Frequency	Percent
Sports Betting Websites	27	38.6
Slot Machine	14	20.0
Lottery	13	18.6
None	8	11.4
Casino	7	10.0
Card Games	1	1.4
Total	70	100.0

4.5 Discussion of Findings

This study aimed at understanding the economic impacts of covid-19 pandemic on internet gambling in Kenya. Specifically, the study sought to investigate the societal effects of internet gambling among various age groups in kenya; to unravel the significance of internet gambling in various aspects of the economy and to assess the internet gambling trends among bettors in the midst of covid-19 pandemic in Kenya. This section presents the discussion and findings;

4.5.1 The societal effects of internet gambling among various age groups

Through this objective, the researcher sought to investigate some of the societal effects of internet gambling and how these have impacted the economic lives of those involved.

4.5.1.1 Gambling Does More Good than Harm

In order to establish this, the researcher asked the respondents what they thought about gambling and whether it brings about more good than harm. Majority of the respondents disagreed,

especially those between the age of 18 and 35 years. It was also noted that most of those between 31 and 35 years also disagreed with that statement, implying that they supported the sentiments of their younger counterparts. It is however important to note that most of those above 46 years agreed with the statement. This information is summarized in table 4.12.

Table 4.12 Gambling Does More Good than Harm

		What do you think of the statement that overall, Total gambling does more good than harm for the <u>community?</u>						
		Strongly Agree	Agree	Neither	Disagree	Strongly Disagree		
Age Group	18-30 Years	4	10	4	8	11	37	
	31-45 Years	7	5	5	4	5	26	
	Above 46 Years	1	4	2	0	0	7	
Total		12	19	11	12	16	70	

4.5.1.2 Gambling Frequency

It was necessary to establish the frequency at which each age group gambles. Based on the results provided in figure 4.1, many of the respondents frequently gamble. Among those who only gamble sometimes, it was noted that majority of them were between 18-35 years. This was also the case among those who gamble frequently. It is also important to note that some of the respondents indicated that they had never gambled before.

Figure 4.1 Gambling Frequency



4.5.1.3 Years of Gambling

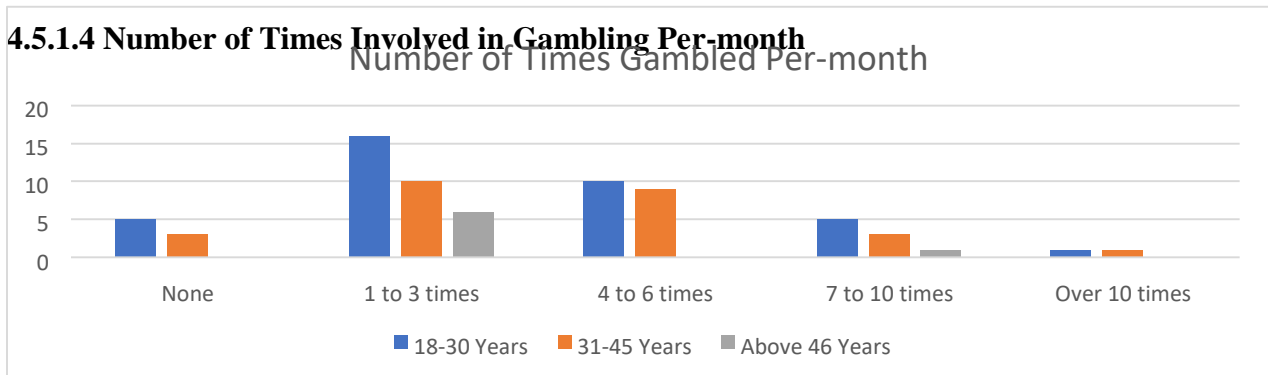
The researcher also investigated the number of years that the respondents had been gambling. It was established that majority of the respondents had participated in one or more gambling activities for more than 2 years. Specifically, most of them had a 1-2 years' experience. It was also noted that they were mainly 18-35 year old's who mostly had a lot of experience. This information is presented in the bar graph in figure 4.2.

Figure 4.2 Years of Gambling

The study also investigated the number of times that the respondents gamble in a month. This would indicate the frequency with which the respondents use money on gambling. It was



Figure 4.3 Times Gambled per month



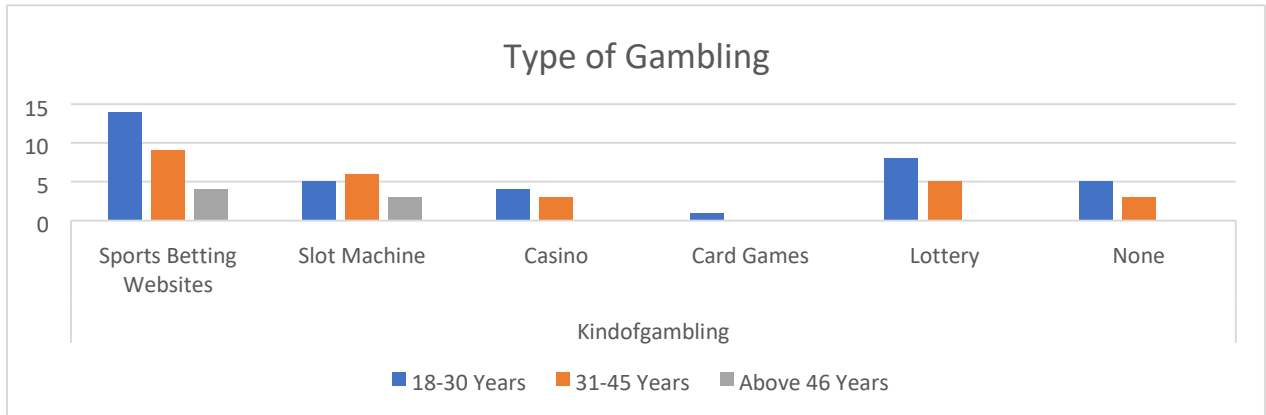
established that majority of the respondents gamble 1-3 times as well as 4-6 times. There are also those who gamble 7-10 times. This information is represented in figure 4.3

4.5.1.5 Type of Gambling

The researcher also identified the type of gambling activity that the respondents were involved in.

It was established that majority of the respondents used sports betting websites, most of them being 18-35 years old. Slot machines as well as casinos are also used often as indicated in figure 4.4.

Figure 4.4 Type of Gambling



4.5.2 The significance of internet gambling in various aspects of the economy

The researcher also sought to investigate the significance of internet gambling in various aspects of the economy. To ascertain this, the researcher asked the respondents to respond to several questions on how their personal finances have been affected by their involvement on internet gambling. The respondents were to respond to the statements based on a 5-point scale; 1-5 where 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree and 5-Strongly Disagree. Results indicated that many of the respondents agreed that they spend above Ksh 500 on gambling every week (M=1.63, SD=0.745). However, majority of them were neutral on when asked if they borrowed money to spend on gambling (M=2.60, SD=1.408). They were also neutral when asked if their finances are often affected by their gambling habits (M=2.93, SD=1.355) and if they gamble using money that is meant for another purpose (M=2.99, SD=1.346). This information is summarized in table 4.13

Table 4.13 The significance of internet gambling in various aspects of the economy

Personal Finances	N	Mean	Std. Deviation
<u>I spend above Ksh 500 on gambling every week</u>	70	1.63	.745
<u>I borrow the money that I spend on gambling</u>	70	2.60	1.408
<u>My finances are often affected by my gambling habits</u>	70	2.93	1.355
<u>I gamble using money that is meant for another purpose</u>	70	2.99	1.346
I often plan the amount I spend on gambling	3.51	1.567	70
Total Valid	70		

4.5.3 The internet gambling trends among bettors during the covid-19 pandemic

The last objective for the study was to find out internet trends among bettors during the covid-19 pandemic. This was in a bid to find out the economic impact at household level. The study asked the respondents a series of questions and they were to respond to the statements based on a 5-point scale; 1-5 where 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree and 5-Strongly Disagree. Results indicated that in the past 12 months, most respondents agreed to have placed more bets than they could really afford to lose (M=1.33, SD=0.473). They also agreed that they needed gamble with larger amounts of money to get the same feeling of excitement (M=1.91, SD=0.794), that in the past 12 months, when they gambled, they have gone back another day to try to win back the money they lost (M=1.91, SD=0.775). The results also indicated that most respondents have talked to friends or family about problems related to your gambling (M=2.09, SD=0.756). However, it is important to note that most of the respondents noted not to have felt that they had a problem with gambling in the past 12 months. This information is presented in table 4.14.

Table 4.14 The internet gambling trends among bettors during the covid-19 pandemic

Trends			
	N	Mean	Std. Deviation
In the past 12 months, have you bet more than you could really afford to lose?	70	1.33	.473
In the past 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?	70	1.91	.794
In the past 12 months, when you gambled, have you gone back another day to try to win back the money you lost?	70	1.91	.775
Have you ever talked to friends or family about problems related to your gambling?	70	2.09	.756

In the past 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?	70	2.19	.804
In the past 12 months, have you felt that you might have a problem with gambling?	70	3.41	1.806
Total	70		

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