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# Exploring the impact of online food shopping and e-commerce education on the income of youths in Nairobi County, Kenya.

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# EXPLORING THE IMPACT OF ONLINE FOOD SHOPPING AND E-COMMERCE EDUCATION ON THE INCOME OF YOUTHS IN NAIROBI COUNTY, KENYA

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## DECLARATION

I declare that this thesis has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.



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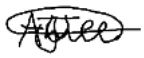
31/05/2024



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## ABSTRACT

Unemployment among youths in Nairobi County, Kenya, has significantly impacted their income, posing a critical societal challenge. This study investigated the potential of e-commerce—specifically digital food delivery, online retail, and virtual education—to enhance the economic status of this demographic. Utilizing a sample of 330 youths from Nairobi County, the study aimed to assess the effect of e-commerce usage on income levels, examine the challenges associated with generating income through e-commerce, investigate the relationship between e-commerce and youths' income, and evaluate stakeholders' perceptions of e-commerce and youths' income. Grounded in Social Exchange Theory and Diffusion of Innovation Theory, the research adopted a positivist philosophy and a quantitative approach. Data were collected from 330 respondents through structured questionnaires and analyzed using SPSS version 23, covering the period from March to May 2024. The findings revealed that while online digital food delivery, online shopping, and online education platforms were increasingly utilized, they showed no significant impact on the income of Nairobi's youths. Employment status was identified as having a significant positive effect on youth income. Despite new income-generating opportunities through e-commerce, the study highlighted that simply adopting these platforms without addressing underlying issues such as digital literacy disparities and economic barriers was not sufficient to improve income levels. Ethical considerations were prioritized to ensure informed consent, confidentiality, and secure data handling. These insights aimed to offer a comprehensive understanding of e-commerce's role in addressing the economic challenges faced by Nairobi's youths and suggested that multi-faceted strategies were necessary for meaningful impact.



**Keywords: Ecommerce, Income, Youths, Nairobi County**

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## DEFINITION OF TERMS

**1. Ecommerce:** Digital spaces or websites that facilitate various types of online interactions, transactions, and content sharing among users. These platforms serve as intermediaries that connect individuals, businesses, or organizations, providing them with a virtual environment to engage in various activities, services, or communications.

**2. Income:** Income refers to the quantity of monetary earnings accrued by a person, family, or economic unit, typically measured over a defined timeframe such as annually or monthly (Smith, 2021). This financial gauge proves critical for economic and sociological analyses given its direct links to purchasing power for needs and amenities. Income gets sorted into brackets like low, middle and high to facilitate examining economic discrepancies, living standards, and consumption patterns within populations. It holds pivotal import for grasping market behaviors, developing financial policies, and gauging growth and stability trends. Influencing elements include education, occupations, geography and demographics. Ultimately income serves as a vital barometer for weighing economic parity, penury rates, and societal stratification.

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# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the study

In recent years, the widespread use of the internet and the rapid advancement of technology have transformed various aspects of society, including the way people access goods and services. Ecommerce has emerged as a powerful tool that connects individuals, businesses, and institutions, providing convenient access to a wide range of products and services. These platforms have revolutionized industries such as food delivery, shopping, and education, offering new opportunities and changing the dynamics of social and economic interactions (Wirtz et al., 2018). Nairobi County, the capital city of Kenya, serves as a hub of economic activities and a center of technological advancements. The county hosts a significant young people who are increasingly exposed to and engaged with the use of ecommerce (Maingi & Wachira, 2022). These platforms have gained popularity among the youths in Nairobi County, influencing their behaviors, choices, and overall well-being. Understanding the impact of ecommerce on the social and economic welfare of the youths in Nairobi County is crucial for policymakers, businesses, and stakeholders to formulate effective strategies and interventions that harness the potential of these platforms.

The proliferation of smartphones and increased internet connectivity has facilitated the widespread adoption of ecommerce among the youths in Nairobi County (Karijo et al., 2021). Research conducted by Maingi & Wachira (2022) highlights the increasing trend of ecommerce usage, with a significant proportion of the youths engaging in online activities for food delivery, shopping, and educational purposes. This study will further examine the usage patterns, frequency, and preferences of the youths in Nairobi County regarding these online platforms, providing valuable insights into their level of engagement and the prevalence of these platforms in their daily lives.

Ecommerce offers numerous advantages, such as convenience, timesaving, access to a broader range of products and services, and enhanced educational opportunities (Wirtz et al., 2018). The ability to order food online, shop from various vendors, and access educational resources remotely has transformed the way the youths in Nairobi County engage with these services. However, challenges related to cybersecurity, trust, privacy, and the digital divide may also arise (Karijo et al., 2021). Understanding these benefits and

challenges is crucial for policymakers, businesses, and service providers to address concerns, mitigate risks, and enhance the positive impact of ecommerce on the social and economic welfare of the youths.

Ecommerce has the potential to influence various aspects of social and economic well-being, including employment opportunities, income generation, entrepreneurship, social connections, and educational attainment (Wirtz et al., 2018). Research conducted by Maingi and Wachira (2022) suggests that engaging with ecommerce can enhance the entrepreneurial spirit among the youths, providing them with opportunities to start their own businesses and generate income. Additionally, online education platforms have facilitated access to educational resources, allowing the youths to acquire new skills and improve their employability. By examining these effects, the research will provide valuable insights into the transformative potential of ecommerce and its contribution to the overall welfare of the youths in Nairobi County.

While research such as that by Dewan & Riggins (2005) highlights the importance of digital access for improved social welfare, there is limited focus on the extent of ecommerce usage among youths in Nairobi County (Dewan & Riggins, 2005). Existing studies focus on general attitudes toward e-learning (Hong et al., 2023) or factors affecting the adoption of specific services like food delivery (Ali et al., 2020). These studies do not adequately cover the variety of online platforms—food delivery, shopping, and education—in the specific context of Nairobi County. Furthermore, research has elaborated on the benefits and challenges of various ecommerce platforms (Fernandez & Raine, 2021; Algheshairy et al., 2022; Purba et al., 2021). However, these studies often focus on different geographic or demographic contexts and may not fully encapsulate the unique challenges and benefits experienced by the youths in Nairobi County, such as issues related to digital payment systems, food quality, or educational resources.

Additionally, studies have discussed various aspects affecting social and economic welfare, such as accessibility issues for disabled individuals (Newman et al., 2017) or the tendency for higher-income groups to engage more online (Livingstone & Helsper, 2007). However, comprehensive research focusing on the aggregate impact of multiple ecommerce platforms on the income of youths in Nairobi County remains sparse. While there is evidence that the pandemic has significantly affected online behavior (Jain et al., 2020; Sheth, 2020), little

research has specifically investigated the relationship between ecommerce and income of youths in Nairobi County.

### 1.1.1 Usage of Online Digital Food Delivery

The conceptualization of online digital food delivery in this study leverages the definition provided by Shahzad et al. (2022), who describe e-commerce as "the process of buying, selling, transferring, or exchanging products, services, or information via computer networks, including the internet." This broad definition captures the essence of online food delivery as a subset of e-commerce, emphasizing the transactional and informational aspects integral to digital commerce.

In Nairobi County, the proliferation of platforms such as Jumia Food, Glovo, and Uber Eats has transformed the food service industry, providing convenience, time-saving options, and a wider variety of food choices to consumers (Musotsi & Lutta, 2020). The operationalization of this independent variable includes indicators such as the frequency of orders per month, the number of app visits, spending on online food purchases, and changes in dietary choices. These metrics are essential in understanding how youths engage with online food delivery services and the potential impact on their economic activities and income levels.

Globally, online food delivery services have been shown to create employment opportunities and support local food businesses, contributing to economic growth (Abdullah et al., 2021). However, research gaps exist in understanding the impact of these services on local food ecosystems, sustainability practices, and socioeconomic implications in different regions (Beresford et al., 2020). In the Kenyan context, further research is needed to explore the challenges faced by local food businesses in adopting online platforms and the potential socioeconomic disparities that may arise.

### 1.1.2 Usage of Online Shopping

The conceptualization of online shopping is based on the framework provided by Yousafzai et al. (2020), which highlights the convenience, wider product selection, and competitive pricing offered by e-commerce platforms. The operationalization of this independent variable includes indicators such as the number of orders placed per month, the frequency of app visits, and the total spending on online shopping.

In Nairobi County, platforms like Kilimall and Jumia have become popular among youths, providing access to a broader market and facilitating entrepreneurship (Irungu et al., 2015). The increasing trend of e-commerce usage among youths in Nairobi County is driven by factors such as smartphone penetration and internet connectivity (Maingi & Wachira, 2022). Understanding these usage patterns and preferences is crucial for assessing the impact of online shopping on the economic welfare and income generation opportunities for the youths.

Research has shown that online shopping contributes to economic growth by connecting consumers and sellers, fostering entrepreneurship, and creating employment opportunities (Olasanmi, 2019). However, challenges related to cybersecurity, trust, privacy, and the digital divide need to be addressed to enhance the positive impact of e-commerce on the social and economic welfare of the youths (Karijo et al., 2021).

### 1.1.3 Usage of Online Education

The usage of online education is conceptualized within the framework provided by UNESCO (2020), which highlights the increased access to educational resources and flexible learning options offered by online platforms. This section aims to capture the context and motivation of the study rather than providing a literature review. In Nairobi County, online education platforms such as eLimu and Eneza Education have provided youths with opportunities to acquire new skills and improve their employability (Juma et al., 2021).

The operationalization of this independent variable includes indicators such as the number of courses enrolled in, the average hours spent online for education, and attitudes towards online education. These dimensions are crucial in understanding the role of online education in enhancing the skill set and income potential of Nairobi's youths.

Research has shown that online education can address challenges related to limited educational infrastructure and access to quality education, particularly in remote areas (Leppisaari et al., 2021). However, there is a need for further investigation into the long-term impact of online education on educational outcomes, skills development, and the socioeconomic welfare of the youths in Nairobi County (Jessica, 2017).

### 1.1.4 Income of the Youths

Income in this study is defined as the average total monetary earnings received by an individual, specifically targeting the youths in Nairobi County. This includes wages, salaries, benefits, and any other form of financial income. The operationalization of income as the dependent variable allows for a direct assessment of the socioeconomic impacts of e-commerce on the youths. The study measures income on a monthly or annual basis, providing a standardized gauge of economic welfare.

Research has shown that online platforms, including digital food delivery, online shopping, and online education, can create new income-generating opportunities and enhance employability (Brusick, 2018). However, challenges such as income disparities, digital divide, and potential job displacement due to automation need to be addressed to ensure equitable benefits for all youths (Ndung'u, 2018). By focusing on these specific dimensions, the study aims to provide insights into the potential of e-commerce to improve income levels and address the economic challenges faced by youths in Nairobi County.

### 1.1.5 Youths in Nairobi County

Youths in the Country represent 29% of the population (National Council of Population and Development, 2020) and plays a crucial role in shaping the social and economic landscape of the region. Nairobi County, being the capital city of Kenya, is a vibrant hub of opportunities, attracting young individuals seeking education, employment, and entrepreneurial ventures. The youths population in Nairobi County is characterized by its diversity, encompassing individuals from various socio-economic backgrounds, educational levels, and cultural identities. They are often driven by aspirations for personal growth, social mobility, and the desire to contribute to their communities. Understanding the unique experiences, challenges, and aspirations of youths in Nairobi County is essential for designing effective policies, programs, and interventions to support their social and economic welfare (Otieno et al., 2020).

The youths in Nairobi County face a multitude of challenges that impact their social and economic well-being. Unemployment and underemployment rates among the youths are significant concerns, as many struggle to secure stable and decent-paying jobs despite their qualifications. Limited access to quality education and skills development opportunities exacerbates this issue, making it difficult for young individuals to compete in a competitive

job market. Moreover, socio-economic disparities, such as income inequality and unequal distribution of resources, further compound the challenges faced by youths in Nairobi County. These factors contribute to feelings of frustration, disillusionment, and a sense of disconnection from societal opportunities (Omboi, 2020).

Despite the challenges, youths in Nairobi County also exhibit resilience, innovation, and entrepreneurial spirit. Youths in Nairobi County have embraced technology and the digital age, leveraging online platforms, social media, and digital tools to create businesses, pursue freelance work, and connect with like-minded individuals (Kadima, 2021). They are at the forefront of embracing ecommerce for various purposes, including online digital food delivery, online shopping, and online education. Harnessing the potential of technology and digital platforms can offer opportunities for youths empowerment, economic growth, and social development. However, it is crucial to recognize and address the barriers that hinder the full participation and inclusion of all youths in Nairobi County, ensuring that the benefits of ecommerce are accessible to everyone, regardless of socio-economic background or digital literacy levels.

### 1.2 Problem Statement

The advent of online platforms has been widely lauded for their potential to foster entrepreneurship, skill development, and enhance service accessibility. However, these platforms have also been critiqued for exacerbating the digital divide, thereby introducing a conceptual gap in understanding their impact on social and economic inequalities. As noted by Dewan and Riggins (2005), the digital divide segregates communities into those with access to Information and Communication Technology (ICT) and those without, hindering progressive strides toward improving social welfare. This divide is particularly pronounced among the youths in Nairobi County, where disparities in digital literacy and access to technology further complicate efforts to leverage e-commerce for economic improvement.

Contextually, while global studies such as those by Fernandez and Raine (2021) and Purba et al. (2021) offer insights into attitudes and adoption intentions toward online platforms, they often fail to capture the unique socio-economic challenges faced by Nairobi's youths. The local context of Nairobi County, characterized by high unemployment rates and socio-

economic disparities, necessitates a focused investigation into how e-commerce can realistically impact youth income levels. Existing literature often delineates the benefits of online platforms without fully addressing the intricate dynamics and barriers specific to Nairobi County, such as economic barriers and digital literacy issues.

Methodologically, there is a significant gap in research focusing specifically on Nairobi County's youths and their interaction with e-commerce platforms. While studies like those by Kadima (2021) suggest that online platforms can promote entrepreneurship and skill development, data specific to Nairobi County remains sparse. The conflicting findings in literature regarding the impact of online platforms on employment opportunities and educational outcomes indicate the need for robust empirical analysis. For instance, while some studies highlight the benefits of online education (Purba et al., 2021), others raise concerns about the digital divide exacerbating educational inequalities (Dewan & Riggins, 2005). These conflicting findings underline the complexity of the issue and the necessity for a comprehensive, context-specific analysis.

This study aims to fill these gaps by exploring the impact of online digital food delivery, online shopping, and online education on the income of youths in Nairobi County. By examining usage patterns, as well as the benefits and challenges, this research endeavors to offer a comprehensive analysis that encapsulates the multifaceted effects on youth incomes. The study employs structured questionnaires and a quantitative approach to gather empirical data, ensuring a robust methodological framework. This multi-dimensional exploration is poised to offer critical insights for policymakers, stakeholders, and community leaders, thus paving the way for targeted interventions and policies designed to uplift the welfare of Nairobi County's youths. Through addressing the conceptual, contextual, and methodological gaps, this study sets the groundwork for informed decision-making that could significantly enhance the socio-economic standing of the youths in Nairobi County.

## 1.3 Research Objectives

### 1.3.1 General objective

The general objective of the study is to evaluate the relationship between online food shopping education ecommerce and the income of youths in Nairobi County. The specific objectives of this study emerged from the identified gaps in the existing literature and the unique socio-economic context of Nairobi County's youths. These objectives are designed

to address the multifaceted issues surrounding the impact of e-commerce on youth income, informed by the conceptual, contextual, and methodological gaps outlined in the problem statement.

### 1.3.1 Specific Objectives

i. To determine the impact of usage of online digital food delivery on income of youths in Nairobi County
ii. To determine the impact of usage of online shopping on income of youths in Nairobi County
iii. To determine the impact of usage of online education on income of youths in Nairobi County

## 1.4 Research Questions

i. What is the effect of the use of online digital food delivery on the level of income of youths in Nairobi County?
ii. What is the effect of the use of online shopping on the level of income of youths in Nairobi County?
iii. What is the effect of the use of online education on the level of income of youths in Nairobi County?

## 1.5 Scope of the study

The study titled "the Relationship between Ecommerce and the Income of Youths in Nairobi County" focuses on the impact of three online platforms—digital food delivery, online shopping, and online education—on the incomes of Nairobi's youths. The study spanned the period December 2023 to April 2024 with data collected in May of 2024.

The research is geographically centered in Nairobi County, Kenya, chosen for its status as the capital and its advanced digital landscape. The target demographic is the youths of Nairobi, defined as individuals aged 18 to 35, a range established by Kenyan youths classifications. This study aims to provide insights into how these online platforms have influenced the incomes of this specific group during the pandemic. The unit of study is individual youth respondents in the county.

The scope is deliberately limited to examining the direct relationship between the selected online platforms and youths incomes, without delving into broader macroeconomic or public health impacts. Other online activities like social media or entertainment are not the focus of this study. The primary objective is to assess how the pandemic has moderated the connection between ecommerce engagement and the financial wellbeing of Nairobi's youths.

## 1.6 Significance of the study

This study holds significant academic, policy, and practical implications, particularly within the context of Nairobi County's youths and the broader discourse on e-commerce and socio-economic development.

### 1.6.1 Academic Significance

The study contributes to the existing body of literature by providing a nuanced understanding of the impact of e-commerce on youth income in Nairobi County. It addresses several identified gaps in previous research, including the lack of focus on the specific socio-economic context of Nairobi's youths, the detailed examination of different e-commerce platforms, and the integration of theoretical frameworks such as Social Exchange Theory and Diffusion of Innovations Theory. By offering empirical evidence on the relationship between online food delivery, online shopping, and online education with youth income, this study enriches the academic dialogue and sets a foundation for future research in similar contexts.

### 1.6.2 Policy Significance

For policymakers, this study offers critical insights into how digital platforms can be leveraged to enhance the economic welfare of youths in Nairobi County. The findings provide evidence-based guidance for formulating policies aimed at closing the digital divide, promoting digital literacy, and creating supportive environments for e-commerce activities. Policymakers can use these insights to develop strategic interventions that foster inclusive economic growth, ensuring that the benefits of e-commerce are accessible to all youths, irrespective of their socio-economic background. This can lead to more targeted and

effective policy measures that address the specific needs and challenges faced by youths in Nairobi County.

### 1.6.3 Practical Significance

For practitioners and stakeholders in the e-commerce industry, the study highlights the potential and challenges associated with engaging youths in online platforms. Businesses can gain a better understanding of the consumer behavior and preferences of Nairobi's youths, enabling them to tailor their products and services more effectively. Additionally, the study underscores the importance of addressing barriers such as cybersecurity, trust, and privacy concerns to enhance the positive impact of e-commerce on youth income. By identifying the factors that influence the successful adoption and utilization of online platforms, the study provides actionable insights for improving service delivery and expanding market reach.

### 1.6.4 Socio-Economic Significance

The study aims to empower Nairobi's youths by identifying the opportunities and potential risks associated with e-commerce. By understanding how online platforms can be used for income generation and skill development, youths can make more informed decisions about their engagement in digital activities. This can lead to improved economic outcomes, greater entrepreneurial activity, and enhanced employability among the youth population. Ultimately, the study seeks to contribute to the socio-economic development of Nairobi County by promoting digital inclusion and economic empowerment. In summary, this study is poised to serve as a catalyst for socio-economic development in Nairobi County, fostering digital inclusion and empowerment among its youth population. By bridging the gaps in existing research and offering comprehensive insights, it aims to drive academic, policy, and practical advancements that enhance the economic welfare of Nairobi's youths.

## 1.8 Chapter summary

This chapter sets the stage for the study by outlining the socio-economic challenges faced by the youths in Nairobi County, including high unemployment rates, increasing living costs, and the pervasive issue of substance abuse. It references studies by the Federation of Kenya Employers (2022) and Mutai et al. (2020) to underline the severity of these challenges. The chapter also introduces the potential of online platforms in fostering entrepreneurship and skill development as posited by Kadima (2021), while also

acknowledging the digital divide's impact on social welfare, as discussed by Dewan & Riggins (2005). The chapter concludes with the study's objectives: to explore the impact of online digital food delivery, online shopping, and online education on the income of Nairobi County's youths.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1 Introduction

The literature review section of this research aims to provide a comprehensive overview of the existing knowledge and research related to the effect of ecommerce on the level of income of youths in Nairobi County. This review will examine relevant studies, theories, and empirical evidence to establish a solid foundation for the current study and identify any gaps in the existing literature that this research seeks to address. This section outlines the structure and organization of the literature review section, providing a roadmap for the subsequent discussions. It mentions the main themes and subtopics that will be covered, such as the extent of ecommerce usage, the benefits and challenges associated with their use, and the impact on income. The chapter is segmented into the following sections – theoretical framework, empirical review, gaps is research, conceptual framework, operationalization of variables, and chapter summary.

## 2.2 Theoretical Framework of the study

### 2.2.1 Social Exchange Theory

Social Exchange Theory, first put forth by George Homans in 1958 and later developed by Peter Blau in the early 1960s, serves as an invaluable lens for this study (Homans, 1958; Blau, 1964). The theory, despite its criticisms such as overemphasis on rationality and a limited cultural scope (Blau, 1964; Cropanzano & Mitchell, 2005), is considered in grounding the current study. The evolution of Social Exchange Theory is important to consider when discussing its applicability to current research. Originally proposed by George Homans in 1958 and developed further by Peter Blau in the 1960s, Social Exchange Theory has undergone significant refinements and extensions across multiple disciplines (Homans, 1958; Blau, 1964).

The Social Exchange Theory, as articulated by Homans (1958) and further developed by Blau (1964), provides a robust framework for understanding the impact of the use of online food delivery on the income of youths in Nairobi County, aligning with the study's first objective. According to this theory, individuals engage in social interactions based on the cost-benefit analysis, where the rewards of an interaction are weighed against its costs (Homans, 1958). In the context of this study, the theory suggests that youths' engagement with online food delivery platforms is predicated on the perceived economic benefits, such

as increased accessibility to markets and potential for income generation, against any associated costs like service fees or competition (Blau, 1964). This theoretical perspective supports the investigation into how the utilization of ecommerce platforms, specifically online food delivery, can be a strategic choice for youths aiming to enhance their incomes. By applying Social Exchange Theory, the study explores the premise that youths are likely to continue or increase their engagement with these platforms if the perceived economic rewards surpass the costs, thereby potentially improving their incomes (Homans, 1958; Blau, 1964).

Over time, researchers like Thibaut and Kelley incorporated concepts like "comparison level" and "comparison level for alternatives," which consider not just immediate rewards and costs but also future opportunities and the quality of alternatives available (Thibaut & Kelley, 1959). Emerson's extension of the theory in the 1970s added more complexity by emphasizing the role of power and dependence in social exchanges (Emerson, 1976). In the 21st century, scholars like Cook and Rice have integrated concepts like trust and social networks to better understand the dynamics of social exchange (Cook & Rice, 2003).

This evolutionary trajectory makes the theory highly adaptable and capable of addressing complex, multi-dimensional social phenomena. For instance, the emphasis on power dynamics is particularly relevant to our understanding of the income of Nairobi's youths. In online platforms, the interplay of power can be seen in the roles of the service provider and the consumer, which significantly influences the youths's perception of costs and rewards.

Moreover, the modern adaptations of the theory that include trust and social networks can be instrumental in assessing how the youths in Nairobi engage with these platforms. Trust is often a significant factor in digital transactions, given the remote nature of the interaction. Recent extensions of the theory consider how trust is built and maintained in online exchanges (Cropanzano & Mitchell, 2005). This is especially pertinent given the study's focus on understanding the role of trust in the adoption and sustained use of online platforms.

In line with the study's specific objectives, the evolutionary aspects of Social Exchange Theory lend a more nuanced understanding of why the youths may choose to continue or discontinue their engagement with online platforms. For instance, the modern consideration of how external events can influence the social exchange landscape is particularly relevant

to the study's objective of assessing the moderating effects of the pandemic (Cook & Rice, 2003). Therefore, the evolution of Social Exchange Theory, with its increased complexity and adaptability, makes it an especially useful framework for this study, capable of addressing the nuanced and multi-dimensional nature of the income of youths in Nairobi County.

### 2.2.2 Diffusion of Innovations Theory

The Diffusion of Innovations Theory, first introduced by Everett Rogers in 1962, serves as a comprehensive framework for understanding the impact of e-commerce on the income of youths in Nairobi County (Rogers, 1962). Over the years, this theory has undergone substantial refinements, with scholars applying it to multiple sectors such as technology (Dearing & Cox, 2018), healthcare (Ağlamaz & Rodriguez-Menes, 2021), and agriculture (Ma et al., 2014), thus broadening its applicability and depth.

However, the theory is not without criticisms. It has been faulted for focusing overly on individual agency at the expense of broader socio-cultural factors (Singhal & Dearing, 2006). Critics have also noted its failure to adequately tackle power dynamics and structural inequalities that significantly shape the adoption of innovations (Monge & Contractor, 2003). Additionally, its portrayal of the diffusion process as linear has been critiqued for simplifying a potentially complex, non-linear phenomenon (Valente, 1996). The theory has also been criticized for its limited focus on why innovations are adopted rather than why they might be rejected (Rogers, 2003).

In the context of this study focused on Nairobi County's youths, the Diffusion of Innovations Theory offers several key takeaways. Firstly, it provides a scaffold for examining the factors affecting the rate and extent of adoption of online platforms like digital food delivery, online shopping, and online education (Ma et al., 2014). The theory's classification of adopters into innovators, early adopters, early majority, late majority, and laggards can offer valuable insights into user demographics (Rogers, 1962). Secondly, the theory's emphasis on innovation characteristics, such as relative advantage and compatibility, can shed light on why certain platforms may be more appealing to the youths (Ağlamaz & Rodriguez-Menes, 2021).

Thirdly, the theory accentuates the importance of the social system, thus aligning well with objectives that seek to investigate the impact of social factors like norms and networks on youths's income (Dearing & Cox, 2018). Lastly, the theory's stress on the element of time can be leveraged to study how external disruptions might have influenced the diffusion of these online platforms among Nairobi's youths (Ağlamaz & Rodriguez-Menes, 2021). The study variables, including the usage of online digital food delivery, online shopping, and online education as independent variables, and income as the dependent variable, resonate well with the core principles of the Diffusion of Innovations Theory (Rogers, 1962). Even the inclusion of macroeconomic factors as a control variable can fill some gaps in the theory by considering broader economic conditions (Monge & Contractor, 2003).

In summary, the Diffusion of Innovations Theory not only offers a robust framework for examining the complex relationship between ecommerce usage and income among Nairobi County's youths but also benefits from critiques that can help refine its application in this specific context (Singhal & Dearing, 2006; Valente, 1996).

### 2.3 Empirical Review of Literature

Globally, research on the effect of online platforms on the income of youths globally suggests both positive and negative outcomes. Online food delivery platforms have been found to provide income-generating opportunities for individuals, including youths, who work as delivery partners (Brusick, 2018). Online shopping platforms contribute to economic growth by connecting consumers and sellers, fostering entrepreneurship, and creating employment opportunities. Online education has the potential to enhance educational attainment and improve employment prospects for youths by providing access to quality educational resources. However, studies also point out challenges such as income disparities, digital divide, and potential job displacement due to automation. This section focuses on the relationships purported in the objectives of the study i.e. the relationship or lack thereof between online digital food delivery, usage of online shopping and usage of online education on the income of youths. The section is thus segregated into these three main sections.

### 2.3.1 Online digital food delivery and income of youths

In a study focusing on e-commerce usage, Dewan and Riggins (2005) contribute to this discourse by examining the digital divide, a crucial factor in understanding how youths engage with e-commerce. Their framework, analyzing the divide across individual, organizational, and global levels, is pertinent for studies investigating the impact of e-commerce usage on youths income. This framework offers a broader perspective compared to the more geographically focused consumer behavior studies by Ali et al. (2020) and Algheshairy et al. (2022), thus presenting an opportunity for research that integrates these diverse approaches.

In the evolving landscape of e-commerce, research highlights its significant impact, particularly on the incomes of youths. A global study by Statista (2021) underscores the substantial growth in the online food delivery market, a sector increasingly favored by the younger demographic due to its digital nature and alignment with changing consumer preferences. Similarly, the surge in online shopping, as reported by Deloitte (2021), reflects a broader adoption of e-commerce platforms by youths, potentially influencing their spending and earning patterns. Furthermore, the shift towards online education, as noted by UNESCO (2020), is reshaping the educational and professional trajectories of young people, thereby affecting their income potential. While these global overviews provide a snapshot of trends in e-commerce, they lack a detailed exploration of the nuanced factors that specifically influence youths income.

Additionally, Ali et al. (2020), focusing on the online food delivery sector in Pakistan, employ the theory of technology readiness to analyze factors like optimism and innovativeness. Their findings, offer insights into how such factors might impact the income of youths through their interaction with e-commerce. This geographic and situational context, while specific, provides a useful comparison for understanding the broader implications of e-commerce on youths income.

Hong et al. (2023) delving into customer purchase intentions in online food delivery, as was the case with Ali et al (2020), utilizing the Unified Theory of Acceptance and Use of Technology. Their study, examining factors like social influence and performance expectancy, is particularly relevant for understanding the decision-making processes of

youths in the e-commerce era. The longitudinal comparison of consumer behavior before and after the pandemic, as suggested by their findings, could illuminate shifts in youths income in relation to e-commerce usage.

Alaimo et al. (2020) investigate the dynamics of online food shopping in Italy during the pandemic, focusing on factors influencing consumer satisfaction. This study thus differs in context from that employed by Hong et al (2023) who do not consider the effect of the pandemic as an operational factor. This study is crucial for understanding how situational changes, like a global health crisis, can alter the shopping behaviors of youths and, consequently, their income. The use of a cumulative logit model to analyze data from various demographics provides a comprehensive view of how different factors, including familiarity with online shopping and educational levels, impact the satisfaction and spending habits of youths.

Francioni et al. (2022) extends this exploration by focusing on the continued use of online food delivery services, with a particular emphasis on gender as a moderating factor. Their findings, based on structural equation modeling, reveal different predictors for men and women, such as perceived healthiness and attitude. This gender-specific approach offers valuable insights into how e-commerce usage may differently impact the income of young men and women.

The discussion on the effect of e-commerce on youths income necessitates a nuanced approach, considering various geographical and sectoral contexts. Algheshairy et al. (2022) provide an insightful starting point by examining the impact of food delivery applications on adult Saudi females. Their study highlights a correlation between the use of these applications and changes in dietary habits, particularly among educated women. This focus on a specific demographic offers a lens to explore how similar platforms could influence the financial behaviors and income of youths, especially when considering the potential for these platforms to promote more positive consumption habits if used strategically.

Francioni et al. (2022) delve deeper into the factors influencing the continued use of online food delivery services, such as perceived healthiness, quarantine procedures, and ease of app use. Their findings underscore the complexity of factors driving consumer behavior in the digital sphere, which, in turn, can have implications for the income of youths engaged

in these sectors. The study by Algheshairy et al. (2022) serves as a cautionary tale, highlighting the potential negative impacts of digital service usage, in this case, on dietary habits. This aspect is crucial for understanding the broader spectrum of consequences associated with the digital shift, including potential impacts on the financial well-being of youths.

The discussion extends to Africa, where studies like Iacovone and Jaffee (2018) have documented the rise of online food delivery services, driven by urbanization and technological advancements. The popularity of online shopping platforms in the region, as noted by Kwena et al. (2020), also reflects a significant shift in consumer behaviors, which likely influences the spending and earning patterns of youths. However, the literature on online education in Africa, particularly in areas like Nairobi County, remains sparse. This gap indicates a need for further research to understand the adoption and usage of online educational platforms and their subsequent impact on the income of youths in these regions.

Patgiri's 2022 article directly examines the impact of online food delivery services on the eating habits of urban middle-class youths in India (Patgiri, 2022). This paper is the most directly relevant to the current study's focus. According to the study, online food delivery has become a significant part of the eating culture among urban middle-class youths. The paper argues that the practice of ordering in has implications not just for food consumption patterns but also for broader socio-economic and psychosocial structures. For instance, ordering in has allowed young people to spend more 'me time,' signifying the shifting cultural norms around food and socialization. In the context of income level, this shift could be both positive and negative. On the one hand, it may add convenience and variety to their lives; on the other hand, it could perpetuate social isolation and potentially lead to unhealthier eating habits.

In the African context, online food delivery platforms have had a positive impact on the income level of youths. Research conducted by Semakula (2021) in Uganda found that online food delivery platforms have created employment opportunities for young people, especially those from low-income backgrounds. Online shopping platforms have also contributed to youths entrepreneurship and job creation in various African countries (Olasanmi, 2019). However, there is a need for further research to explore the specific

effects of online education on the income level of youths in the African context, including factors such as educational attainment, employment outcomes, and skill development.

While both Brusick (2018) and Semakula (2021) affirm the income-generating opportunities that online food delivery platforms offer to the youths, their contexts vary. Brusick focuses on a global scale, potentially pooling data from diverse economies, whereas Semakula focuses solely on Uganda. This raises the question of how geography and economic context impact the relevance and effectiveness of these platforms for youths employment. A research gap exists in comparing these platforms' effects across different economic and regional contexts to better understand the varied impact on the social-economic welfare of the youths.

Online food delivery platforms have been found to provide income-generating opportunities for individuals, including youths, who work as delivery partners (Brusick, 2018). Online shopping platforms contribute to economic growth by connecting consumers and sellers, fostering entrepreneurship, and creating employment opportunities. Online education has the potential to enhance educational attainment and improve employment prospects for youths by providing access to quality educational resources. However, studies also point out challenges such as income disparities, digital divide, and potential job displacement due to automation.

In Kenya, online food delivery platforms have been beneficial for the income level of youths. They provide income-generating opportunities for young people, particularly those in the informal sector (Ndung'u, 2018). Online shopping platforms have enabled youths entrepreneurs to reach a broader market and expand their businesses (Irungu et al., 2015). Online education platforms have the potential to enhance the educational outcomes and employability of Kenyan youths, particularly in remote areas with limited access to traditional educational resources (Kadima, 2021). However, research gaps exist in understanding the specific impacts of online platforms on the income level of youths in Nairobi County, including factors such as income, employment opportunities, and skills development.

### 2.3.2 Usage of online shopping and income of youths

Jain et al. (2020) delve into digital payment platforms, a crucial component of the e-commerce ecosystem. Their study reveals a significant shift in consumer behavior and transaction values during the pandemic, offering insights into the financial aspects of e-commerce that directly affect youths income.

Shahzad et al. (2022) and Jain et al. (2020) both emphasize the accelerated adoption of e-commerce during the pandemic, with Shahzad et al. focusing on a range of sectors and Jain et al. examining the financial implications. These studies highlight the changing landscape of e-commerce, which has profound implications for the income opportunities available to youths.

Sheth (2020) explores changes in consumer behavior during the pandemic, indirectly shedding light on the evolving e-commerce market. This study is critical in understanding how youths, as both consumers and potential entrepreneurs, can adapt to the changing dynamics of e-commerce to enhance their income.

Candra et al. (2021) and Ali et al. (2020) examine the impact of the pandemic on online food delivery services in Indonesia and Pakistan, respectively. These studies contribute to understanding how e-commerce platforms, particularly in the food and beverage sector, can influence youths income. They underscore the need for e-commerce platforms to tailor their services to evolving consumer needs, which can have a direct impact on the income opportunities for youths engaged in these platforms.

Alaimo, Fiore, & Galati (2020) and Dannenberg et al. (2020) further extend this exploration, focusing on online grocery shopping behavior in Italy and Germany. These studies highlight the socio-economic implications of e-commerce, particularly in relation to public health and economic stability, and how the pandemic has influenced consumer preferences and satisfaction in using online platforms.

In the African context, e-commerce and its subsequent influence on the income level of youths is a critical area of investigation. Studies in Nairobi County, Kenya, by Ozili (2020) and Ngwacho (2021), point towards a surge in online activities during the pandemic. However, there is a need for focused research on how these changes have specifically

affected the income of youths, considering the unique challenges and opportunities in this context.

In summary, the existing literature highlights the relationship between e-commerce and the income of youths. The pandemic has not only accelerated the adoption of e-commerce but also exposed and potentially exacerbated existing disparities. There is a need for more research to fully understand these dynamics, particularly considering the diverse experiences of youths across different regions and socio-economic backgrounds.

In Kenya, the restrictions imposed during the pandemic have led to an increased reliance on online food delivery and shopping platforms as people adapted to the new normal (Ozili, 2020). Online education platforms have become essential for youths to continue their studies during school closures (Ngwacho, 2021). However, the pandemic has also exacerbated existing inequalities in access to online platforms, digital skills, and reliable internet connectivity (Malik et al., 2021). Research is needed to understand the relationship between online platforms and the income level of youths in Nairobi County, taking into account the unique challenges and opportunities presented by the pandemic.

In the realm of ecommerce and its influence on youths income generation, various research studies have emphasized different aspects of this sector, revealing both opportunities and challenges. For instance, research has underlined the convenience and accessibility that ecommerce provides for young entrepreneurs and consumers alike. Platforms offering a range of products and services, from gadgets to fashion items, open up markets that were previously inaccessible to many youths (Kaplan, 2018). Moreover, ecommerce enables young people to start businesses with relatively low overhead costs, democratizing the entrepreneurial landscape (AliResearch, 2019).

However, the ecommerce sector is not without its challenges. Cybersecurity threats pose a significant risk to both consumers and business owners. Young entrepreneurs, in particular, may lack the resources or knowledge to adequately protect their online platforms (De Clercq et al., 2020). Additionally, trust issues can arise, with customers being wary of the quality and authenticity of products sold online. Kaplan (2018) and AliResearch (2019) both emphasize the importance of building consumer trust but note that this can vary significantly across different ecommerce sectors.

Moreover et al., (2019) provide an overview of the technological underpinnings critical for ecommerce, emphasizing the need for young entrepreneurs to stay abreast of developments in areas like AI, Cloud Computing, and IoT. This technological literacy is key to maintaining competitive advantage and ensuring business growth. Ferri et al. (2020) focus on the online education sector, which is particularly relevant for youths both as consumers and entrepreneurs. The transition to online education has opened new avenues for income generation, such as tutoring services and educational content creation. However, challenges like internet unreliability and device accessibility can hinder these opportunities.

Fang's (2002) paper, while older, highlights the importance of e-government initiatives in supporting the digital infrastructure necessary for ecommerce. This is particularly relevant for young entrepreneurs who rely on robust digital ecosystems to operate their businesses effectively.

In Africa, ecommerce platforms have created income opportunities for young entrepreneurs, especially in urban areas (Wachira et al., 2020). However, challenges such as logistics and payment systems persist, often exacerbated by infrastructural limitations (Mersha et al., 2018). In Kenya, for instance, while there are growing opportunities in ecommerce, issues like customer trust and delivery logistics remain significant challenges (Mulwa, 2021).

Overall, while ecommerce offers considerable opportunities for youths to generate income, it also presents a range of challenges that need to be navigated. These include technological know-how, cybersecurity, trust-building, and infrastructural limitations. Addressing these challenges is crucial for fully leveraging the potential of ecommerce for youths income generation.

While Olasanmi (2019) and Irungu et al. (2015) both address the contribution of online shopping platforms to youths entrepreneurship in Africa and Kenya respectively, their studies appear to focus predominantly on the positive economic outcomes. However, as Hargittai & Hinnant (2008) suggested, there are challenges associated with online platforms, such as the digital divide. This leaves a research gap concerning the specific challenges that youths entrepreneurs might face in Africa and Kenya when participating in the online shopping ecosystem.

### 3.3.3 Usage of online education on income of youths

Dewan and Riggins (2005) offer a foundational perspective on the digital divide, a significant factor in the context of e-commerce and its implications for youths income. They argue that bridging this divide could enhance living standards and social welfare, a concept particularly relevant when considering the integration of digital platforms in sectors like education, shopping, and food delivery. This aspect is crucial in understanding how disparities in digital access and literacy can impact the economic opportunities available to youths in different regions.

In the realm of online education, the study by Hong et al. (2023) suggests a generally favorable attitude towards e-learning across various demographics, including gender, field of study, and place of residence. This widespread acceptance may serve as an equalizing force against the digital divide, potentially influencing the educational and, subsequently, the economic prospects of youths. Ali et al. (2020) add to this discussion by examining the factors affecting the adoption of online food delivery services. They highlight the roles of optimism and innovativeness, alongside negative influencers like insecurity and discomfort, in shaping adoption intentions. Alaimo et al. (2020) further corroborate this by indicating that higher educational levels and familiarity with online platforms correlate with greater satisfaction in online food shopping experiences.

Hargittai and Hinnant's 2008 paper focuses on the 'second-level digital divide' among young adults aged 18 to 26 in the United States (Hargittai & Hinnant, 2008). While the article itself does not directly explore online food delivery, shopping, or education, it delves deeply into the differing ways young adults engage with the internet based on their socio-economic background. The study highlights that those with a higher level of education and from more resource-rich backgrounds tend to use the web for 'capital-enhancing' activities. This paper can be highly relevant to the current topic as it brings attention to the point that while some young adults may reap substantial socio-economic benefits from digital advancements, such as online education, not all are equally positioned to do so. The paper argues that even among the digitally connected, disparities exist that could perpetuate social inequalities. This insight has implications for understanding how online digital services might contribute differently to the social-economic welfare of youths from diverse backgrounds.

Choi and DiNitto (2013), following on from Hargittai and Hinnant's (2008) assessment of use of online platforms explore the digital divide among low-income, homebound older adults and compares it to homebound adults under 60. Though the focus is not directly on youths or the specific areas of food delivery, shopping, or education, this paper offers valuable insights into how economic factors and age influence internet usage and eHealth literacy. One critical takeaway is the low rate of internet usage among economically disadvantaged groups, regardless of age, which could extend to youths demographics as well. If this digital divide exists among the youths, it could significantly impact their ability to benefit from online services, affecting their social and economic welfare. For example, lack of internet access or skills could limit a young person's ability to take advantage of online educational resources, order food, or shop online, thus constraining their social mobility.

A comparative observation can be made between the studies of Hargittai and Hinnant (2008) and Choi and DiNitto (2013). Both papers delve into the digital divide but focus on different demographics and variables such as age and economic status. Hargittai and Hinnant specifically target young adults, pointing out that a 'second-level digital divide' exists based on socio-economic background, which might limit their benefits from online platforms. On the other hand, Choi and DiNitto extend this observation to low-income, homebound older adults. Their work suggests that economic status significantly affects internet usage across ages. These studies collectively highlight that economic disparities could be a pivotal factor affecting youths engagement with online platforms, signaling a research gap in examining how these disparities translate to actual benefits or disadvantages in the context of online food delivery, shopping, and education among youths.

There has been a shift in e-commerce with this shift evident in the accelerated adoption of e-commerce platforms across various sectors, including food delivery, online shopping, and digital education. The pandemic has underscored the critical role of these platforms in ensuring access to essential goods and services during periods of restrictions and lockdowns. However, it has also exposed disparities in access to technology and digital infrastructure, highlighting the need for further research into the specific determinants of the relationship between e-commerce and the income of youths.

The study by Newman et al. (2017) underlines the disparities in digital access among young people with disabilities, a group often overlooked in discussions about e-commerce. This study, through the lens of Bourdieu's critical theory, reveals that these individuals face unique challenges in accessing digital services, which can impact their economic opportunities in the e-commerce space. It suggests a need for more personalized solutions to ensure digital inclusion for all youths, particularly in the realm of e-commerce.

Livingstone & Helsper (2007) extend this discussion to a broader spectrum of youths, examining how demographic variables such as age, gender, and socioeconomic status affect the quality of internet access. This study highlights the digital divide that can influence the extent of e-commerce usage among different youths groups, thus impacting their income potential. O'Doherty et al. (2018) focus on the barriers to online learning, a significant aspect of the digital economy. While centered on medical education, the findings are relevant for understanding the challenges youths face in engaging with online platforms for educational purposes, which can have direct implications on their income prospects in an increasingly digital economy.

In a study focusing on the digital transformation of the retail sector, Fernandez and Raine (2021) discuss how the move towards online retail can provide youths with opportunities to engage in innovative business models. However, they also highlight that these opportunities are not evenly distributed, often favoring youths in urban areas or those with better access to technology. This uneven distribution can exacerbate existing inequalities.

Additionally, Purba et al. (2021) delve into the adoption of digital payment systems, particularly important in the context of youths entrepreneurship in ecommerce. Their findings indicate that the integration of convenient and secure payment solutions is a key factor in encouraging consumer engagement and trust in online businesses run by youths. Comparing these studies, it's evident that while there is a focus on different aspects of ecommerce—ranging from digital retail to financial technologies—a common thread is the need for young entrepreneurs to navigate a complex landscape of technology, consumer trust, and market access. Huang's (2023) research, study further offers insights into how young entrepreneurs adapted to the pandemic. The study found that attributes like adaptability and digital savviness were crucial for youths running ecommerce businesses

during this period. However, the focus on a specific demographic limits the generalizability of these findings.

### 2.3 Summary of knowledge gaps

The forgoing exposition of literature points to theoretical and empirical gaps. Table 2.1 provides a summary of these gaps.

**Table 2.1 Gaps in research**

| Identified Gap | Type of Gap | Source | Measurement | Relevant Theory |
|---|---|---|---|---|
| Extent of usage and adoption of online platforms in Africa and Nairobi County | Geographic and Contextual | Iacovone & Jaffee (2018); Kwena et al. (2020); Jessica (2017) | Likert Scale/Yes | Diffusion of Innovations Theory; Social Exchange Theory |
| Consumer behavior changes and factors influencing adoption during the pandemic | Subject; Geographic; Variable; Issue-based | Sheth (2020); Ali et al. (2020); De Clercq et al. (2020) | Likert Scale (1-5) | Social Exchange Theory; Diffusion of Innovations Theory |
| Digital divide, quality of service, and psychological factors in online services | Conceptual; Variable; Demographic | Dewan & Riggins (2005); Candra et al. (2021); Francioni et al. (2022) | Likert Scale (1-5) | Diffusion of Innovations Theory; Social Exchange Theory |
| Income, public health, and technology implications in the youths of Nairobi | Geographic; Demographic; Public Health; Technological | Multiple Sources; Fernandez & Raine (2021); | Likert Scale (1-5) | Social Exchange Theory; Diffusion of |

| | | | | |
|---|---|---|---|---|
| | | Purba et al. (2021) | | Innovations Theory |
| Socio-psychological impacts, e-commerce limitations, and policy influences during the pandemic | Contextual; Policy; Theoretical | Alaimo et al. (2020); Dannenberg et al. (2020); Huang (2023); Cropanzano & Mitchell (2005); Monge & Contractor (2003) | Likert Scale (1-5) | Social Exchange Theory; Diffusion of Innovations Theory |
| Digital Divide and Socio-Economic Welfare: Reflects the conflict between the perceived benefits of online platforms for entrepreneurship and the reality of high unemployment rates, emphasizing the need for empirical analysis through labor market theories. | Conceptual and Contextual | Federation of Kenya Employers (2022); Kadima (2021) | Likert Scale (1-5) | Social Exchange Theory; Diffusion of Innovations Theory |
| Online Education Access and Equity: Highlights the disparities in online education access and its impact on learning outcomes among | Contextual | Purba et al. (2021); Dewan & Riggins (2005) | Likert Scale (1-5) | Social Exchange Theory; Diffusion of Innovations Theory |

| | | | | |
|---|---|---|---|---|
| Nairobi's youths, integrating theories of educational equity and technology acceptance. | | | | |
| Unemployment Rates vs. Online Platform Potential: Examines the gap between the high unemployment rates and the potential of online platforms to generate income, highlighting the need for targeted strategies to leverage e-commerce effectively. | Empirical and Contextual | Federation of Kenya Employers (2022); Kadima (2021) | Likert Scale (1-5) | Social Exchange Theory; Diffusion of Innovations Theory |

## 2.4 Conceptual Framework

A conceptual framework is the central theme of the study, which plays a crucial role in guiding the research (Glatthorn & Joyner, 2005). It is a theoretical explanation of the present problem, and it helps to formulate the research hypothesis.

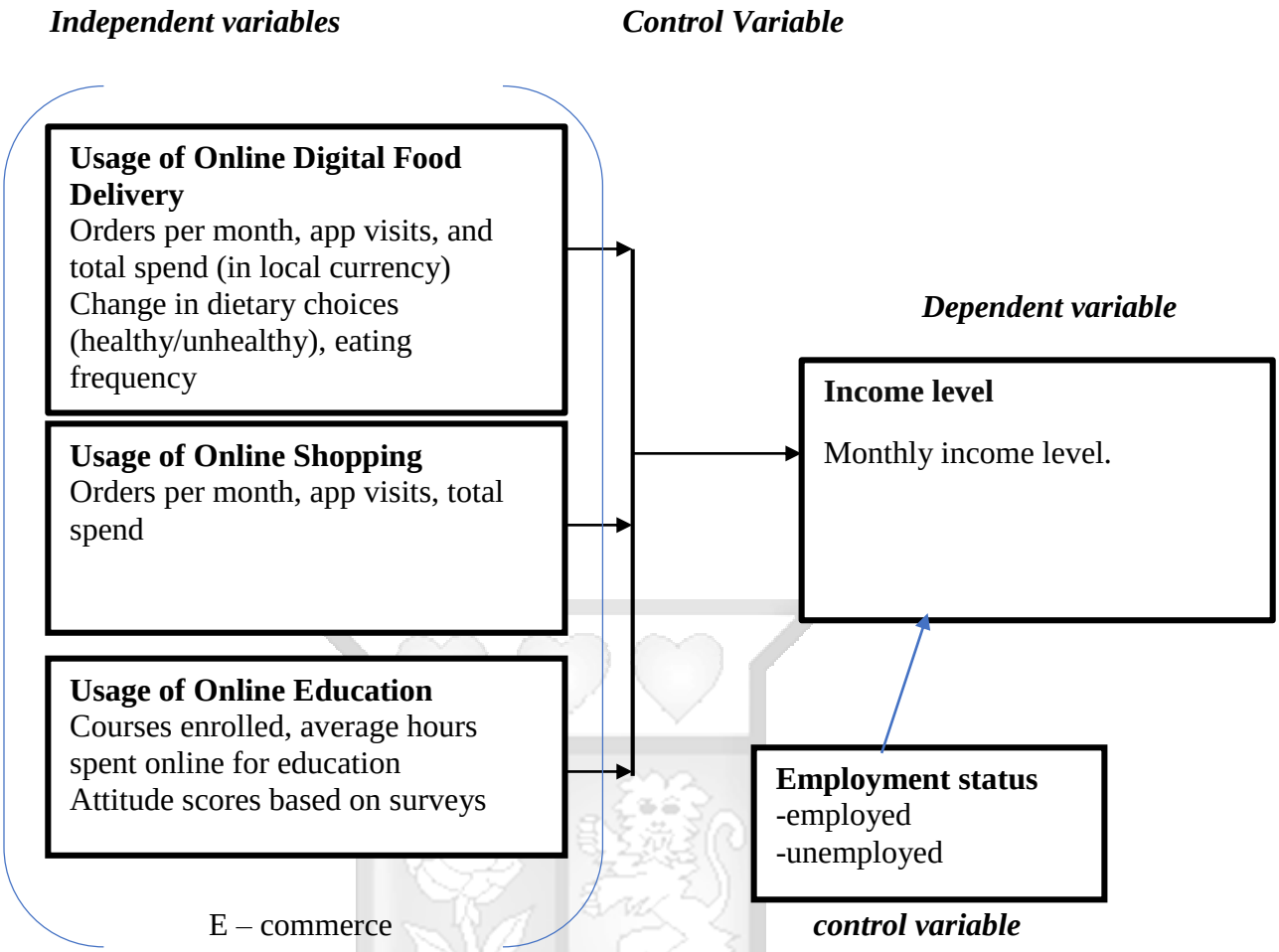


Figure 1.1: Conceptual Framework

## 2.5 Operationalization of Variables

The following table depicts the operationalization of variables in keeping with the conceptual framework of the study.

**Table 2.2 Operationalization of variables**

| Variable | Ecommerce | Variable Indicators | Scales of Measurement | Sourcing |
|---|---|---|---|---|
| Independent | Usage of Online Digital Food Delivery | Orders per month, app visits; spending on online food purchase; change in dietary choices; | Likert scale | Statista (2021), Algheshairy et al. (2022) |

| | | | | |
|---|---|---|---|---|
| | Usage of Online Shopping | Orders per month; app visits; spending on online shopping | Likert scale | Deloitte (2021) |
| | Usage of Online Education | Courses enrolled; average hours spent online for education; attitudes and receptiveness to online education | Likert scale | UNESCO (2020), Jessica (2017)<br>Hong et al. (2023) |
| Dependent | Income Level | high income Level = 1<br>low income Level = 0 | Binary scale | Patgiri (2022) |
| Control | Employment status | Employed = 1<br>Unemployed = 0 | Binary scale | Patgiri (2022) |

**2.5 Chapter summary**

In the literature review, the profound influence of online platforms on Nairobi's youths' income level is meticulously explored. With the digital age's onset, youths in Nairobi have exhibited evolving consumption patterns, significantly impacted by online platforms. Platforms like online food delivery have not just reshaped consumption habits, as highlighted by Algheshairy et al. (2022), but also carved out employment niches, especially for the youths (Brusick, 2018; Ndung'u, 2018). Similarly, the e-commerce landscape, as characterized by Deloitte (2021), has burgeoned, simultaneously fueling youths entrepreneurship (Kwena et al., 2020; Irungu et al., 2015). The sphere of online education, too, emerges as a double-edged sword. While it promises amplified access to education and skill development (UNESCO, 2020; Kadima, 2021), it also reveals a spectrum of attitudes, some of which are reservations among users (Hong et al., 2023). In sum, this literature review intricately ties the tapestry of ecommerce usage to the intricate socio-economic realities of Nairobi's youths, emphasizing the blend of opportunities and challenges. The chapter culminates in the highlighting of research gaps that motivate the current study and the operationalization of the variable that pertain to the research objectives. Based on the

empirical review conducted for each of the objectives, the research of the current paper hypothesizes a link between the use of online platforms and challenges and the dependent variable, level of income of the youths.

# CHAPTER THREE: METHODOLOGY

## 3.1 Introduction

This chapter highlighted the study's methodology and the populations it aims to examine. Research design, Sampling Technique, Target Population, sample size, methods for data collection and analysis are also described, Ethical challenges and considerations are also highlighted.

## 3.2 Research Philosophy

The research philosophy of this study was anchored in positivism, which emphasizes the importance of empirical evidence and measurable facts. Unlike pragmatism, which adopts a more flexible and applied approach, positivism is grounded in the belief that knowledge should be derived from observable and measurable phenomena, thereby ensuring objectivity and reliability. This philosophical stance advocates for the use of quantitative methods to test hypotheses and theories, allowing for the generation of precise and replicable findings. Within a positivist framework, the focus is on identifying and quantifying relationships between variables, with an emphasis on statistical analysis and the generalization of results from a sample to a larger population (Creswell & Creswell, 2017).

Adopting a positivist research philosophy, this study aimed to systematically investigate the effects of online digital food delivery, online shopping, and online education on the income of youths in Nairobi County through the collection and analysis of quantitative data. The identified research gaps were addressed by formulating hypotheses that can be empirically tested using structured methodologies. Surveys were employed to collect data on the usage patterns of online platforms and their subsequent impact on the income of the youths, ensuring that the findings are based on objective criteria and can be subjected to statistical validation (Creswell & Creswell, 2017).

The positivist approach underscores the importance of minimizing researcher bias and maintaining neutrality throughout the research process. By relying on quantitative data and

statistical methods, this study aimed to provide a clear, unbiased view of how engagement with online platforms influences the economic welfare of youths in Nairobi County. This adherence to positivism facilitated the establishment of a solid foundation for understanding the causal relationships within the study's scope, thereby contributing valuable insights to the existing body of knowledge on e-commerce and youths income in an urban African context.

### 3.2 Research Design

The research design for this study adopted a quantitative approach, in line with the positivist philosophy that emphasizes empirical evidence and measurable facts. This design focused on collecting and analyzing numerical data to investigate the effects of online platforms on the income level of youths in Nairobi County. The study deployed a descriptive and correlational, cross-sectional research design, allowing for the measurement of variables as they exist in nature and the examination of relationships between variables without manipulating the study environment (Creswell & Creswell, 2017).

Data was collected through structured surveys designed to capture quantitative information about the usage of online digital food delivery, online shopping, and online education platforms by the youths, as well as their corresponding income. This method ensured the collection of objective data that can be statistically analyzed to identify patterns, trends, and potential causal relationships. The primary focus was on employing statistical tools to analyze the data, including descriptive statistics to summarize the data and inferential statistics to test hypotheses about the relationships between the use of online platforms and youths income.

The choice of a quantitative research design was driven by the goal of achieving high reliability and generalizability of the study findings. By employing standardized measures and statistical analysis, the study aimed to produce results that are replicable and applicable to the broader population of youths in Nairobi County. This approach aligns with the positivist commitment to objectivity and the generation of precise, quantifiable insights that can contribute to a deeper understanding of the economic impacts of e-commerce on youths in an urban African context.

### 3.3 Target Population

The target population for this study consisted of youths residing in Nairobi County, Kenya, specifically defined as individuals between the ages of 15 and 35. This age range captures a vital transitional period from adolescence to adulthood, encompassing a diverse group with varying degrees of engagement with digital platforms and economic activities. According to the National Council for Population and Development (2020), the total youth population in Nairobi County is estimated to be approximately 1.5 million individuals.

The youths in this study include both employed and self-employed individuals. Nairobi County, being the capital and one of the most populous counties in Kenya, serves as a vibrant hub of economic activities, attracting youths seeking employment, entrepreneurial ventures, and educational opportunities. The study acknowledges the diversity within this population, including various socio-economic backgrounds, educational levels, and employment statuses.

By focusing on this demographic, the study aims to understand how the adoption of e-commerce platforms such as online food delivery, online shopping, and online education impacts their income levels. The inclusion of both employed and self-employed youths ensures a comprehensive analysis of how different economic engagements influence the overall economic welfare of the youths in Nairobi County.

To ensure a representative sample, the study employed stratified random sampling techniques, taking into account the different sub-counties within Nairobi. This approach helped capture the diverse experiences and engagement levels of youths across different economic activities and geographic locations within the county.

### 3.4 Sampling Technique

The study exclusively utilized probability sampling techniques to enhance the objectivity and reliability inherent in the positivist approach of this research. Stratified random sampling was the primary method employed to ensure the representativeness of the youths population in Nairobi County for the quantitative survey. This method involved dividing the population into distinct strata or subgroups that are homogenous within and heterogeneous between, such as age groups, gender, educational levels, and employment status. Participants were then randomly selected from each stratum to ensure a comprehensive representation across the diverse youths demographic in Nairobi County (Sekaran & Bougie, 2019).

This approach aligns with the positivist philosophy of the study, emphasizing empirical evidence and measurable outcomes. By employing stratified random sampling, the study aimed to mitigate sampling bias and enhance the generalizability of the findings to the broader population of youths in Nairobi County. The technique ensures that all segments of the youths population have an equal chance of being included in the study, thereby facilitating a nuanced analysis of the impact of online platform usage on income across different demographic groups.

Given the quantitative focus of this study and its alignment with positivist principles, qualitative methods such as interviews and focus groups will not be utilized. This decision underscores the study's commitment to generating statistically valid and generalizable insights based on measurable and observable data. Consequently, the sampling process was concentrate on achieving a sample size that is statistically representative of the youths population in Nairobi County, using a calculated approach to determine the number of participants required to achieve the desired level of confidence and margin of error in the findings.

### 3.5 Sample Size

To calculate the sample size, one needs to consider several factors such as the desired level of confidence, the acceptable margin of error, and the population size. The specific population of youths, defined as individuals who have attained the age of 18 years but have not attained the age of 35 years according to the Constitution of Kenya (2010), as estimated by Odindi (2019) reporting for the OHCHR for the age group 15-24 years is 4,398,554 female and 4,411,586 male. This accounts for 18.83% of the population. Cochran's formula was used to calculate the sample size.

Assuming a 95% confidence level and a 5% margin of error, the following formula is used to calculate the sample size:

$$n = (Z^2 * p * q) / E^2$$

Where:

n = sample size

Z = Z-score corresponding to the desired confidence level (for 95% confidence level, Z = 1.96)

p = estimated proportion of the population with a particular characteristic (if unknown, use 0.5 for maximum sample size)

q = 1 - p

E = margin of error as a proportion (0.05 in this case)

Using these values, the sample size calculation would be:

n = (1.96^2 * 0.5 * 0.5) / (0.05^2)

n = 384.16

Since the calculated sample size is 384.16, it is rounded up to the nearest whole number to ensure an adequate sample size. Therefore, the recommended sample size for your study is 385 participants.

### 3.6 Data Collection

The data collection process for this study was conducted using structured questionnaires, meticulously designed to capture comprehensive quantitative data relevant to the study objectives. These questionnaires were administered to a representative sample of 330 youths residing in Nairobi County, who were selected through stratified random sampling techniques. The questionnaire encompassed several critical sections. The first section gathered demographic information, including age, gender, educational background, and employment status, providing a foundational understanding of the respondents' backgrounds. The subsequent section focused on the usage of online platforms, specifically assessing the frequency and extent of engagement with online digital food delivery, online shopping, and online education platforms. Questions in this section detailed the number of orders, app visits, and spending habits, offering insights into the behavioral patterns of the youths.

The third section measured the respondents' income levels, categorizing their earnings into different brackets to facilitate detailed analysis. This was crucial for understanding the economic impact of e-commerce on the youths. Additionally, the questionnaire included a section on perceptions and challenges, exploring the respondents' views on e-commerce platforms and the obstacles they face in utilizing these services. Data collection was

conducted over a period from March to May 2024. The use of structured questionnaires ensured the collection of standardized data, thereby enhancing the reliability and validity of the statistical analysis to be performed subsequently.

### 3.7 Data Analysis

The data analysis process was carried out using SPSS version 23, enabling the application of various statistical techniques to interpret the collected data. Initially, descriptive statistics were employed to summarize the basic features of the data. This provided essential insights into the demographics of the respondents and general trends in the usage of online platforms among the youths.

To examine the relationships between the independent variables (usage of online digital food delivery, online shopping, and online education) and the dependent variable (income levels), regression analysis was conducted. This involved both simple and multiple regression analyses, which helped in determining the strength and direction of these relationships. The use of multiple regression analysis was particularly important for assessing the combined effect of all independent variables on the income levels of the youths.

Testing normality of residuals using Shapiro-Wilk, Kolmogorov-Smirnov or Q-Q plot visual checks were used to assess adherence to normality, especially vital for small samples (Creswell, 2022). A lack of alignment with the test of normality resulted in incorporation of a ordinal regression model to further test the data. Findings were consistent with those yielded from the ordinary least squared regression model. Multicollinearity, occurring when independent variables are strongly intercorrelated, can distort coefficient estimates. Variance Inflation Factor (VIF) and Tolerance gauges efficiently detect multicollinearity problems (Kothari, 2022).

The use of a regression model in the analysis of the impact of online platforms on the income level of Nairobi County's youths is justified by several factors. Regression analysis is a powerful statistical method that allows researchers to examine the relationship between a dependent variable (in this case, the income level of youths) and one or more independent

variables (usage patterns of online digital food delivery, online shopping, and online education) (Saunders et al., 2012).

The following regression equation models was used:

$$\text{Logit}\,[P / 1- P\,] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X4 + \varepsilon_j \quad \text{..... Equation (1)}$$

Where: P = probability of high monthly income

1-P = probability of low monthly income

*X1*: FoodDelivery - Usage of online digital food delivery

*X2*: OnlineShopping - Usage of online shopping

*X3*: OnlineEdu - Usage of online education

*X4*: employment status

α = constant

*e*: Error term

The coefficients 0, 1,...$\beta$0,$\beta$1,... are the expected change in the dependent variable (IY) for a one-unit change in the respective independent variable, holding all other variables constant. The variables employment and unemployment was further considered as control variables.

### 3.8 Research quality

In ensuring the quality of study, it was crucial to address both validity and reliability. These two pillars are fundamental in establishing the credibility and trustworthiness of the research findings.

#### 3.8.1 Validity

Validity refers to the extent to which a research instrument measures what it intends to measure (Kothari, 2004). In the context of this study, validity ensures that the findings truly reflect the relationship between ecommerce and the income of youths in Nairobi County. Content validity involves ensuring that the measures used cover all aspects of the phenomenon under study. Kothari (2004) emphasizes the importance of content validity in research design to ensure that the instrument adequately covers the subject matter. For this study, ensuring that the questionnaire items and interview questions comprehensively cover aspects of ecommerce usage and income is crucial.

Secondly, construct validity is concerned with the extent to which the study accurately measures and captures the specific concepts at play. Saunders, Lewis, and Thornhill (2012)

highlight construct validity as key to ensuring that theoretical constructs are accurately represented in the research. For instance, the construct of "ecommerce engagement" should be clearly defined and measured in a way that truly reflects the participants' experiences. External validity, related to the generalizability of the findings, will be addressed in the study; Creswell (2014) suggests that the findings from a study should be applicable to other settings or groups beyond the study sample. In this research, considerations was taken to ensure that the findings could be generalized to the population. This was achieved by computing a representative sample size and distributing this sample by region.

### 3.8.2 Reliability

Reliability pertains to the consistency of the measures used in the research. It ensures that if the study were to be replicated under similar circumstances, it would yield comparable results. Internal consistency assesses the consistency of results across items within a test. Saunders et al. (2012) describe this as an essential component, often measured using Cronbach's alpha. A score of 0.7 will be required for each scale (Saunders et al., 2012). In this study, ensuring that all items measuring a particular construct, such as income level, yield consistent results was vital. In conclusion, maintaining high standards of validity and reliability is essential for the credibility of this study. By rigorously applying these principles, the research can provide meaningful and trustworthy insights into the impact of ecommerce on the income of youths in Nairobi County.

The three scales – online food, online shopping, and online education yielded scores of 0.89, 0.81, and 0.85 respectively thus indicating that they were sufficiently reliable in keeping with Saunders et al., 2012 observations. The scales were thus deemed sufficiently useful for the conducting of the study and for reliably measuring the variables of the study.

### 3.9 Ethical Considerations

Informed consent was sought from all participants to ensure their voluntary participation. Participants were provided with detailed information about the study's purpose, procedures, potential risks and benefits, and their right to withdraw at any time. Confidentiality and anonymity was strictly maintained to protect the privacy of participants. All collected data was securely stored and any personal identifying information was coded or anonymized.

Steps were taken to minimize any potential harm or discomfort to participants (Hennessy et al., 2022). A thorough risk assessment was conducted to identify potential risks associated

with the study, particularly related to data privacy and psychological well-being. Appropriate measures were implemented to mitigate these risks and ensure the emotional and psychological well-being of participants. Participants were also provided with support or referrals to counseling services if they experience any distress as a result of their participation.

Additionally, the study upheld principles of diversity and cultural sensitivity. Researchers recognized and respected the cultural values and beliefs of the participants, ensuring that the research process is inclusive and does not discriminate or cause harm based on factors such as gender, age, ethnicity, or socioeconomic status. Institutional approval was obtained from relevant research ethics committees to ensure compliance with ethical guidelines and regulations. Overall, the study prioritized the rights, well-being, and dignity of the participants, while adhering to the highest ethical standards in research conduct. Before proceeding with data collection, approval from the Internal Ethical Review Committee of Strathmore University was sought.

### 3.10 Chapter summary

In this chapter, the study's methodological approach to exploring the impacts of online platforms on Nairobi's youths is detailed. It describes the selection of digital food delivery, online shopping, and online education as focal areas based on their relevance and potential impact on the youths' income level. The chapter outlines the data collection methods, including surveys and interviews with Nairobi County's youths, to gauge usage patterns, perceived benefits, and challenges of these online platforms. The analysis section integrates the collected data to assess how these platforms influence the socio-economic welfare of the youths, focusing on income. The chapter aims to provide a comprehensive understanding that can inform targeted policy interventions.

# CHAPTER FOUR: ANALYSIS AND FINDINGS

## 4.1 Introduction

This section is based on findings forthcoming from the data collected. The purpose of this section is to analyze the data in keeping with the study objectives; to this end the section provides preamble information pertaining to the respondents, offers descriptive insights and culminates in the discussion of inferential findings apparent from the dataset.

## 4.2 Response rate

Achieving The response rate for this study was calculated based on the number of completed surveys returned out of the total distributed. A total of 384 questionnaires were distributed to the youths in Nairobi County. Out of these, 330 were completed and returned, yielding a response rate of approximately 85.94%. This high response rate can be considered robust and reflective of the target population's engagement and willingness to participate in the study. Achieving an 85.94% response rate is commendable, especially in research contexts involving personal and potentially sensitive topics such as income.

Participants were reluctant to disclose their income details due to privacy concerns and the sensitive nature of financial information. Studies have shown that questions about personal finances often yield lower response rates due to the perceived intrusiveness (Tourangeau & Yan, 2007). Respondents were further concerned about the confidentiality of their responses and how the data will be used, affecting their willingness to participate (Singer & Couper,

2017). Variations in socioeconomic status among respondents can influence their comfort levels in discussing income, potentially impacting response rates (Groves et al., 2009).

### 4.3 Demographics

The study collected responses from 330 participants out of the targeted 384, yielding an impressive response rate of 85.94% (Table 4.1). This section presents the demographic profile of the respondents, focusing on their employment status and area of residence. Understanding the demographic composition of the respondents is crucial for contextualizing the findings and drawing relevant conclusions about the impact of e-commerce on the income of youths in Nairobi County.

**Table 4.1 Respondent's profile**

| Variable\Statistic | Nbr. of observations | Nbr. of missing values | Nbr. of categories | Mode | Mode frequency | Categories | Frequency per category | Rel. frequency per category (%) |
|---|---|---|---|---|---|---|---|---|
| What is your current employment status? | 330 | 0 | 4 | Employed | 142 | Employed | 142.000 | 43.030 |
| | | | | | | Self-Employed | 106.000 | 32.121 |
| | | | | | | Student | 43.000 | 13.030 |
| | | | | | | Unemployed | 39.000 | 11.818 |
| What is your area of residence? | 330 | 0 | 16 | Kasarani | 37 | Dagoretti North | 15.000 | 4.545 |
| | | | | | | Dagoretti South | 16.000 | 4.848 |
| | | | | | | Embakasi Central | 18.000 | 5.455 |
| | | | | | | Embakasi East | 28.000 | 8.485 |
| | | | | | | Embakasi North | 15.000 | 4.545 |
| | | | | | | Embakasi South | 14.000 | 4.242 |
| | | | | | | Embakasi West | 18.000 | 5.455 |
| | | | | | | Kamukunji | 16.000 | 4.848 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Kasarani | 37.000 | 11.212 |
| | | | | | | Kibera | 15.000 | 4.545 |
| | | | | | | Langata | 24.000 | 7.273 |
| | | | | | | Makadara | 14.000 | 4.242 |
| | | | | | | Mathare | 17.000 | 5.152 |
| | | | | | | Roysambu | 32.000 | 9.697 |
| | | | | | | Ruaraka | 23.000 | 6.970 |
| | | | | | | Westlands | 28.000 | 8.485 |

The majority of the respondents (43.03%) were employed, followed by those who were self-employed (32.12%). A smaller proportion of the respondents were students (13.03%) and unemployed (11.82%). This distribution indicates a relatively high level of economic engagement among the youths, which is relevant for assessing the impact of e-commerce activities on their income. The significant representation of both employed and self-employed youths suggests that a substantial portion of the respondents are actively involved in the labor market, which may influence their interaction with and benefits from e-commerce platforms.

Kasarani had the highest number of respondents (11.21%), followed by Roysambu (9.70%), Embakasi East and Westlands (each with 8.49%). The remaining areas had a more even distribution of respondents, with each contributing between 4.24% and 7.27% of the total. This diverse distribution indicates that the study captured a wide geographic representation of Nairobi County, enhancing the generalizability of the findings. The high response rates from areas like Kasarani and Roysambu, which are known for their vibrant economic activities and higher population densities, suggest that these areas might be more engaged in e-commerce activities.

The demographic profile of the respondents provides important context for understanding the impact of e-commerce on the income of youths in Nairobi County. The high response rate, especially given the sensitivity of income-related questions, underscores the participants' recognition of the study's relevance. The employment status distribution, with a significant portion of employed and self-employed respondents, highlights the active economic participation of Nairobi's youths. This is pertinent because employed and self-

employed individuals are likely to have more disposable income and may engage more frequently with e-commerce platforms.

Furthermore, the diverse geographic representation ensures that the findings are reflective of the varied socio-economic landscapes within Nairobi County. Areas with higher participation rates, such as Kasarani and Roysambu, are critical in understanding the localized impact of e-commerce. These areas are known for their economic activities and better access to digital infrastructure, which could influence the level of engagement with e-commerce platforms.

The respondents' profile therefore indicates a robust and diverse sample, enhancing the reliability of the study's findings. The high response rate and detailed demographic information provide a solid foundation for analyzing how e-commerce influences the income levels of youths in Nairobi County. The insights drawn from this demographic analysis will be integral in formulating targeted recommendations for policymakers and stakeholders aiming to leverage e-commerce for economic empowerment of the youths.

### 4.4 Descriptive statistics

This section presents the descriptive statistics of key variables examined in the study. Descriptive statistics provide a summary of the data, offering insights into the central tendencies, dispersions, and overall patterns within the dataset. By analyzing these statistics, we gain a clearer understanding of the respondents' income levels and their usage patterns of various e-commerce platforms, including online digital food delivery, online shopping, and online education. This foundational analysis is crucial for interpreting the broader implications of e-commerce on the economic welfare of youths in Nairobi County. The following subsections detail the findings for each variable, beginning with an overview of the income levels among the respondents, followed by their engagement with online digital food delivery, online shopping, and online education platforms.

#### 4.4.1 Income levels

The analysis of income levels reveals significant insights into the economic conditions of the respondents. The median income, which is the midpoint of the dataset, stands at 22,000 KSH. This indicates that half of the respondents earn less than or equal to 22,000 KSH per month, while the other half earn more. The mean income is higher, at 33,656 KSH,

suggesting that there are respondents with substantially higher incomes which pull the average upwards.

The large standard deviation of 43,196 KSH indicates considerable variability in income among the respondents. This high variability suggests the presence of both low-income and high-income individuals within the sample. The disparity between the mean and median income further highlights the skewed nature of the income distribution, with a few respondents earning significantly more than the majority.

The income data is crucial for understanding the context in which youths engage with e-commerce platforms. The substantial variation in income levels may affect how different segments of the youth population access and benefit from online digital food delivery, online shopping, and online education. For instance, higher-income youths might be more frequent users of these platforms due to greater disposable income, while lower-income youths might face constraints that limit their usage.

These findings underscore the importance of considering income disparities when assessing the impact of e-commerce on the economic welfare of youths. Policies and interventions aimed at promoting digital inclusion and economic empowerment through e-commerce must account for these income differences to be effective. By addressing the needs of both lower and higher-income youths, stakeholders can ensure that the benefits of e-commerce are more equitably distributed across the population.

**Table 4.2 Descriptive findings on Income levels**

| Statistic | What is your average monthly income (KSH) |
|---|---|
| Nbr. of observations | 330 |
| Nbr. of missing values | 0 |
| Median | 22000 |
| Mean | 33656 |
| Standard deviation (n-1) | 43196 |

The variables were further assessed on a quartile distribution basis to assess the allocation of the variables in an income level continuum across four categories. The frequencies, per category and indicated in table 4.3. The quartile cutoffs were as follows 10,000, 22,000, and 40,000 for Q1, Q2 and Q3 respectively.

**Table 4.3 Distribution by quartile**

| Variable\Statistic | Nbr. of observations | Nbr. of missing values | Nbr. of categories | Mode | Mode frequency | Categories | Frequency per category | Rel. frequency per category (%) |
|---|---|---|---|---|---|---|---|---|
| Income Category | 330 | 0 | 4 | 1 | 86 | 1 | 86.000 | 26.061 |
| | | | | | | 2 | 79.000 | 23.939 |
| | | | | | | 3 | 83.000 | 25.152 |
| | | | | | | 4 | 82.000 | 24.848 |

4.4.2 Online digital food delivery

The mean values for the statements were slightly lower than the median values, with averages of 3.291 for frequency of use, 3.378 for spending, and 3.285 for changes in dietary choices (table 4.4). These means indicate that while there is a strong trend towards agreement with the statements, not all respondents are equally engaged with online food delivery platforms. Some respondents may use these services less frequently or spend less on them, indicating variability in usage patterns.

The standard deviations for the statements, ranging from 1.184 to 1.262, indicate a moderate level of dispersion around the mean. This variability suggests that while many respondents frequently use and spend on online food platforms, and have changed their dietary choices as a result, there is still a notable proportion of the population with differing levels of engagement. The relatively high median and mean values highlight the importance of online food delivery platforms in the daily lives of many youths in Nairobi County. The change in dietary choices suggests that these platforms are not only altering how frequently and how much respondents spend on food but also impacting their eating habits. This could have broader implications for health and lifestyle, as well as economic considerations such as spending patterns and budget allocations.

These findings underscore the role of online food delivery services as a significant component of modern consumer behavior among youths in Nairobi County. Policymakers

and businesses can leverage this information to better understand consumer needs and tailor services to meet the demands of this demographic. Additionally, interventions aimed at promoting healthy eating habits can consider the influence of these platforms on dietary choices.

**Table 4.4 Descriptive findings on usage of online digital food delivery**

| Statistic | Respondents | Mean | Standard deviation (n-1) |
|---|---|---|---|
| [I frequently use online food platforms every month] | 330 | 3.291 | 1.262 |
| [I spend substantial amounts on food platforms every month] | 330 | 3.378 | 1.184 |
| [My dietary choices have changed on account of using online food platforms.] | 330 | 3.285 | 1.248 |



### 4.4.3 Use of online shopping

The analysis of online shopping behavior among the respondents provides valuable insights into their engagement with e-commerce platforms. The median value of 4 across all three statements suggests a general tendency towards frequent ordering, browsing, and increased spending on online shopping platforms. This indicates that online shopping is a regular activity for many respondents.

The mean values for the statements were 3.373 for the frequency of placing orders, 3.686 for the frequency of visiting online stores to browse, and 3.431 for increased spending (Table 4.4). These means, while slightly lower than the median values, still indicate a strong trend towards regular engagement with online shopping activities. The higher mean for

browsing frequency suggests that respondents often visit online stores even if they do not always make a purchase.

The standard deviations for the statements, ranging from 1.099 to 1.204, indicate a moderate level of variability around the mean. This variability suggests that while many respondents frequently engage in online shopping activities, there are differences in the frequency and extent of their engagement. Some respondents may place orders more often, browse more frequently, or spend more than others.

The high median and mean values highlight the significance of online shopping platforms in the lives of youths in Nairobi County. The frequent visits to online stores and increased spending reflect the growing reliance on e-commerce for purchasing goods and accessing a wider range of products. This behavior aligns with global trends where online shopping has become an integral part of consumer habits.

These findings emphasize the importance of online shopping as a key component of modern consumer behavior among youths in Nairobi County. Businesses and policymakers can use this information to better understand the shopping preferences and behaviors of this demographic, tailoring their services and policies to meet the needs of young consumers. Additionally, understanding the variability in engagement can help in designing targeted interventions to support and enhance the online shopping experience for different segments of the youth population.

**Table 4.5 Descriptive findings on usage of online shopping**

| Statistic | Respondents | Mean | Standard deviation (n-1) |
|---|---|---|---|
| Kindly [I frequently place orders in a month] | 330 | 3.373 | 1.176 |
| Kindly [I frequently visit online stores to browse for content] | 330 | 3.686 | 1.099 |

| | | | |
|---|---|---|---|
| Kindly [I have increased my spend on online shopping] | 330 | 3.431 | 1.204 |

### 4.4.4 Use of Online education

The mean values for the statements were 3.437 for enrollment in courses, 3.615 for hours spent studying online, and 4.025 for positive attitudes towards online education (table 4.5). These means suggest that, on average, respondents are actively engaged in online education, spending considerable time studying and maintaining a positive outlook towards digital learning. The slightly lower mean for course enrollment compared to the other two statements indicates that while many respondents are enrolled in online courses, some may not be as actively engaged or may be participating in fewer courses.

The standard deviations, ranging from 0.951 to 1.186, indicate a moderate level of variability around the mean. This variability suggests that there are differences in how respondents engage with online education. Some respondents may spend more time studying or hold stronger positive attitudes towards online education compared to others.
The consistently high median and mean values highlight the importance of online education in the lives of youths in Nairobi County. The positive attitudes towards online education suggest a general acceptance and recognition of the benefits that digital learning platforms offer, such as flexibility, accessibility, and the ability to acquire new skills and knowledge. These findings underscore the critical role of online education in enhancing the educational opportunities for youths in Nairobi County. Policymakers and educational institutions can use this information to better understand the learning preferences and behaviors of young learners, tailoring their online education offerings to meet the needs of this demographic. Additionally, the variability in engagement suggests that targeted support and resources may be needed to ensure that all youths can fully benefit from online education, regardless of their initial level of engagement or enthusiasm.

The positive engagement with online education platforms reflects a significant shift towards digital learning, which can have far-reaching implications for the personal and professional development of youths in Nairobi County. By leveraging these insights, stakeholders can enhance the quality and accessibility of online education, thereby contributing to the broader goal of educational empowerment and economic advancement for the youth population.

**Table 4.6 Descriptive findings on usage of online education**

| Statistic | Respondents | Mean | Standard deviation (n-1) |
|---|---|---|---|
| [I am enrolled in courses] | 330 | 3.437 | 1.186 |
| [I spend many hours studying online] | 330 | 3.615 | 1.098 |
| [I have a positive attitude to online education] | 330 | 4.025 | 0.951 |

## 4.5 Impact of usage of online digital food delivery on income of youths in Nairobi County

This section explores the impact of online digital food delivery usage on the income levels of youths in Nairobi County. To thoroughly understand this relationship, various statistical analyses were conducted, including assumptions testing, multicollinearity assessment, correlation analysis, and regression modeling. The analysis aims to determine whether engagement with online food delivery platforms significantly influences the average monthly income of the respondents. By examining the correlation and linear relationship between the dependent variable (income) and independent variables (usage of online food platforms, online shopping, and online education), this section provides a comprehensive overview of the economic implications of digital food delivery services on the youth demographic in Nairobi County.

### 4.5.1 Assumptions testing

This subsection focuses on testing the underlying assumptions necessary for conducting regression analysis to understand the impact of online digital food delivery usage on the income of youths in Nairobi County. The assumptions tested include multicollinearity, normality, homoscedasticity, and linearity, which are crucial for ensuring the validity and reliability of the regression results. By examining these assumptions, we aim to confirm that the data meets the necessary criteria for accurate and meaningful statistical analysis.

### 4.5.1 Multicollinearity

Multicollinearity occurs when independent variables in a regression model are highly correlated, which can distort the estimates of the coefficients and affect the model's reliability. To assess multicollinearity, we examined the Pearson correlation coefficients among the independent variables: usage of online food platforms, online shopping, and online education. According to Field (2013), multicollinearity is typically indicated by correlation coefficients greater than 0.8 hence no multicollinearity was observed in the study.

These significant spearman correlations between the independent variables suggest that youths who frequently use one type of online platform are likely to use others as well. For instance, those who often use online food delivery services are also likely to engage in online shopping and online education. This pattern indicates a broader trend of digital engagement among the respondents, where familiarity and comfort with one form of online service may encourage the use of other services.

The strong correlation between online food delivery and online shopping ($\rho = 0.720$) suggests that these activities might be complementary, potentially driven by similar factors such as convenience, accessibility, and digital literacy. The moderate correlations involving online education imply that while there is some overlap in the user base, the motivations and usage patterns for educational platforms might differ slightly from those for food delivery and shopping.

These findings highlight the interconnected nature of digital platform usage among youths in Nairobi County. While income level does not appear to significantly influence the usage of these platforms, there is a clear tendency for multiple forms of digital engagement to co-occur. This suggests that initiatives aimed at increasing digital literacy and access could have widespread benefits across various types of online activities, potentially enhancing the overall digital experience and utility for youths.

**Table 4.7 Correlations**

**Correlations (a)**

| | | Average monthly income (KSH) | Online food platform | Online shopping | Online education |
|---|---|---|---|---|---|
| Pearson Correlation | Average monthly income (KSH) | 1.000 | -.090 | -.085 | -.041 |
| | Online food platform | -.090 | 1.000 | .727 | .300 |
| | Online shopping | -.085 | .727 | 1.000 | .306 |
| | Online education | -.041 | .300 | .306 | 1.000 |
| Sig. (1-tailed) | Average monthly income (KSH) | . | .053 | .064 | .231 |
| | Online food platform | .053 | . | .000 | .000 |
| | Online shopping | .064 | .000 | . | .000 |
| | Online education | .231 | .000 | .000 | . |
| N | Average monthly income (KSH) | 326 | 326 | 326 | 326 |
| | Online food platform | 326 | 326 | 326 | 326 |
| | Online shopping | 326 | 326 | 326 | 326 |
| | Online education | 326 | 326 | 326 | 326 |

**Correlations (b)**

| | | | Income Category | Online food platform | Online shopping | Online education |
|---|---|---|---|---|---|---|
| Spearman's rho | Income Category | Correlation Coefficient | 1.000 | .061 | .094 | .064 |
| | | Sig. (2-tailed) | . | .272 | .089 | .248 |
| | | N | 330 | 328 | 328 | 327 |
| | Online food platform | Correlation Coefficient | .061 | 1.000 | .720** | .330** |
| | | Sig. (2-tailed) | .272 | . | .000 | .000 |
| | | N | 328 | 328 | 327 | 326 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Online shopping | Correlation Coefficient | .094 | .720** | 1.000 | .318** |
| | | Sig. (2-tailed) | .089 | .000 | . | .000 |
| | | N | 328 | 327 | 328 | 327 |
| | Online education | Correlation Coefficient | .064 | .330** | .318** | 1.000 |
| | | Sig. (2-tailed) | .248 | .000 | .000 | . |
| | | N | 327 | 326 | 327 | 327 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

### 4.5.2 Correlation between dependent and independent variables

The correlation analysis between the dependent variable (average monthly income) and the independent variables (online food platform usage, online shopping, and online education) shows weak negative correlations with all three independent variables. Specifically, the correlation coefficients are -0.090 for online food platforms, -0.085 for online shopping, and -0.041 for online education. These correlations are not statistically significant at the 0.05 level, indicating that there is no strong linear relationship between income and the usage of these online platforms among the respondents (Field, 2013).

None of these spearman correlations are statistically significant at the 0.05 level, suggesting that the income levels of youths in Nairobi County, categorized by quartiles, do not have a significant relationship with their usage of online food delivery, shopping, or education platforms. This finding aligns with the results from the regression analysis, indicating that while these online activities are popular, they do not significantly influence or reflect the income levels of the users. The weak correlations imply that other factors, such as personal preferences, lifestyle choices, and accessibility, may play a more crucial role in determining the usage of these online platforms.

### 4.5.3 Linear relationship between dependent and independent variables

To further explore the relationships between income and the usage of online platforms, we conducted a regression analysis. Before running the regression, we checked for the linearity of the relationships using Cook's Distance to identify any potential influential data points.

Cook's Distance values below 1 are generally considered acceptable (Cook & Weisberg, 1982). The Cook's Distance value of 0.147 suggests that there are no highly influential points that disproportionately affect the regression results.

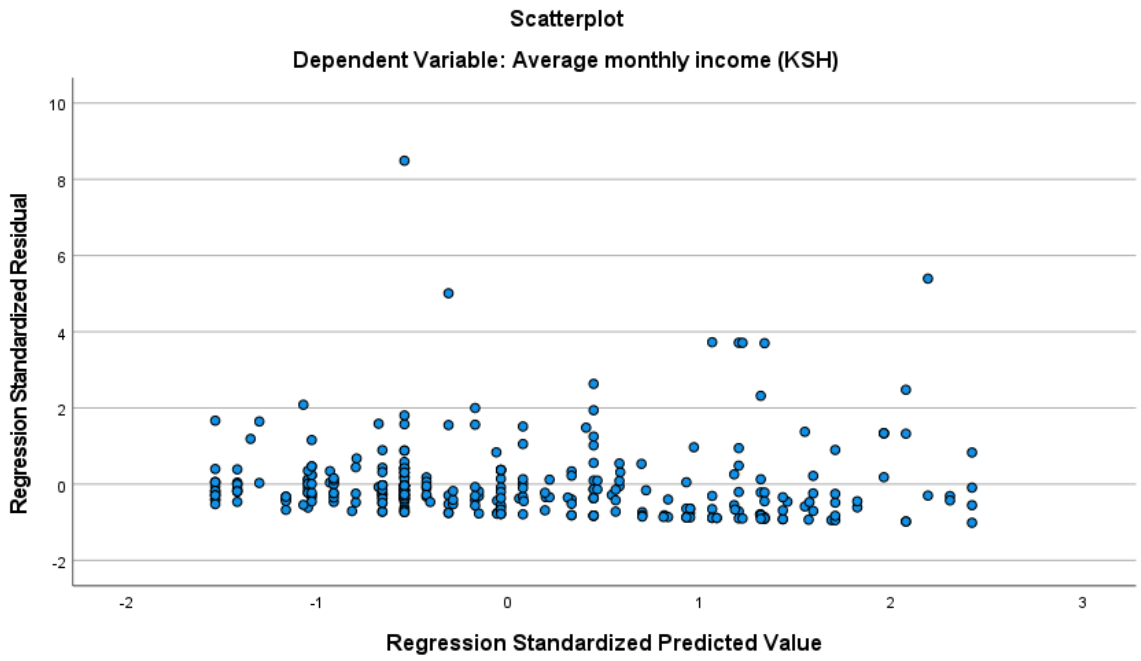


Figure 4.1 Scatterplot of residuals

**Table 4.8 Model fitting information**

| Model Fitting Information | | | | |
|---|---|---|---|---|
| Model | -2 Log Likelihood | Chi-Square | df | Sig. |
| Intercept Only | 422.518 | | | |
| Final | 400.767 | 21.751 | 13 | .059 |
| Link function: Logit. | | | | |

The Chi-Square statistic of 21.751 with 13 degrees of freedom represents the improvement in fit provided by the final model compared to the intercept-only model. A lower -2 Log Likelihood value for the final model compared to the intercept-only model indicates that the inclusion of the predictors (online platform usage) improves the model's ability to explain the variability in income levels.

Despite the marginal significance (p = 0.059), the findings suggest that the final model does offer some improvement over the intercept-only model, though not to a highly statistically

significant degree. This outcome may reflect the complexity and multifaceted nature of the relationship between income levels and online platform usage, which might not be fully captured by the variables included in the model.

### 4.8 Regression analysis

To further assess the validity of the findings, a subsequent binary logistic regression model was run with employment status (employed or unemployed) run as a control variable to assess the impact of this metric on the outcome of usage of the online facilities. Findings from the assessment are subsequently presented.

The model summary shows that the -2 Log likelihood is 419.168, with a Cox & Snell R Square of 0.095 and a Nagelkerke R Square of 0.127. These values indicate that the model explains a modest portion of the variance in income levels, suggesting other factors may be at play beyond those included in this analysis.

**Table 4.9 Model summary**

| Model Summary | | | |
|---|---|---|---|
| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
| 1 | 419.168[a] | .095 | .127 |
| a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001. | | | |

The Hosmer and Lemeshow Test, with a Chi-square value of 10.887 and a significance level of 0.208.

**Table 4.10 Hosmer and Lemeshow Test**

| Hosmer and Lemeshow Test | | | |
|---|---|---|---|
| Step | Chi-square | df | Sig. |
| 1 | 10.887 | 8 | .208 |

Examining the variables in the equation, it becomes evident that the usage of online food platforms, online shopping, and online education does not significantly impact income levels. The coefficient for the usage of online food platforms is -0.104, with a p-value of

0.517, indicating no significant relationship. Similarly, the coefficient for the usage of online shopping is 0.242, with a p-value of 0.187, and the coefficient for the usage of online education is 0.034, with a p-value of 0.809. These results suggest that engagement with these e-commerce platforms does not significantly alter whether youths fall above or below the mean income level.

In contrast, the employment status variable demonstrates a significant impact on income levels. The coefficient for being employed versus unemployed is 1.302, with a highly significant p-value of 0.000. This coefficient translates to an odds ratio of 3.676, indicating that employed youths are significantly more likely to fall above the mean income level compared to their unemployed counterparts. This substantial and significant finding underscores the critical role of employment status in determining income levels, overshadowing the influence of e-commerce usage.

These results align with the initial findings that e-commerce engagement alone does not significantly impact income levels among Nairobi's youths. The lack of a significant relationship between e-commerce usage and income is not a fluke but rather highlights that while these platforms offer potential benefits, they are insufficient on their own to elevate income levels without addressing underlying factors such as employment. The clear and robust impact of employment status on income emphasizes the importance of job opportunities and economic conditions in shaping youths' financial outcomes. This reinforces the need for comprehensive strategies that go beyond promoting e-commerce usage to include broader economic and employment initiatives to improve the economic status of youths in Nairobi County.

**Table 4.11 Variables in the equation**

**Variables in the Equation**

| | | | | | | | | 95% C.I.for EXP(B) | |
|---|---|---|---|---|---|---|---|---|---|
| | | B | S.E. | Wald | df | Sig. | Exp(B) | Lower | Upper |
| Step 1[a] | Usage_of_Online_food_platform | -.104 | .160 | .421 | 1 | .517 | .902 | .659 | 1.233 |
| | Usage_of_online_shopping | .242 | .183 | 1.737 | 1 | .187 | 1.274 | .889 | 1.825 |
| | Usage_of_Online_education | .034 | .141 | .059 | 1 | .809 | 1.035 | .785 | 1.363 |
| | Employed/Unemployed | 1.302 | .239 | 29.757 | 1 | .000 | 3.676 | 2.303 | 5.867 |
| | Constant | -1.212 | .556 | 4.743 | 1 | .029 | .298 | | |

a. Variable(s) entered on step 1: Usage_of_Online_food_platform, Usage_of_online_shopping, Usage_of_Online_education, Employed/Unemployed.

In summary, the findings in Table 4.11 indicated that the usage of online food platforms, the usage of online shopping and the usage of online education lacked significant effect on youth income. the findings also indicated that the employment status of the youth had a significant and positive effect on income of youth in Nairobi ($\beta = 1.302$, p-value = 0.000).

# CHAPTER FIVE:

# DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This chapter synthesizes the findings of the study, drawing comprehensive conclusions and offering recommendations based on the results. The discussion centers on the impact of online digital food delivery, online shopping, and online education on the income of youths in Nairobi County. Additionally, this chapter highlights the implications of these findings, acknowledges the study's limitations, and suggests avenues for further research.

## 5.2 Discussion of findings

This chapter provides a discussion of findings in keeping with the study objectives. Each section is therefore aligned with a specific objective with the discussion seeking to incorporate the current study's findings into broader literature as highlighted in the literature review section of the paper.

### 5.2.1 Impact of usage of online digital food delivery on income of youths in Nairobi County

The analysis indicated that the usage of online digital food delivery platforms does not significantly impact the income levels of youths in Nairobi County. Despite the increasing engagement with these platforms, reflected by the frequent use and substantial spending, the regression analysis revealed no significant relationship between online food delivery usage and youth income. This finding aligns with existing literature that suggests the economic benefits of online food delivery platforms may be limited to specific demographics or regions (Beresford et al., 2020; Karijo et al., 2021).

The weak negative correlation observed in this study underscores that while online food delivery is popular among youths, it does not play a critical role in enhancing their income. Factors such as job opportunities, education, and overall economic conditions are more likely to influence their financial status (Maingi & Wachira, 2022). The popularity of online food delivery among youths is likely driven by convenience and lifestyle choices rather than economic benefits. Youths may choose these platforms for the ease of access to a variety of food options and the time saved in meal preparation, particularly for those balancing work and education where time is a premium resource (Smith et al., 2020).

Moreover, the costs associated with frequent use of online food delivery platforms may actually offset any minor economic benefits. Delivery fees, service charges, and higher prices compared to in-person dining could lead to increased spending without a corresponding increase in income. Therefore, while these platforms are integral to the modern lifestyle of many youths, their impact on income remains minimal.

These findings suggest that policymakers and stakeholders should focus on broader economic factors that directly influence youth employment and income levels rather than the usage patterns of online food delivery services. Initiatives that address job creation, education, and economic conditions are likely to have a more substantial impact on improving the income levels of youths in Nairobi County.

### 5.2.2 Impact of usage of online shopping on income of youths in Nairobi County

Similarly, the impact of online shopping on the income of youths was found to be insignificant. This suggests that while online shopping is a common activity among youths, it does not have a direct economic benefit or detriment. The convenience and variety offered by online shopping platforms (Yousafzai et al., 2020) do not translate into income changes for the users.

This finding is consistent with studies that highlight the multifaceted nature of e-commerce impacts, where benefits are often more related to consumer satisfaction and lifestyle improvements rather than direct financial gains (Ndemo, 2021; Nyamushamba et al., 2020). Online shopping provides access to a broader range of products, often at competitive prices, and the convenience of home delivery. However, these advantages do not necessarily improve the economic conditions of the consumers. Instead, they enhance the quality of life by providing more choices and saving time.

The study also suggests that while youths engage in online shopping, this activity is more reflective of consumer behavior trends rather than economic empowerment. Many youths may use online shopping to purchase non-essential items, driven by marketing and the appeal of online discounts, rather than as a means to improve their financial standing. Consequently, the impact of online shopping on income is indirect at best. The results imply that efforts to leverage e-commerce for economic growth should be complemented with initiatives that enhance financial literacy and responsible spending among youths.

### 5.2.3 Impact of usage of online education on income of youths in Nairobi County

The usage of online education platforms also showed no significant impact on the income of youths in Nairobi County. Despite the potential for online education to enhance skills and employability (Leppisaari et al., 2021), the short-term economic impact appears negligible. This could be due to various factors, including the quality of the education received, the alignment of skills with market demands, and the time required for educational benefits to materialize economically (Juma et al., 2021).

While online education is a critical tool for long-term personal and professional development, its immediate impact on income might be limited (Alzaza & Yaakub, 2020). Many online courses may not immediately translate into higher-paying jobs or improved income, especially if the skills acquired are not directly applicable to the job market. Furthermore, the efficacy of online education depends heavily on the learners' ability to effectively engage with the content, their access to necessary technology, and the support they receive during the learning process (Khalid & Ali, 2021).

The findings suggest that while online education has significant potential for enhancing long-term career prospects, its immediate economic benefits are less clear. Policymakers and educational institutions should therefore focus on improving the quality and relevance of online education programs, ensuring they are aligned with the current job market demands. Additionally, providing support systems for online learners, such as mentorship and career counseling, could enhance the effectiveness of these educational platforms and eventually lead to better economic outcomes for youths.

## 5.3 Conclusion

The study concluded that the usage of online digital food delivery, online shopping, and online education did not significantly influence the income levels of youths in Nairobi County. While these online platforms were widely used and appreciated for their convenience and accessibility, they did not directly translate into economic benefits for the users. This suggests that the determinants of income among youths are more complex and multifaceted, involving broader economic, social, and educational contexts. The lack of significant economic impact from these online activities implies that youths' income levels are more strongly influenced by factors such as employment opportunities, educational

attainment, and socio-economic conditions. Therefore, when designing policies aimed at improving the economic well-being of youths, it is crucial to consider these broader factors. While digital platforms offer numerous benefits, their role in economic empowerment should be understood within a larger context of structural and systemic factors that affect income and employment.

### 5.4 Implication of findings

The findings of this study have significant implications for various stakeholders, including industry players, policymakers, and academicians. The study revealed that the usage of online digital food delivery platforms did not significantly impact the income levels of youths in Nairobi County. For businesses in the online food delivery sector, this finding suggests that while their platforms are popular for convenience, they do not directly enhance the economic status of their users. Industry players should consider integrating value-added services such as loyalty programs, financial literacy workshops, or partnerships with local businesses to create job opportunities that can have a more direct impact on users' incomes.

For policymakers, these findings indicate that policies aimed solely at increasing access to digital food delivery services may not be sufficient to improve economic outcomes for youths. Instead, there should be a focus on creating an enabling environment that includes job creation, enhancing education quality, and aligning skills with market needs to drive broader economic growth. Similarly, the study showed that frequent online shopping did not correlate significantly with higher or lower income levels. For e-commerce businesses, this result highlights the need to go beyond providing convenience and variety. These businesses should consider offering training programs, internships, or job placements that can help bridge the gap between education and employment. Collaborating with educational institutions to offer certifications or practical skills training related to e-commerce can also be beneficial.

Lastly, the study found that the usage of online education platforms did not have a significant immediate impact on income levels. This finding underscores the importance of aligning online education programs with current market demands. Academicians should focus on developing curriculum and courses that provide practical and market-relevant skills. Additionally, integrating career counseling and job placement services into online

education platforms can help students translate their learning into tangible economic benefits.

### 5.5 Limitations

This study had several limitations. The cross-sectional design limited the ability to draw causal inferences. The reliance on self-reported data may have introduced response bias, and the focus on Nairobi County means the findings may not be generalizable to other regions. Additionally, the study did not account for other potential moderating variables such as the quality of internet access and specific economic sectors. These limitations highlight the need for cautious interpretation of the results. Future studies could benefit from a longitudinal approach to better understand the long-term impacts of online platform usage on income. Expanding the geographic scope to include diverse regions would enhance the generalizability of the findings. By addressing these limitations, future research can provide more robust insights into the economic implications of digital platform usage..

### 5.6 Suggestions for further studies

Future research should consider longitudinal designs to better capture the long-term impacts of online platform usage on income. Studies could also explore the moderating effects of internet quality, economic sectors, and demographic factors. Expanding the geographic scope beyond Nairobi County would enhance the generalizability of the findings. Moreover, qualitative research could provide deeper insights into the personal experiences and challenges faced by youths in utilizing these platforms for economic gain. Exploring the role of digital literacy and its impact on the effective use of online platforms could provide valuable insights. Additionally, investigating how specific online courses align with job market demands and their impact on employability would be beneficial. Collaborating with businesses to understand their perceptions of online education credentials and the skills they value could also inform educational strategies. These avenues for further research would contribute to a more comprehensive understanding of the economic impacts of online platform usage on youths.

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## APPENDICES

### Appendix I: Research Budget

| Description of Activity | Budget Cost (Kshs) |
|---|---|
| **Planning and Purchase of research materials** | 50,000.00 |
| **Editing and Proof reading and of the research report** | 10,000.00 |
| **Research Assistants** | 100,000 |
| **Miscellaneous** | 40,000.00 |
| **Total Budget** | 200,000.00 |

**Appendix II: Research Work Plan**

| ACTIVITY / DATE | April 24 | May -24 | May -24 |
|---|---|---|---|
| Applying for research license | | | |
| Conduct the research | | | |
| Analyzing research data | | | |

**Appendix III: Questionnaire**

Questionnaire: Exploring the impact of online food shopping and e-commerce education on the income of youths in Nairobi County

**Section A: Biodemographic Information**

1. Employment Status
   [ ] Employed
   [ ] Unemployed
   [ ] Student
   [ ] Self-Employed

2. Area of Residence in Nairobi County
   _____

3. What is your average monthly income

**Section B: Usage of Online Digital Food Delivery**

1. Answer the following questions on a scale of 1 to 5 with 1 indicating strongly disagree and 5 indicating that you strongly agree.

| | 1 (Strongly disagree) | 2 (Disagree) | 3 (Neutral) | 4 (Agree) | 5 (Strongly Agree). |
|---|---|---|---|---|---|
| I frequently use online food platforms every month | | | | | |
| I spend substantial amounts on food platforms every month | | | | | |
| My dietary choices have changed on account of | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| using online food platforms. | | | | | |

**Section C: Usage of Online shopping**

1. Answer the following questions on a scale of 1 to 5 with 1 indicating strongly disagree and 5 indicating that you strongly agree.

| | 1 (Strongly disagree) | 2 (Disagree) | 3 (Neutral) | 4 (Agree) | 5 (Strongly Agree). |
|---|---|---|---|---|---|
| I frequently place orders in a month | | | | | |
| I frequently visit online stores to browse for content | | | | | |
| I have increased my spend on online shopping | | | | | |

**Section D: Usage of Online Education**

1. Answer the following questions on a scale of 1 to 5 with 1 indicating strongly disagree and 5 indicating that you strongly agree.

| | 1 (Strongly disagree) | 2 (Disagree) | 3 (Neutral) | 4 (Agree) | 5 (Strongly Agree). |
|---|---|---|---|---|---|
| I am enrolled in courses | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| I spend many hours studying online | | | | | |
| I have a positive attitude to online education | | | | | |

Thank you for participating in this survey.

Appendix IV: NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 216680

Date of Issue: 22/May/2024

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**This is to Certify that Ms.. Alice Wambui Wangunyu of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Exploring the Impact of Online Food Shopping and Ecommerce Education on the Income of Youths in Nairobi County for the period ending : 22/May/2025.**

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**216680**

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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