



BARRIERS, BENEFITS AND OPPORTUNITIES OF E-COMMERCE ADOPTION: A CASE OF QUICK SERVICE RESTAURANTS IN NAIROBI COUNTY, KENYA

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Abstract

Information and Communication Technologies have shown the capability to revolutionise trade globally, thereby enhancing intra-country and inter-regional trade while stimulating economic development in world economies. This has led to the evolution and development of e-commerce. Nevertheless, many African countries, Kenya included, are yet to realise the full potential of adopting e-commerce. This study aims to establish the barriers, benefits and opportunities for the adoption of e-commerce by Quick Service Restaurants in Nairobi County, Kenya. Schumpeter's theory of innovation serves as the theoretical foundation of the study. A descriptive cross-sectional research design was employed, using a structured questionnaire with a 5-point Likert Scale. A sample size of 384 was employed by the study targeting managers and or owners of QSR in Nairobi County. Descriptive statistics were used in the analysis of data. The response rate was 85%, and findings revealed that a deficiency of satisfactory ICT infrastructure, lack of sufficient ICT know-how, high costs, lack of policy frameworks and the risk of cybercrimes are the major barriers to the adoption of e-commerce by QSR in Nairobi County, Kenya. Notably, the Quick Service Restaurants in Kenya are using e-commerce to modify the way they do business as they collaborate with diverse trading partners, including food aggregators. E-commerce enables access to a wider customer base while customers enjoy shopping convenience. The findings revealed huge opportunities, including expanded reach due to the use of food aggregators, increased sales, increased networks with diverse partners, increased distribution options and enhanced information exchange among the managers.

Keywords

E-Commerce, Quick Service Restaurants, Barriers, Benefits, Opportunities

1. Introduction

Information Communications Technology (ICT) performs an important role in enhancing service quality and overall organisational performance (Khan & Mahapatra, 2009). The internet has brought information technological revolutions across all sectors world-wide thereby presenting innovative opportunities that organisations have adopted for competitiveness (Ismail, 2020). The growth of the Internet has created wide opportunities for organisations and consumers in aiding participation in the online global marketplace. The advent of e-commerce has provided an uncommon opportunity to organisations by moving them beyond the physical constraints of their traditional distribution channels and creating a worldwide virtual community where small enterprises can effectively compete with larger ones (Kiang & Chi, 2001).

Information Communications Technology has enabled the spread of internet marketing, and whereas a good number of organisations have leveraged technology and adopted e-commerce to grow their businesses, a greater number mainly utilise it to advertise their products and promote their corporate image (Mohan, 2019). Not many organisations have recognised the benefit of adopting e-commerce for making online transactions. A great number of firms have shown reluctance to adopt e-commerce and view it as a complex form of transaction channel (Kiang and Chi, 2001).

Despite the above position, e-commerce is used to support conventional sales and marketing activities by matching prospective buyers and sellers cost-effectively compared with traditional marketing practices. It enables transactions to take place online, thereby contributing to convenience (Ismail, 2020). The extraordinary growth of e-commerce is changing the way buyers and sellers exchange information as well as the structure of distribution. The practice alters the physical barriers to commerce and propels firms to a new commercial marketplace (Ndonga, 2012). Online services provide opportunities for prospective buyers to examine products while interacting with the seller to receive valuable information and needed support (Kiang & Chi, 2001).

Electronic Commerce or e-commerce, is an evolving concept. According to Schneider (2011), e-commerce is the exchange of business communications and transactions over internet technologies. OECD (2011) adds that e-commerce is the buying and selling of goods and services on the Internet, especially the World Wide Web. It involves Business-to-Consumer (B2C), Business-to-Business (B2B), Business to Government (B2G) and Consumer to Consumer (C2C) transactions. Lu (2016) presents e-commerce as the use of computer networks to improve organisational performance, increase profitability, increase market share, improve customer service, and enable the delivery of services in a speedy and efficient way. Rhodes (2001) adds that e-commerce is any form of business transaction where the buyers and suppliers connect electronically, thereby enhancing their business efficiencies by lowering transaction and communication costs. In so doing, E-commerce increases business effectiveness by expanding the potential of markets, exceeding the needs of customers while offering greater product and service innovation opportunities.

An e-commerce transaction is the sale or purchase of goods and services, conducted over computer networks through techniques specifically created for receiving or placing orders (Organisation for Economic Co-operation and Development, 2011). This definition doesn't include orders done over telephone calls but includes those conducted through smartphone applications and digital mobile money solutions that enable connectivity and remote non-cash exchange of money without the need for a bank account (Brusick, 2018). According to Qin et al. (2003), e-commerce can be defined as various online commercial activities focusing on commodity exchanges by electronic means, the internet in particular, by companies, factories, enterprises, industrial undertakings and consumers.

Electronic commerce is more than ordering goods from an online catalogue. In a broad sense, e-commerce is the use of computer networks to improve organisational performance (Qin et al., 2003). It involves all aspects of an organisation's electronic interactions with its stakeholders. Thus, electronic commerce includes activities such as establishing a web page to support investor relations or communicating electronically with college students who are potential employees (OECD, 2011). E-commerce increases business effectiveness by enlarging the potential of a market, meeting customer needs while presenting opportunities in improved product and service innovation (Rhodes, 2001). E-commerce uses applications that are supported by an infrastructure, people (sellers, buyers, intermediaries, information systems and technology experts as well as employees), public policy (legal and regulatory issues, technical standards and compliance), marketing and advertising, support services that include content creation, payments and delivery and lastly business partnerships (Turban et al., 2017).

The landscape of e-commerce has evolved since its inception in the mid 1990's (Kaur & Sing, 2017) and is currently in a new phase described as the 'second wave of e-commerce' (Schneider, 2011). E-commerce has therefore metamorphosed from being perceived as a predominantly Western world trend to a global resource integrating sellers from developing economies and websites created in different foreign languages and expressions (Schneider, 2011). E-commerce is the cutting-edge of business; it enhances better customer connection and engagement (Ndonga, 2012). It has revolutionized the distribution system: not limited by time and space, has altered trade patterns, improved circulation of merchandise, information and capital, and reduced cost of production thereby making organisations competitive (Qin, Chang., Li., & Li, 2014).

Technological developments and the growth of the internet have propelled organisations to re-think their marketing strategies. The advent of internet-enabled marketplaces that compete with the physical marketplace has enhanced competition in most industries (Varadarajan & Yadav, 2009). Organisations have spanned the growth of E-commerce through the integration of the electronic market in their strategies as they seek to enhance their visibility and access the global markets (Tsagkias, King, Kallumadi, Murdock & De Rigke, 2020). Qin et al. (2014) posit that E-Commerce is the new economic and industrial revolution due to its foreseeable impact on all aspects of human life globally, with the potential to raise productivity and reduce costs of operations across all sectors.

The hospitality industry's contribution to the global economy cannot be underrated, with travel and tourism accounting for 10.4% of global GDP and 10.6% of all jobs before the COVID-19 outbreak in 2019 (Gikonyo et al., 2024). Lock (2022) posits that the value of restaurants and food service businesses globally was estimated at 34.25 billion U.S. dollars, with a forecasted increase to 56.3 billion dollars by 2027. Due to the pandemic, the global contribution of tourism and hospitality to GDP dropped by 49.1%, while employment decreased by 18.5%. The impact in Africa was significant, with over 7.2 million jobs lost (World Travel & Tourism Council, 2021). All players in every sector faced service re-organization and managers had to consider practical strategies for the restaurants to withstand, adapt, innovate, and recover from the pandemic to survive (Yang et al., 2020). COVID-19 outbreak forced restaurants to re-evaluate their conventional operational procedures, restructure their operations and embrace innovation for survival (Sharma et al., 2021). Food service businesses, including Quick Service Restaurants, had to change their business strategies and align with the dynamics in the market conditions and respond to the health crisis experienced globally (Gikonyo et al., 2024).

Most Quick Service Restaurants (QSRs) are constrained in gaining a wide reach due to their small sizes, lack of resources, and limited ability to identify and work with effective food aggregators, which already boast of a wide customer base (Warlina & Nurjanam, 2018). E-commerce eliminates these disadvantages by opening the markets up to QSRs with an effective strategy for conducting business online. Reduced transaction costs, lower barriers to market entry, and improved access to information are likely benefits that accrue when firms adopt e-commerce (Chowdhury, Kabir & Tanimoto, 2020). Despite these opportunities, QSRs in Kenya trail their counterparts in the western nations in the utilisation of e-commerce (Moodley, 2003). Considering the significance of QSRs in the Kenyan economy and the society at large, investigating the barriers, benefits and opportunities in the adoption of E-Commerce by Quick Service Restaurants in Nairobi County is of the essence. This study contributes to policy, industry and theory. The industry players will gain knowledge on the importance of the adoption of e-commerce for competitiveness, while scholars will gain a foundation for further studies on e-commerce adoption. The paper is structured thus: Section 1 entails the Introduction; Section 2 provides the literature review; Section 3 details the research methodology; Section 4 provides the results; and Section 5 presents the conclusions.

2. Review of Literature

2.1 Theoretical Review

This study is anchored on Schumpeter's (1934) theory of innovation, which posits that entrepreneurs drive economic development through a process known as "creative destruction," where the enterprises introduce innovations that disrupt existing markets and create new ones. Schumpeter (1942) identified five types of innovation that include new products, new production methods, new markets, new sources of supply, and new organisational structures. He adds that the constant wave of innovation by enterprises leads to economic booms, which are then followed by downturns as other players in the market imitate the innovations. This creates a cycle of economic growth as every player focuses on outdoing one another through incessant innovations. The result is the destruction of one another's creativity through improved innovations that drive the economy to greater levels while enabling competitive advantage. The theory postulates that organisations may innovate in response to crises, which may result in a new normal that alters the environment completely (Callegari & Feder, 2021).

In the contexts of hospitality, and specifically the QSR, Schumpeter's (1934) theory propagates entrepreneurial activities that facilitate new demands, create and exploit economic opportunities, while engaging in institutional restructuring to back new courses. According to Callegari and Feder (2021), socio-economic challenges caused by health crunch and the strategies adopted by enterprises initiate an environment where entrepreneurs and industry players can determine the confines of the new normal. According to Schumpeter (1934), innovation is therefore the creation of new combinations in processes,

products, and organisational activities. The framework is applicable to this study as it addresses the concept of e-commerce which requires technological adaptation for success.

2.2 Empirical Review

Contribution of tourism to global economy is vital in terms of increase in receipts of foreign exchange, employment opportunities, balanced payments, government revenue; all of which result into general increase in economic activities (Government of Kenya, 2002). Most developing countries, Kenya included, have turned to tourism as a viable source of foreign exchange following the decline of prices of agricultural products like tea and coffee that the country depended on in the 1980s (Akama, 2002). Restaurants are lauded for the pull factor in tourism by promoting brand image and identity of the tourist destinations (Daries-Ramon, Marine-Roig, Ferrer-Rosell, & Cristobal, 2020). According to Lock (2022), the contribution of restaurants and foodservice businesses globally stood at approximately 34.25 U.S. billion dollars, rising from a value of 23.13 billion in 2020, with expectations of this rising further to 56.3 billion dollars by 2027. Restaurants have immensely contributed to job creation and improved Gross Domestic Product, making it one of the world's largest sectors (World Travel & Tourism Council, 2025).

In Kenya, the hotel industry is expected to contribute 10% annually to the economic development of the country (Kenya Institute for Public Policy Research and Analysis, 2021). The industry is an important sector for both the national and county governments; in 2017, it contributed 10% of the Gross County Product for Kwale, Mombasa and Nairobi Counties (KIPPRA, 2021). The sector is often affected negatively by natural disasters, financial crises, violent attacks, health-related emergencies like the Zika Virus, Ebola, severe acute respiratory syndrome (SARS) and CORONA-19 virus; all of which have previously had a catastrophic impact on the restaurant business. People lost jobs as restaurants and other businesses altered their normal operations due to perceived risk and fear of uncertainty, as well as reduced consumer demand (Li et al., 2021). In a bid to curtail the spread of the COVID-19 virus and save the lives of people, governments globally imposed containment measures (World Health Organisation, 2020). The measures slowed down the spread of Covid 19 but threatened the survival of businesses across all industries and sectors (Wenzel, Stanske, & Lieberman, 2020). The pandemic interrupted the performance of the tourism and travel industry, with the contribution to GDP globally dropping by 49.1% and 49.2% in Africa in 2020. In the same year, 62 million people lost jobs due to the pandemic globally, 7.2 million in Africa and 1.7 million in Kenya (KIPPRA, 2020).

The COVID-19 pandemic had a substantial impact on demand for restaurant services, which forced managers to be more innovative in restaurant operations, sourcing, developing innovative food delivery systems, and establishing new revenue streams for competitiveness and success (Yang et al., 2020). Organisations across all sectors and industries had to reconsider their operations and reorganise their services for survival, thus the rise of e-commerce across all sectors (Heinonen & Strandvik, 2021; Cankurtaran & Beverland, 2020)

Li et al. (2021) examine the innovative activities of Chinese restaurants pre, during, and post the COVID-19 pandemic. The results revealed that the restaurants, besides employing preventative health and safety measures, also implemented innovative products and creative marketing techniques to remain relevant and competitive. In Romania, Türkeş et al (2021) studied modifications made in Romanian businesses' models used by restaurants in delivering meals to diverse customers through food order and delivery platforms during the COVID-19 pandemic. The study employed a survey method with 402 restaurant managers as participants. The findings revealed that the Romanian restaurants used 5G networks, cryptocurrencies, artificial intelligence (AI), blockchain, applications, wearables and Radio frequency identification (RFID), to influence customer behaviour. Additionally, Sufi and Ahmed (2021) studied Indian restaurants to establish the strategies adopted for their recovery from the devastating COVID-19 pandemic. They employed a case study of 33 firms, and the results showed that restaurants employed a cloud kitchen delivery system, ensured zero-contact meal delivery, and enhanced mobile applications for survival. A further study in Italy within the restaurant industry employed a survey to explain the use of digital technologies for safety and resilience (Esposito, Sessa, Sica and Malandrino, 2022). The findings revealed that the restaurants adopted digital technologies to improve safety and resilience, while employing innovative cleaning measures and technologies to lower risk perceptions (Esposito et al., 2022).

Gikonyo, Mwenda and (2024) conducted a descriptive study on the Effect of Technological Innovations on Restaurant Sustainability in Nairobi County, Kenya. The study entailed a survey of 81 managers of full-service restaurants within the Tourism Regulatory Authority classified and graded hotels

in Nairobi County, Kenya. The findings revealed that technological innovations were statistically significant in predicting the sustainability of restaurants in Nairobi County. The regression coefficients revealed that technological innovations had a positive and significant effect on the sustainability of full-service restaurants in Nairobi County.

Additionally, Odhiambo and Muriuki (2022) examined the Influence of social media on the performance of Bar and Restaurants during a crisis in Nairobi County, Kenya. The broad objective was to examine the survival strategies that influenced the performance of bar and restaurant businesses in Nairobi County, Kenya, in the face of Covid-19 pandemic. The study was anchored on the diffusion of innovation theory (Rogers, 1970x) supported by business resilience theory. The research applied a survey method targeting 6,383 licensed bar & restaurant businesses in Nairobi County. The findings revealed that technology and innovation had a statistically significant influence on the performance of bar and restaurant businesses in Nairobi County. Conversely, social media showed no statistically significant influence on the performance of bars and restaurants in Nairobi County, Kenya.

Despite the diversity of studies on technological innovations as detailed above, the revealed notable drawbacks include job loss and increased operating costs (Esposito et al., 2022). Additionally, the conceptualisation of technological innovations varied, while most studies focused on the Western world. This study sought to fill the gap by evaluating the barriers, benefits and challenges of e-commerce adoption by Quick Service Restaurants in Nairobi County, Kenya.

3. Methodology

A descriptive cross-sectional research design was employed in a primary study of 587 QSRs licenced by the Tourism Regulatory Authority (2024). A structured questionnaire with three sections was used in data collection – Section A focused on the profile of the respondents, Section B looked at the challenges of E-commerce Adoption, Section C entailed the Benefits of E-commerce Adoption, while Section D focused on Opportunities for E-commerce adoption. A sample size of 234 respondents was adopted for the study in line with the table of sample determination by Krejcie and Morgan (1971). The survey sought to capture the barriers, benefits and opportunities for adoption of e-commerce by QSRs in Kenya. Judgmental sampling was employed where managers and or owners of the QSR were identified for the study. Drop and pick later method was used in data collection, with trained research assistants assisting in follow-up to improve the response rate. Data was analysed using SPSS (version 29), where descriptive statistics were used in data analysis, using mean and standard deviations were employed to describe the elements considered in the study. Research quality was addressed through validity and reliability tests, where pilot studies were conducted among 10% QSRs not considered in the study and a Cronbach's alpha coefficient of 0.7, as recommended by Babbie (2010) and Cooper and Schindler (2012).

4. Research Findings and Interpretations

Out of the 234 questionnaires sent out, 199 were returned, showing a response rate of 85%, which is considered adequate (Fowler, 1984; Mugenda & Mugenda, 1999).

Table 1: Respondents' Gender and Age

Age	Respondent's Gender				Total	
	Male		Female			
	No.	%	No.	%	No.	%
20-30	15	12.6	6	7.5	21	10.6
31-40	34	28.6	22	27.5	56	28.1
41-50	42	35.3	33	41.25	75	37.7
50+	28	23.5	19	23.75	47	23.6
Total	119	100	80	100	199	100

The results revealed that over 23% of the managers at QSRs in Nairobi were above the age of 50. Additionally, over 37% were above the age of 40, 28% were between ages 31 and 40, while the remaining

10.6% were between ages 20 and 30. Notably, 40% of the managers were female while 60% were male. The results showed that most QSR ownership and or management is dominated by the male gender. Considering that managers above the age of 41 had the highest representation (61.3%), it revealed that the QSRs in Nairobi Kenya are run by mature managers who understand dynamics in the industry and especially in relation to adoption of e-commerce within the industry. The results show a good balance of both genders in the management of the QSRs in Nairobi, Kenya.

4.1 Highest Level of Education of the Respondents

The study sought to establish the highest level of education of the respondents, and the results are presented in Table 3. The findings revealed that the highest percentage of the managers (43.2%) hold an undergraduate degree, followed by 38.2% that hold a master's degree, while 17.1% hold a diploma, with only 1.5% holding a PhD. Notable is the closeness of the education levels attained by each gender, with 38% of master's holders being male, followed closely by 37.5% being female. Likewise, 43.7% of degree holders were male, while 42.5% were female. On the contrary, 2.5% of the female managers had attained a PhD, while only 0.8% of the male gender had attained a PhD. The variations notwithstanding, the results revealed that managers of QSR in Kenya are well educated with a good understanding of the adoption of e-commerce in the industry.

Table 2: Respondents' Level of Education

Highest Education Level	Respondent's Gender				Total	
	Male		Female		No.	%
	No.	%	No.	%		
Diploma	20	16.8	14	17.5	34	17.1
Undergraduate	52	43.7	34	42.5	86	43.2
Masters	46	38.7	30	37.5	76	38.2
PhD	1	0.8	2	2.5	3	1.5
Total	119	100	80	100	199	100

4.2 Business Type

It was necessary to establish the nature of business type of the QSRs in Nairobi Kenya and the results showed that 31% of the businesses were limited liability companies, 28% were partnerships, 15.6% were Franchised while the remaining 25% were operating as sole proprietorships. The results revealed that the QSRs in Nairobi enjoyed legal protection through appropriate government registration and were thus operating legally within the laws of Kenya. The results are presented in Table xxx

Table 3: Business Type

Business Type	No.	%
Sole Proprietorship	50	25.1
Franchise	31	15.6
Partnership	56	28.1
Limited Liability	62	31.2
Total	199	100

4.3 Length of Service at the Company

The study sought to determine the length of service of those responsible for the management of the QSRs in Nairobi Kenya and the results showed that 20 managers had been with the firms for a period below 1 year, 41.7% of the managers had been with the businesses for between 11-15 years followed by 28.6% who had been in service at the firms for between 6-10 while 19.6% had been with the organizations for 1-5 years. The results also revealed that both genders stayed relatively longer with the firms as over 41% had served the firms for more than 11 years. This shows a low staff turnover of managers at the QSRs in Kenya, which indicates a good level of stability at the management level. Moreover, this stability in management indicated that the responses were given by managers who were well versed with the operations at the businesses, thus the relevance of the feedback given for the study.

Table 4: Length of Service at the Company

Length of Service at Company	Respondent's Gender				Total	
	Male		Female			
	No.	%	No.	%	No.	%
Below 1 Year	12	10.1	8	10	20	10.1
1-5 Years	27	22.7	12	15	39	19.6
6-10 Years	35	29.4	22	27.5	57	28.6
11-15 Years	25	21.0	20	25	45	22.6
15+ Years	20	16.8	18	22.5	38	19.1
Total	119	100	80	100	199	100

4.4 E-commerce Usage Influence

It was necessary to determine the factors that influence the usage of e-commerce platforms by the QSRs and the results presented in Table xxx show that over 26% of the QSRs used the e-commerce to grow sales, 25.7% to grow sales, 28% used the service to gain wide market reach, 15.79% was influenced by its convenience while 3.5% had other unspecified reasons of using e-commerce platforms. The results imply that almost all the QSRs adopted e-commerce platforms due to multiple reasons.

Table 5: E-commerce Usage Influence

Usage Influence	No.	%
Wide market reach	96	28.07
Grow sales	88	25.73
Grow customer base	92	26.90
Convenience	54	15.79

4.5 Barriers to Adoption of E-Commerce

The findings revealed diverse factors acting as barriers to the adoption of E-Commerce by players and customers within the QSRs in Kenya. The customers were concerned about security issues, with cybersecurity being a major barrier (SD 4.77), lack of relevant skills to use E-Commerce (SD 3.34), lack of face-to-face interaction (SD 4.12) and control (4.01) were also of concern to the customers. To the QSRs, high cost in implementation of E-Commerce was a major hindrance to adoption (SD 4.56), lack of relevant infrastructure for E-Commerce (SD 4.66), and lack of legal framework (SD 4.23) to guide implementation of E-Commerce were also of great concern. Additionally, the inability to offer relevant security to the customers was also brought out as a barrier by the QSRs. It was evident from the findings that both the QSRs and customers were faced with clear barriers which hindered the fast adoption of E-Commerce within the industry.

Table 6: Barriers to Adoption of E-Commerce

Statement	No.	Mean	Standard Deviation
High cost hinders my business from investing in e-commerce	199	4.56	0.89
High commissions to aggregators hinder my business from using online food aggregators	199	3.89	1.14
Geographical limitations of online aggregators hinder my business from using the services	199	4.24	1.67
My company lacks relevant infrastructure for e-commerce development	199	4.66	0.98
My company lacks skilled manpower for the effective use of e-commerce	199	3.78	1.23
Inability to offer relevant security hinders my business from e-commerce adoption	199	4.72	2.23
My company lacks policy frameworks to guide on e-commerce adoption	199	4.23	1.45
Our customers lack relevant skills in e-commerce use	199	3.34	1.05

Fear of cybersecurity hinders customers from using the e-commerce platform	199	4.77	1.67
Cultural orientations hinder my customers from adopting e-commerce	199	4.80	1.89
My company is small, thus not attractive to food aggregators	199	4.67	2.01
Lack of face-to-face interaction hinders my customers from adopting e-commerce	199	4.12	2.44
Ineffective services offered by online aggregators discourage our customers from using the services	199	3.88	1.16
Delayed delivery of products discourages customers from using e-commerce	199	3.34	1.77
Lack of control discourages customers from using e-commerce	199	4.01	1.34
Overall Scores		4.50	1.637

4.6 Benefits of E-Commerce Adoption

This section details the benefits that organisations, consumers and the overall society gained by adopting e-commerce. The results revealed increased sales due to improved business efficiency (SD 4.56), most organisations reported service expansion through the diverse online food aggregators and diverse E-Commerce platforms (SD 4.54), while others confirmed improved information sharing within the organisations (SD 3.88) and convenience of access to company offerings. Additionally, E-Commerce increased distribution options available to QSR (SD 4.77) while enabling wider exposure of the businesses (SD 4.34). The companies also enjoyed increased partnerships (SD 4.82), thereby improving the business networks of the players in the QSR industry (SD 4.62). Overall, the QSRs benefited through enhanced efficiencies in marketing, sales activities, distribution and overall business, which increased their competitiveness.

Table 7: Benefits of E-Commerce Adoption

Statement	No.	Mean	Standard Deviation
Use of online food aggregators has resulted in increased sales for my company	199	4.56	0.64
E-commerce platforms enable my company easily track sales	199	4.82	0.48
E-commerce has enabled my company to enjoy service expansion	199	4.54	1.12
E-commerce has contributed to improved information exchange in my company	199	3.88	1.53
E-commerce enables customers to conveniently access my company's services	199	4.74	1.65
My company's cost of doing business has reduced due to the adoption of E-commerce	199	3.34	2.06
E-commerce has increased distribution options for my company	199	4.77	1.23
E-commerce has enabled higher exposure of my business to diverse customers	199	4.34	2.61
E-commerce has increased business networks for my company	199	4.62	0.47
My company has gained increased partnerships from e-commerce	199	4.82	1.55
Overall Scores		4.443	1.334

4.7 Opportunities in the Adoption of E-Commerce

The findings revealed that adoption of E-Commerce presented great opportunities to the QSR and the society at large, with an overall SD of 4.63, as the businesses saw opportunities in growth in customer base through the wide exposure E-Commerce presents. Additionally, E-commerce presents the businesses with opportunities in tracking customer demographics (SD 4.45), which is key in understanding customer buying patterns. Additionally, E-Commerce had the potential of increasing the QSRs' business efficiency (SD 4.67), enabling offering customised services (SD 4.48) that would enhance customer experience while

at the same time had the capability of enhancing distribution efficiency (SD 4,23) of the QSRs. Notably, E-Commerce also presents the society opportunity for entrepreneurial development (SD 4.56) due to the growth of food aggregators, which would result in higher employment opportunities and economic development.

Table 8: Opportunities in the Adoption of E-Commerce

Statement	No.	Mean	Std Deviation
E-commerce presents my business opportunity to generate revenue per user	199	4.86	1.25
E-commerce presents my company opportunity to track customer demographics	199	4.45	1.8
E-commerce presents my company opportunity for increased business efficiency	199	4.67	1.34
E-commerce presents my company opportunity to offer customized services	199	4.28	1.02
E-commerce presents my industry opportunity for distribution efficiency	199	4.23	1.06
E-commerce infrastructure developments have improved due to industry adoption	199	4.02	2.09
E-commerce presents opportunity for employment within my industry	199	4.22	2.56
E-commerce presents opportunity for entrepreneurial development within my industry	199	4.56	1.63
E-commerce has presented opportunities to diverse partnerships within my industry	199	4.52	1.78
E-commerce presents opportunity for growth of online food aggregators in the industry	199	4.82	1.78
Overall Scores		4.463	1.632

5. Conclusion and Recommendations

This study sought to examine the barriers, benefits and opportunities in the adoption of E-Commerce by Quick Service Restaurants in Nairobi County, Kenya. The findings revealed an overall mean of 4.50, 4.443 and 4.463 on Barriers, benefits and opportunities, respectively. These results revealed that, despite the growth of E-commerce, both the QSR and the customers still face many barriers in the adoption of the same. Notable barriers were cybersecurity fears, the cost of implementing the infrastructure for E-Commerce and the lack of face-to-face interaction of the customers with the QSR. This is in line with the study by Gikonyo et al. (2024) that showed reluctance by customers to adopt technology due to security concerns, despite the convenience it offers. Additionally, QSR confirmed that E-Commerce adoption was beneficial and presented greater opportunities to both the firms and society. This is in line with studies conducted by Odhiambo and Muriuki (2022), who found that technology influenced the performance of bars and restaurants in Nairobi County, Kenya. Notably, a study by Moodley (2003) revealed that E-Commerce enables access to global marketplaces, which were the preserve of large organisations with global marketing and distribution infrastructure. The researchers recommend further studies that seek to establish the relationship between barriers noted and the adoption of e-commerce within the same industry to understand the outcome of the same. Additionally, other studies could also focus on the relationships between the benefits or opportunities revealed by this study and the adoption of E-Commerce within the same industry. These would extend the current study and reveal additional information that would be of significance to policy makers within the hospitality and tourism industry, as well as industry players.

References

- Akama, J. S. (2002). The role of government in the development of tourism in Kenya. *International Journal of Tourism Research*, 4(1), 1.
- Atsbeha, B. W., & Nigatu, W. G. (2021). The challenges and opportunities of e-Commerce in Ethiopia: A review. *Academia Letters*. <https://doi.org/10.20935/al3444>
- Brusick, P. (2018). *Competition Concerns in Cross-border E-Commerce: Implications for Developing Countries*. Geneva: CUTS International, Geneva.
- Callegari, B., & Feder, C. (2021). Entrepreneurship and the systemic consequences of epidemics: A literature review and emerging model. *International Entrepreneurship and Management Journal*, 1653–1684.
- Chowdhury, A., Kabir, K. M., & Tanimoto, J. (2020). How quarantine and social distancing policy can suppress the outbreak of novel coronavirus in developing or under poverty level countries: A mathematical and statistical analysis. *Research Square - Preprint*.
- Gangeshwer, D. K. (2013). E-Commerce or internet marketing: A business review from Indian context. *International Journal of u- and e- Service, Science and Technology*, 6(6), 187-194. <https://doi.org/10.14257/ijunesst.2013.6.6.17>
- Gikonyo, R. K., Mwenda, L. K., & Wachira, A. W. (2024). Effect of technological innovations on restaurant sustainability in Nairobi County, Kenya. *African Journal of Tourism and Hospitality Management*, 3(1), 1-13.
- Government of Kenya. (2003). *Kenya economic recovery strategy for wealth and employment creation, 2003-2007*.
- Hawk, S. (2004). A comparison of B2C E-commerce in developing Countries. *Electronic Commerce Research*, 4(3), 181-199.
- Ismail, Y. (2020). Mobilizing E-Commerce for Development in Africa through AfCFTA. CUTS, International, Geneva.
- Kaur, R., & Singh, G. (2017). Internet Marketing: The New Era of Innovation In E-Commerce. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 2(1), 253-258.
- Kenya Institute for Public Policy Research and Analysis. (2021). *Kenya Economic Report 2020 Nairobi*.
- Khan, M. S., & Mahapatra, S. S. (2009). Service Quality Evaluation in Internet Banking: An Empirical Study in India. *Int. J. Indian Culture and Business Management*, 2(1), 30-46.
- Kiang, M. Y., & Chi, R. T. (2001). A Framework for Analyzing the Potential Benefits of Internet Marketing. *Journal of Electronic Commerce Research*, 2(4), 157-163.
- Krejcie, R. V., & Morgan, D. W. (1970). "Determining Sample Size for Research Activities.". *Educational and Psychological Measurement*, 30, 607-610.
- Kothari, C. R., & Guarav, G. (2019). *Research Methodology: Methods and Techniques* (4th ed.). New Delhi India: New Age International.
- Li, B. L., Zhong, Y., Zhang, T., & Hua, N. (2021). Transcending the COVID-19 crisis: Business resilience and innovation of the restaurant industry in China. *Journal of Hospitality and Tourism Management*, 49, 44-53.
- Lock, S. (2022). *Restaurants and food Service in GCC - statistics & facts*. Statista Research Department.
- Lu, Y. X. (2016). China's Design and Innovation Policy. *The Journal of Design, Economics, and Innovation*, 1-7.
- Mohan, V. (2019). Challenges Faced by Indian MSMEs of Adoption of Internet Marketing and E-Commerce. *Academy of Marketing Studies Journal*, 23(1), 1-9.
- Moodley, S. (2003). E-Commerce and export markets: Small furniture producers in South Africa. *Journal of Small Business Management*, 41(3), 317-324.
- Mugenda, O. M., & Mugenda, A. G. (1999). *Research methods: Quantitative and qualitative approaches*.
- Ndonga, D. (2012). E-Commerce in Africa: Challenges and Solutions. *African Journal of Legal Studies*, 5, 243–268.
- Odhiambo, E. N. (2022). Influence of technology and innovation on performance of bar and restaurant businesses in Nairobi County, Kenya during COVID-19 crisis. *European Journal of Management and Marketing Studies*, 7(3).

- Odhiambo, E. N., & Muriuki, J. W. (2022). Examination of the influence of social media on performance of bar & Restaurants during the crisis in Nairobi County, Kenya. *European Journal of Management and Marketing Studies*, 7(3).
- OECD. (2011). *OECD guide to measuring the information society 2011*. Retrieved from OECD Publishing website:
- Qin, Z., Chang, Y., Li, S., & Li, F. (2014). *E-Commerce strategy*. Springer.
- Rhodes, J. (2001). Can E- Commerce Enable Marketing in an African Rural Women's Community Based Development Organization? *Journal of Information Science - Research Gate*, 243-261.
- Rogers, E. M. (1995). *Diffusion of Innovation* (4th ed.). New York: Free Press.
- Schneider, G. P. (2007). Electronic commerce.
- Schumpeter, J. A. (1942). *Capitalism, Socialism and Democracy*.
- Sharma, A., Shin, H., Santa-Maria, M. J., & Nicolau, J. L. (2021). Hotels' COVID-19 innovation and performance. *Annals of Tourism Research*.
- Sharma, V., & Bhat, D. A. (2020). An empirical study exploring the relationship among human capital innovation, service innovation, competitive advantage and employee productivity in hospitality services. *African Journal of Hospitality, Tourism and Leisure*, 1-14.
- Tourism Regulatory Authority. (2024, January 1). *TRA Enterprise Licensing*. <https://tra.go.ke/licensing-2/>
- Tsagkias, M., King, T. H., Kallumadi, S., Murdock, V., & De Rijke, M. (2020). Challenges and research opportunities in e-commerce search and recommendations. *ACM SIGIR Forum*, 54(1), 1-23.
- Turban, E., Whiteside, J., King, D., & Outland, J. (2017). Introduction to electronic commerce and social commerce. *Springer Texts in Business and Economics*, 4. doi:10.1007/978-3-319-50091-1
- Türkeş, M. C., Stăncioiu, A. F., Băltescu, C. A., & Marinescu, R. C. (2021). Resilience Innovations and the Use of Food Order & Delivery Platforms by the Romanian Restaurants during the COVID-19 Pandemic. *Journal of Theoretical and Applied Electronic Commerce Research*, 3218-3247.
- Varadarajan, R., & Yadav, M. S. (2009). Marketing strategy in an internet-enabled environment: A retrospective on the first ten years of JIM and a prospect in the next ten years. *Journal of Interactive Marketing*, 23(1), 11-22.
- Warlina, L., & Nurjaman, A. (2018). Designing Web-based Score Processing Information System. *IOP Conference Series: Materials Science and Engineering*, 407, 012-014. <https://doi.org/10.1088/1757-899x/407/1/012014>
- Wenzel, M., Stanske, S., & Lieberman, M. B. (2020). Strategic response to crisis. *Strategic Management Journal*, 3161.
- World Bank Group. (2023). *Global economic prospects, January 2023*. World Bank Publications.
- World Health Organization. (2020). *Covid-19 Strategy Update: Overcoming Covid-19*. Geneva, Switzerland.
- World Travel and Tourism Council. (2025, September 29). *The Future of Work in Travel and Tourism: The Key Trends Facing Workshop Strategies*. World Travel & Tourism Council. <https://wttc.org/>
- Yang, Y., Hongo, L., & Chen, X. (2020). COVID19 and restaurant demand: Early effects of the pandemic and stay-at-home orders. *International Journal of Contemporary Hospitality Management*.
- Zaballos, A. G., Rodriguez, E. I., Kim, K. W., & Park, S. (2020). *5G The Driver for the Next-Generation Digital Transformation in Latin America and the Carriibbean* (IDB-MG-791). Inter-American Development Bank, Felipe Herrera Library.