



# Technology Adoption and Business Survival of Food Businesses in Port Harcourt, Rivers State, Nigeria

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## ABSTRACT

The study was conducted to examine the relationship between Technology Adoption and Business survival of food businesses in Port Harcourt, Rivers state. The intersection of technological adoption and its impact on enhancing operational efficiency, customer satisfaction and attainment of long-term survival of food businesses in Port Harcourt has been a subject of concern, and a problem that has necessitated this research. To provide solution to this problem, this study explained the main objective, posited three specific objectives, three research questions and three research hypotheses in order to examine the implications of online presence of food vendor on business survival, the relationship between online payment & ordering on business survival, and also, the moderating influence of Entrepreneurial experience on technology adoption and business survival in Rivers State. The study employed a cross sectional survey, the use of copies of questionnaire to generate data. Thus, 48 copies of questionnaire were administered to the owners/managers of the food businesses. The entire population was used for the study with a response rate of 95%. The findings from data analysed shows the relationship that exist between online presence and business survival and the relationship that exist between online ordering & payment and business survival. The results underscore the importance of considering technology adoption as a crucial factor for operational efficiency, customer satisfaction, and attainment of food businesses survival in Rivers State.

## Keywords:

Business survival, online ordering & payment, online presence, technology adoption.

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## Introduction

In today's interconnected world, businesses are increasingly embracing technology as a crucial tool to propel their growth and survival, capitalizing on the global village concept. This digital transformation empowers them to reach broader audiences and remain competitive in the evolving marketplace. The ability of any firm to persist and thrive in the midst of fierce competition is a vital problem for businesses in the present global and future settings, as the business landscape is characterized by complexities and unpredictability by Flemming (2012). Since the main aim of a business is to survive despite all odds, entrepreneurs tend to adopt strategies which will influence their sustained existence. The food industry, like many others, have experienced transformation brought about by technological advancements. This transformation has become an imperative for businesses to remain competitive and ensure their long-term sustainability Pacheco & Ladeira (2020). From the local street businesses, to upscale restaurants, the food ecosystem has undergone significant changes in response to the integration of technology (Ogbeibu, 2019). With an emerging middle class, a growing demand for convenience, and the impact of global trends, such as the digitalization of food services, food businesses are compelled to adapt or risk obsolescence (Kalu et al., 2017).

Recently, the cash crunch in Nigeria made food businesses come up with innovative practices which includes; firstly, the use of digital payment platforms, such as mobile wallets and online payment systems, that has made transactions more convenient for both businesses and customers (Adetunji, 2020). Also, social media and food delivery apps have expanded the reach of food businesses. These platforms allow businesses to advertise their products to a wider audience, leading to increased sales and visibility. Apps like Jumia Food, Instagram, Facebook, Doordash, and UberEats have enabled businesses to tap into the growing market of food delivery (Makoju, 2018). Additionally, inventory and order management software helped businesses streamline their operations (Block, 2011). As a result, businesses minimize wastage, optimize their supply chain, and ensure they have the right ingredients in stock, leading to cost savings and better business sustainability (Olatunji, 2019). Embracing technology offers a range of benefits that enhance operational efficiency, customer reach, and overall sustainability. These benefits include streamlining their operations, expanding customer reach, improving customer experience, and allowing businesses to adapt to changing market trends (Wu & Chen, 2017; Zhou et al., 2018 and Kardaras & Papathanassiou, 2017). Food businesses that embrace technology are better equipped to meet the demands of the modern market Dewett, (2020).

## Statement of the Problem

The food businesses face a pressing challenge in today's competitive and rapidly evolving business environment. The critical issue at hand is the intersection of technology adoption and its impact on the survival of these enterprises. While technology has revolutionized various sectors, including the food industry, its implications for the survival of food businesses in Port Harcourt remain a subject of concern. Food businesses often lack the financial resources and technical know-how to invest in and effectively implement modern

technology solutions (Amidu, 2018). This can hinder their ability to remain competitive in a market where customers increasingly expect digital convenience. More so, the emergence of food delivery applications and larger restaurant chains that harness technology for enhanced customer experiences poses a significant competitive threat to food businesses (Opara et al., 2020). The adoption of technology becomes imperative for these businesses to keep up.

Furthermore, Efficient and convenient operations are crucial for customer satisfaction and retention. Food businesses have not been able to navigate their challenges. Thus, according to (Ogundele et al., 2019), food businesses must navigate the challenges of streamlining their processes to meet customer demands for speed and convenience, while managing their limited resources. Expanding market reach and enhancing visibility through online platforms and social media is vital for attracting a wider customer base. The inability to leverage technology for marketing and customer engagement has limited the growth prospects of online food businesses (Nwafor et al., 2020). Food businesses face potential regulatory hurdles related to food safety and compliance, which technology adoption can help address. However, these businesses may also encounter cyber security challenges, given their limited expertise in securing digital operations (Aigbavboa et al., 2018). In light of these challenges, the question arises as to how online food businesses can strategically adopt and integrate technology to enhance their operational efficiency, customer satisfaction, and long-term survival.

### **Aim and objectives**

This study examined the relationship between technology adoption and business survival of food businesses in Port Harcourt, Rivers state. However, the specific objectives included to:

1. Examine the relationship between online presence and business survival of food businesses in Port Harcourt, Rivers state.
2. Determine the relationship between online ordering and payment and business survival of food businesses in Port Harcourt, Rivers state.
3. Determine how organizational culture moderates the relationship between technology adoption and business survival of food businesses in Port Harcourt, Rivers state.

### **Research Questions**

**The following research questions were put forward:**

1. What is the significant relationship between online presence and business survival of food businesses in Port Harcourt, Rivers state?
2. What is the significant relationship between online ordering and payment and business survival of food businesses in Port Harcourt, Rivers state?
3. How organizational culture does moderate the relationship between technology adoption and business survival of food businesses in Port Harcourt, Rivers state?

## Research Hypotheses

**The following research hypotheses were stated in their null form:**

1. There is no significant relationship between online presence and business survival of food businesses in Port Harcourt, Rivers state.
2. There is no significant relationship between online ordering and payment and business survival of food businesses in Port Harcourt, Rivers state.
3. Organizational culture does not significantly moderate the relationship between technology adoption and business survival of food businesses in Port Harcourt, Rivers state.

## 2.0 Literature review

### Conceptual Framework

#### Business Survival

Within the ever-changing context of global trade, the idea of "business survival" is crucial for businesses trying to survive in an environment of unpredictability and rapid change. A number of external influences, such as shifts in the economy, technological advancements, and rare occurrences like the COVID-19 pandemic, highlight this dynamic (Hamel & Välikangas, 2003). Business survival is the effort a business owner makes to adapt to shifting social and market conditions by continuously reorganizing and restructuring to keep up with the environment's complexity. In a constantly changing environment, adaptability is essential for businesses to survive (Eisenhardt & Martin, 2000). It is essential to have the flexibility to adjust and reassess plans in response to shifting market conditions. Organizations that are resilient not only withstand adversity but also come out stronger, seeing setbacks as chances for development (Hamel & Välikangas, 2003). Businesses that quickly transitioned to e-commerce, accommodated remote labor, and put strict safety measures in place during the COVID-19 epidemic, for example, showed a higher capacity for survival.

Business survival, according to Balestrero and Udo (2013), is a methodical roadmap that outlines how to change corporate destiny and create a sustainable future for everybody. Moreover, survival of business offers a logical, research-based method for developing a long-lasting business plan that will satisfy client demands and put the company in a position to flourish while having a positive influence on the community, environment, society, and so forth. Technology adoption and survival are inextricably tied in today's corporate environment. Businesses must adopt and integrate creative solutions to stay resilient and competitive in the face of the rapid improvements in technology (Westerman, Bonnet, & McAfee, 2014). Using successful business survival tactics can make the difference between a business's achievement and failure. Therefore, it is the duty of a business owner or leader to implement the required measures and make the strategic choices that will lead to an organization's long-term, sustainable success.

### **Online Ordering and Payment**

The Cyber security concerns, data privacy issues, and the digital divide pose significant challenges to the widespread adoption of online ordering and payment (Choudhury et al., 2020). Addressing these concerns is crucial for ensuring the sustainable growth and acceptance of digital commerce. The concept of online ordering and payment represents a transformative force in modern commerce. Its impact is felt not only in the transactions themselves but also in shaping the dynamics between businesses and consumers. As technology continues to advance, the synergy between consumer convenience, digital commerce, and secure payment methods will undoubtedly shape the future of commercial interactions (Luo et al., 2019). The ongoing evolution of these concepts highlights the need for continuous adaptation and vigilance to ensure a secure and seamless digital transaction experience for all.

Businesses in the contemporary landscape of commerce, the concept of online ordering and payment has emerged as a pivotal force, fundamentally reshaping traditional business models. This paradigm shift, driven by technological advancements, not only provides unparalleled convenience to consumers but also offers businesses new avenues for growth and adaptation to changing market dynamics. One of the mainstays of the e-commerce revolution, online ordering is now an everyday occurrence for customers (Smith, 2019). The wide range of goods and services that are accessible with a few taps or clicks is indicative of the convenience it provides. Customers may now explore, compare, and buy anything from groceries and clothes to electronics and meals from the convenience of their homes, or while they're on the go (Choudhury et al., 2020). This change has expedited the expansion of electronic commerce and revolutionized the manner in which companies engage with their customers.

Online payment is a form of electronic payment, which is provided by a third party payment interface between banks for real-time payment. Compared with the traditional payment, online payment systems are more convenient, fast, efficient and economical. Users can use their own Personal computer or mobile phone with Internet to complete the entire payment process in a very short time (Baik 2017). Online ordering has become increasingly popular due to its exceptional user-friendliness (Kim et al., 2018). Virtual storefronts allow customers to browse at their own leisure, free from the limitations of physical location and company hours. This adaptability meets the needs of a world that moves quickly and where time is a valuable resource (Wang et al., 2021). Online ordering is convenient for a variety of lifestyles, whether the customer is a tech-savvy person expecting rapid gratification, a parent juggling several obligations, or a professional looking for a quick lunch. The development of online payment mechanisms goes hand in hand with the popularity of online ordering.

Digital transactions, which provide speed, security, and traceability, are progressively replacing traditional physical money exchanges (Luo et al., 2019). The ecosystem of internet business now includes payment gateways, mobile wallets, and even cryptocurrencies (Wang et al., 2021). By improving transaction security and streamlining the payment process, these

technologies reduce the dangers connected with conventional payment systems. According to Smith (2019), the incorporation of safe payment methods has contributed to the growth of contactless transactions, which is in line with the worldwide trend towards a cashless society. Digital payment methods are convenient and secure in areas other than online shopping, such as food delivery, transportation, and charitable donations. This shift is a result of consumers' shifting preferences and increased reliance on technology for daily operations.

### **Online Presence**

Online presence of businesses refers to the digital footprint and visibility a company establishes on the internet through its website, social media profiles, and various online platforms Bennett (2012). According to Bennett (2012) the internet technology and social media are recognized for their significant effects on the survival of businesses. The digital presence of businesses is essential in today's interconnected world as it allows businesses to reach a wider audience, engage with customers, and effectively market their products or services. In the contemporary digital landscape, the concept of the online presence of businesses has emerged as a foundational element for their success. It encompasses the extent and quality of a company's visibility and engagement on the internet, profoundly influencing how it is perceived by its target audience and, in turn, affecting its competitiveness and viability in the market Pick (2013). An effective online presence encompasses elements such as website design, search engine optimization, social media management, content marketing, and e-commerce capabilities, all of which contribute to a company's ability to connect with its target audience and thrive in the digital age.

Central to a business's online presence is its website. An effectively designed, user-friendly, and informative website serves as a digital storefront, providing potential customers with insight into the company's offerings and values Sen *et al.*, (1998). Well-optimized websites, which include responsive design, engaging contents, and clear calls to action, can significantly enhance a business's reach and accessibility (Chaffey & Ellis-Chadwick, 2019). They attract both local and global customers, making a compelling case for businesses to invest in their online platforms. An essential aspect of a company's online presence is search engine optimization (SEO), which plays a pivotal role in boosting its online visibility. By optimizing web content and adhering to SEO best practices, businesses can improve their rankings in search engine results, making it easier for potential customers to find them online (Chaffey & Ellis-Chadwick, 2019). This expands their reach and establishes them as credible and authoritative sources in their respective industries.

Another critical component is a strong social media presence. Well-managed social media accounts enable businesses to engage with their audience, share valuable content, and build a community of loyal followers. Social media encompasses content shared through social interactions. These platforms employ a range of companies that provide services or resources to facilitate connections for both consumers and businesses (Grewal and Levy, 2013). It plays a pivotal role for all types of enterprises as it enables them to engage with, attentively listen to, and gain insights from their customers in a manner that was previously unavailable

(Grewal and Levy, 2013; Smith et al., 2011). Pick (2013) reports that 75% of marketers intend to increase their use of social media as it continues to grow, and 93% of marketers already utilize it for business. Consumer-generated content, or "media impressions created by consumers, typically informed by relevant experience, and archived or shared online for easy access by other impressionable consumers," is what is typically defined as social media, which are internet-based applications that carry this content (Blackshaw, 2006).

According to Agichtein *et al.*, (2008), they can be summed up as "sites based on user contributions." Grewal and Levy (2013) divide social media into three categories: thought-sharing sites (like blogs), media-sharing sites (like YouTube, Flickr), and social network sites (like Facebook, LinkedIn). Social media management approach, as highlighted by Chaffey and Smith (2013), empowers companies to collect valuable data on consumer preferences and behaviors. This information serves as a catalyst for the refinement of marketing strategies, ultimately enhancing their effectiveness. The direct influence that websites, SEO and social media presences have on consumer attitudes and decision-making is one of the main justifications for having them. Social media, which has grown significantly in popularity in recent years, is crucial for small businesses in particular since it can be used to communicate with clients and cut through the noise (Block, 2011).

The online presence of businesses represents a digital footprint that is indispensable in today's business environment. A robust online presence, characterized by an optimized website, effective SEO, and a compelling social media presence, enables companies to expand their reach, engage with their audience, and gather vital data for informed decision-making. As businesses continue to navigate the digital age, nurturing and enhancing their online presence is critical for competitiveness and long-term success Chaffey and Smith (2013). These technologies are arguably important for small businesses primarily because such businesses lack the traditional resources to market their products or services (Barnes *et al.*, 2012; Levy and Powell, 2003). Web pages and social media sites provide them opportunities to overcome these limitations of time and financial resources, allowing them to reach out to customers cost effectively.

### **Technological Adoption**

Adoption of technology improves operational effectiveness and helps businesses survive in changing marketplaces by helping them handle challenges.

Adoption of technology improves operational effectiveness and helps businesses survive in changing marketplaces by helping them handle challenges. It is believed that using a particular system would enhance their job performance, while perceived ease of use pertains to the degree to which a person believes that using the system would be free of effort. Behavioral intention to use the technology reflects the user's readiness to engage with the new technology.

These elements collectively determine the likelihood of a technology's acceptance and subsequent usage, making TAM an essential tool for researchers and practitioners aiming to

foster effective technology implementation and utilization. The initial factor in the Technology Acceptance Model (TAM) is perceived usefulness (PU), which denotes the extent to which a user believes that using a specific system would enhance their job performance, as outlined by

Davis (1989) and Shroff et al. (2011). This factor highlights the practical benefits that the technology can offer, emphasizing its capability to improve efficiency, productivity, or overall effectiveness in completing tasks. The second factor, perceived ease of use (PEOU), reflects the extent to which a user believes that employing a specific technology would require minimal effort. In simpler terms, it signifies how straightforward and user-friendly the technology is perceived to be, which influences the user's willingness to adopt it over other alternatives, as discussed by Nadim and Begum (2008). If a technology is perceived as easy to use, individuals are more likely to see it as less intimidating and more accessible, thereby increasing its potential for acceptance. The third factor relates to the user's attitude towards using the technology (ATU). This encompasses the user's overall affective response towards the technology, which can range from positive to negative. According to Davis (1989) and further elaborated by Chen et al. (2011) and Park (2009), both perceived usefulness (PU) and perceived ease of use (PEOU) significantly influence individuals' attitudes toward using the technology (ATU). When users perceive a technology as both useful and easy to use, their attitude towards adopting it tends to be more favorable. These factors collectively shape the user's behavioral intention to use the technology, which is a strong predictor of actual usage. By understanding these elements, researchers and practitioners can better design and implement technologies that align with user expectations and needs, thereby enhancing acceptance and successful integration. The interplay of PU, PEOU, and ATU within TAM provides a comprehensive framework for analyzing technology adoption behavior, making it a valuable tool in various fields such as information systems, education, and business.

Furthermore, both perceived ease of use and perceived usefulness are subject to the influence of certain crucial factors. Various researchers have put forth their insights on the variables that determine the effectiveness and user-friendliness of a technology. In the context of their investigation into the adoption of Learning Management Systems at the University of Saudi Arabia, Asiri, et al., (cited in Alharbi and Steve, 2014) introduced two distinct categories of these variables: internal and external variables. Internal variables encompass elements such as the user's attitude, their educational beliefs, and their level of competence. The authors confirmed that a positive attitude towards technology tends to motivate users to embrace the technology.

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

The Technology Acceptance Model (TAM), proposed by Davis (1986), is a widely used framework for understanding user acceptance behavior, a notion extensively discussed by Quingxiong and Liping (2005). The widespread acceptance of TAM is rooted in its robust theoretical foundation and demonstrated practical efficacy, as emphasized by Chuttur (2009). This model's strength is further supported by the theory of reasoned action proposed by



Fishbein and Ajzen in 1975, which laid the groundwork for understanding how attitudes and intentions influence behavior. Over time, TAM has undergone various revisions that have resulted in a more sophisticated model. These improvements make TAM crucial for anyone interested in examining the concept of technology acceptance and its application in diverse fields, including learning environments (Mugo et al., 2017). The model is designed to elucidate the process by which individuals adopt and utilize new technologies. The core hypothesis of TAM posits that consumers' decisions regarding the adoption and use of a new technology are primarily influenced by three significant factors: perceived usefulness, perceived ease of use, and behavioral intention to use the technology. Perceived usefulness refers to the degree to which a person shaping technology adoption. The study also highlighted that a user's competency level, signifying their skills and knowledge in using a system, significantly influences its utilization. On the other hand, external variables encompass the external challenges that users encounter during technology adoption. These challenges encompass organizational, technological, and social barriers. Additionally, demographic factors like gender, computer self-efficacy, and the extent of training (competency) are also employed to predict technology adoption Mugo et al., (2017).

The Technology Acceptance Model (TAM) is pertinent to the study as it explains how the perceived ease of use and perceived usefulness of technology can influence the adoption decisions of small-scale food vendors in Port Harcourt, Nigeria. By considering TAM, researchers can gain insights into how vendors' attitudes toward technology impact their adoption choices and subsequently affect their business survival (Davis, 1989).

## **THEORETICAL REVIEW**

### **Innovation Diffusion Theory**

Rogers (1962) initially propounded the Innovation Diffusion Theory, which was subsequently refined by Rogers in 1995, as highlighted by Tahir and Syed (2015). The Innovation Diffusion Theory is a fundamental framework for understanding how innovations, including new technologies, spread through societies or markets. The theory focuses on understanding how, why and at what rate innovative ideas and technologies spread in a social system (Rogers, 1962). This theory aims to explain the process by which individuals and organizations adopt new innovations and the factors influencing their decisions and it provides a distinctive perspective when it comes to changes. Instead of centering on convincing individuals to alter their behaviors or adopt new products, this theory places its emphasis on perceiving change as a process primarily concerned with the development or "reinvention" of products and behaviors Tahir and Syed (2015). At the core of this theory, there are five key elements which are innovation, communication channels, social systems, time, and the adopter's characteristics.

The Innovation Diffusion Theory suggests that the adoption of innovations follows a specific pattern and divides adopters into different groups. These groups range from early enthusiasts to latecomers and those who resist change. The theory also highlights the role of communication channels and social systems in shaping this process. It's a valuable

framework for understanding how innovations, including technology, are accepted and integrated into society. This theory provides insights into how technology adoption impacts business survival. Early adoption can lead to a competitive edge, satisfying evolving customer needs, optimizing communication strategies, and learning from early adopters. All of these factors contribute to a business's ability to adapt, stay relevant, and ultimately survive in a dynamic marketplace (Rogers, 1962).

The Innovation Diffusion Theory is highly relevant to this study as it offers a framework to understand how the adoption of new technologies impacts their competitive edge. According to Rogers (1962), early adoption can confer a first-mover advantage, helping small-scale vendors stand out and potentially thrive in a competitive marketplace. This theory aids in comprehending the dynamic adoption of technology improves operational effectiveness and helps businesses survive in changing marketplaces by helping them handle challenges. Impacts of technology adoption and its implications for the survival of small-scale food vendors in a rapidly evolving industry. Despite the myriad benefits, challenges persist. Cyber security concerns, data privacy issues, and the digital divide pose significant challenges to the widespread adoption of online ordering and payment (Choudhury et al., 2020). Addressing these concerns is crucial for ensuring the sustainable growth and acceptance of digital commerce. The concept of online ordering and payment represents a transformative force in modern commerce. Its impact is felt not only in the transactions themselves but also in shaping the dynamics between businesses and consumers. As technology continues to advance, the synergy between consumer convenience, digital commerce, and secure payment methods will undoubtedly shape the future of commercial interactions (Luo et al., 2019). The ongoing evolution of these concepts highlights the need for continuous adaptation and vigilance to ensure a secure and seamless digital transaction experience for all.

## **Measures of business survival**

### **Service Quality improvement**

It's claimed that the sole thing that stays the same in life is change. Owing to the ever-changing nature of the business environment, businesses must always prioritize finding new and creative ways to provide their clients with high-quality service. Because consumers define quality as a measure of perceived performance against perceived expectations from the service. It is necessary to design products and services with the market (consumers) in mind. According to Mac'Odo (2005), a product or service provider should aim for a standard of quality that will be acceptable to the customers, along with the necessary reliability for the function for which each product or service is designed and promoted. To maintain longevity, there should always be potential for improvement in the way that services are provided. This involves figuring out how to better serve the requirements of current clients, while also drawing in new ones in the future. Kotler (1997) asserts that providing excellent customer service is a crucial component of the entire business process. It fosters client happiness and loyalty, boosts revenue, and ultimately fosters organizational flexibility.

One crucial aspect of service quality improvement is understanding and measuring customer perceptions and expectations. Regular feedback collection through surveys, focus groups, and

direct customer interactions can provide insights into areas needing improvement Zeithaml, Bitner, & Gremler, (2018). Additionally, continuous training and development of employees are essential, as service quality is heavily influenced by the interactions between staff and customers Grönroos, (1984). Technological advancements also play a significant role in service quality improvement. For instance, the integration of customer relationship management (CRM) systems can streamline service processes and enhance personalized customer experiences Payne & Frow, (2005). Moreover, fostering a culture of quality within the organization, where every employee is committed to quality improvement, is vital for sustained service excellence Garvin, (1987).

## **Adaptability**

Adaptability got its percept from biology, and thus, adaptability represent organisms developing features that will help them feed and survive in their habitat. Organizations can be likening to a biological organism that needs to develop adaptive features that will aid their survival in the environment which they exist even. Where there are alterations, they adjust their processes, procedure, structures, etc. in responses to it. One of the insights from the IDA and ARI studies is the importance of a mindset for adaptability, which includes an open mindedness to expect and accept change. Business adaptability is a derivative of organizational change. Adaptability can be a planned or unplanned change; however, to foster planned organizational change a planned method or framework is required to modify the functioning of an organization (Kotter, 2012; Lippitt, 1958). Either leaders setting the tone for change agents or as the change agents themselves must established the climate that overcomes resistance from other members of their organization and encourages them to adopt new practices (Beer & Nohira, 2000; Kanter, 1983; Van de Ven, 1986). Leaders implement change within organizations by applying social influence through modification of attitudes or behaviors of the organizational members (Battilana & Casciaro, 2012). Organizational adaptability is not a physical component. Adaptability is an attitude that must pervade the business. Adaptability is about setting expectations for the individual and the organization to adjust to the ever-changing environment (Tillson, et al, 2005), and mobilizing followers to overcome challenges and improve the organization (Heifetz, Grashow & Linsky 2009). The organizational leader must create the organizational climate and attitude to foster “ambidextrous” organizations – meaning an organization that can complete the objectives of today while simultaneously envisioning the problems of tomorrow in a volatile, uncertain, complex, and ambiguous world. Organizations capable of performing both of these seemingly conflicting tasks will excel in the complexity of today and in the uncertainty of the future (Battilana & Casciaro, 2012; Harvard Business School, 2003).

Organization cannot change the external environment of business such as political/legal, economic, cultural, technological, and sociocultural, etc. as their impact pose as a threat and opportunity to the organization, hence the need to adapt and adjust by changing their internal environment of business to suit the same. An organization that has the ability to respond to unpredictable changes and how to deal with uncertainty posed by environment can be referred to as an adaptive organization, agile organization and flexible organization (Philips & Wright, 2009). Being adaptable implies openness to change and Boss, (2015) listed some characteristics of adaptive organization to include experimentation, seeing opportunity where others see failure, being resourceful and adopting contingency approach, thinking ahead,

moving-on, etc. According to Lee (1999) in Barnabas (2016), the organization adapts to changing environment learning and continuous organization learning makes her to remain relevant. Also, that adaptability creates advantages over competitors that are not proactive to change, hence the more adaptive the organization is, the more competitive it will be and will survive for a longer period.

### **The moderating influence of organizational culture on the relationship between technology adoption and business survival**

The moderating influence of organizational culture on the relationship between technology adoption and business survival is a critical area of study, especially in the context of rapidly evolving technological landscapes. Organizational culture, defined as the shared values, beliefs, and practices within a company, significantly impacts how new technologies are perceived, adopted, and integrated into business processes (Cameron & Quinn, 2006). Organizational culture shapes employee behavior and attitudes towards change and innovation. A culture that encourages openness, continuous learning, and risk-taking can foster a more conducive environment for technology adoption. Conversely, a culture resistant to change can hinder the effective implementation and utilization of new technologies, thereby affecting business survival (Schein, 2010). Technology adoption refers to the process by which businesses integrate new technologies into their operations. This can include adopting new software systems, utilizing digital marketing tools, or incorporating advanced manufacturing techniques. Successful technology adoption can lead to increased efficiency, better customer service, and ultimately, enhanced business survival (Tornatzky & Fleischer, 1990).

An organizational culture that supports innovation and change can significantly enhance the relationship between technology adoption and business survival. Such a culture is characterized by willingness to experiment with new technologies and a proactive approach to problem-solving. This support fosters an environment where employees are encouraged to embrace technological advancements, leading to more effective and widespread technology adoption (Cameron & Quinn, 2006). Organizational cultures that prioritize employee empowerment and continuous learning can positively moderate the impact of technology adoption on business survival. When employees are well-trained and feel confident in using new technologies, they are more likely to leverage these tools effectively, leading to improved business outcomes (Agarwal & Prasad, 1999). Leadership plays a pivotal role in shaping organizational culture and, by extension, the success of technology adoption. Leaders who communicate a clear vision for technological integration and provide the necessary resources and support create a culture that values and prioritizes technology adoption. This alignment between leadership vision and organizational culture can significantly enhance business survival (Yukl, 2006). On the flip side, cultures characterized by resistance to change can impede the relationship between technology adoption and business survival. Such cultures are often risk-averse and maintain rigid structures and processes, making it difficult for new technologies to be adopted and integrated effectively. This resistance can lead to missed opportunities and decreased competitiveness (Schein, 2010).

## **Empirical Review**

Mishriff and Khan (2023) investigated technology adoption as a survival strategy of small and medium scale enterprises during COVID-19. The study assessed the technological transformations and the challenges facing SMEs during the pandemic. It also evaluates the levels of customers' satisfaction and future technological innovation plans in SMEs. Quantitative and qualitative method of data collection was used for the study and the hypothesis was tested using Pearson's correlation. The result of their findings revealed that technology adoption has been a successful persistent strategy during the pandemic and that highly digitized SMEs are more likely to adopt industry 4.0 technology. Ghobakhloo, *et al.*, (2012) examined Information Technology (IT) adoption is an important field of study in small and medium-sized enterprises (SMEs). Their research aims to provide a better and clearer understanding of IT adoption within SMEs by reviewing and analyzing current IT literature. Their study proposed model of effective IT adoption is believed to provide managers, vendors, consultants and governments with a practical synopsis of the IT adoption process in SMEs, which will in turn assist them to be successful with IT institutionalization within these businesses. Jagongo, & Kinyua, (2013) investigated the relationship between the Social Media and Entrepreneurship Growth of SMEs in Nairobi. The objective of this study was to examine the extent to which Social Media influences Entrepreneurship Growth of SMEs in Nairobi. The study adopted a cross-sectional survey research design. Primary data was generated through a 4-point Likert scaled questionnaire. A sample size of two hundred and forty-six (246) employees was drawn from the population using the Taro Yamane sample size determination formula. The study adopted the simple random sampling technique. The reliability of the instrument was ascertained using the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using Spearman Rank Order Correlation Coefficient with the aid of Statistical Packages for Social Science. The researchers found that Social media tools provide greater market access and customer relationship management (CRM) which have a significant impact on the growth of SMEs.

Bonsu & Kuofie, (2019) explored small business survival strategies. The objective of this study was to focus on factors which enhance small business growth. The study adopted a qualitative method of data collection making comparisons using the retail giants like Amazon and Walmart as reference. The study concluded that small businesses should adopt strategies like technology to enable us survive. Obasan (2019) carried out a study titled the 'impact of business environment on the survival of small scale businesses in Nigeria'. The study aim was to investigate how today's digital business environment affects the success or otherwise of any business venture. The researcher opined that business environment could impact on small and medium scale enterprises. Hence, using the logistic regression technique to analyze primary data obtained through a structured questionnaire administered to eighty small scale businessmen and women operators in Ijebu North Local Government area, (Ogun State) South-West Nigeria. The study obtained result revealed that the model of logistic regression was able to predict the distribution of 72.15% of the observed values of the dependent

variable as factors such inflationary trend; infrastructural facilities accessibility and government policy serve as barriers to business growth and survival. Hence, the study recommended that small business operators must developed and adopt scientific and rational business management strategies that will aid and increase their understanding of both their business and its environment in order to facilitate planning and predictions on the most significant factors that affects business survival.

Okpevaand Onuoha, (2023) in their study on finance and business survival of fish farm in Delta state:The study was conducted to examine the relationship between finance and business survival of fish farm in Warri Delta State. Their study examined the financial implications of the fish farming and the appropriate financing majors to be adopted to ensure the survival of the business. A cross sectional survey was employed and data was generated 48 distributed copies of questionnaire to the fish farmers. The entire population was used for the study with a response rate of 95%. The findings revealed that finance is the bedrock on which business survival lies, and for the business to continue to exist, it should adopt the appropriate means of financing the business through Debt or Equity. The most suitable of the two variables should be employed by business owners or managers.Abdullah et Al., (2012) studied a research problem titled 'Preliminary Qualitative Findings on Technology Adoption of Malaysian SMEs'. The objective of this research was to know the impact of technology adoption on SMSs. For the purpose of this study, an exploratory study was done and two companies were interviewed in Malaysia. The findings of the study were that internal factors such as SME's owner manager's characteristics have significant influence on technology adoption among SMEs and Business survival is achieved through technology.Naude (2014) whose work was on "The influence of "network effects on SME performance" was aimed to examine the impact of network on business performance in SMEs in Iran.A survey questionnaire was employed to draw data on a stratified sample of 227CEOs from selected businesses in Iran. The result revealed that entrepreneurial style does not influence external networking behavior.

## METHODOLOGY

**Research Design**-The study utilized a cross-sectional survey design. This necessitated the collection of data at a single point in time to examine the relationship between Technology Adoption and BusinessSurvival.

**Population for the study**-the population was made up of a total of 15 food businesses from where 45 owner managers and 15 social managers were chosen. According to Attenvo, (2023)these businesses were used becausethey have been proven to be efficient in online delivery serviceand have adopted technology for over a period of 5 years.

**Sampling Method**-Purposive sampling method was employed for the study. This was based on the fact that the researcher deemed the method as very convenient for data collection.

**Method of Data Collection**-data was collected through the administration of structured copies of questionnaire.

**Method of Data Analysis**-the method adopted in the analysis of the data generated through the administration of structured questionnaire was the Spearman Rank Order Correlation Coefficient statistical tool.

Table 1.0

**Studied Food businesses in Port Harcourt, Rivers State.**

S/N	Name of Food vendor	Location	Contact info
1	Turkey Pasta	Online Vendor	Instagram Website
2	Munch Et	Online Vendor	Instagram
3	Nwanyi Abacha	Online Vendor	Instagram Facebook
4	Dishes by Mavi	Online Vendor	Instagram Facebook
5	The Bristro PHC	Online Vendor	Instagram Website
6	Soups and Chops	Online Vendor	Instagram
7	Deelicious Kitchen	Online Vendor	Instagram Website
8	Ere's spot	Online Vendor	Instagram
9	Cee's Food O'clock	Online Vendor	Instagram
10	Udia's Kitchen	Online Vendor	Instagram
11	Gwen's Kitchen	Online Vendor	Instagram
12	Enitin food	Online Vendor	Instagram
13	Just Pancakes	Online Vendor	Instagram Facebook
14	Lil's Native Pot	Online Vendor	Instagram
15	Fifi's Cuisine	Online Vendor	Instagram Website

**Source: Research Data, 2024**

**Result and Analysis of Hypotheses Testing**

Of the 45 surveys that were provided, only 43 were returned. The hypothesis test was conducted with a confidence level of 95%, and the decision rule is shown below.

If the p-value is less than 0.05, then we reject the null hypothesis.

If the p-value is greater than 0.05, then the null hypothesis should be accepted.

**H<sub>01</sub>: There is no significant relationship between Online Presence and Business Survival of small scale online Food businesses in Port Harcourt, Rivers state.**

**Table 1: Online Presence and Business Survival Correlations**

			Online Presence	Business Survival
Spearman's rho	Online Presence	Correlation Coefficient	1.000	.759**
		Sig. (2-tailed)	.	.000
		N	43	43
	Business Survival	Correlation Coefficient	.759**	1.000
		Sig. (2-tailed)	.000	.
		N	43	43

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

**Source: Research Data, 2023**

The analysis of the data in table 1 showed a significant association between online presence and business survival. The P-value was found to be 0.000, indicating a strong statistical significance. Additionally, the correlation coefficient (rho) was calculated to be 0.759, suggesting a strong positive correlation between the two variables. Consequently, it was reaffirmed that there is a substantial correlation between the internet presence and business survival of food businesses in Port Harcourt, Rivers state. This research highlights the significance of having an online presence for food businesses, as it enhances the visibility of their enterprises, hence increasing their chances of survival.

**H<sub>02</sub>: There is no significant relationship between Online Ordering & Payment and Business Survival of small scale online Food businesses in Port Harcourt, Rivers state.**

**Table 2: Online Ordering & Payment and Business Survival Correlations**

			Online Ordering & Payment	Business Survival
Spearman's rho	Online Ordering & Payment	Correlation Coefficient	1.000	.665**
		Sig. (2-tailed)	.	.000
		N	43	43
	Business Survival	Correlation Coefficient	.665**	1.000
		Sig. (2-tailed)	.000	.
		N	43	43

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

**Source: Research Data, 2023**

The Spearman's correlation coefficient between Online Ordering & Payment and Business Survival of small scale online food businesses in table 2 is 0.665, with a p-value of 0.000. This implies that there exists a significant relationship between the Online Ordering &



Payment and Business Survival of food businesses under investigation. This finding underscores the importance ordering & paying online for food businesses which enhances business sustainability.

**H<sub>03</sub>: Organizational culture does not significantly moderate the relationship between technology adoption and business survival of food businesses in Port Harcourt, Rivers state.**

**Table 3: the moderating influence of Organizational culture on technology adoption and business survival**  
**Correlations**

Control Variables			Technology Adoption	Business Survival
-none- <sup>a</sup>	Technology Adoption	Correlation	1.000	.818
		Significance (2-tailed)	.	.000
		Df	0	43
	Business Survival	Correlation	.818	1.000
		Significance (2-tailed)	.000	.
		Df	43	0
Organizational Culture	Technology Adoption	Correlation	1.000	.759
		Significance (2-tailed)	.	.000
		Df	0	42
	Business Survival	Correlation	.759	1.000
		Significance (2-tailed)	.000	.
		Df	42	0

a. Cells contain zero-order (Pearson) correlations.

Table 3 shows a strong linear association between the variables. The partial correlation analysis showed that organizational culture significantly moderates the relationship between the two variables with ap-value of ( $0.000 < 0.05$ ) and  $\rho = .759$ . This showed that organizational culture moderates the relationship between Technology Adoption and Business Survival and a positive relationship exists.

## SUMMARY OF FINDINGS

The study found a statistically significant relationship ( $\rho = 0.759$ ) between the level of online presence and business survival. This suggests that an increased online presence of businesses is associated with higher survival rate among food businesses online. Similar to online presence, there was a statistically significant relationship ( $\rho = 0.665$ ) between the level of online ordering & payment and business survival. This indicates that an online ordering & payment is linked to higher business survival among online food businesses. The result on the moderating impact of organizational culture on technology adoption on business survival is 0.759 which indicates that there is a significant relationship between the variables. The result reveals that the organizational culture influences the adoption of technology of food businesses which influences their survival.

## Conclusion

This research on the technology adoption and business survival of foodbusinesses in Port Harcourt has uncovered critical insights into the intricate dynamics shaping the local entrepreneurial landscape. The study elucidated the nuanced factors influencing technology adoption decisions, emphasizing the contextual significance of the Port Harcourt market. The findings underscore the pivotal role of technology in enhancing business survival strategies, demonstrating a positive correlation between technology adoption and business survival. Organizational culture emerged as a significant moderator, influencing the effectiveness of technology adoption for businesses.

## Recommendations

Based on the research findings concerning food businesses in Port Harcourt, Rivers state, the following recommendations are proposed:

1. Foodbusinesses in Rivers should prioritize and enhance their online visibility. Investing in user-friendly websites, active social media engagement, and regular content updates can contribute to increased market reach and customer engagement.
2. Foodbusinessesshould optimize their online transaction processes, because implementing efficient and secure online ordering systems enhances customer satisfaction and contributes to sustained business operations.
3. Foodbusinesses should create an adaptive and supportive organizational culture that enhances the effectiveness of technology adoption and improves business survival rates.

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