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Challenges and Opportunities for E-Commerce in Pakistan

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Abstract: The United Nations Conference on Trade and Development (UNCTAD) reported that global e-commerce sales reached \$25.65 trillion in 2018, accounting for 30% of global GDP. In 2018, over 1.4 billion individuals participated in e-commerce. The volume of business-to-consumer e-commerce is highest in Hong Kong, China, and the United Kingdom. In the United Kingdom, 87% of internet users have engaged in online shopping, whereas in India, only 11% have participated in e-commerce. Pakistan, with a population of 116 million and over 50% of its populace having access to the internet (broadband, 3G, and 4G), presents significant opportunities for e-commerce. Nevertheless, Pakistan has yet to fully harness its e-commerce potential. According to the 2019 business to e-commerce index published by UNCTAD, only 5% of internet users and 1% of the total population in Pakistan engaged in online shopping in 2017. This figure is significantly lower in comparison to other regional and developing nations. The primary factors contributing to the limited volume of online shopping in Pakistan include a lack of trust in e-commerce platforms stemming from an inadequate regulatory framework, cybersecurity threats, data privacy concerns, and various cultural, social, and psychological barriers. The Government of Pakistan has articulated its vision through Digital Pakistan and introduced the inaugural e-commerce policy in 2019.

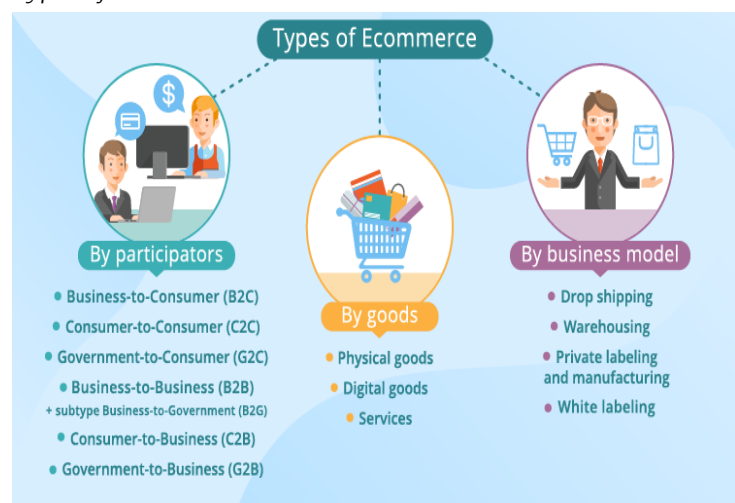
Key Words: Online Business, Pakistan, , Customer Trust, Regulatory Framework for E-Commerce, Digital Literacy

Introduction

E-commerce is broadly defined as selling and buying of goods and services through the use of internet (Shahzad, 2020). It is also called electronic commerce, mobile commerce and internet commerce; and spelled in many different ways such as E-commerce, e-commerce, e-commerce, etc. E-commerce can be classified into different types on the basis of business model, product and operational model as depicted below in figure 1.

On the basis of the participants, online business is classified into different e-commerce models such as government to the customer (G2C), customer to customer (C2C), business to business (B2B), business to customer (B2C), government to business (G2B), etc. (Nemat, 2011). E-commerce can be classified on the basis of different products which include *physical goods* such as apparel, sports, electronics, food, and drinks, etc.; *digital goods* such as e-books, online games, the online entertainment industry (film, music,

Figure 1
Types of e-commerce



Source: ScienceSoft, <https://bit.ly/35goVbm>

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documentaries), webinars, etc.; and *services* such as online ride-hailing apps (Uber, Careem, Bykea, etc.), food delivery apps (Food Panda, Cheetay, etc.), e-ticketing (bookme.pk, bookakro, etc.), online training, online education, copywriting, etc. E-commerce can be classified into different types on the basis of operational models followed by online businesses. These include drop shipping, white labeling, private labeling, retail, wholesale, subscription, and warehousing (Prasanth, 2018).

Statement of the Problem

Globalization and the rise of the internet have led to the birth of online markets, normally termed e-commerce. E-commerce is growing at a fast pace, and soon, it will surpass the volume of traditional trade. Pakistan, which has about 63% of its population in the 15 to 33 years age group, represents a tremendous potential for online business. As per the e-commerce policy of the GOP, online banking users, mobile wallets, and mobile banking users have doubled in just 4 years (2015–2019). Moreover, the State Bank of Pakistan forecasted that fintech and digital banking services alone can grow Pakistan's GDP up to 36 billion dollars by 2025 and can add four million jobs.

However, the current volume of e-commerce is very small in Pakistan as compared to India and other SAARC countries. Pakistan's e-commerce market has touched \$4.927 billion in 2021 that is hardly 0.01% of total global e-commerce volume. Around 50% population have access to broadband but only around 2% has made online e-commerce transactions. Pakistan ranks fifth largest populous country but 46th largest e-commerce market.

This calls for an in-depth understand and critical analysis of the e-commerce ecosystem in Pakistan including a complete study of supply chain to understand the wider prospects and challenges of e-commerce in Pakistan. This will help to understand the underlying fault lines that why Pakistan could not utilize full potential to harvest the benefits of e-commerce. Consequently, it will help to develop the future course of action.

Review of Literature

Studies on the success of e-commerce in Pakistan have mainly focused on PC penetration, internet availability affordability, ICT infrastructure, regulatory mechanism, shopping behavior, user trust, cultural factors, language barriers, and payment options (Kundi, 2009; Ahmed, 2019; Khan, 2013). Ahmed (2019) studied the factors of low e-commerce in Pakistan and focused on customer and non-customer-related issues that were impeding the growth. Along with the customer-related challenges, the absence of institutional mechanisms, logistics, payment solutions, and delivery mechanisms, and the absence of support by the business bodies such as the chambers of commerce, etc., is also hampering the growth of e-commerce in Pakistan (Ahmed, 2019). Most of the researchers have used the Technology Acceptance Model to study the adoption of e-commerce in Pakistan (Ullah, 2018; Sardar, 2010)

Reasonable research has already been done to dig out the challenges and opportunities for e-commerce in Pakistan. Pakistan's economy is undocumented and predominantly cash-based. Fintech is still in its infancy, and the populace has not accepted the digital payment mode wholeheartedly in Pakistan. Researchers found that cash on delivery (COD) is still the preferred mode of payment in Pakistan, as 55 % of payments are made on a COD basis (Anjum, 2020). The major impediments to the adoption of the latest digital payment methods are online scams, trust deficit in the regulatory mechanism, and perceived control over the buying process (Anjum, 2020). Highly educated and digitally literate people have also opted for the COD method due to low trust in e-commerce security and other psychological barriers (Khan, 2021). Khan (2021) also found in his study that customers opted for cash-on-delivery options to mitigate the risks related to e-commerce. Covid 19 has boosted the adoption of online payment methods. However, Purwandari (2022) found that digital payment methods could not win the trust of the wider audience even during the pandemic, and cash-on-delivery methods have dominated in Indonesia.

Global Scenario of E-commerce

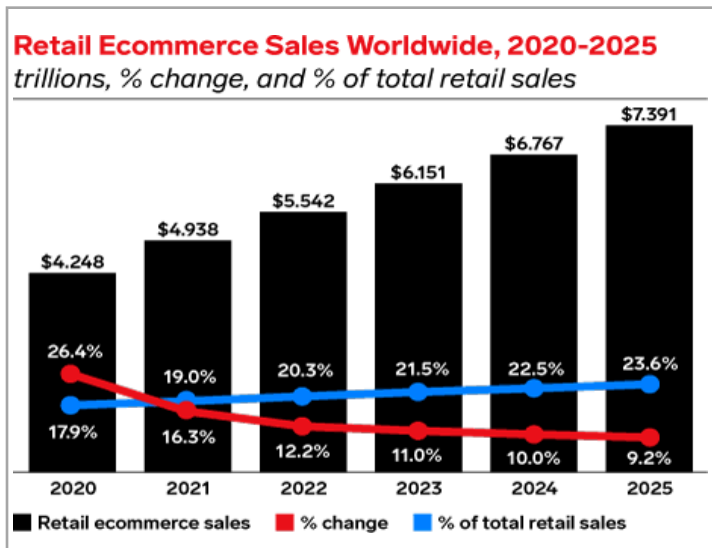
According to Shopify – a Canada-based multinational e-commerce company - industry insights, the global e-commerce market will touch \$5.55 trillion in 2022 (Cramer-Flood, 2022). China has the biggest share, followed by the USA and the UK (Cramer-Flood, 2022). According to Statista, around 2.14 billion



people will make online transactions in 2021. Philippines, India, and Indonesia were the fastest-growing e-commerce markets in 2021, with growth rates of 25.9%, 25.5%, and 23%, respectively (Coppola, 2022). Statista has further reported that in business-to-e-commerce models, eBay, Alibaba, and Amazon were the global leaders in e-commerce (Mattia, 2021).

Figure 2

Retail E-commerce sales worldwide



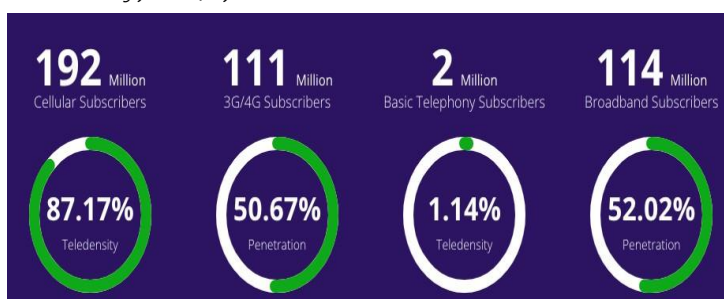
Source: e-Marketer Feb 2022

E-commerce in Pakistan

Fortunately, Pakistan is blessed with a high level of cellular teledensity and reasonably good broadband penetration. As per the Pakistan Telecommunication Authority quarterly report published in February 2022, at present, there are more than 192 million cellular subscribers in Pakistan and more than 111 million 3G/4G subscribers (PTA, 2022). Internet service penetration i.e., broadband subscribers has surpassed the 50% barrier, and now the 52.02 % population has access to the internet as shown in the figure 3 below.

Figure 3

Teledensity, 3G/4G, and Broadband Penetration in Pakistan



Source: PTA

As per IMF statistics, Pakistan is the fifth largest country in terms of population in the world, with a current total population of 216.467 million (Ruiz, 2022). As per the UN statistics, Pakistan is ranked fifth in the world, with 63% of Pakistan's population ranging from 15 to 33 years of age bracket (Hafeez, 2018). However, Pakistan is ranked 46th in the e-commerce market in the world in terms of gross market value. The major companies that are leaders in e-commerce in Pakistan include Daraz and Olx (Khan, 2021). E-commerce generated a revenue of \$4.927 billion in 2021 in Pakistan (Barrech, 2023). However, the total size of the e-commerce market is less than 1% of the total brick-and-mortar trade. There is a lot of potential as the share of e-commerce in India is 10% of total retail sales and 30% of total retail sales in China. However, despite having a huge youth bulge and reasonable broadband outreach, the size of e-

commerce is very small, especially if compared with other similar countries such as India, Bangladesh, and Indonesia (Zia, [2022](#)).

Methodology

This study has utilized secondary research methods to investigate the problem at hand. Secondary data are available from government and non-governmental organizations, such as Pakistan Telecommunication Authority, GSMA, International Telecom Union, Statista, etc. A documentary review was also conducted, and reports published by the SBP, Ministry of Commerce, UNCTAD, and other organizations were consulted. To a greater extent, this study relies on the review of the literature methodology as well as the critical evaluation and analysis of the challenges and prospects. Both quantitative and qualitative data have been used to better understand the challenges and opportunities related to e-commerce in Pakistan.

Analysis of Issues and Challenges for E-commerce Landscape in Pakistan

The pandemic has caused a serious economic slowdown around the globe; however, e-commerce has turned out to be the winner. People around the globe avoid visiting crowded places, especially shopping stores and marketplaces. This has led to an increase in online sales worldwide (Enberg, [2021](#)). In Pakistan, e-commerce has geared up in a hyper-growth mode during the pandemic. According to Xinhua news agency, e-commerce has become a new normal in Pakistan. After the COVID-19 pandemic breakout, the growth of online business has continued to rise, and more sellers and buyers registered in 2020 (Khaskheli, [2016](#)). E-commerce in Pakistan can be divided into different categories, such as retail e-commerce, freelancing, online services, ride-hailing, food delivery, etc.

Retail e-commerce in Pakistan

Retail e-commerce includes the selling of physical goods online such as grocery, clothing, consumables, electronics, stationary, etc. It can be divided into two categories marketplace and brands. The biggest marketplace for e-commerce in Pakistan is Daraz. Other famous marketplaces are Olx, Ali express and social media online markets. Major brands also operate online and more of them are related to fashion industry. These include Limelight, Khaadi, Sapphire, Stylo, Gul Ahmed, Safa Safina, etc.

Ride Hailing and Food Delivery Business in Pakistan

Ride-hailing applications and delivery businesses are also booming in Pakistan. Careem and Uber started their operation in Pakistan in 2015 and 2016 respectively (Malik, [2019](#)). Researchers have found that ride-sharing services are fast replacing the old modes of transportation around the globe (Akash, [2020](#); Zhao, [2020](#)). In a similar study conducted in Pakistan, Shah ([2023](#)) found that the public in Pakistan is also quickly adopting these online riding services due to various factors such as cost, ease of operation, time-saving, non-availability of public transport, etc. On the other hand, online food delivery services have become a new normal around the globe (Chai, [2019](#)). Online food delivery has penetrated Pakistan as well. It has seen a surge, especially after Covid 19 (Al-Azzawi, [2021](#)).

Online Intermediaries and Classifieds

There are online platforms that do not sell any online products or services but bring the sellers and buyers for products and services together. The major example of this model is Zameen.com, Rozee.pk, Pak wheels and Olx fall in this category. This also includes e-ticketing platforms as well such as Bookme.pk, Bookkaro, Checkin.pk, Sastatickets, etc.

IT export Freelancing and Other IT Enabled Services in Pakistan

IT-enabled services such as outsourcing and freelancing are also booming in Pakistan. Global revenue of online services is expected to grow to 587.60 billion dollars in 2027 (Alam, [2020](#)). McKinsey has estimated that more than 500 million freelancers will be offering their services through different online platforms in 2030. This offers a great opportunity for Pakistan as well. According to Forbes, Pakistan is already the fourth-largest freelancing market in the world, with a growth rate of 47 % in 2018 (Roy, [2020](#)). The United



States of America, the United Kingdom, and Brazil ranked above Pakistan, respectively. Acceptance for freelancing is a wonderful phenomenon that can help bring dollars and mitigate unemployment.

E-Commerce Policy of Pakistan

The government of Pakistan presented its e-commerce policy in 2019. In the said e-commerce policy, the government has covered nine major areas that include consumer protection empowerment of women and youth, financial inclusion through financial services fintech, digital banking, improvement in regulatory and legal environment, resolution of taxation issues, development of ICT infrastructure improvement in logistics, data protection, data privacy and issues of global connectivity. E-commerce policy is a holistic document that has touched upon all the relevant areas after due consultation with all the stakeholders. However, it seems to be a wish list as it was not followed by an action plan or strategy for how all the goals and objectives mentioned in the policy document will be achieved.

Results and Discussion of Analysis

The study has revealed that e-commerce adoption is influenced by the various factors which includes but not limited to tele density, user trust, availability of regulatory mechanisms, information security, cultural factors, information security, payment methods and digital divide. The succeeding paragraphs will discuss these factors and their relationship with the adoption of e-commerce in Pakistan.

Figure 4

E-commerce adoption framework in Pakistan (Own Illustration)

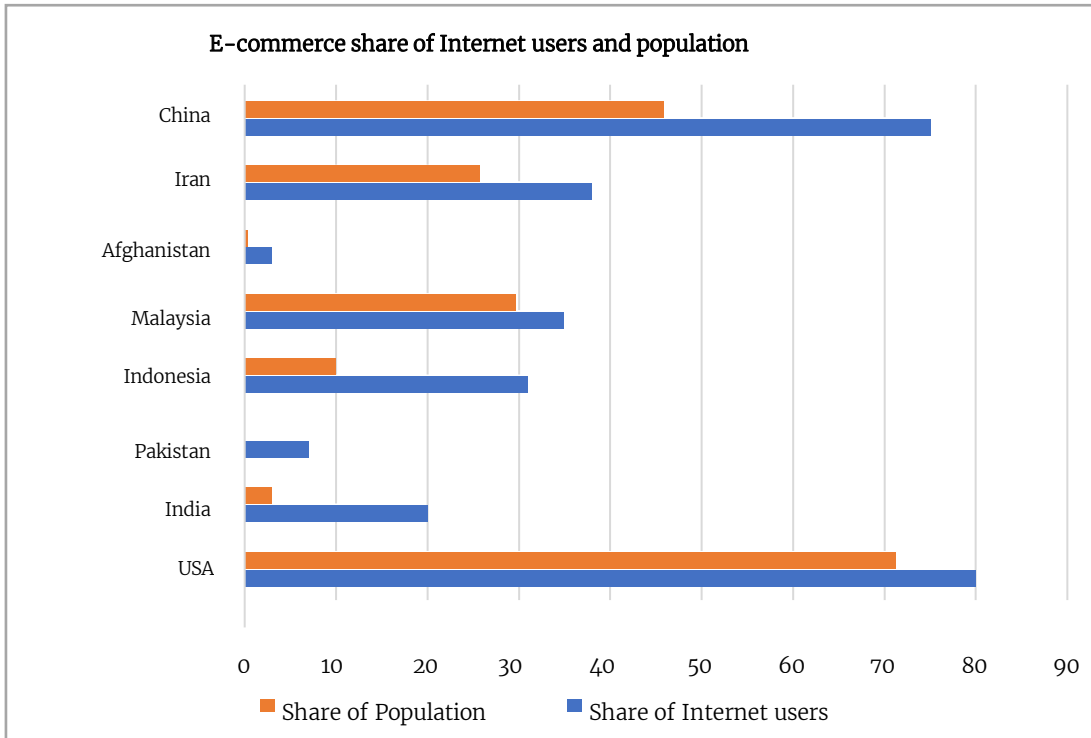


Broadband Penetration and E-commerce Adoption

According to the UNCTAD Business to Consumer Index Report 2020, Pakistan has ranked 114 among 156 countries on the readiness index to embrace e-commerce (UNCTAD, 2021). There was 2.3% negative growth on a year-to-year basis on the readiness index. On the other hand, the analysis of the data available with PTA shows that broadband penetration has increased four times in five years time from 2015 to 2020 (Razzak, 2022). Broadband Penetration was 12.23 million (6.115%) in 2015, and that rose to 111 million (40.95%) in 2020; as per updated data available on the PTA website, 111 million people have access to broadband in Pakistan, which is 52% of the total population. According to the UNCTAD Business to Consumer Index Report 2020, Switzerland ranked as the no.1 country (UNCTAD, 2021), and 80.5% of the population have performed online transactions. UNCTAD's e-commerce readiness index relies on four major parameters, i.e., the percentage of online users engaged in e-commerce, the share of the total population involved in online business, the information security of online business, and the reliability score of the logistics. Pakistan lagged behind in all these indicators. The share of online users in e-commerce is just 7%, and the share of the population is just 1.7%, as depicted in Figure 5, given on the next page.

Figure 5

E-commerce share of internet users and population (Own Illustration)

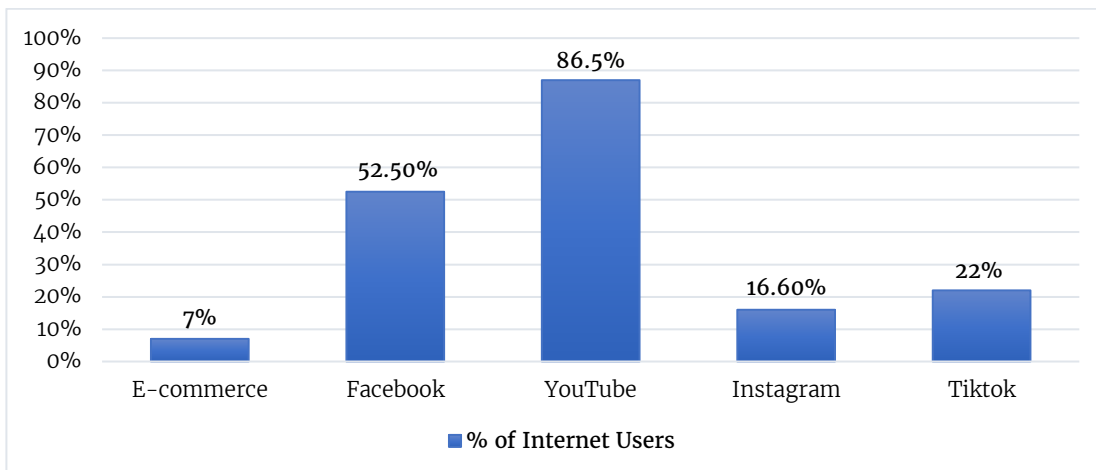


A comparison has been drawn between the neighbors and developing and developed countries, as depicted above. Share of online users performing online business is much higher (close to 80%) in developed countries. It is reasonable in developing countries such as Iran 38%, Malaysia 35%, Indonesia 31% and India 20%. While in Pakistan only 7 % online users perform online transactions. This shows that the broadband penetration or internet availability is not the hurdle in economic growth.

It is perceived that poor adoption of e-commerce in Pakistan is due to weak ICT infrastructure and poor broadband availability and quality. The author is of the opinion that this is not the reason for poor e-commerce in Pakistan, as it is evident from the penetration of social media apps in Pakistan. According to Bajwa (2022), the number of social media users in Pakistan was 71.70 million in January 2022. The data has revealed that 86.5% of internet users are using YouTube, 52.5% are using Facebook, 22% are using TikTok, 16.6% are using Instagram, and only 7% are using E-commerce. This clearly shows that internet penetration is not the major impediment to the adoption of e-commerce in Pakistan. The majority of internet users are shy of adopting e-commerce due to the factors discussed in the upcoming paragraphs.

Figure 6

Percent of internet users using different social media apps (Own Illustration)





Online Shopping Frauds and Adoption of E-commerce

Lack of trust in e-commerce due to online shopping scams is the major reason for the slow adoption of e-commerce in Pakistan. This is a global problem, especially in developing countries like Pakistan. In the years 2020 and 2021 alone, online financial frauds have increased by 600% percent (Ahmed, 2021). According to the International Telecommunication Union, the global cyber security index is the reputed index that measures the cyber security commitment level of a country (ITU, 2020). The cyber security index is assessed on five pillars, which are the technical, legal, and organizational measures to enhance cyber security along with capacity development and cooperation. According to this index, Pakistan ranked among the least cyber-secure countries. As per a report published by Ahmed (2021) in Tribune, the banking data of 19,864 account holders were compromised on a single day (on October 27, 2019). According to that report, 23720 financial frauds and 2246 online shopping frauds were reported to FIA in 2020. The volume of non-reported frauds is estimated to be three times more than the reported figures. Online financial frauds are committed through impersonation of officials of BISP, ARY Jeeto Pakistan, easy load, ATM card, bank service, etc. These financial frauds have eroded the trust of e-commerce consumers, and therefore, adoption is very slow.

Consumer Trust and Acceptance of E-commerce

E-commerce heavily relies on the indirect relationship between the seller and buyer. In such a scenario, the knowledge base about the parties that arise on the basis of personal interaction is missing (Harrison, 2002). Owing to this, the initial trust in certain known and unknown outcomes is very crucial in the acceptance of new technology such as branchless banking or e-commerce. Afshan (2016) found in a study in Pakistan that initial trust is of significant importance for the acceptance of e-commerce. The awareness about the selling platform and its legal and technological structure plays an important role in the adoption of e-commerce. This augments the importance of brand marketing, endorsements, refund policies, and privacy policies as well. In a similar research, Rind (2017) found that trust has a strong positive relationship with the adoption of mobile commerce in Pakistan. Other factors that might act as barriers are cost, social influence, and risk factors.

Trust is the predominant factor in the adoption of e-commerce platforms around the globe, especially in developing countries. India is a thriving market in e-commerce in South Asia, but the volume of online trade is still low compared to brick-and-mortar sales due to the trust deficit (Saleem, 2021). Perceived trust in mobile payment has a significant negative relationship with perceived risk. This shows that the perceived trust of the seller is of significant importance and affects customer buying intention and selection of payment method. Customers are reluctant to buy online due to trust deficits and risk and security issues related to online payment methods.

Information Security and Fraud in E-commerce

Distrust in online e-commerce platforms is due to information insecurity. Data protection, privacy fraud, and security-related risks are major impediments to the adoption of e-commerce in developing countries (Bhatia, 2021). Mukti (2000) conducted research on more than 50 businesses in Malaysia and found that security is the major hindrance to the growth of e-commerce. However, it is interesting to note that Serojai (2021) found that Sarawakians (a subpopulation of Malaysia) did not consider the perceived risk a major factor in the adoption of e-commerce. Potentially, this can be due to the lack of awareness about the harms of online fraud (Serojai, 2021). Similar research was carried out in South Africa (Limpopo Province), and Netshirando (2019) found that online security was a major concern for non-users of e-commerce due to a lack of trust and awareness. The same study revealed that the users of online commerce were also worried about information security.

Culture and E-commerce Adoption

National and local culture are other major factors in e-commerce adoption. Culture, in a broader sense, is a learned behavior and accumulated experience that is socially transmitted in society through learning. It is related to the individual perception of approval or disapproval of a certain action by society. Studies have shown that the opinions of family, friends, neighbors, peers, and coworkers are important in making a decision about the adoption of a new service or product. Merhi (2021) conducted research in more than 60 countries to study the relationship of culture with e-commerce adoption. He found that the data supported the direct relationship of

e-commerce adoption with cultural factors such as "power distance, individualism, long-term orientation, and indulgence." Individualism was considered the biggest cultural factor in the adoption of e-commerce. Batra (2020) also found that organizational culture has a significant positive relationship with e-commerce adoption. Similarly, Choi (2004) conducted research in the United States and Korea and found that cultural values and norms play an important role in the adoption of e-commerce.

Digital Literacy

Digital literacy is another major impediment to the adoption of e-commerce in Pakistan. Pakistan's performance is poor in digital literacy due to the non-availability of online content in local languages such as Urdu, Sindhi, Pashto, etc. In a survey conducted by the Economist Intelligence Unit, Pakistan ranked 68th out of 86 countries surveyed (Grefen, 2021). Owing to the low literacy rate in Pakistan, the majority of the population cannot read the English language, and most of the e-commerce apps' user interface's default language is English. The situation is worse as far as women's participation is concerned. The female population has overall low access to smart devices and the internet and is digitally illiterate.

Conclusion

Pakistan has all the necessary ingredients for the boom of the e-commerce industry. Broadband penetration has increased manifold in the last decade; the youth bulge that is mostly digitally literate, internet and smart affordability is not an issue. However, the growth of e-commerce has not increased proportionally. This is evident from the recent acquisition of Daraz by Alibaba Group for around 200 million dollars. In recent developments, Pakistani e-commerce and fintech start-ups such as Tajir, bazar, and Airlift only has raised funding of more than \$ 200 million in 2021.

Conclusion

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