

## Challenges and Opportunities for E-commerce in Balochistan

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### **Abstract:**

This research explores the challenges and opportunities faced by the e-commerce sector in Balochistan, shedding light on the unique dynamics of this region in the context of digital commerce. Through a combination of qualitative and quantitative methods, the study examines the current state of e-commerce in Balochistan, identifies the challenges hindering its growth, and highlights potential opportunities for development. The findings contribute valuable insights for policymakers, businesses, and academics aiming to understand and enhance e-commerce in this distinct and significant geographical area.

### **1. Introduction**

This study investigates the opportunities and challenges encountered by the e-commerce industry in Balochistan, providing insight into the distinctive dynamics of this locality within the realm of digital commerce. By employing a blend of qualitative and quantitative research approaches, this study scrutinizes the present condition of electronic commerce in Balochistan, discerns the obstacles impeding its expansion, and underscores prospective prospects for advancement. The results of this study provide essential and noteworthy knowledge for policymakers, businesses, and academics who seek to comprehend and improve electronic commerce in this unique and crucial region.

#### **\*\*Prologue\*\***

The sector of information and communication technology (ICT) is experiencing substantial growth and exerts a significant impact on the worldwide economy. As of this moment, the majority of financial sector operations are conducted via ICT. The emergence of the Internet has become an essential component of contemporary business transactions. The principal reason for this is that the Internet introduced e-commerce. E-commerce refers to the conduct of commercial operations, either exclusively or partially, via the Internet.

**\*\*Definition of E-Commerce\*\***

Depending on the viewpoint of the observer or commentator, the term "e-commerce" can be defined in a variety of ways. Specific authors distinguish between E-Commerce and E-Business in their definitions, while others define both as synonymous. When examining the distinction between the two concepts, E-Commerce is scrutinized closely commercially, wherein there are monetary transactions and associated fees.(Goel 2007) Nevertheless, this can be characterized as the electronic mediation of financial transactions involving organizations and stakeholders. However, from a more comprehensive standpoint, e-commerce encompasses a variety of business transactions that do not typically involve payment methods or go beyond what is commonly referred to as "commerce" in its literal sense. Instead, it encompasses all transactions, whether commercial or otherwise, electronically mediated between an organization and its dealings with individuals and third parties, including itself.

However, some authors interpret this as defining *E-Commerce* as an extension of E-Business, transforming it into a subset of E-Business. Conversely, others interpret it as describing E-Commerce as an invariably synonymous term with E-Business, leading them to interchange the two terms. However, for this study, several definitions of E-Commerce as defined by various authors are provided below.

"Using telecommunication networks, electronic commerce consists of the exchange of business information, the maintenance of business relationships, and the execution of business transactions".

- "Electronic commerce deals with the facilitation of transactions and the sale of products and services online via the internet or any other telecommunications network."

explain that E-Commerce can be defined from various vantage points, including but not limited to the following:

- From a communications standpoint, e-commerce is perceived as transmitting information, products and services, and payments through diverse communication lines, such as computer networks, telephones, and other electronic channels.(Tabassum, Mehmood et al.)
- E-commerce is regarded as implementing technological applications to automate business transactions and work processes as viewed through a business lens.
- From a service-oriented standpoint, electronic commerce is regarded as a mechanism that accommodates consumers, assists business management in diminishing service expenses to enhance product quality, and expedites service delivery.
- From an online standpoint, electronic commerce facilitates a conducive environment for exchanging goods, services, and data through the Internet and other online-accessible platforms.

**\*\*E-Commerce Classification\*\***

Diverse classification schemes are utilized to categorize the functionality of e-commerce, contingent upon the parameters employed by the commentator or author. The following are examples of classifications that are implemented:

- Classification according to seller or purchaser. (Business, consumer, government, etc.)
- Categorization according to product or activity. (Examples: search engines, online advertisements)
- Categorization according to revenue sources. (Advertising revenues, referral fees, and so forth)
- Classification by duties. (Banking, Investing, Shopping, and More)
- Organization according to technology. (Internet application framework, Internet infrastructure, etc.)

Although the classifications above and methods are diverse, the buyer/seller classification form is the most commonly employed. This is due to the transaction's description of the various parties, which includes the individual or entity that placed the order for the services or products to be sold, the seller of those services or products, and the nature of the transaction that has been completed. The subsequent section provides descriptions of the different classifications of electronic commerce, as delineated in the category of electronic commerce by (Laudon and Traver 2020).

- **\*\*Consumer to Consumer (C2C):\*\*** This form of electronic commerce involves direct transactions between individuals, bypassing any human intermediary. A platform functions as an impregnable intermediary in these transactions. Online platforms are frequently utilized for auctions, sales of online expertise, and advertising personal services. Such websites include eBay and MSN.com and various social networking platforms, including Facebook, Twitter, My Space, and others.
- **\*\*Business to Consumer (B2C):\*\*** This pertains to electronic commerce (e-commerce) wherein enterprises directly sell to consumers. The platform utilized for such electronic commerce transactions may serve transactional objectives or facilitate relationship and brand development, with the primary goal being a shift in consumer perception through increased patronage of the offered products and services. In this context, consumers can compare prices before reaching a purchasing determination, while businesses can establish direct connections with customers, bypassing the need for intermediaries. Additionally, non-standardized products may be sold on this type of platform. CompUSA.com, Amazon.com, and IndiaBalls.com are some examples. Further Multinational corporations such as Accenture and British Petroleum also engage in B2C e-commerce.
- **\*\*Consumer to Business (C2B):\*\*** This category of electronic commerce transactions is also known as demand collections; according to, it is a channel through which individuals and organizations sell goods and services to one another via the internet. It permits tendering in which participants indicate their price for the available goods and services. This entails a scenario where the client posts an online inquiry with a specified price or budget, and the vendor responds with bids. The client then evaluates the bids and makes selections as deemed suitable.

A business-to-business (B2B) transaction is the most substantial type of electronic commerce transaction in terms of value, as it involves business organizations as both purchasers and sellers, excluding individual consumers. This is according to Turban et al. (2008).

- **\*\*Business-to-Business-to-Customer (B2B2C):\*\*** This electronic commerce category occurs when a company proprietor resells to a client a product or service that it has obtained from another company without supplementing the value of the item or service. The client serves as an intermediary in this mode of transaction.

- **Business to Employee (B2E):** This is primarily utilized by organizations with a significant number of mobile employees and operates a virtual office, as it facilitates the transmission of information, products, and services to employees.

#### **E-Commerce Development Environments**

E-commerce functions and conducts transactions using digital technology entirely predicated on electronic communication. As per their assertions, the technology employed comprises internet-based communications via websites and emails (both intranet and extranet), digital media encompassing mobile and wireless platforms to accommodate cable and satellite television, mobile phones and devices for telemarketing purposes, and fixed telephone lines for telephone banking.

Although all of these platforms are utilized for E-Commerce operations, it is critical to emphasize the significance of the web, which serves as the foundation for every E-Commerce platform. The web has proven to be a highly effective instrument in bridging nations, and transactions can be conducted virtually at any moment, regardless of the time zones around the globe. The significance of the Internet in the context of electronic commerce (E-commerce) cannot be overstated. It has become an unspoken requirement for businesses to maintain relevance by establishing a fully operational website that facilitates E-Commerce transactions.

Nevertheless, despite this, most e-commerce platforms and sites are different in every way, as their capabilities vary according to their intended use, which dictates their design and features. In the realm of e-commerce, there are studies that examine related topics such as e-commerce readiness, challenges and issues, and electronic payment systems in Balochistan.

A worldwide increase in the number of Internet consumers is a consequence of the emergence of globalization. The very nature of electronic commerce possesses its motivating factor due to its availability around the clock, absence of physical store requirements, and minimal or no travel expenses. Coffee, leather goods, oil seeds and pulses, live animals and animal products, seasonings, food, civet, natural gum, agricultural products, cotton and cotton products, fish, textiles, handcrafted ornaments and cards, honey and beeswax, footwear, aluminium scrap are all well-known exports from Balochistan. This creates prospects for participation in the global market via electronic commerce.

Like any other industry, e-commerce presents its own prospects and obstacles. Conducting a systematic evaluation of the challenges and opportunities of e-commerce in the context of Balochistan is the primary objective of this study.

**The Research Inquiry**

#### **The Research Inquiry**

This study investigates the following two research inquiries: (1) In what ways does e-commerce present prospects for the province of Balochistan? (2) What obstacles does the e-commerce sector in Balochistan encounter?

## Justification for the Study

This study explores e-commerce in Balochistan, a region with limited specialized research. The existing literature predominantly focuses on global or national perspectives, often overlooking the distinctive attributes of Balochistan. This study examines the obstacles and prospects associated with electronic commerce (e-commerce) in Balochistan. The findings will provide valuable insights to guide businesses, inform policy-making, and empower stakeholders in their efforts to foster sustainable development. The motivation for this research stems from the need for more specialized literature addressing the intricacies of e-commerce in Balochistan. (Rehman and Ahmad 2022) The current body of research primarily emphasizes global or national aspects, frequently neglecting the unique characteristics that define this particular region. Through an in-depth examination of the obstacles impeding and the prospects of advancing electronic commerce in Balochistan, this research aims to provide regionalized perspectives that can supply guidance for businesses, policymakers, and stakeholders in their efforts to promote sustainable development.

### Purposes of the Study

#### • Define obstacles

1. Conduct an inquiry into the current condition of internet infrastructure in Balochistan about accessibility to ascertain the degree of coverage, speed, and dependability. This analysis will assess how these factors facilitate or impede the engagement of consumers and businesses in e-commerce endeavours.
2. Examine Logistical Limitations: Inquire into the complexities of the transportation and distribution systems indispensable for electronic commerce. Evaluate the efficacy of current logistical infrastructures and pinpoint constraints that could hinder the expansion of electronic commerce.
3. Assess Cultural Factors: Analyze the influence of Balochistan's cultural diversity on consumer conduct and confidence in e-commerce platforms. Identify cultural nuances impacting online transaction perceptions, payment methods, and preferences.
4. Regulatory Framework Assessment: Evaluate Balochistan's current policies and regulations governing electronic commerce. Comprehend how these regulations promote or impede the formation and functioning of e-commerce enterprises, encompassing licensing, taxation, and consumer protection concerns.

#### • Recognize opportunities

1. Explore Economic Potential: The Role of E-commerce in Balochistan's Economic Development through Job Creation, Entrepreneurship Promotion, and Growth Stimulation. Determine which particular industries or sectors stand to gain from the proliferation of electronic commerce.
2. Evaluate the impact of e-commerce on digital inclusion and literacy promotion in the Balochistan region. Gain insight into potential strategies for expanding access to digital platforms to guarantee that diverse sectors of society can engage in and benefit from the digital economy.
3. Adapt Solutions to Socio-economic Dynamics: Determine potential avenues for tailoring e-commerce strategies according to the distinctive socio-economic conditions prevalent in Balochistan. (Al-Jaberi, Mohamed et al. 2015) When devising strategies that effectively connect with the local populace, it is crucial to consider various determinants, including education, income levels, and employment patterns.
4. Explore the potential of electronic commerce to enable local entrepreneurs and minor enterprises in Balochistan, thereby fostering local entrepreneurship. Investigate strategies for facilitating the integration and support of local enterprises within digital marketplaces, thereby stimulating grassroots economic expansion.

- Recognize opportunities

5. Explore Economic Potential: The Role of E-commerce in Balochistan's Economic Development through Job Creation, Entrepreneurship Promotion, and Growth Stimulation. Determine which particular industries or sectors stand to gain from the proliferation of electronic commerce.

6. Evaluate the impact of e-commerce on digital inclusion and literacy promotion in the Balochistan region. Gain insight into potential strategies for expanding access to digital platforms to guarantee that diverse sectors of society can engage in and benefit from the digital economy.

7. Adapt Solutions to Socio-economic Dynamics: Determine potential avenues for tailoring e-commerce strategies according to the distinctive socio-economic conditions prevalent in Balochistan. When devising strategies that effectively connect with the local populace, it is crucial to consider various determinants, including education, income levels, and employment patterns.

8. Explore the potential of electronic commerce to enable local entrepreneurs and minor enterprises in Balochistan, thereby fostering local entrepreneurship. Investigate strategies for facilitating the integration and support of local enterprises within digital marketplaces, thereby stimulating grassroots economic expansion.

#### 1.4 Importance of the Research:

This study is of utmost importance as it illuminates the obstacles and prospects for electronic commerce in Balochistan, providing significant perspectives that transcend the scholarly domain. The significance of this research can be clarified from multiple perspectives:

- **Informed Policymaking:** The results of this study can provide policymakers with valuable insights regarding the precise regulatory modifications required to facilitate the expansion of e-commerce in Balochistan. For example, gaining knowledge of the obstacles posed by regulations could facilitate the development of policies that promote digital entrepreneurship or optimize licensing procedures.

- **Strategic Business Decision-Making:** Organizations may employ the acquired knowledge to customize their electronic commerce approaches by per Balochistan's socio-economic and cultural intricacies. As an illustration, an e-commerce platform could modify its payment methods, user interface, or marketing approaches to correspond with the preferences of specific regions.

- **Economic Development and Job Creation:** The study can identify potential areas for job creation by analyzing economic prospects. An example of this would be acknowledging the market demand for regional goods on the digital platform, which could spur the expansion of regional enterprises and generate employment opportunities.

Promoting digital inclusion through e-commerce may inspire the development of initiatives that seek to improve digital literacy.

#### Literature Assessment

##### **Trends in Global E-commerce:**

The rapid evolution of the global e-commerce environment is influenced by technological advancements, shifting consumer preferences, and market dynamics. Key trends consist of:

**Mobile commerce (M-commerce)** has increased as consumers progressively rely on smartphones and tablets to complete their online purchases.

**Cross-border E-commerce:** The increasing prevalence of cross-border transactions, in which consumers acquire goods from international vendors, demonstrates the globalization of e-commerce.

**The rise of social commerce:** E-commerce proliferates on social media platforms, enabling companies to sell goods and services directly to their target audience.



The incorporation of Augmented Reality (AR) and Artificial Intelligence (AI): The utilization of AR technologies, including chatbots and AI-powered personalization, improves the online purchasing experience by offering more interactive and customized solutions.

There is a growing consumer preference for environmentally sustainable products and practices, which significantly impacts e-commerce enterprises that wish to implement eco-friendly strategies.

### **The National E-commerce Environment:**

An examination of the extant body of literature concerning e-commerce in Pakistan offers a more comprehensive outlook, particularly emphasizing the intricacies within the country's territorial confines.

Gaining Insights into the Scale and Growth of the E-commerce Market in Pakistan: An Analysis of the Market's Dimensions and the determinants contributing to its Profound expansion.

An analysis of the regulatory frameworks and policies that govern electronic commerce in Pakistan, focusing on recent modifications or advancements.

This study examines how Pakistani consumers interact with online platforms, encompassing their inclinations, apprehensions, and determinants that impact their buying choices.

An investigation into the prevalence and reception of digital payment methods is warranted, given the criticality of e-commerce expansion to implement secure and convenient payment systems.

### **Socioeconomic and Infrastructural Attributes of Balochistan:**

Gaining insight into the multifaceted cultural tapestry of Balochistan, encompassing its dialects, customs, and societal standards, is imperative to customize electronic commerce approaches that effectively connect with the indigenous populace.

Internet Accessibility: Evaluating the present condition of the internet infrastructure in Balochistan, encompassing factors such as the degree of coverage, speed, and dependability, while also identifying any discrepancies in accessibility among various regions.

An examination of the current transportation and distribution systems in Balochistan, with a focus on the obstacles and prospects associated with establishing streamlined e-commerce logistics.

An analysis of the regulatory frameworks unique to Balochistan, encompassing any policies or obstacles specific to the region that could affect electronic commerce activities.

### Three E-commerce Difficulties in Balochistan

#### **Limited Customer Knowledge**

The low level of customer awareness and the high rates of customer illiteracy, which make the English language difficult to use for online shopping, have been identified as obstacles to e-commerce in Balochistan. Additionally, consumer behaviour towards adopting these types of businesses and a need for more awareness regarding the use of information and communication technology, as well as a shortage of skilled human resources, hinder the success of e-commerce operations. Furthermore, several studies have indicated that more adequately trained human resources in e-commerce are needed to improve the implementation and sustainability of e-commerce in Balochistan. Organizations initiating e-commerce in Balochistan are reported to need more seasoned labour to overcome difficulties. Apprehension Regarding Security and Risk The system lacks reliability, standards, and a portion of a communication protocol. A customer's monetary investment is compromised if an e-commerce website is compromised. Insufficient cybersecurity measures are the most prevalent issue e-commerce websites encounter. As stated by, a study on online apparel product purchasing identified privacy and security concerns as one obstacle.

### **Insufficiency of Electronic Commerce Infrastructure**

In a dynamic global environment, it is imperative to adapt business requirements to align with evolving technological demands, market trends, and customer preferences. The infrastructure serves as the bedrock upon which your organization is built. E-commerce infrastructure comprises the hardware, software, network, and online store facilities. Having the appropriate infrastructure will result in an enterprise operating at peak efficiency.(Javed 2020) E-commerce remains in its nascent stage and is seldom utilized due to inadequate IT and e-commerce infrastructure. Additionally, e-commerce infrastructure must be identified as a primary obstacle impeding consumers' ability to purchase apparel products online.

### **Absence of a Regulatory and Legal Framework**

Security and trust are critical components of electronic commerce as they instil confidence in consumers and businesses. Countries must, therefore, enact legislation and regulations about cybercrime, data protection, and consumer protection. A substantial positive correlation exists between legislation and regulation and digital marketing practices. The current rules governing commercial transactions in Balochistan were established before the advent of the cyber world; therefore, they need to streamline transactions effectively. Thus, the Ministry of Communication and Information Technology of the Federal Republic of Balochistan has formulated preliminary e-commerce legislation to address the obstacles to the nation's e-commerce progress caused by current laws. As of now, Balochistan still needs to establish an all-encompassing legal structure for electronic signatures and commerce. E-signature and e-commerce legislation in Baluchistan is still in the draughts phase. E-payment and the need for an appropriate legal and regulatory framework for e-commerce constitute an additional obstacle.(Islam 2018) On the other hand, recent efforts by the government of Balochistan have been devoted to drafting a national law to regulate e-commerce; its approval and implementation are anticipated to stimulate the online market.

### **Evaluate the Existing Condition of Internet Infrastructure**

Storm Fiber Managing Director Fawad Yousuf Laher said, "It is time for our citizens to enjoy a standard of living comparable to that of developed nations, especially about fundamental requirements like the internet, which plays a crucial role in intellectual, social, and economic progress." Maroof Ali Shahani, Chief Operating Officer of Cyber Internet Services, underscored the significance of enhanced fibre-optic broadband penetration in terms of its influence on countries' gross domestic products. StormFiber has entered Quetta with coverage in some areas and plans to extend its reach to other parts of the city shortly. "A better-connected Pakistan translates to an increase in GDP, an increase in overall tax collection, an improvement in the standard of living, and empowers vital facilities such as education, entrepreneurship, and digital exports, including software-related outsourcing," said the COO.(Ahmed 2019) The designated areas consist of Model Town, Shahbaz Town Phase I, II, III and IV, Jinnah Town, Samungli Housing Scheme, Arbab Town, Kakar Town, Lehri Gate, and Gull Bagh. Storm Fiber is enthusiastic(Ahmadi, Baloch et al. 2022) about expanding its fibre broadband and triple-play services nationwide. Quetta, which joins Karachi, Lahore, Multan, Hyderabad, Faisalabad, and Peshawar as the seventh city to be added to its FTTH network, will be energized by Storm Fibre within the preceding year. Entrepreneurship is increasing in Quetta due to the influx of students from the province seeking education there. Academic institutions, including the University of Balochistan, are implementing programs to support entrepreneurial endeavours. Access to dependable high-speed internet will further support the city's efforts to develop, stimulating growth across various sectors. A new broadband plan is being implemented to cover 12.8% of Balochistan.



In the modern era, reliable and fast broadband service is a significant driver of economic development. StormFiber's (supported by Cybernet) fibre-based gigabit internet connectivity will assist Quetta in bridging the digital infrastructure gap and bringing it in line with other major cities worldwide. StormFiber strives to provide dependable internet services through FTTH infrastructure to advance these national interests.

### **Determine obstacles that impede businesses' and consumers' access to the internet**

Decades of research have been devoted to examining the factors that influence or hinder the adoption of e-commerce in both the B2B and B2C sectors on a global scale. The adoption of electronic commerce has been examined through the lenses of information systems and consumer behaviour. Early research on the adoption of e-commerce in developed nations led Farm and Grady (1995) to conclude that transaction issues, such as insufficient credit card security, unidentified vendors, and limited payment options, are the primary concerns of online consumers. Furthermore, apprehension towards online transactions was the most substantial obstacle impeding online browsers from converting into online purchasers. In the e-commerce literature, trust has been recognised as a perceived risk and an impediment to Internet adoption. Consumers with prior Internet experience are more receptive to the concept and have a more favourable perception of it. (Khan and Ahmed)

Furthermore, security concerns about personal and credit card information were identified as the most significant obstacle to the widespread adoption of online purchasing. When online vendors can provide evidence of the security of their websites, consumers will have a more excellent perception of safety when conducting online transactions. This recognition would indicate the seller's commitment to ensuring online transaction security measures.

During the initial phases of online purchasing adoption, the primary concerns expressed by consumers were:

- The inability to physically inspect the product before making a purchase.
- The expense of shipping.
- The security of credit cards.
- The privacy of personal information.

In the case of consumers in the United States, obstacles to the adoption of online purchasing include the inability to examine the product before purchase, the failure to discuss after-sale services (return and exchange), the expense of shipping, and the anonymity of the seller. (BALOCH and HUSEYNOV 2019)

In their cross-country comparison research, encompassed the following nations: the United States, Germany, France, Denmark, Brazil, Mexico, Japan, China, and Singapore. Their investigation aimed to identify global, environmental, and policy factors that influence the diffusion of e-commerce. According to the study, B2B is affected by international forces, whereas local phenomena influence B2C. Additionally, the research reveals that regulatory support from the government, robust ICT infrastructure, consumer purchasing power, and the desire of consumers to make online purchases all contribute to the facilitation of business-to-consumer e-commerce. In contrast, barriers to business-to-consumer (B2C) e-commerce include payment method options, language barriers, limited purchasing alternatives, consumer distrust, preferred shopping channels, inadequate on-site product information, hesitancy towards online purchases, and socioeconomic inequality.

An OECD (2007) study examining the obstacles impeding the adoption of e-commerce in developing nations identified several barriers that varied considerably between countries. Infrastructure-related obstacles comprise the majority of those identified; these include network availability of ICT skills, technology, and qualified human resources; equipment and service costs; security and privacy concerns; payment systems; inadequate distribution logistics; after-sale services; and the absence of a physical experience in the context of online shopping. Although they encounter unique obstacles, most cross-border online purchasing is conducted by consumers in developed or developing European nations. According to an SEC (2009) report on cross-border e-commerce across the European States, the most significant impediments are language and cultural barriers, payment methods, delivery, and after-sales support.

### **Prospects for E-commerce Development in Balochistan**

To investigate the prospects for e-commerce development in Balochistan, it is necessary to identify prospective growth and development areas in the digital marketplace. The following elucidates the principal opportunities:

#### **Economic Empowerment**

Integrating e-commerce into Balochistan's economy can significantly contribute to the province's progress by stimulating expansion across multiple sectors and fostering a more digitally empowered and inclusive society.

**Market Entry and International Presence:** Electronic commerce offers enterprises in Balochistan an avenue to exhibit and vend their goods and services worldwide. They can augment their market presence and potential financial gains by granting local businesses access to a more extensive range of customers, including those in national and international markets.

**Entrepreneurship and Employment Generation:** The expansion of electronic commerce can generate employment opportunities across diverse sectors, including customer service, digital marketing, website development, and logistics.(Sundaram, Sowjanya et al. 2018) Furthermore, it allows for the establishment of online enterprises by entrepreneurs, thereby promoting an environment that encourages innovation and independent work.

E-commerce platforms facilitate the empowerment of local enterprises through the provision of necessary tools and resources to establish an online presence. This entails the development of digital storefronts, inventory management, and online marketing. By utilising the digital economy, larger-scale competition is attainable for small and medium-sized enterprises (SMEs).(Vashishtha and Kumar 2016) By digitizing processes, automating transactions, and reducing documentation, e-commerce streamlines business operations, resulting in increased efficiency and cost savings. The enhanced efficacy results in financial benefits for enterprises, promoting sustainable operations and bolstering the regional economy.

Digital financial inclusion is facilitated by the widespread adoption of digital payment methods fostered by e-commerce. The increasing adoption of online transactions facilitates the engagement of individuals hitherto marginalized from conventional banking systems in the digital economy, thereby fostering financial literacy and inclusivity.

## Inclusion in Digital

Digital inclusion and literacy can be significantly advanced in a region like Balochistan through electronic commerce.

**Educational and Informational Resources:** E-commerce platforms provide access to knowledge and information. User access is granted to them through product details, guides, and reviews. Digital content consumption enhances individuals' digital literacy by facilitating their navigation and interaction with online information.

**Online Skill Development and Training:** E-commerce platforms can host tutorials and training programs online. With these resources, individuals, tiny business proprietors and entrepreneurs can acquire the digital competencies required to participate in the online marketplace. Website administration, online marketing, and fundamental digital literacy may be covered.

Electronic commerce transactions frequently necessitate the implementation of digital payment mechanisms. By conducting business on e-commerce platforms or participating in online purchasing, individuals gain knowledge and experience with digital payment procedures. This initiative promotes financial inclusion and literacy by encouraging the use of digital financial instruments.

**Internet Connectivity and Adoption:** The expansion of e-commerce frequently inspires enhancements to the internet's infrastructure. The growing engagement of enterprises and individuals in online activities has generated a corresponding surge in the need for enhanced internet connectivity. This, consequently, improves digital connectivity and accessibility throughout the region.

E-commerce training initiatives can be initiated through collaborative efforts among governments, non-profit organizations, and e-commerce platforms. (Saeed 2023) These programs contribute to digital literacy by educating individuals on the advantages of e-commerce, the methods of navigating online platforms, and the security precautions that should be observed during online transactions.

## Localized Solutions

Customizing e-commerce strategies to accommodate the distinct requirements of Balochistan necessitates adapting approaches to correspond with the cultural, socio-economic, and infrastructural dynamics of the region.

**Cultural Sensitivity and Localization:** This entails recognizing and valuing the rich cultural diversity of Balochistan, taking into account factors such as language usage, customs, and consumer inclinations. In addition to providing communication and content in local languages, e-commerce platforms should integrate culturally significant imagery and conform to regional customs. Doing so guarantees that the online purchasing encounter positively impacts the local populace, promoting confidence and active participation.

**Adaptation to Connectivity Challenges:** Acknowledge and resolve obstacles related to internet accessibility by implementing offline functionalities and platform optimization for reduced internet speeds. In light of the diverse range of internet connectivity levels in Balochistan, e-commerce platforms must be engineered to operate smoothly, even on sluggish connections. Furthermore, including offline functionalities enables customers to peruse merchandise and arrive at decisions despite intermittent internet connectivity.

**Logistics Tailored to Geography:** Formulate delivery and logistics strategies that consider the intricate geographical features and remote sites in Balochistan. Establish adaptable and resilient distribution infrastructures capable of penetrating urban and rural regions. (Hussain, Akbar et al. 2022) Potential strategies include establishing collaborations with nearby conveyance services, implementing alternative modes of transportation, and devising inventive approaches to address the obstacles encountered during last-mile delivery.

**Payment Options and Financial Inclusion:** To cater to a wide range of financial preferences and levels of digital literacy, offer a variety of payment alternatives, such as cash-on-delivery. Acknowledging the variability in digital payment adoption, the provision of cash-on-delivery alternatives enables consumers in Balochistan to complete purchases in a manner that does not necessitate immediate online transactions. This facilitates financial inclusion and appeals to a broader range of consumers.

**Tailored Product Offerings:** Assemble product offerings by the particular requirements and inclinations of the populace of Balochistan. Recognize the market demand for regionally specific items, traditional crafts, and local goods. By fostering partnerships with regional artisans and producers, e-commerce platforms can establish a marketplace that authentically represents the distinctive products of Balochistan and enhances its reputation.

## Methodology for Research

### Design of Research

The concept of "research varies from person to person"; its purpose is to examine vast information, theories, experiences, concepts, and the law. *Research methodology* is "the procedural framework through which the endeavour is carried out." Quantitative and qualitative methods of inquiry comprise the two broad and distinct approaches to social research. The quantitative paradigm, conversely, seeks to acquire more profound insights, knowledge, and comprehension of a specific situation or phenomenon by providing answers to the inquirie "how?" instead of "What?". In contrast to qualitative research, which takes place in natural environments, quantitative research aims to establish hypotheses.

### Collection of Data

The information necessary for comprehension will be gathered from various online customers. In order to carry out the research, a digital survey was administered via email and Facebook. Subsequent analysis was conducted on the responses gathered in a spreadsheet. The data collection methodology employed in this specific study consists of two components: primary and secondary

data. Caution should be exercised when utilizing secondary data, as the acquired information may contain biases due to the possibility that the original data collector selectively highlighted a portion of the image, the data may be pretty outdated, and the data quality may be unknown.

### Essential Data

The primary data for this research is gathered via a meticulously designed questionnaire. The survey comprises both quantitative and qualitative multiple-choice inquiries. Participants are requested to select the response option from the given options that most closely aligns with their circumstances.

### Additional Data

Secondary data refers to information gathered from public and private institutions' pre-existing publications, reports, and statistics. The primary sources from which secondary data for this particular study was obtained were marketing journals that had previously published articles on the subject. Using secondary data enables the author to gain insight into how Indian consumers perceive online purchasing. As a result, the primary data were analyzed in the study by the

Justification and verification of the current secondary data.

### Example Methodology

Choosing a study sample is crucial to any research endeavour, as studying entire populations is rarely efficient, practicable, or ethical. *Convenience sampling* is the sampling strategy employed in this investigation. 100 is the sample size. A portion of something intended to represent the entire object or a subset of a population. Simple random sampling is employed in this study.

### Sample Structure

The sampling strategy is designed to guarantee that various districts in Balochistan are adequately represented. Geographic diversity contributes to the explanation of disparities in infrastructure and culture.

### 3.5 Approach to Data Analysis or Statistical Methods

Descriptive statistics were employed to analyze, present, and interpret the collected qualitative and quantitative data. Version 20 of the statistical application for the social sciences (SPSS) was utilized to transform qualitative and quantitative data into descriptive statistics, including frequencies and percentages.



## 4 Data Analysis & Interpretation

### 4.1 Geographic Information

#### 4.1.1 where is your Location?

	Frequency	Percent	Valid Percent	Cumulative Percent
Urban area	38	50.0	50.0	50.0
Valid Rural area	38	50.0	50.0	100.0
Total	76	100.0	100.0	

**Table4.1.2:** In the above table shows that the 50% people from urban area and the 50% rural area respond in our survey for the challenge and opportunity in Balochistan and they are belong from different areas of Balochistan.

#### 4.1.2 what is your occupation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Consumer	35	46.1	46.1	46.1
Valid Local business owner	28	36.8	36.8	82.9
Government/policy maker	13	17.1	17.1	100.0
Total	76	100.0	100.0	

**Table4.1.2:** In the above table shows that the occupation of the people who is respond in this survey the table shows that there are 46% consumer 36% local business owner and 17% are the government employees and the policy maker who are respond in this survey and they have highlighted the challenges in the balochistan for E-commerce.

## 4.2 Factors Information Analysis:

### 4.2.1 How familiar are you with the concept of e-commerce?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very familiar	28	36.8	36.8
	Somewhat familiar	32	42.1	78.9
	Not familiar at all	16	21.1	100.0
	Total	76	100.0	100.0

**Table 4.2.1** In the above table shows that the 36% people are very familiar of the concept of E-commerce (Daraz, olx etc.) and 42% people are those who buy sometime product from the online platform and 21% people are not familiar with the concept of E-commerce.

### 4.2.2 Have you ever engaged in e-commerce activities (e.g., online shopping, selling products online)?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	50	65.8	65.8
	No	26	34.2	100.0
	Total	76	100.0	100.0

**Table 4.2.2:** in the table shows that the 65.8% people are those who are selling buying products from the online platform and the 34.2% people are those who not involving in buying and selling anything from online platform.

#### 4.2.3 How would you rate the current state of internet connectivity in your area?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	35	46.1	46.1
	Poor	30	39.5	85.5
	Excellent	11	14.5	100.0
	Total	76	100.0	100.0

**Table 5.2.3** the above table shows that the 46.1% people respond in the good internet connectivity in their area and 39.5% people respond poor internet connectivity in their area. 14.5 people who respond excellent internet connectivity in their area.

#### 4.2.4 What are the main barriers to internet access in your opinion?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lack of awareness	36	47.4	47.4
	Limited infrastructure	22	28.9	76.3
	Affordability	8	10.5	86.8
	Other	10	13.2	100.0
	Total	76	100.0	100.0

**Table 4.2.4** the above table show that the 47.4% people think the main barrier in internet access are lack of awareness and 28.9% people think limited infrastructure and the 10.5% people thinks that affordability and the 13.2 people thinks that there are some other barriers.

#### 4.2.5 How would you rate the transportation and distribution networks supporting e-commerce in Balochistan?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Efficient	32	42.1	42.1	42.1
Valid Inefficient	31	40.8	40.8	82.9
Valid Somewhat efficient	13	17.1	17.1	100.0
Total	76	100.0	100.0	

Table 4.2.5 the above table show that the 42.1% people thinks that the transportation and distribution network are Efficient while 40.8% people think that transportation and distribution network are inefficient and 17.1 people thinks that somewhat efficient for supporting E-commerce in Balochistan.

#### 4.2.6 do you think e-commerce can contribute to the economic development of Balochistan?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	49	64.5	64.5	64.5
Valid No	27	35.5	35.5	100.0
Total	76	100.0	100.0	

**Table 4.2.6** the above table shows that 64.5% people thinks that E-commerce can contribute to the development of economic in balochistan while 35.5% people thinks that the E-commerce cannot contribute to the Economic Development of balochistan

#### Conclusions and Discussions

**Balanced Representation:** The survey has effectively gathered perspectives from urban and rural regions, thereby ensuring a holistic comprehension of the obstacles and prospects in various parts of Balochistan.

**A Wide Range of Occupational Perspectives:** The survey encompasses the viewpoints of policymakers, consumers, and local business owners, thereby offering a comprehensive assessment of the obstacles and prospects encountered by various stakeholders.

**A Variety of Knowledge Regarding E-commerce:** A considerable proportion of individuals possess e-commerce knowledge, but a noteworthy percentage still need to be made aware. This indicates that targeted awareness campaigns are necessary.

**Active E-commerce Participation:** A significant proportion of the participants have engaged in e-commerce endeavours, suggesting an expanding user base of electronic commerce platforms in Balochistan.

The challenges associated with internet connectivity, including the identified barriers (such as limited infrastructure and a lack of awareness), highlight the critical nature of infrastructure development and awareness campaigns.

Transportation and distribution networks are subjects of differing perspectives regarding their efficacy, raising concerns about whether there are viable avenues for enhancement that could facilitate the expansion of e-commerce.

**Predictions Regarding Economic Development:** A considerable proportion believe that electronic commerce can foster economic growth in Balochistan, indicating a positive outlook regarding its prospective influence.

Key Suggestions:

Infrastructure development should be a top priority. This entails allocating resources towards establishing dependable internet connectivity and secure online payment gateways. Enhancing these fundamental components is of the utmost importance in cultivating an environment favourable for expanding e-commerce in Balochistan.

**Logistical Remedy:** Conquer logistical obstacles by implementing streamlined delivery and supply chain systems. Engaging in partnerships with logistics providers allows e-commerce businesses to streamline their routes and decrease delivery durations, improving the overall consumer experience and minimising operational expenses.

Initiate all-encompassing digital literacy initiatives that cater to businesses' and consumers' needs. Enhancing the proficiency of individuals in conducting online transactions will facilitate the broader integration of e-commerce methodologies in the province of Balochistan.

**Support from the Government and Policy Framework:** Develop and execute policies conducive to expanding electronic commerce. Encourage enterprises to embrace digital platforms and optimise regulatory procedures to foster an environment conducive to business operations.

**Local Business Capacity Building:** Implement training programs and seminars to augment local enterprises' digital proficiencies. This includes educating them on the best practices of e-



commerce, strategies for online marketing, and utilising digital platforms to increase their market presence.

**Community Engagement and Awareness Campaigns:** Educate the public about the benefits and security of online transactions through awareness campaigns. Establishing consumer confidence and trust is critical for the continued expansion of electronic commerce in Balochistan.

Promote public-private partnerships that foster cooperation among non-profit organisations, the private sector, and the government. Public-private collaborations have the potential to foster the exchange of resources, the transmission of knowledge, and joint endeavours aimed at collectively tackling challenges.

**Research and Development Endeavours:** Provide backing for continuous research endeavours that aim to comprehend Balochistan's ever-changing intricacies of electronic commerce. This involves evaluating the efficacy of implemented policies, conducting periodic surveys, and analysing market trends to make informed decisions.

In conclusion, the study highlights the complex environment of electronic commerce in Balochistan, emphasising the challenges and opportunities that influence its course. Difficulties such as inadequate digital infrastructure, logistical limitations, and socio-economic considerations present obstacles to the smooth functioning of electronic commerce activities. Nevertheless, the region's unexplored market potential, expanding adolescent demographic, and rising level of digital literacy offer auspicious prospects for expansion. In the context of Balochistan's e-commerce environment, the establishment of strategic partnerships between the public and private sectors, coupled with investments in infrastructure and education, can facilitate the growth of e-commerce in a manner that is both inclusive and sustainable.

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