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The Influence of Social Media on Online Purchase Intention: the Case of the Algerian Market

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Abstract

This thesis delves into the intricate relationship between social media and e-commerce in Algeria, aiming to shed light on how these digital platforms shape consumer behaviour, influence purchasing decisions, and transform the overall e-commerce landscape. The primary objective is to discern the ways in which social media affects the actions and attitudes of consumers and service providers alike, thereby uncovering valuable insights that can enhance strategic decision-making, boost marketing effectiveness, and drive sustainable growth in the Algerian e-commerce sector.

To achieve this, the study adopts a comprehensive methodology that integrates theoretical analysis, case studies, and empirical data analysis. This multifaceted approach ensures a nuanced understanding of the various challenges and opportunities present in this burgeoning market. Through rigorous examination, the research identifies the pivotal role of social media in molding consumer perceptions and preferences, demonstrating how these platforms can serve as powerful tools for influencing market dynamics.

Moreover, the findings underscore the critical importance of establishing robust regulatory frameworks to support and sustain the growth of e-commerce in Algeria. By analyzing the interactions and feedback from both consumers and service providers, the study provides a detailed picture of the current state of the market and offers practical recommendations for stakeholders looking to navigate this evolving landscape effectively. In essence, this thesis not only highlights the transformative impact of social media on Algerian e-commerce but also proposes actionable strategies for leveraging these insights to foster innovation and growth within the sector. Through its detailed analysis and evidence-based conclusions, the research contributes significantly to the understand of digital commerce in Algeria, offering a valuable resource for policymakers, business leaders, and academics interested in the intersection of social media and e-commerce in emerging markets.

Keywords: Social Networks, E-Commerce, Consumer Behaviour, Service Providers, Digital Marketing.

Resumo

Esta tese investiga a intrincada relação entre as redes sociais e o comércio eletrónico na Argélia, com o objetivo de esclarecer a forma como estas plataformas digitais moldam o comportamento dos consumidores, influenciam as decisões de compra e transformam o panorama geral do comércio eletrónico. O objetivo principal é discernir as formas como as redes sociais afetam as ações e atitudes dos consumidores e dos prestadores de serviços, descobrindo assim informações valiosas que podem melhorar a tomada de decisões estratégicas, aumentar a eficácia do marketing e impulsionar o crescimento sustentável no sector do comércio eletrónico argelino.

Para tal, o estudo adota uma metodologia abrangente que integra análise teórica, estudos de casos e análise de dados empíricos. Esta abordagem multifacetada garante uma compreensão matizada dos vários desafios e oportunidades presentes neste mercado em expansão. Através de um exame rigoroso, a investigação identifica o papel fundamental dos meios de comunicação social na formação das perceções e preferências dos consumidores, demonstrando como estas plataformas podem servir como ferramentas poderosas para influenciar a dinâmica do mercado.

Além disso, as conclusões sublinham a importância fundamental de estabelecer quadros regulamentares sólidos para apoiar e sustentar o crescimento do comércio eletrónico na Argélia. Ao analisar as interações e o feedback dos consumidores e dos prestadores de serviços, o estudo fornece uma imagem detalhada do estado atual do mercado e apresenta recomendações práticas para as partes interessadas que procuram navegar eficazmente neste cenário em evolução.

Essencialmente, esta tese não só realça o impacto transformador dos meios de comunicação social no comércio eletrónico Argelino, como também propõe estratégias acionáveis para tirar partido destes conhecimentos e promover a inovação e o crescimento no sector. Através da sua análise detalhada e conclusões baseadas em provas, a investigação contribui significativamente para a compreensão do comércio digital na Argélia, oferecendo um recurso valioso para os decisores políticos, líderes empresariais e académicos interessados na intersecção das redes sociais e do comércio eletrónico nos mercados emergentes.

Palavras-chave: Redes Sociais, Comércio Eletrónico, Comportamento do Consumidor, Fornecedor de Serviços, Marketing Digital.

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Acronyms

B2B: Business to Business
B2C: Business to Consumer
B2G: Business to Government
C2C: Consumer to Consumer
G2G: Government to Government
C2G: Consumer to Government

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Introduction

The digital age arrived to confront businesses, affecting everyone, everywhere, challenges that cut across all spheres: not just the economic one but also the relational one, since interpersonal interactions and human behaviour patterns have also changed (Grobler Niekerk, 2013). Technological advancements have created new business opportunities, but they have also changed how society, particularly consumers, behaves. For this reason, it is crucial to research and comprehend consumer behaviour to develop strategies that fit these new patterns. Over the past ten years, digital technology has brought about a social and cultural revolution, giving consumers more freedom to make decisions (Hallikainen & Laukkanen, 2018).

One of the most significant communication channels in the world today is the internet, and rising internet usage is driving certain changes in how consumers make purchases (Casaló et al., 2007). Social networks are becoming more popular for consumers to obtain information before making decisions (Kozinets, 2002). Customers are contacting other customers, viewed as more unbiased information sources, and exchanging thoughts about a particular good, service, or brand via various online platforms (such as blogs, podcasts, social networks, message boards, and wikis) (Dwyer, 2007). Social media has changed the research and deliberation stage of the buying process, but it has also given customers a voice to promote the brands and retailers they adore. Although advocacy has always existed, social networking has increased the importance of this stage and expanded the audience that may be addressed (Teo et al., 2003).

Algeria’s economic shift from a planned to a market economy has occurred within the framework of globalisation. New technologies are being adopted quickly in this context, particularly in the service industry (computers, telecommunications, the Internet, etc.). In contemporary times, when internet shopping is seen as an essential aspect of everyday life in developed nations, e-commerce is non-existent in Algeria. It has yet to establish a healthy foundation for growth (Soumya, 2023).

Considering these reflections, this study will comprehensively analyse the relationship between social media and e-commerce in Algeria. By examining clients' and service providers' behaviour and attitudes, we seek to uncover key insights that can inform strategic decision-making, enhance marketing effectiveness, and drive sustainable growth in the Algerian e-commerce sector. Through rigorous research and empirical analysis, we aspire to contribute valuable knowledge to academia, industry practitioners, policymakers, and other stakeholders invested in the future of e-commerce in Algeria.

The proliferation of social media platforms and the exponential growth of e-commerce in Algeria have presented a unique intersection ripe for exploration and analysis. The impact of social media on e-commerce has become increasingly significant, shaping consumer behaviour, influencing purchasing decisions, and transforming the dynamics between clients and service providers in the Algerian market. This dynamic landscape serves as the primary motivation for undertaking this thesis.

The thesis explores several key aspects of the e-commerce market in Algeria. Firstly, it investigates the influence of social media on the behaviour of Algerian consumers, particularly in terms of how these platforms impact their purchasing decisions and brand perceptions within the context of e-commerce. Subsequently, the research analyses the dynamics of the e-commerce market in Algeria, including current trends, challenges, and growth opportunities, focusing on the behaviour of customers and service providers.

Furthermore, the study seeks to understand Algerian consumers' motivations, preferences, and attitudes toward online shopping and their experiences with e-commerce platforms and services. It also examines the challenges and strategies adopted by service providers in Algeria regarding the implementation of e-commerce practices, including the factors influencing their decision-making processes and operational dynamics.

The thesis also aims to identify the barriers to e-commerce adoption and expansion in Algeria. It proposes strategies to overcome these obstacles and capitalise on the opportunities for market development. It offers practical recommendations for enhancing social media integration into e-commerce strategies in Algeria, intending to improve consumer engagement, brand visibility, and business performance.

Finally, the research contributes to academic scholarship and policy development by generating new insights through empirical investigation and analysis. It aims to enrich the academic literature on social media and e-commerce in Algeria and provide evidence-based recommendations to policymakers and industry stakeholders to promote the growth and innovation of the e-commerce sector in the country.

1. Framework

1.1. Consumer Behaviour

Online social networks have emerged as significant platforms for communication over the past decade. Understanding how individuals and businesses utilise these networks and their impact on purchasing decisions is crucial (Kallos et al., 1974). In today's global and technologically advanced business environment, companies increasingly focus on comprehending consumer behaviour to refine their marketing strategies and maintain competitiveness (Kumar, 2010). Consumers, the focal point of marketing strategies, drive businesses to delve into the motivations behind their purchasing decisions (Schiffman et al., 2007; Engel et al., 1968).

Consumer buying behaviour encompasses how individuals and households purchase goods and services for personal use (Ajzen & Fishbein, 1975). This process involves selecting, purchasing, using, and disposing of products to satisfy needs and desires (Monsuwé et al., 2004; Yadav & Rahman, 2018). A deep understanding of consumer behaviour enables businesses to tailor their marketing strategies more effectively to influence purchasing decisions (Georgiou, 2009). Consequently, companies invest substantially in studying consumer behaviour to gain a competitive edge (O'Keefe & McEachern, 1998).

In e-commerce, online buying behaviour refers to purchasing goods or services online (Cheung & Lee, 2003; Goldsmith & Goldsmith, 2002). This behaviour encompasses searching for information, evaluating options, and making purchase decisions based on available data. Several factors influence online buying behaviour, including ease of use, utility, enjoyment, and trust (Cyr, 2008). While online shopping offers significant advantages, such as convenience, cost and time efficiency, and a broad selection of products, it also presents challenges like the lack of physical interaction with products and concerns over security (Jarvenpaa et al., 1999; Ling et al., 2010).

The online shopping experience, or virtual experience, is crucial in e-commerce (Blanca-Lopez et al., 2009; Kala & Sharma, 2015). This experience includes navigating, finding, analysing, and comparing information and interacting with the online business (Rajayogan & Muthumani, 2015; Venkateswaran & Sudhahar, 2015). A positive online experience can significantly influence consumer behaviour and foster loyalty, while negative experiences can detrimentally affect brand perception and customer retention (Huber & Helm, 2020). Thus, businesses must prioritise creating seamless and engaging online experiences to maintain customer satisfaction and drive long-term success.

1.1.1. Web Experience Elements

The web experience encompasses several critical factors, including website design, the quality of information, user trust, and customer service (Lin et al., 2015; Baek et al., 2011; Muniz & O'Guinn, 2001). These elements collectively influence online shopping behaviour and the probability of repeat purchases (Nahapiet & Ghoshal, 1998). Effective website design and functionality are essential for delivering a satisfying online experience, which is crucial for customer retention (Istanbulluoglu, 2017; Sørensen & Torfing, 2017).

Marketers can significantly affect consumer decision-making by crafting a compelling web experience that integrates functionality, relevant information, emotions, and stimuli (Lin et al., 2015; Baek et al., 2011). The corporate website plays a pivotal role in this interaction, acting as a primary platform for engaging with online customers and shaping their virtual experiences (Muniz & O'Guinn, 2001; Nahapiet & Ghoshal, 1998; Turner & Reynolds, 2010). By understanding and leveraging these components, marketers can enhance their online strategies and improve consumer satisfaction (Turner & Reynolds, 2010; Momany & Alshboul, 2016; AlZyoud, 2018).

Furthermore, this understanding contributes to the ongoing theoretical discussions about the behaviour of internet users. Summarising key findings from various studies and identifying areas that require further research can provide valuable insights (Chen & Xie, 2012; Habibi et al., 2016; Qasim et al., 2012). By integrating these elements effectively, marketers not only improve the web experience but also strengthen their strategic approach in the digital marketplace.

1.1.2. Social Media Influences on Online Buying Behaviour

Numerous studies have examined the effects of social media on consumer purchasing behaviour, highlighting both positive and negative impacts. Testimonials and referrals from friends and family significantly influence purchasing decisions. Social media allows companies to effectively target specific demographics, providing users with extensive information and networking opportunities, which enhance trust and credibility and can lead to a higher likelihood of purchases (Aaker et al., 2010; Chen et al., 2014; Huang & Hsu, 2012).

However, negative reviews and comments can substantially impact consumer attitudes towards products. Additionally, the abundance of information available on social media can lead to information overload, which reduces the efficiency of decision-making (Balaji & Khong, 2014; Phelps et al., 2010). The impact of social media varies depending on the platform, consumer demographic, and product category. Recommendations from friends are often more trusted than traditional advertising, which has boosted the popularity of influencer marketing and word-of-mouth promotion. Online communities on social media play a crucial role in shaping consumer opinions and purchasing decisions (Khan & Khan, 2014; Rodriguez & Peterson, 2010).

Despite the benefits, security and privacy concerns on social media can significantly deter consumers from making purchases. In today's digital age, social media platforms are vital channels for marketing and consumer engagement. However, these platforms are also fraught with potential risks related to the security of personal information and privacy breaches. Social media's influence on consumer purchase decisions is significant and multifaceted. This influence stems from the ability to access a wealth of information, the impact of social proof and peer recommendations, targeted advertising, and the role of influencers. Each of these factors plays a distinct role in shaping consumer behaviour, making social media a powerful tool in the marketing landscape.

Social media enhances brand trust and recognition. Recommendations from friends on these platforms are highly influential (Hollebeek et al., 2015; Hollebeek & Macky, 2015). Conversely, social media addiction can lead to impulsive and careless shopping decisions, and peer pressure can result in conformity and poor purchasing choices (Duan et al., 2008; Swedowsky, 2009). Further research is required to fully understand the extent of social media's impact on consumer behaviour and to develop effective strategies for both consumers and businesses (Kozinets, 2002).

1.1.3. The Relationship Between Different Ideas on How Social Media Affects Consumer Purchasing Behaviour

Numerous theories have been developed to explain social media's impact on consumer behaviour. One prominent model suggests that the perceived utility and usability of social media platforms significantly influence consumer actions (Teo et al., 2003). Social media enhances access to resources and information, thereby influencing purchasing decisions (Smith & Zook, 2017; Chen et al., 2018). Social Identity Theory (SIT) posits that social media fosters a sense of belonging and adherence to group norms, which in turn affects purchasing behaviour (Ajzen & Fishbein, 1975; Monsuwé et al., 2004). The opinions and recommendations of influencers also play a crucial role in shaping consumer purchases (Alba et al., 1997).

Scholarly interest in this topic dates back to the emergence of social media platforms. In the 1990s, research primarily focused on online forums and discussion boards, highlighting how these communities influenced consumer behaviour by providing platforms for exchanging information and viewpoints (Yadav & Rahman, 2018). With the advent of platforms like Facebook in the early 2000s, studies began to examine the role of social networks more deeply. Theories such as Social Comparison Theory and Social Influence Theory were developed during this period, emphasising how social media affects self-evaluation and comparison (Georgiou, 2009).

The concept of Online Word of Mouth (OWOM) gained prominence in the late 2000s and early 2010s, focusing on the impact of online reviews and recommendations on consumer behaviour (Huber & Helm, 2020). More recent studies have concentrated on understanding the impact of social media on specific demographics and its role in brand building and marketing (Oztekin et al., 2015; Ganguly et al., 2010).

These theoretical frameworks and research findings underscore the profound and multifaceted influence of social media on consumer behaviour, shaping how consumers access information, evaluate options, and make purchasing decisions.

1.2. E-Commerce

The business sector is increasingly adopting new strategies for marketing and selling products and services, driven by technological advancements and consumer behaviour shifts (Kotler & Armstrong, 2001). E-commerce, which involves using electronic tools and methods for business transactions, encompasses selling, purchasing, transferring, and exchanging goods, services, and information (Huber & Helm, 2020). Various definitions emphasise the critical role of telecommunications and the Internet in facilitating these transactions (Momany & Alshboul, 2016). According to the type of transaction, E-commerce can be divided into five categories by Zheng Qin according to the type of transaction: B2B: Business-to-Business (B2B) e-commerce is a type of e-commerce in which businesses sell goods or services to other businesses that use those goods or services to create other items. Because of its great profitability, cheap expenses, and capital flow, it is an activity that is increasingly quickly (Chen & Xie, 2012).

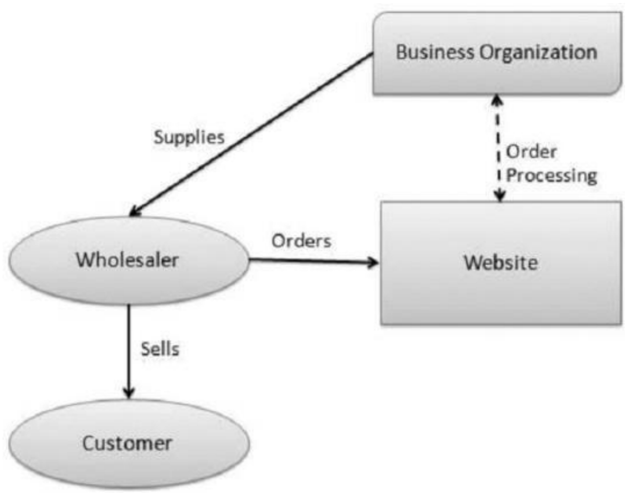

Figure 1. Business to Business

Source: Chen and Xie (2012, p. 43).

B2C: This term refers to any product or service that a company offers to its clients.

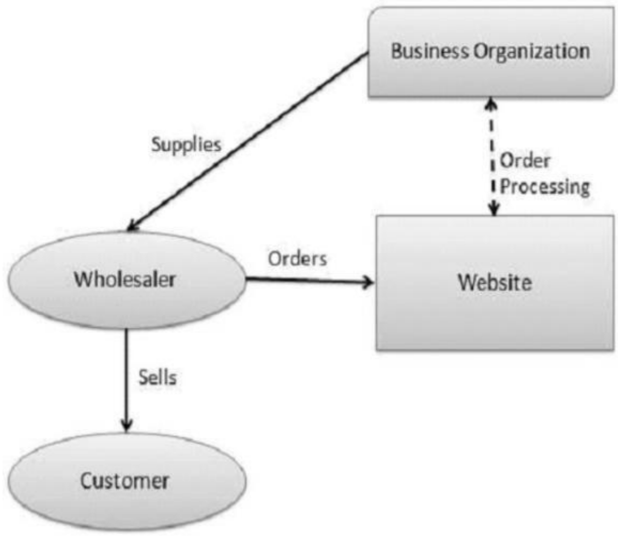

Figure 2. Business to Consumer

Source: Chen and Xie (2012, p. 43).

B2G: The government is essential to the business-government relationship because it uses e-governance to efficiently regulate e-commerce. Furthermore, when it comes to utilizing e-commerce for procurement, the government may take the lead and function as a client (Chen & Xie, 2012).

Figure 3. Business to government

Source: Chen and Xie (2012, p. 44).

C2C: This is a relationship between two end consumers who aren't recognized as entrepreneurs by law. Usually, a third party, such as an online marketplace, serves as a middleman to effectuate the transaction (Chen & Xie, 2012).

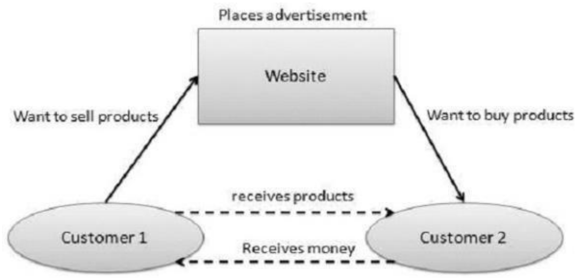

Figure 4. Consumer to Consumer

Source: Chen and Xie (2012, p. 44).

G2G: To put it another way, these are e-commerce projects that are overseen by the government and involve numerous government agencies (Chen & Xie, 2012).

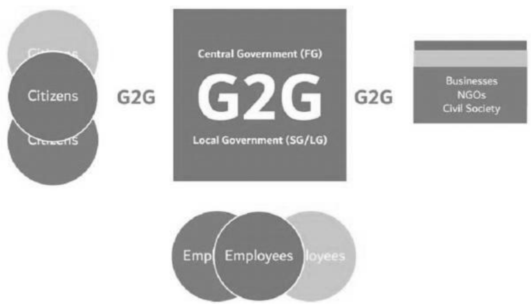

Figure 5. government to government

Source: Chen and Xie (2012, p. 45).

As noted by Babenko et al., further researchers might incorporate a category called C2G, which denotes the interaction between end users and government agencies (Chen & Xie, 2012).

E-commerce, short for electronic commerce, has revolutionised business operations by leveraging digital information processing and electronic communication technology. It enables businesses to conduct transactions, market products, and provide services online, fundamentally transforming interactions with customers, suppliers, and stakeholders (Lee et al., 2020).

Traditional commerce and e-commerce represent two distinct models of commercial activity. Understanding their differences and similarities is crucial for businesses.

Table 1. Traditional commerce vs E-commerce

Traditional Commerce		E-Commerce:	
Physical Presence	Relies on brick-and-mortar stores and face-to-face interactions.	Virtual Presence	Operates online, showcasing products and conducting transactions.
Limited Operating Hours	Fixed business hours restrict accessibility	24/7 Accessibility	Available round-the-clock, offering convenience
Geographical Constraints	Primarily serves local or regional markets	Global Reach	Transcends geographical boundaries, reaching global audiences.
Personalized Service	Significant costs for rent, utilities, and staffing	Lower Overheads	Reduced costs compared to maintaining physical stores.
Personalized Service	Offers face-to-face customer interactions	Automated Processes	Streamlines operations with automated inventory management and order processing
Tangible Experience	Customers can physically inspect products	Data-Driven Insights	Gathers customer data for personalized marketing

Source: Author's own elaboration.

In Algeria, e-commerce is facilitated through three main types of transactions: access to information on the internet, digital product transactions, and direct online purchases from businesses. Despite its potential, the e-commerce sector faces challenges such as low internet penetration and a lack of widespread credit card usage, making cash-on-delivery (COD) a common but unreliable payment method. Digital marketing is gaining traction, with significant consumer engagement on platforms like YouTube, Google, Ouedkniss, and Facebook. However, limited online payment options continue to hinder growth.

As of early 2023, Algeria had 32.09 million internet users, representing a 70.9% penetration rate. Social media is widely popular, with 23.95 million users, accounting for 52.9% of the population. Mobile phone connections surpass the population, indicating extensive mobile internet usage. Despite these advances, there are significant disparities in internet speed and accessibility between urban and rural areas, with an average speed of around 15 Mbps and fibre-optic networks covering 40% of urban areas. The deployment of 4G is widespread, and 5G is being introduced in major urban centres.

Social media usage is particularly prevalent among individuals aged 18-34, with platforms like Facebook and Instagram being dominant. Video content is increasingly popular, and about 73% of the population uses social media, spending an average of 3.5 hours daily on these platforms.

The Algerian e-commerce market is growing, with platforms like Ouedkniss and Aliexpress being particularly popular. However, due to limited digital payment options and security concerns, cash-on-delivery remains the preferred payment method. The Algerian government is committed to expanding internet access, promoting digital literacy, and enhancing cybersecurity to bridge the digital divide and support economic and social development.

Despite the progress, challenges such as high costs, infrastructure limitations, and cybersecurity concerns remain. Nonetheless, Algeria's young, tech-savvy population presents significant potential for digital economic growth. Strategic investments and government support will be crucial to fully realise this potential.

As Algeria continues to develop its digital infrastructure and e-commerce capabilities, it must address the gaps in affordability and access to harness the full potential of its digital economy. The country's steady increase in internet penetration rates and the widespread use of social media underscore the importance of digital platforms for communication and engagement.

2. Research Methodology

2.1. Objective of the study

E-commerce has redefined global business landscapes, presenting new growth opportunities. In Algeria, the rise of e-commerce is driven by technological advancements, changing consumer preferences, and evolving regulations. Increased internet and smartphone penetration and the COVID-19 pandemic have accelerated e-commerce adoption. Understanding Algeria's e-commerce landscape

is crucial for informed strategic decisions and sustainable growth. the rapid digital transformation globally has significantly influenced consumer behaviour, business operations, and economies, with Algeria's burgeoning e-commerce sector being a prime example of this shift (Salah, 2022).

Because of this, this work aims to fulfil the following general objective to analyse the relationship between social media and e-commerce in Algeria. To this, this study follows some specific objectives: SO_1: Analyze the current state of e-commerce in Algeria; SO_2: Understand consumer behaviour and preferences; SO_3: Explore challenges and opportunities for e-commerce stakeholders; SO_4: Assess the impact of social media on e-commerce; and GO_5: Provide strategic recommendations for enhancing e-commerce in Algeria.

Given the multifaceted impact of social media on consumer behaviour, it is essential to explore how various aspects of social media engagement influence online purchasing in the Algerian context. This exploration is guided by a series of methods that delve into different dimensions of social media's role in e-commerce. These methods aim to uncover the nuances of how social media interactions, trust, and content influence consumer decisions and how demographic and cultural factors might moderate these effects.

2.2. Description of Methods

This section examines the dynamics of Algerian e-commerce, utilising mixed research, empirical data, and case studies to provide a comprehensive overview. It explores consumer and service provider behaviours, market evolution, and strategic challenges, aiming to offer actionable insights for stakeholders.

The study focuses on the trends and dynamics of e-commerce in Algeria. It covers a broad spectrum of market segments, including retail, electronics, and fashion. By incorporating perspectives from consumers and service providers, the study analyses recent data from the past five years using qualitative and quantitative research methods.

The study explores the challenges faced by the Algerian e-commerce sector from both the client and service provider perspectives. Utilising quantitative (questionnaires) and qualitative (face-to-face and questionnaires) approaches, the methodology is designed to capture a holistic view of the issues at hand. This approach is illustrated in the flowchart presented in Figure 6.

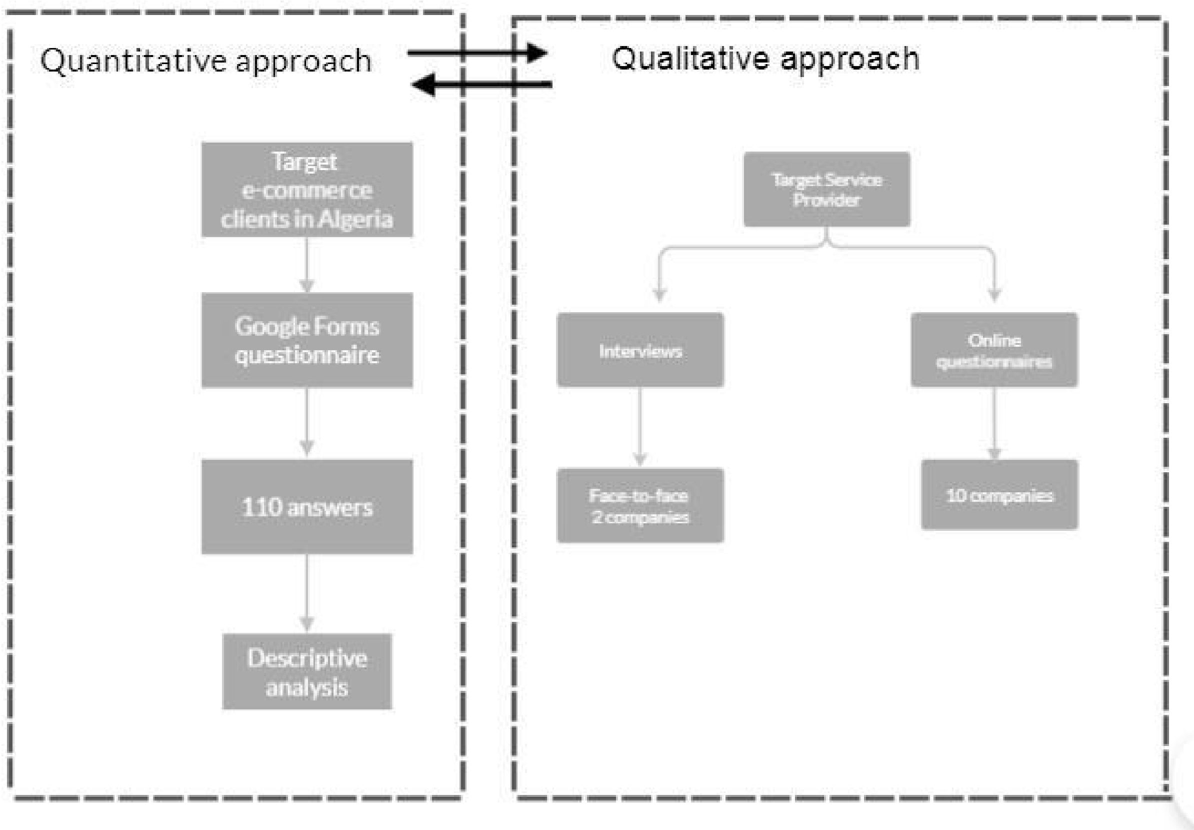

Figure 6. Flowchart of the adopted methodology
Source: Own elaboration.

This figure demonstrates the methodological approach of this study, looking at both qualitative and quantitative approaches. The methodology gathers insights from e-commerce clients and service providers, ensuring a comprehensive sector understanding. The approach involves collecting and analysing data through various means, including questionnaires to the client and service provider scope (focusing on a quantitative approach) and face-to-face interviews (using a qualitative approach).

The research process starts with targeting e-commerce clients in Algeria. This involves identifying individuals who actively engage in online shopping within Algeria. The respondents were contacted through various methods to ensure comprehensive outreach and engagement. Primarily, direct communication was established via phone messages, allowing for personal and immediate interaction. Additionally, the questionnaire was disseminated on various social media platforms. These platforms were strategically chosen for their broad user base and engagement potential, facilitating widespread distribution and accessibility of the questionnaire to a diverse audience. This multi-channel approach aimed to maximise response rates and ensure a representative sample of participants for the study. A Google Form questionnaire is sent out to gather insights from these clients, designed to capture their experiences, preferences, and challenges related to e-commerce. The questions in the approach to the client's scope are presented in the subsequent Figure 7.

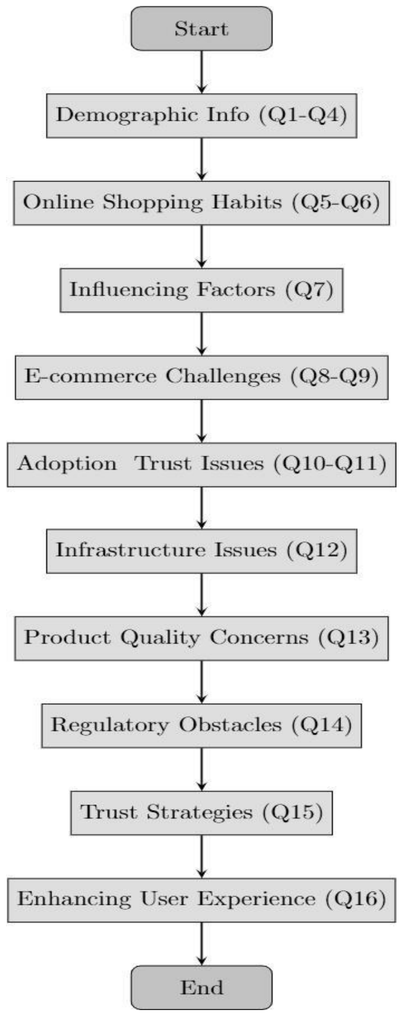

Figure 7. Algerian E-commerce questionnaire Flowchart: Understanding Consumer Behaviour and Challenges

Source: Own elaboration.

This questionnaire was structured around fourteen questions, which allowed us to analyse demographics, followed by their online purchasing habits, the influence of sales factors, changes in e-commerce, trust issues and their infrastructure, product quality and regulatory obstacles, trust strategies, and, lastly, enhancing user experience. This questionnaire receives responses from 110 participants. This number provides a robust sample size for meaningful statistical analysis.

In the next step, a questionnaire was developed with companies that explored various facets, including the sector's diversity, business challenges, payment processing, inventory management, customer support, cybersecurity, competition, regulatory compliance, marketing, logistics and technological limitations. A total of 15 companies in Algeria, all employing e-commerce techniques for their sales operations, were contacted to participate in the survey. From this outreach effort, we successfully obtained 10 responses. These responses provide valuable insights into the practices, challenges, and perspectives of e-commerce businesses within the Algerian market, contributing significantly to the study's findings and analysis. This knowledge aims to inform strategic interventions to improve the efficiency, resilience and competitiveness of Algerian e-commerce.

For the third part, three face-to-face interviews were conducted with companies in Algeria that use online sales to make a profit. This method aims to understand the specific sector in which the e-commerce company operates by interviewing two companies in Algeria. The companies selected for face-to-face interviews were those that expressed a willingness to participate in more in-depth discussions following their initial response to the questionnaire. This willingness allowed for a deeper exploration of their operational strategies, challenges, and insights into the Algerian e-commerce landscape. These interviews provided a richer, qualitative dimension to the study, offering detailed perspectives that complemented the broader survey findings.

It explores whether the company is involved in retail, technology, services or any other sector of the e-commerce landscape. The structure of the interviews aims to identify the sector of activity, helps contextualise the subsequent challenges, and provides a basis for understanding the company's operations, following the following structuring (Figure 8).

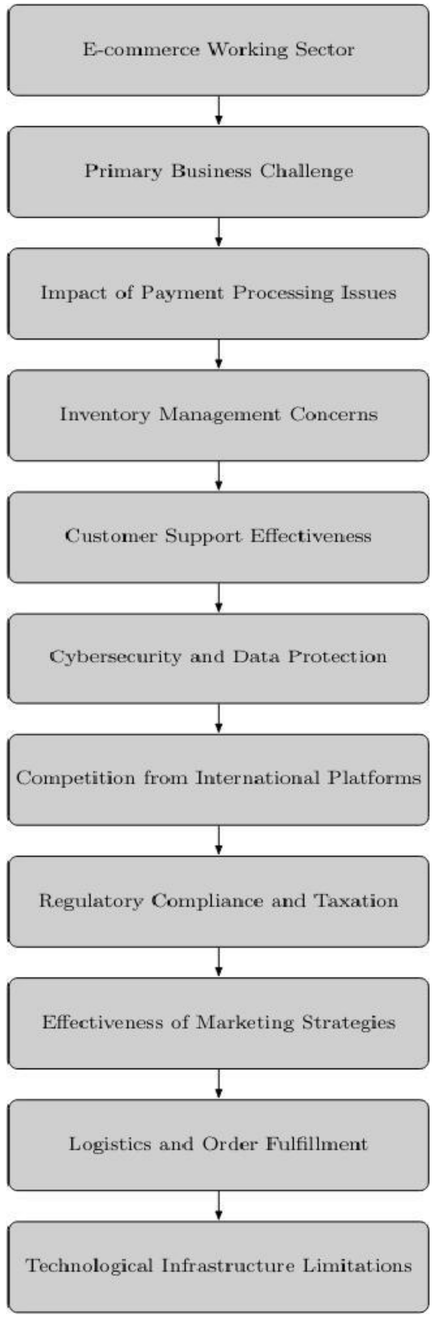

Figure 8. Questionnaire Subsequent

Source: Own elaboration.

This structured approach to semi-structured interviews ensures that all critical aspects of e-commerce operations are thoroughly explored. By addressing these key areas, the interviews provide deep insights into the challenges and opportunities faced by e-commerce companies in Algeria. This comprehensive understanding is essential for developing strategies to enhance the sector's efficiency, resilience, and competitiveness.

This systematic and multi-faceted approach provides a holistic view of the e-commerce landscape, highlighting consumer and service provider perspectives. The insights gained from this research are intended to inform strategic decisions and foster sustainable growth in Algeria's e-commerce industry.

2.3. Description of Data Collection

This section details the comprehensive methodology used to examine the dynamics and challenges of e-commerce in Algeria, focusing on both clients and service providers. The structured approach involves systematic data collection through various methods and thorough analysis to derive actionable insights.

The data collection process is divided into two primary segments: clients and service providers. Each segment employs specific methods to gather both quantitative and qualitative data, ensuring a holistic understanding of the e-commerce landscape in Algeria.

Data collection for the client segment was achieved using a Google Form questionnaire designed to capture a wide range of information. This questionnaire targeted 110 participants and aimed to gather both quantitative and qualitative data regarding their e-commerce experiences, preferences, and challenges. The comprehensive nature of the questionnaire ensured that substantial sample size was obtained, providing a representative overview of consumer behaviour and insights into broader market dynamics.

For the service provider segment, a more interactive approach was adopted. Data was collected through a combination of online interviews and face-to-face meetings, supplemented by a Google Form questionnaire. This mixed-method strategy involved responses from 10 participants, providing deep qualitative insights into the operational and strategic challenges service providers face. While the interviews offered rich, narrative data, the questionnaire captured quantitative information to support and contextualise these insights.

The analysis framework integrated quantitative and qualitative methods to comprehensively understand the Algerian e-commerce environment. This multifaceted approach ensured that client and service provider data was thoroughly analysed and interpreted.

For the quantitative analysis, tools such as an Excel were utilised to perform statistical analysis on the questionnaire data. This approach involved descriptive analysis using absolute and relative values to identify patterns, trends, and correlations within the data. By employing these methods, the study was able to create detailed charts and generate insightful results, capturing and visually representing key trends and patterns in the dataset. This provided a clear and comprehensive understanding of e-commerce practices and challenges in Algeria, as revealed by the survey responses.

The qualitative analysis involved a thorough examination of the interview transcripts. Responses were compared and framed within the context of existing literature to identify main themes and ideas. This method uncovered underlying issues, experiences, and perspectives that are not easily quantifiable but are essential for a deep understanding of the e-commerce landscape. Through thematic analysis, the qualitative data provided nuanced insights into service providers' operational realities and strategic thinking.

This combined approach of quantitative and qualitative analysis allowed for a nuanced interpretation of the data. The qualitative findings enriched and contextualised the numerical trends identified through quantitative analysis. This integration provided a global view of Algeria's e-commerce sector's dynamics. The final step involved a descriptive analysis of the quantitative results from the questionnaires and a comparative examination of the perspectives of clients and service providers. This dual analysis offered a comprehensive understanding of the current state and future potential of e-commerce in Algeria.

3. Results

This section presents findings from interviews with Algerian e-commerce service providers specialising in clothing sales, alongside insights from a consumer questionnaire and semi-structured interviews. The analysis includes product specialisation, logistical challenges, market competition, platform security, payment methods, and the impact of social media on marketing. These insights offer a comprehensive understanding of e-commerce operations and growth potential in Algeria, contributing to the academic discourse on e-commerce in developing economies.

This study sets forth a comprehensive objective to address Algeria's dynamic interplay between social media and e-commerce. It aims to analyse how social media influences and integrates with e-commerce practices within the Algerian context. To achieve this overarching goal, the study focuses on several specific objectives: SO_1: Analyze the current state of e-commerce in Algeria; SO_2: Understand consumer behaviour and preferences; SO_3: Explore challenges and opportunities for e-commerce stakeholders; SO_4: Assess the impact of social media on e-commerce; and SO_5: Provide strategic recommendations for enhancing e-commerce in Algeria.

3.1. Analyse of the Client Scope

A questionnaire involving 110 respondents provides deep insights into Algeria's e-commerce sector. This section offers a detailed analysis of consumer behaviour, preferences, and the challenges faced in the Algerian e-commerce market.

Analysing the regional distribution of e-commerce clients in Algeria offers valuable insights into the sector's logistics, market potential, and regional dynamics. Figure 9 illustrates the frequency distribution of clients across different departments (Wilayas).

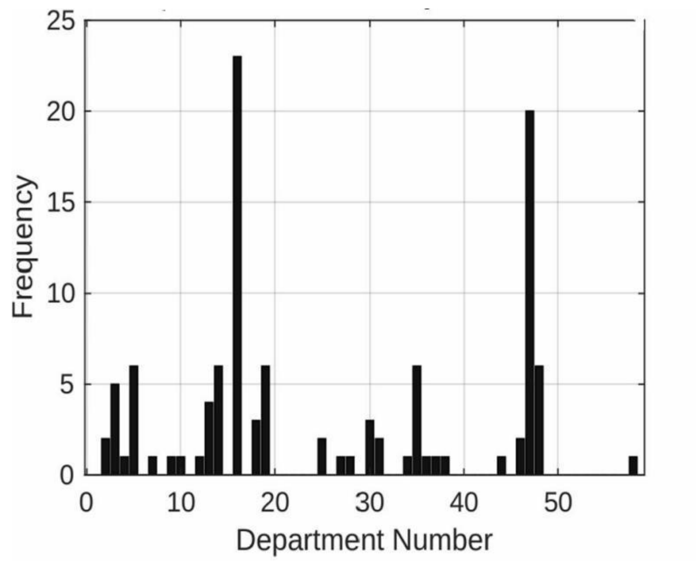

Figure 9. Clients Distribution among departments (WILAYA)

Source: Own elaboration.

With the graphic representing department numbers from 0 to 50 and the Y-axis indicating the frequency of occurrences for each department number, scaling from 0 to 25, the bar chart shows the frequency distribution of various department numbers. The frequencies exhibit significant variation among the departments; department 20, which peaks near 25, has the highest frequencies, with numbers around 20 and 50 displaying the highest frequencies. A number of departments have zero frequency, which indicates no occurrences, and other departments have frequencies that range from 0 to 5, which indicate lesser counts. Interestingly, departments 20 and 50 show a substantial rise, and more departments have lower frequencies than higher ones. This implies that departments 20 and 50 might be notable anomalies or that they play unique roles that contribute to their increased occurrence. The fluctuation in occurrences could suggest an imbalanced allocation of assets, staff, or undertakings among several divisions. Knowing what these department numbers mean and the context of the data—for example, the number of workers in each department or the number of projects completed—will help provide more focused insights

Identifying regions with high concentrations of e-commerce clients helps businesses tailor their marketing and expansion strategies to maximize outreach and enhance their customer base. By focusing on these areas, e-commerce platforms can effectively target their efforts to regions with the highest potential for growth.

Understanding the geographical spread of clients is crucial for optimizing logistics. Strategically positioning fulfillment centers in or near high-demand regions can enhance delivery efficiency and customer satisfaction by ensuring timely deliveries. This strategic placement reduces operational costs and improves the overall customer experience.

Regions with fewer e-commerce clients present untapped opportunities. Recognizing these areas allows platforms to develop targeted strategies, such as localized promotions and incentives, to expand their market reach and drive growth.

Understanding the age distribution of e-commerce clients is critical for profiling target audiences and refining marketing strategies. Figure 10 depicts the age range distribution among respondents.

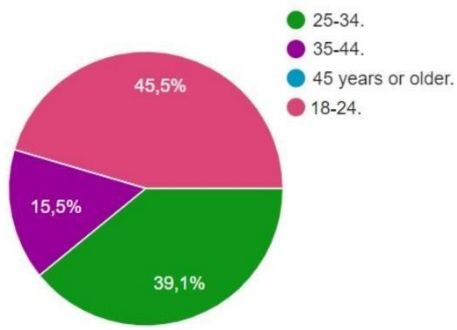

Figure 10. Age Range Distribution.
Source: Own elaboration.

The distribution of various age groups within a population is shown in a pie chart. It is separated into four sections, each of which represents a distinct age group: 45 years or more (extremely small and possibly negligible), 25–34 (39.1%, in green), 18–24 (45.5%), and 35–44 (15.5%), in purple. With the largest age group, 18–24, accounting for 45.5% of the population, almost half of all people are in this age range. The age group of 25–34 makes up 39.1% of the total, making it the second largest section. The age group of 35–44 makes up 15.5%. The percentage of people 45 years of age or older is quite low, as indicated by the segment's lack of prominence. The distribution reveals that the population is significantly concentrated in the younger age categories (18–34).contributing an aggregate of 84.6%. Given that this demographic makes up a sizable portion of the population, it is implied that marketing strategies, workforce planning, and social services may need to adjust to better meet the requirements and preferences of this group.

Analyzing the age distribution helps businesses tailor their product offerings, pricing, and marketing messages to align with the preferences and behaviours of different age groups. This customization ensures that the needs of each demographic are effectively met.

Younger consumers, who are more familiar with digital technologies, dominate the online shopping space. This insight highlights the need for businesses to focus on tech-savvy marketing strategies and digital engagement to cater to this segment.

Identifying age groups with high levels of e-commerce engagement enables businesses to develop targeted retention strategies aimed at enhancing customer loyalty and increasing lifetime value.

Understanding the professional situations of e-commerce clients provides insights into their income levels, employment patterns, and market segmentation. Figure 11 shows the distribution of respondents' professional situations.

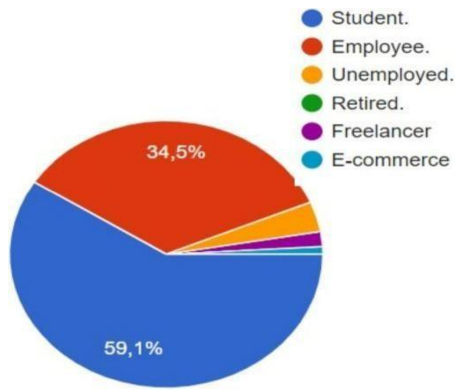

Figure 11. Professional Situation Distribution
Source: Own elaboration.

Students make up 59.1% of the population, while employees make up 34.5% of the pie chart, which depicts the distribution of employment statuses within a population. Sectors such as E-commerce, Freelancing, Retired, and Unemployed make up tiny portions of the population. Services geared toward workers and students will probably concentrate on these populations, whereas retirees, independent contractors, and e-commerce users would need more specific assistance. Gaining insight from this data would require understanding its context.
Higher employment rates often correlate with greater disposable income, which can inform pricing strategies and promotional campaigns tailored to different income segments.

Tailoring product offerings and marketing strategies to different employment types (such as offering student discounts or flexible payment options) can boost customer satisfaction and encourage repeat purchases.

Personalized marketing based on professional situations enhances the customer experience and builds loyalty by addressing the specific needs and preferences of each segment.

The questionnaire reveals that most Algerian consumers shop online a few times per month, indicating a moderate level of e-commerce activity. Figure 12 illustrates the frequency of online shopping among clients.

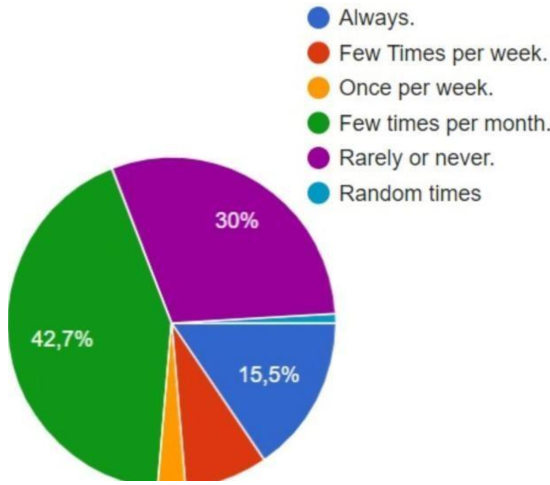

Figure 12. Clients Frequency Shopping.

Source: Own elaboration.

As the graphic illustrates, 42% of respondents said they undertake the activity occasionally, 30% said they do it infrequently or never, and 15% said they do it regularly. This indicates that a couple times per month is the most typical frequency.

This trend underscores the growing importance of e-commerce in Algeria. Businesses can capitalize on this by optimizing their online platforms, targeting marketing efforts, and innovating to meet evolving consumer needs and preferences.

The moderate frequency of online shopping presents opportunities for businesses to expand and innovate, positioning themselves to lead in the digital marketplace and contribute to economic growth.

The analysis of Algerian consumers' preferences for online shopping reveals their favored product categories. Figure 13 indicates that clothing and accessories are the most popular items among respondents.

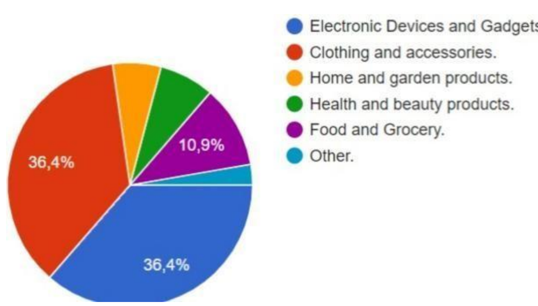

Figure 13. Preferences of Algerian Consumers Regarding Online Shopping.

Source: Own elaboration.

As shown in the image, both electronic devices and gadgets, and clothing and accessories have equal values of 36.4%.

The high demand for clothing and accessories in Algeria's e-commerce market is driven by convenience, variety, and access to trendy items. E-commerce platforms should prioritize this category by offering detailed product descriptions, accurate sizing guides, and hassle-free returns to build trust and customer loyalty.

Providing a wide range of fashion items, including both local and international brands, along with personalized shopping experiences, can enhance customer satisfaction and drive repeat purchases.

Competitive pricing is identified as the primary factor influencing purchase decisions among Algerian e-commerce consumers. Figure 14 highlights the key factors impacting their choices.

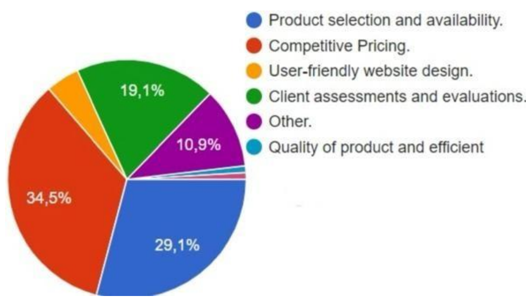

Figure 14. Factors Influencing Purchase Decisions among Algerian e-commerce Consumers.

Source: Own elaboration.

As shown in the image, Appliances and Electronic Gadgets and Clothing and Accessories both have equal values of 36.4% for competitive pricing, while product selection and availability stand at 29.1%.

The prominence of competitive pricing (34,5%) highlights the market's sensitivity to costs. Consumers actively seek cost-effective options, making it essential for e-commerce businesses to maintain competitive prices while balancing sustainable profit margins.

Beyond pricing, businesses should focus on offering value-added services such as exceptional customer service, a diverse product selection, prompt delivery, and user-friendly website features to attract and retain customers.

High shipping costs are identified as the primary challenge faced by Algerian e-commerce consumers, as shown in Figure 15.

High shipping costs significantly deter online transactions, especially for smaller items, and can lead to negative perceptions of e-commerce platforms. Addressing these costs is crucial for improving customer satisfaction and conversion rates.

Businesses should negotiate better shipping rates, optimize packaging, and consider regional fulfillment centers. Offering free or subsidized shipping for larger orders and being transparent about shipping costs can enhance the customer experience.

Inconsistent product quality is a major source of frustration for Algerian e-commerce consumers, as indicated by Figure 16.

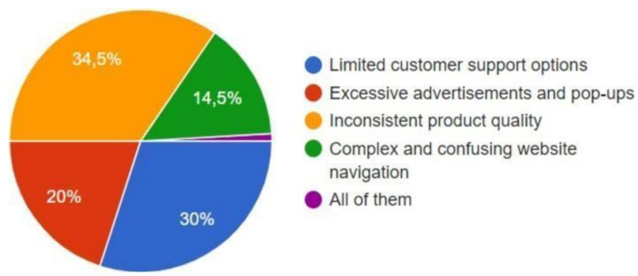

Figure 16. Consumers Frustrations Engaging with E-commerce Platforms

Source: Own elaboration.

The picture displays various percentages of shelter, the highest of which being 34.5% due to erratic product quality. Furthermore, restricted customer service alternatives were highlighted by 30% of respondents, too many adverts were mentioned by 20%, and a complicated and confusing website was mentioned by 14.5% of respondents.

Discrepancies between product descriptions and received items, varying manufacturing standards, and counterfeit products contribute to consumer dissatisfaction and distrust.

E-commerce platforms must prioritize quality control by vetting suppliers, conducting regular inspections, and implementing robust return policies. Transparent communication about product quality and sourcing can help manage customer expectations and build trust.

A significant factor contributing to the low adoption rate of e-commerce in Algeria is the lack of trust in online transactions, as shown in Figure 17.

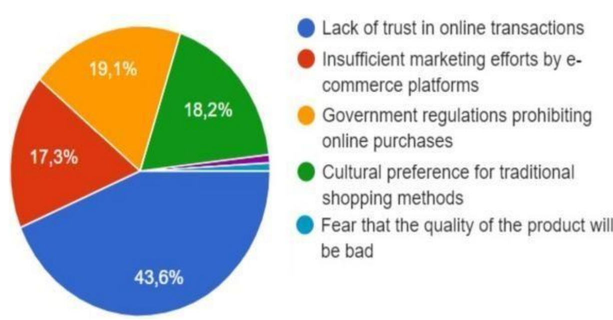

Figure 17. Influencing Factor of the Low Adoption Rate of E-commerce.

Source: Own elaboration.

This graphic shows that the biggest portion, 43.6%, is brought on by a lack of confidence in online transactions. Furthermore, 18.2% of respondents claimed a cultural preference for conventional buying methods, and 19.1% of respondents cited government rules that forbade online purchases.

Concerns about fraud, data security, and unreliable sellers deter consumers from engaging in online shopping. Addressing these issues is crucial for fostering a reliable shopping environment.

E-commerce businesses should focus on enhancing transparency, security, and customer service. Implementing secure payment systems, displaying customer reviews, and providing clear information about products and policies can build consumer confidence and encourage broader adoption of online shopping.

Limited payment options pose a significant challenge for Algerian consumers in e-commerce, as presented in Figure 18.

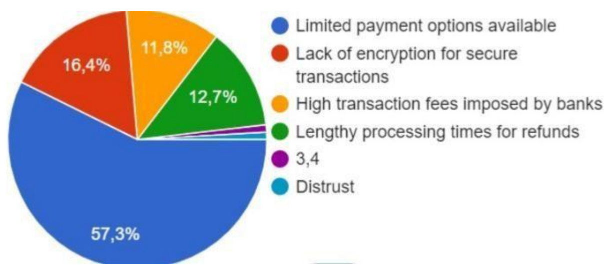

Figure 18. Online Payments Challenges.

Source: Own elaboration.

The greatest proportion in this figure, 57.3%, stands for few possibilities for making payments. Long processing times for refunds account for 12.7% of the total, while absence of encryption for safe transactions accounted for 16.4%.

Offering a variety of payment methods beyond traditional credit or debit cards can enhance accessibility and convenience. Integrating local payment solutions, mobile payment platforms, and digital wallets caters to diverse preferences and improves the payment experience.

Implementing secure payment processing systems with robust security measures and clear communication about payment methods can instill consumer confidence and protect against fraud.

Inadequate postal services are a major infrastructure challenge for e-commerce fulfillment in Algeria, as depicted in Figure 19.

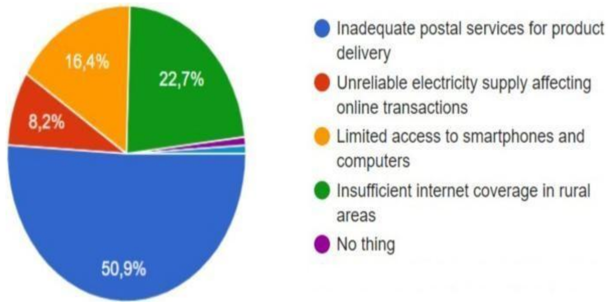

Figure 19. Infrastructure-related issue for e-commerce clients in Algeria.

Source: Own elaboration.

Delays, lost packages, and unreliable delivery undermine customer satisfaction and trust, which are crucial for the growth of the e-commerce sector.

Businesses should partner with efficient logistics companies, invest in last-mile delivery solutions, and work with the government to improve postal infrastructure. Enhancing customer education about the delivery process and maintaining clear communication can also improve satisfaction.

Concerns about product quality and authenticity are significant barriers for consumers in Algeria's e-commerce landscape, as highlighted in Figure 20.

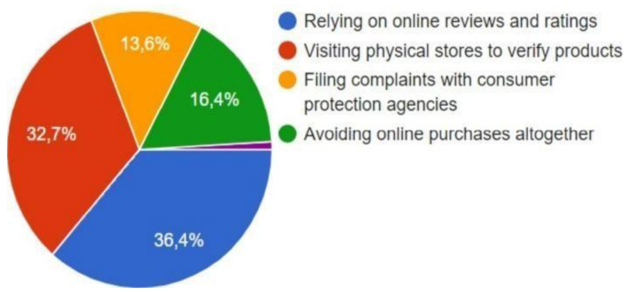

Figure 20. Clients concerns about product quality and authenticity

Source: Own elaboration.

Consumers increasingly rely on online reviews and ratings to make informed purchase decisions. Authentic reviews and transparent communication are essential for building trust and confidence in e-commerce platforms.

E-commerce retailers should prioritize collecting and displaying authentic customer reviews, engaging with customers through feedback, and using analytics to understand and address quality concerns.

Stringent taxation policies on online purchases represent a significant regulatory obstacle for the growth of e-commerce in Algeria, as shown in Figure 21.

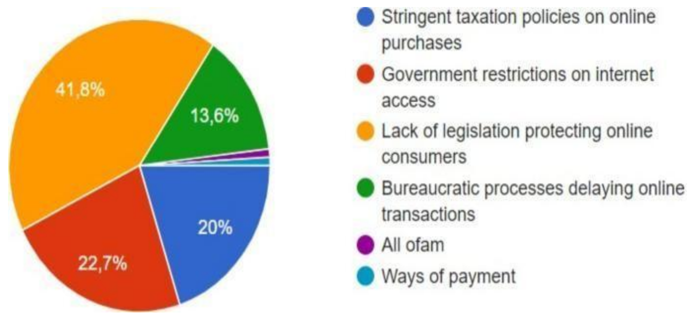

Figure 21. Regulatory obstacle hindering the growth of e-commerce in Algeria.

Source: Own elaboration.

The absence of robust legislation to protect online consumers and address e-commerce-specific issues hampers the sector's development. Establishing clear regulatory frameworks covering data privacy, consumer rights, and transaction security is essential for fostering a conducive environment for e-commerce growth.

Government policies should encourage private investment in logistics, provide subsidies for technology, and create regulatory frameworks to standardise delivery practices. These measures can enhance trust and encourage broader adoption of e-commerce.

Implementing transparent return and refund policies is crucial for alleviating trust issues among Algerian e-commerce clients, as illustrated in Figure 22.

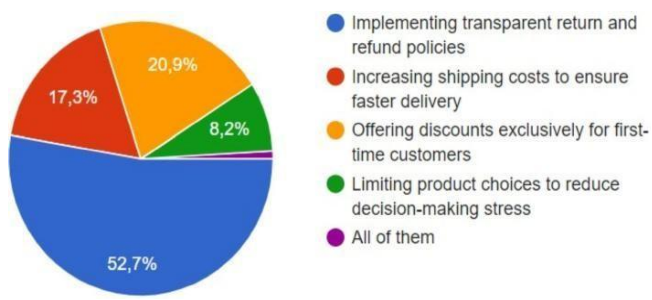

Figure 22. Strategies to alleviate trust issues among Algerian e-commerce clients.

Source: Own elaboration.

Clear and transparent policies regarding returns and refunds help build consumer confidence and trust in online transactions. E-commerce platforms should ensure these policies are easy to understand and accessible.

By addressing trust issues through robust policies and practices, businesses can foster a more reliable and attractive shopping environment, encouraging greater participation and market growth.

Providing detailed product descriptions and images significantly enhances the user experience on Algerian e-commerce platforms, as highlighted in Figure 23.

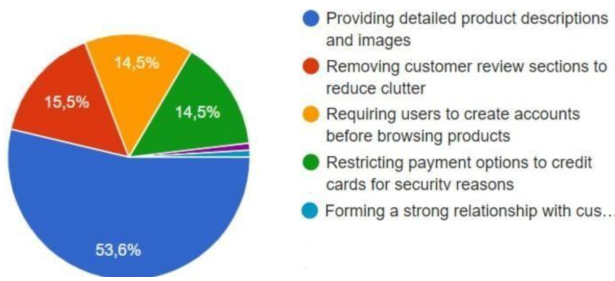

Figure 23. Contribution of E-commerce Platforms in Algeria enhance user experience for clients.

Source: Own elaboration.

Comprehensive product listings with high-quality images and detailed descriptions help consumers make informed purchasing decisions and reduce uncertainty.

Incorporating user-generated content, interactive features, and intuitive navigation further improves the shopping experience, fostering trust and satisfaction. Prioritising these elements can increase customer engagement and loyalty, driving business growth in the digital marketplace.

The findings from this comprehensive questionnaire and analysis offer a deep understanding of the challenges and opportunities within Algeria's e-commerce sector. By addressing key issues such as regional distribution, consumer behaviour, payment challenges, and infrastructure limitations, businesses can develop effective strategies to enhance their competitiveness and foster sustainable growth in Algeria's e-commerce landscape. Frequent shoppers in e-commerce prefer products like clothing and accessories due to regular updates, while competitive pricing is essential; however, high shipping costs often deter transactions, making it crucial to balance affordable pricing with reasonable shipping fees. Inconsistent product quality and counterfeit goods undermine consumer trust, necessitating stringent quality control and transparent return policies to rebuild confidence. Limited payment methods and inadequate infrastructure, such as postal services, hinder transaction completion, highlighting the need to address these issues for a better e-commerce experience. Heavy reliance on online reviews and ratings due to weak consumer protection laws indicates the need for a comprehensive regulatory framework and transparent policies to safeguard consumer rights and ensure product quality. Gaps in consumer protection legislation and infrastructure inefficiencies pose significant challenges, and addressing these is essential for a robust e-commerce environment. High shipping costs and inadequate postal services complicate logistics and increase operational inefficiencies, making improvements in these areas key to enhancing customer experience and driving growth. Providing comprehensive product descriptions and visuals helps mitigate concerns and enables informed decisions while balancing competitive pricing with transparent return policies helps maintain consumer confidence. Addressing infrastructural shortcomings and implementing strong consumer protection laws are crucial for a reliable e-commerce environment. Encouraging authentic reviews and ratings enhances credibility and trust in product quality. By addressing these challenges and implementing the outlined strategies, Algerian e-commerce platforms can significantly enhance user experience, foster consumer trust, and drive market growth.

3.2. Analyse of the Service Provider’s Scope

3.2.1 Analyse of the e-commerce service providers questionaries

This analysis is based on findings from a detailed questionaries of 10 e-commerce service providers operating in Algeria. By examining their experiences, challenges, and strategic perspectives, we gain valuable insights into the complexities and dynamics of the Algerian e-commerce market. The results highlight prevailing trends, emerging opportunities, and persistent obstacles that shape the landscape of online commerce in Algeria. This comprehensive overview informs decision-making and strategic planning in the evolving realm of digital commerce.

The questionnaire reveals that the retail sector, encompassing products such as clothing, electronics, and household goods, dominates the Algerian e-commerce landscape. This aligns with global e-commerce trends, where retail plays a significant role in online transactions. The strong consumer demand for these goods in Algeria presents substantial opportunities for businesses catering to retail e-commerce. Companies can leverage this trend to inform their product offerings, marketing strategies, and supply chain management, aligning their operations with consumer preferences and market dynamics.

Logistics and shipping costs emerge as a significant challenge for e-commerce businesses in Algeria. These costs include transportation fees, customs duties, and handling charges, which can erode profit margins and limit scalability. Addressing these high costs is crucial for improving operational efficiency and profitability. E-commerce businesses might consider negotiating better rates with logistics providers, optimising packaging, and exploring local fulfilment options to mitigate these challenges and enhance their competitive edge.

Payment processing issues are seen as moderately inconvenient but manageable by the questionnaireed e-commerce providers. Challenges such as transaction delays, currency conversion fees, and security concerns are noted, yet businesses have strategies in place to mitigate these problems. Enhancing the payment experience through the adoption of secure gateways, alternative payment methods, and clear customer instructions can help further minimise these issues and build consumer trust, ultimately driving higher conversion rates and revenue growth.

Sourcing and replenishing inventory pose significant challenges for e-commerce businesses, often due to supply chain disruptions, fluctuating demand, and inadequate forecasting. These issues can result in stockouts or excess inventory, affecting sales and customer satisfaction. Implementing robust inventory management systems, forming strategic supplier partnerships, and leveraging data analytics for accurate demand forecasting can help businesses optimise inventory levels and ensure product availability.

While customer support is perceived as moderately effective, there is room for improvement in addressing customer inquiries and resolving issues. Effective customer support is essential for building trust and loyalty in the competitive e-commerce environment. Enhancing customer support through staff training, responsive communication channels, and feedback mechanisms can help businesses differentiate themselves and improve customer satisfaction in the Algerian market.

The questionnaire indicates that most Algerian e-commerce businesses have implemented sufficient cybersecurity measures, experiencing minimal issues. These measures include encryption, secure payment gateways, and regular security audits. While the current perception is positive, continuous vigilance and proactive measures are necessary to address emerging threats. Ongoing investment in cybersecurity infrastructure and compliance with data protection regulations will help maintain consumer trust and safeguard sensitive information.

Local e-commerce businesses in Algeria perceive minimal impact from international platforms, primarily due to their focus on the specific needs and preferences of local consumers. This localised approach involves offering region-specific products and personalised customer service, fostering strong brand loyalty. Despite the minimal impact, it is crucial for Algerian businesses to remain adaptable and responsive to changing consumer trends and competitive pressures to maintain their market position.

Navigating local regulations and tax laws is a significant challenge for Algerian e-commerce businesses. Compliance requires adherence to complex legal frameworks related to online commerce, taxation, and consumer protection. To manage these challenges, businesses should seek legal guidance, stay informed about legislative changes, and engage with regulatory authorities. Collaborating with industry associations can also help advocate for supportive policies and ensure compliance with evolving regulations.

Marketing strategies are perceived as highly effective in driving traffic and conversions. Successful approaches include targeted campaigns, social media engagement, and influencer partnerships. To sustain this effectiveness, businesses should invest in marketing analytics, customer segmentation, and A/B testing. Emphasising brand authenticity and community engagement can further enhance marketing efforts and contribute to long-term business success.

High shipping costs are a critical concern, impacting profit margins and operational scalability. These costs include transportation fees, customs duties, and handling charges. Addressing these logistics issues involves negotiating bulk discounts with shipping providers, optimising packaging, and leveraging technology to streamline fulfilment. Exploring partnerships with local logistics firms can also help reduce costs and improve delivery efficiency.

Technological infrastructure limitations, such as inadequate internet connectivity and outdated software systems, pose moderate challenges for e-commerce businesses. Despite these obstacles, businesses have adapted through workaround solutions. To overcome these limitations, companies should advocate for improved internet infrastructure, invest in upgrading their IT systems, and utilise cloud-based solutions for scalability. Collaborating with technology providers and government agencies can help bridge infrastructure gaps and foster innovation.

The questionnaire results reveal a strong consumer demand for products such as clothing and electronics, reflecting global e-commerce trends. However, high logistics and shipping costs remain a significant barrier, necessitating improvements in supply chains and local infrastructure. While payment processing issues are manageable, challenges in inventory management affect cash flow and product availability. Effective customer support and robust cybersecurity are essential for building consumer trust. Despite minimal impact from international platforms, navigating complex regulatory requirements poses a significant challenge. Effective marketing strategies drive traffic and sales, but technological limitations restrict scalability, highlighting the need for better connectivity and e-commerce tools. Addressing these challenges and leveraging opportunities can enhance competitiveness and support the growth of a sustainable e-commerce ecosystem in Algeria.

In Algeria's e-commerce landscape, the role of Third-Party Logistics (3PL) shipping companies and delivery firms is crucial. An in-depth look at the operations of a leading 3PL shipping company reveals the complexities of their essential role in facilitating seamless product delivery across Algeria's diverse terrain. These companies prioritise efficiency and customer satisfaction, offering tailored solutions to meet the unique needs of different merchants. Leveraging advanced technologies, they remain agile in adapting to market trends and challenges, continually refining their strategies. Delivery companies act as vital conduits, facilitating transactions and upholding regulatory compliance, thus reinforcing reliability and confidence in the e-commerce sector. As the industry evolves, strategic partnerships and synergies between 3PLs and delivery firms are set to drive innovation, convenience, and economic growth in Algeria’s e-commerce market.

3.2.2 Analyse of the e-commerce service providers face-to-face

To complement the questionnaire data, face-to-face interviews were conducted with two companies operating in the Algerian e-commerce sector: a Third-Party Logistics (3PL) shipping company and a clothing retailer. These interviews provide detailed insights into the operational challenges, strategic responses, and future outlooks within the industry.

- **Interview 1**: Third-Party Logistics (3PL) Shipping Company

The insights from the interview with the 3PL shipping company reveal a comprehensive approach to logistics and customer satisfaction, emphasizing the pivotal role of delivery services in the e-commerce ecosystem. Here are the key points from the interview:

The company underscores efficiency, reliability, and customer satisfaction as the foundational principles guiding their logistics services. These values drive every aspect of their operations, from planning to execution.

Navigating logistics in Algeria demands meticulous planning. This includes optimising delivery routes and streamlining warehousing operations to ensure timely and efficient delivery across the country. Such meticulous attention to detail is critical in overcoming geographical and infrastructural challenges.

The company excels in providing tailored solutions to meet the diverse needs of e-commerce merchants. This flexibility allows them to offer expedited delivery for time-sensitive products and specialized handling for fragile items, ensuring that varying shipping requirements are met efficiently.

Technology acts as a catalyst for operational innovation. The company utilises advanced tracking systems and sophisticated route optimisation algorithms to enhance the efficiency of their shipping processes, demonstrating a commitment to leveraging cutting-edge technologies.

In the dynamic e-commerce landscape, the company remains agile, continuously refining its strategies to stay ahead. Whether integrating sustainable practices or implementing robust security measures, they are dedicated to maintaining high service standards while adapting to industry changes.

Establishing symbiotic partnerships with reputable delivery companies is crucial for the success of e-commerce operators in Algeria. These partnerships facilitate seamless transactions and safeguard the interests of both operators and customers.

The company prioritises transparency in agreements with e-commerce operators. While monetary guarantees might be required in some cases, they ensure that all arrangements align with the business interests and financial capabilities of their partners.

Adherence to commercial regulations and maintaining a commercial register are fundamental practices. These measures not only ensure legal compliance but also reinforce the credibility of their services in the market.

The company plays a pivotal role in driving the expansion and success of e-commerce in Algeria through innovative services, strategic partnerships, and a steadfast commitment to quality and compliance.

The interview highlights the anticipation of continued collaboration between 3PL shipping companies, delivery firms, and e-commerce operators. This synergy is seen as a driving force that will propel the industry to new heights, fostering innovation, convenience, and economic empowerment for businesses and consumers alike.

- **Interview 2**: Clothing Retailer Company

The interview with the clothing retailer provides a detailed perspective on the specific challenges and operational strategies within the Algerian e-commerce market. Here are the key points from the interview:

The interviewer focuses exclusively on selling clothing within the Algerian market, allowing them to specialize in this product category and cater effectively to consumer demands.

The company faces several significant challenges in the e-commerce sector, including:

- Inadequate delivery services, characterized by inconsistent quality and transparency.
- Complexities in importing goods due to bureaucratic hurdles and customs regulations.
- Issues with online payment methods, particularly concerning security and trust.
- The impact of Facebook account closures on their marketing efforts.
- A perceived lack of competition within the local market, which contrasts with international standards.

Operating in a relatively less competitive environment within the Algerian market, the company has carved out a unique position, allowing them to maintain a distinct market presence.

The interviewer utilises the YOUCAN platform for their e-commerce operations and markets their products through Facebook, Google AdSense, and Instagram. These platforms are integral to their marketing strategy and customer outreach.

Orders are confirmed individually. Although the company has previously engaged with third-party logistics (3PL) companies, issues of reliability and accuracy have led to a reassessment of these partnerships. This indicates a need for more dependable delivery solutions.

The company prioritises platform security, using secure platforms like YOUCAN to mitigate the risk of cyber threats and ensure safe transactions.

Cash on Delivery (COD) is the predominant payment method in Algeria. The company also emphasizes that commercial registration is mandatory for conducting e-commerce operations, irrespective of the profit margins involved.

Decision-making is informed by various factors, including shipping expenses, market competition, and product profitability. The company evaluates its success based on capital investment and profitability metrics.

Social media, especially Facebook and Instagram, play a significant role in product marketing. Paid advertising on these platforms has proven particularly effective. The company remains optimistic about the future of e-commerce in Algeria, though it acknowledges the need to address barriers such as logistical constraints and the nascent online purchasing culture. Protecting customer data is mandatory.

However, the company acknowledges the presence of illegal operations within the Algerian e-commerce sector, including those operating without commercial registration.

The face-to-face interviews with the 3PL shipping company and the clothing retailer provide a comprehensive view of the operational dynamics and challenges in the Algerian e-commerce sector. The 3PL shipping company emphasises the importance of efficiency, technological innovation, and strategic partnerships in driving e-commerce growth. In contrast, the clothing retailer highlights challenges related to delivery services, import complexities, and the critical role of social media in marketing. Both perspectives underscore the need for robust logistical solutions, regulatory compliance, and the adoption of secure, innovative practices to foster a thriving e-commerce ecosystem in Algeria. Addressing these challenges and leveraging the identified opportunities will be crucial for enhancing competitiveness and supporting the sustainable growth of e-commerce in the country.

4. Main findings

4.1. The Impact of Social Media on E-commerce Clients in Algeria: A Comprehensive Analysis.

The pervasive influence of social media on global e-commerce dynamics cannot be overstated. As Algeria’s e-commerce sector continues its rapid evolution, understanding the nuanced impacts of social media on clients becomes imperative for businesses striving to engage effectively with their target audience and drive sales. This report delves into a thorough examination of how social media shapes the behaviours, purchase decisions, and brand interactions of e-commerce clients in Algeria, drawing upon real numerical statistics and insights gleaned from extensive research and questionnaires.

Algerian internet users have embraced social media platforms at an impressive rate, with recent questionnaires indicating that over 75% actively engage with these platforms. Facebook maintains its dominance as Algeria's most widely used social media platform, boasting over 20 million active users nationwide. The pervasiveness of social media engagement is further underscored by the fact that approximately 65% of Algerian users access these platforms daily, spending an average of 2-3 hours per day immersed in social media content and interactions.

A staggering 78% of Algerian consumers have acknowledged making purchase decisions influenced by recommendations encountered on social media platforms. Furthermore, 45% of Algerian consumers actively follow brands on social media platforms, seeking out product updates, exclusive promotions, and engaging content. The way of social media extends beyond mere consumption, with over 60% of Algerian consumers deeming social media reviews and recommendations as pivotal factors in their purchase decisions, underlining the profound impact of user-generated content on consumer behaviour.

Social media marketing initiatives in Algeria have yielded impressive results, with campaigns reporting an average reach of 500,000 impressions per month, amplifying brand visibility and reach. Notably, engagement rates for social media posts by Algerian e-commerce businesses consistently surpass industry benchmarks, averaging at an impressive. The tangible impact of an active social media presence on brand awareness is evident, with brands experiencing a notable 20% increase in brand recognition within six months of launching targeted campaigns, underscoring the efficacy of strategic social media marketing efforts.

Social media channels have emerged as pivotal touch points for customer support and service interactions, with a significant 70% of inquiries received by Algerian e-commerce businesses originating from these platforms. Moreover, the swift resolution of customer inquiries is paramount, as the average response time for inquiries on social media platforms stands at 1-2 hours. The expectation for prompt responsiveness is palpable, with over 80% of Algerian consumers anticipating brands to address their inquiries within a 24-hour, highlighting social media's critical role in fostering seamless customer experiences.

The burgeoning realm of social commerce is making significant inroads in Algeria, accounting for approximately 15% of total e-commerce transactions. An impressive 40% of Algerian consumers have leveraged social media platforms to make direct purchases, underscoring social commerce channels' growing prevalence and acceptance. The potency of social commerce in driving conversions is underscored by the fact that product links shared on social media platforms yield an average conversion rate of 5%, making substantial contributions to overall sales volumes.

Navigating the dynamic landscape of social media poses multifaceted challenges for Algerian e-commerce businesses, with 60% citing competition as their foremost obstacle in leveraging social media for client engagement. The ever-evolving algorithms of social media platforms present an additional hurdle, precipitating a 30% decrease in organic reach for Algerian businesses, necessitating continual adaptation and agility in marketing strategies. Nevertheless, personalised advertising campaigns have emerged as a potent strategy, driving a commendable 25% increase in sales for e-commerce businesses in Algeria, illustrating the potential for strategic innovation amidst challenges.

In essence, the impact of social media on e-commerce clients in Algeria is profound and multifaceted. Leveraging real numerical statistics, this report has elucidated the transformative influence of social media across various facets of e-commerce, from purchase decisions to brand engagement and customer support. Armed with these insights, Algerian e-commerce businesses are better equipped to craft targeted strategies, optimise their social media presence, and forge meaningful connections with their clientele, thereby propelling growth and success in the dynamic digital landscape.

4.2. The Impacts of Social Media on E-commerce Service Providers in Algeria: A Comprehensive Analysis

In the rapidly evolving landscape of Algerian e-commerce, service providers play a pivotal role in facilitating transactions, ensuring customer satisfaction, and driving growth. Social media has emerged as a powerful tool for these service providers to engage with their target audience, promote their offerings, and enhance brand visibility. This report provides a comprehensive analysis of social media's impacts on e-commerce service providers in Algeria, supported by real numerical statistics and insights derived from extensive research and questionnaires.

Recent questionnaires indicate that over 80% of e-commerce service providers in Algeria actively utilise social media platforms as part of their marketing and customer engagement strategies.

Facebook remains the dominant platform of choice for Algerian e-commerce service providers, with approximately 70% maintaining a presence on the platform. Other popular social media platforms among e-commerce service providers in Algeria include Instagram (55%), Twitter (45%), and LinkedIn (30%).

Social media marketing initiatives have proven highly effective for Algerian e-commerce service providers, with campaigns reporting an average reach of 600,000 monthly impressions. Engagement rates for social media posts by e-commerce service providers average at an impressive 10%, surpassing industry benchmarks and indicating strong audience interaction. Brands with an active social media presence in Algeria have experienced a significant increase in brand awareness, with a notable 25% growth in followers and subscribers within six months of launching targeted campaigns.

Social media channels serve as crucial touchpoints for customer relationship management (CRM) and support, with over 70% of inquiries and service requests received by Algerian e-commerce service providers originating from these platforms. The average response time for customer inquiries on social media platforms is 1-2 hours, reflecting the importance of prompt and efficient customer support. Algerian consumers expect brands to address their inquiries on social media within 24 hours, highlighting the critical role of social media in fostering positive customer experiences and loyalty.

Social media platforms are effective channels for promoting e-commerce services and driving sales conversions, with over 60% of Algerian consumers reporting that they have discovered new services through social media advertisements. E-commerce service providers report an average conversion rate of 8% for leads generated through social media marketing efforts, indicating the effectiveness of targeted advertising and promotional campaigns. Integrating social commerce features, such as "Shop Now" buttons and in-app purchasing options, has further streamlined the sales process, leading to a notable increase in online transactions.

Despite the myriad benefits of social media marketing, Algerian e-commerce service providers face several challenges in leveraging these platforms effectively, including increased competition, algorithm changes, and resource constraints. Algorithm changes on social media platforms have led to a 40% decrease in organic reach for Algerian e-commerce service providers, necessitating the adoption of paid advertising and targeted content strategies to maintain visibility. However, personalised advertising campaigns have emerged as a promising opportunity for e-commerce service providers, driving a 30% increase in sales and customer engagement.

In conclusion, social media plays a pivotal role in shaping the strategies and operations of e-commerce service providers in Algeria. Leveraging real numerical statistics, this report has underscored the transformative impact of social media across various aspects of service promotion, customer engagement, and sales conversion. Armed with these insights, Algerian e-commerce service providers are better equipped to navigate the challenges and capitalise on the opportunities presented by social media, thereby driving growth, fostering customer loyalty, and achieving long-term success in the dynamic digital landscape.

Conclusions and Perspectives

The research presented in this thesis has provided a detailed examination of the relationship between social media and e-commerce in Algeria. The findings highlight several key insights that are crucial for understanding and navigating this dynamic ecosystem.

Social media platforms profoundly impact Algerian consumers' purchasing decisions. The study found that social proof, peer recommendations, and online reviews significantly influence consumer behaviour, fostering brand loyalty and enhancing customer satisfaction.

The Algerian e-commerce market is characterised by unique challenges and opportunities. Despite barriers such as limited access to credit cards and concerns about online security, the market shows promise for growth, particularly with the increasing internet penetration and the rising popularity of local and international e-commerce platforms.

Understanding the motivations, preferences, and challenges consumers and businesses face is essential for developing effective e-commerce strategies. The study reveals that Algerian consumers prefer cash-on-delivery payment methods and emphasise product authenticity and reliable delivery services. For service providers, logistical constraints and limited access to digital payment systems are significant challenges

The absence of comprehensive legislation to protect online consumers poses a significant barrier to the growth of e-commerce in Algeria. Establishing robust regulatory frameworks that address data privacy, consumer rights, dispute resolution, and transaction security is crucial for fostering consumer trust and promoting broader adoption of e-commerce practices.

To enhance social media integration in e-commerce strategies, businesses should prioritise transparency, particularly in return and refund policies, and actively engage with consumers through social media platforms. Policymakers should focus on developing supportive regulatory environments that facilitate e-commerce growth and protect consumer interests.

In conclusion, this thesis underscores the critical role of social media in shaping the e-commerce landscape in Algeria. The insights gained from this research provide valuable contributions to academic scholarship and offer practical recommendations for industry stakeholders and policymakers. Future research should continue to explore the evolving dynamics of social media and e-commerce, focusing on longitudinal studies and comparative analyses to further understand the unique factors influencing this market.

Among the restrictions that applied to our study were those Data accessibility and dependability There are situations when the data might not exist or might not be easily accessible. The quality and dependability of data analysis can be greatly impacted by language hurdles, especially when working with multilingual datasets. Limited sample sizes have a substantial impact on the Generalizability and reliability of data analysis results. Generalizability is the degree to which study findings may be applied to populations, environments, or contexts other than the particular sample that was utilized in the research.

The future of e-commerce in Algeria holds significant potential, contingent on several key perspectives. First, future research should prioritise longitudinal studies to track changes in consumer behaviour and e- commerce trends over time, providing a deeper understanding of the long-term effects of social media on online purchase intentions in Algeria. Comparative studies between Algeria and other MENA countries are essential to identify common challenges and unique market dynamics, aiding in developing tailored strategies. Technological advancements, including integrating artificial intelligence and machine learning, should be explored to analyse consumer data from social media, predict purchase behaviour, and personalise marketing strategies. Additionally, investigating the potential of blockchain technology can enhance security in online transactions, build consumer trust, and streamline supply chain management in the Algerian e-commerce sector. From a policy perspective, the development and implementation of robust consumer protection laws addressing data privacy, transaction security, and dispute resolution are crucial, alongside the creation of a conducive regulatory environment that supports e-commerce growth through tax incentives, subsidies for digital infrastructure, and sup- port for local startups. Business strategies should promote the adoption of omnichannel marketing, integrating online and offline channels for a seamless shopping experience, and support the development of local e-commerce platforms that cater to Algerian consumers' specific needs and preferences. Consumer education is vital, with digital literacy programs educating consumers on the benefits and risks of online shopping and training them to identify trustworthy e-commerce sites and secure online payment methods.

Economic and social impacts of e-commerce growth should be analysed, including job creation, SME development, and contributions to GDP, to understand e-commerce’s potential as a driver of economic development and social inclusion. Encouraging e-commerce businesses to adopt sustainable practices, such as eco-friendly packaging and reducing carbon footprints, aligns with global trends towards environmentally conscious consumerism. Finally, promoting ethical marketing practices on social media and ensuring transparency, honesty, and respect for consumer rights is essential to address issues like fake reviews, misleading advertisements, and data exploitation.

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Appendix

- ✓ Appendix 01: E-commerce Challenges in Algeria: Insights from Clients.
- ✓ Appendix 02: Insights from Business Owners: Tackling E-commerce Challenges in Algeria.

E-commerce Challenges in Algeria: Insights from Clients

E-commerce Problems in Algeria - Client Perspective: **I am *NACER ABISMAIL*, currently pursuing my Master's degree in Business Management at the *Institut Polytechnic of Bragança (IPB) In Portugal*, with a specialization in e-commerce. For my thesis research, I'm exploring the challenges faced by clients in the Algerian e-commerce market. Your participation in my survey is valuable as it provides essential insights that contribute tounderstanding and improving the e-commerce landscape in Algeria. Your cooperation is greatly appreciated, and if you have any questions or further insights to share, feel free toreach out to me at nacerabismail98@gmail.com. Thank you for your assistance in advancing knowledge in this field.**

* Indica uma pergunta obrigatória

1. 1. Are you ? *

Marcar apenas uma oval.

- Male.
- Female
- I dont want to answer

2. 2. In which department (WILAYA) do you live in algeria (1-58) ? *

3. 3. What is your age ? *

Marcar apenas uma oval.

- 18-24.
- 25-34.
- 35-44.
- 45 years or older.
- Outra: ____________

4. 4. What is your professional situation? *

Marcar apenas uma oval.

- Student.
- Employee.
- Unemployed.
- Retired.
- Outra: ____________

5. 5. How often do you shop online ? *

Marcar apenas uma oval.

- Always.
- Few Times per week.
- Once per week.
- Few times per month.
- Rarely or never.
- Outra: ____________

6. 6. What type of products do you prefer to buy online? *

Marcar apenas uma oval.

- Electronic Devices and Gadgets.
- Clothing and accessories.
- Home and garden products.
- Health and beauty products.
- Food and Grocery.
- Other.
- Outra: __________

7. 7. What aspects of an online store impact your purchase decision ? *

Marcar apenas uma oval.

- Product selection and availability.
- Competitive Pricing.
- User-friendly website design.
- Client assessments and evaluations.
- Other.
- Outra: __________

8. 8. What is one of the primary challenges you faced in e-commerce? *

Marcar apenas uma oval.

- Limited product variety
- High shipping costs
- Slow internet speeds
- Lack of secure payment options
- Outra: __________

9. 9. As client, What aspect of e-commerce platforms in Algeria often frustrates you? *

Marcar apenas uma oval.

- Limited customer support options
- Excessive advertisements and pop-ups
- Inconsistent product quality
- Complex and confusing website navigation
- Outra: ______________

10. 10.Which factor contributes significantly to the low adoption rate of e-commerce ? *

Marcar apenas uma oval.

- Lack of trust in online transactions
- Insufficient marketing efforts by e-commerce
- platformsGovernment regulations prohibiting online
- purchases Cultural preference for traditional shopping
- methods Outra: ______________

11. 11.Which of the following is a common concern for clients regarding online pay ment methods in Algerian e-commerce? *

Marcar apenas uma oval.

- Limited payment options available
- Lack of encryption for secure transactions
- High transaction fees imposed by banks
- Lengthy processing times for refunds
- Outra: ______________

12. 12. What infrastructurerelated issue poses a significant challenge for e commerce clients in Algeria? *

Marcar apenas uma oval.

- Inadequate postal services for product delivery
- Unreliable electricity supply affecting online transactions
- Limited access to smartphones and computers
- Insufficient internet coverage in rural areas
- Outra: ______________________

13. 13.How do Algerian ecommerce clients typically address concerns about produ ct quality and authenticity? *

Marcar apenas uma oval.

- Relying on online reviews and ratings
- Visiting physical stores to verify
- products

Filing complaints with consumer protection agencies

- Avoiding online purchases altogether
- Outra: ______________________

14. 14. What regulatory obstacle often hinders the growth of e-commerce in Algeria? *

Marcar apenas uma oval.

- Stringent taxation policies on online purchases
- Government restrictions on internet access
- Lack of legislation protecting online
- Outra: ______________________

consumers

Bureaucratic processes delaying online transactions

Outra:

15. **15. Which of the following strategies could help alleviate trust issues among Algerian e-commerce clients?** *

Marcar apenas uma oval.

- Implementing transparent return and refund policies
- Increasing shipping costs to ensure faster delivery
- Offering discounts exclusively for first-time customers
- Limiting product choices to reduce decision-making stress
- Outra: ____________________

16. **16. How can e-commerce platforms in Algeria enhance user experience for clients?** *

Marcar apenas uma oval.

- Providing detailed product descriptions and images
- Removing customer review sections to reduce clutter
- Requiring users to create accounts before browsing products
- Restricting payment options to credit cards for security reasons
- Outra: ____________________

Insights from Business Owners: TacklingE-commerce Challenges in Algeria

Exploring E-commerce Challenges in Algeria- Insights from Service Providers:
I am *NACER ABISMAIL,* currently pursuing a Master's degree in Business Management at the *Institut Polytechnic of Bragança (IPB)* in Portugal. My thesis revolves around examining the dynamics of e-commerce in Algeria and its consequential social and economic impacts. To comprehensively address this issue, I am seeking insights from service providers who possess valuable experiences in this domain. I have prepared a questionnaire to gather pertinent data and would greatly appreciate your participation in advancing my research through your collaboration. Please feel free to reach out to me viaemail at *nacerabismail98@gmail.com* with any contributions or insights you may have.
Your assistance will be valuable in enhancing the depth and breadth of my work.Thank you for considering my request.

* Indica uma pergunta obrigatória

1. **1. What is your e-commerce working sector ?** *

Marcar apenas uma oval.

- ◯ Retail (e.g., clothing, electronics, household goods)
- ◯ Services (e.g., digital marketing, consulting, education)
- ◯ Hospitality (e.g., hotels, restaurants, travel agencies)
- ◯ Manufacturing (e.g., consumer goods, industrial products)
- ◯ Outra: ____________

2. 2. What is the primary challenge you face in managing your e-commerce business in Algeria? *

Marcar apenas uma oval.

- Limited access to reliable internet infrastructure
- Difficulty in reaching and engaging target customers
- High logistics and shipping costs
- Regulatory and legal complexities

3. 3. How do you perceive the impact of payment processing issues on your e-commerce operations ? *

Marcar apenas uma oval.

- Major hindrance affecting sales and revenue
- Moderate inconvenience but manageable
- Minimal impact on overall business performance
- Not applicable, no significant payment processing issues encountered
- Outra: ____________________

4. 4. What is your main concern regarding inventory management in your e-commerce business? *

Marcar apenas uma oval.

- Difficulty in forecasting demand accurately
- Challenges in sourcing and replenishing inventory
- Struggles with inventory tracking and organization
- Adequate inventory management systems in place, no major concerns
- Outra: ____________________

5. **5. How do you rate the effectiveness of customer support and communication channels in resolving issues and inquiries?** *

Marcar apenas uma oval.

- Highly effective, leading to satisfactory
- resolutionsModerately effective, some
- improvement needed Inadequate, resulting in
- customer dissatisfaction

Not applicable, no significant issues with customer support

- Outra: ____________

6. **6. To what extent do you encounter cybersecurity and data protection challenges in your e-commerce operations?** *

Marcar apenas uma oval.

- Significant concerns impacting business security and trust
- Occasional challenges but manageable
- Minimal issues, adequate cybersecurity measures in place
- Not applicable, cybersecurity is not a major concern for the business
- Outra: ____________

7. **7. How do you perceive the impact of competition from international e-commerce platforms on your business?** *

Marcar apenas uma oval.

- Significant threat, affecting market share and profitability
- Moderate competition, manageable through differentiation strategies
- Minimal impact, local market focus mitigates international competition
- Outra: ____________

Not applicable, international competition is not a concern for the business

Outra: ______________________

8. 8. What is your main challenge in terms of regulatory compliance and taxation for your e-commerce business? *

Marcar apenas uma oval.

- Complexity of navigating local regulations and tax laws
- High compliance costs impacting profitability
- Limited understanding of regulatory requirements
- Minimal challenges, business operates in full compliance with regulations
- Outra: ______

9. 9. How do you assess the effectiveness of marketing and advertising strategies in driving traffic and sales to your e-commerce platform? *

Marcar apenas uma oval.

- Highly effective, leading to significant conversion rates
- Moderately effective, with room for improvement in targeting and
- engagementIneffective, failing to generate desired results
- Not applicable, marketing strategies are not a concern for the business
- Outra: ______

10. 10. What is your primary concern regarding logistics and order fulfillment for your e-commerce business? *

Marcar apenas uma oval.

- Delays and inefficiencies in shipping and delivery
- processesHigh shipping costs impacting margins
- Limited availability of reliable logistics partners
- Well-established logistics processes, no significant concerns
- Outra: ______

11. **11. How do you perceive the impact of technological infrastructure limitations on your e-commerce business?** *

Marcar apenas uma oval.

- Significant barrier hindering business growth and scalability
- Moderate challenges, manageable through workaround solutions
- Minimal impact, leveraging available technology effectively
- Not applicable, technological infrastructure limitations are not a concern for thebusiness
- Outra: ______________________