



**İSTANBUL TİCARET
ÜNİVERSİTESİ**

T.C.

ISTANBUL TICARET UNIVERSITY

GRADUATE SCHOOL OF FOREIGN TRADE

MASTER OF INTERNATIONAL TRADE PROGRAMME

“BARRIERS TO E-COMMERCE ADOPTION IN MOROCCO SMES”

Master Thesis

Mariya MINA

ISTANBUL, 2024



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20023492

Advisor : Assoc. Prof. Evrim Ildem Develi

ISTANBUL, 2024

Ethics Statement

I dedicate all the required information in this title ‘Barriers to e-commerce adoption in Morocco SMes. I would clarify that all the materials, sources, data, and extra inputs have benefited well throughout the writing procedure of this thesis. All matters contained in this thesis are my opinion and do not reflect the official view of Istanbul Ticaret University.

Mariya Mina



Abstract

SMEs' e-commerce implementation is crucial in the global digital economy because e-commerce boosts economic growth, competitiveness, and market access. Moroccan SMEs face many obstacles to integrating e-commerce into their business operations. This study examines the barriers to Moroccan SMEs adopting e-commerce. The study also aims to suggest ways to overcome these obstacles. This study used a mixed-methods approach to collect primary and secondary data to achieve its goals. Primary data from surveys and focus group discussions helped researchers understand Moroccan SMEs' e-commerce adoption challenges. This understanding was made possible by data collection. While this was happening, secondary data sources like organization reports and government statistics were used to validate and contextualize primary research findings. Random sampling selected 280 participants for a robust sample. This was done to ensure that Morocco has enough small and medium-sized enterprise (SME) owners, managers, and IT specialists in a variety of industries and regions. Descriptive statistics were used to summarize the sample's demographics, including age, gender, and annual turnover. These statistics informed subsequent analyses. Factor analysis is used to find patterns and relationships between variables related to the barriers to e-commerce adoption. The analysis showed that the dataset was suitable for factor analysis. Factor loadings and eigenvalues showed strong relationships between the variables. Reliability analysis, specifically Cronbach's alpha, confirmed the measurement instruments' internal consistency and stability, boosting the study's credibility and validity. This showed a strong linear relationship between e-commerce adoption and market barriers. The regression model showed strong explanatory power, indicating this relationship. Multiple regression analysis showed these obstacles' importance in determining Moroccan SMEs' e-commerce adoption outcomes.

Keywords: *Moroccan SMEs, E-commerce adoption, Barrier's analysis, Market access,*

ÖZET

KOBİ'lerin e-ticaret uygulaması küresel dijital ekonomide hayati öneme sahiptir çünkü e-ticaret ekonomik büyümeyi, rekabet gücünü ve pazar erişimini artırır. Faslı KOBİ'ler, e-ticareti ticari faaliyetlerine entegre etme konusunda birçok engelle karşılaşılıyor. Bu çalışma Faslı KOBİ'lerin e-ticareti benimsemesinin önündeki engelleri incelemektedir. Çalışma aynı zamanda bu engelleri aşmanın yollarını önermeyi de amaçlamaktadır. Bu çalışma, hedeflerine ulaşmak için birincil ve ikincil verileri toplamak amacıyla karma yöntem yaklaşımı kullanmıştır. Anketlerden ve odak grup tartışmalarından elde edilen birincil veriler, araştırmacıların Faslı KOBİ'lerin e-ticareti benimseme zorluklarını anlamalarına yardımcı oldu. Bu anlayış veri toplamayla mümkün olmuştur. Bu gerçekleşirken, birincil araştırma bulgularını doğrulamak ve bağlamsallaştırmak için kuruluş raporları ve hükümet istatistikleri gibi ikincil veri kaynakları kullanıldı. Rastgele örnekleme, sağlam bir örnek için 280 katılımcıyı seçti. Bu, Fas'ın çeşitli endüstrilerde ve bölgelerde yeterli sayıda küçük ve orta ölçekli işletme (KOBİ) sahibine, yöneticisine ve BT uzmanına sahip olmasını sağlamak için yapıldı. Tanımlayıcı istatistikler, yaş, cinsiyet ve yıllık ciro dahil olmak üzere örneklemin demografik özelliklerini özetlemek için kullanıldı. Bu istatistikler daha sonraki analizlere ışık tuttu. E-ticaretin benimsenmesinin önündeki engellerle ilgili değişkenler arasındaki kalıpları ve ilişkileri bulmak için faktör analizini kullandık. Analiz, veri setinin faktör analizine uygun olduğunu gösterdi. Faktör yükleri ve özdeğerler değişkenler arasında güçlü ilişkiler göstermiştir. Güvenilirlik analizi, özellikle Cronbach alfa, ölçüm araçlarının iç tutarlılığını ve istikrarını doğrulayarak çalışmanın güvenilirliğini ve geçerliliğini artırdı. Bu, e-ticaretin benimsenmesi ile pazar engelleri arasında güçlü bir doğrusal ilişki olduğunu gösterdi. Regresyon modeli bu ilişkiyi gösteren güçlü bir açıklama gücü gösterdi. Çoklu regresyon analizi, Fas KOBİ'lerinin e-ticareti benimseme sonuçlarının belirlenmesinde bu engellerin önemini gösterdi.

Anahtar Kelimeler: KOBİ'leri, E-ticaretin benimsenmesi, Bariyer analizi, Pazar erişimi,

Acknowledgment

I declare that all information in this document has been obtained and presented, Following the academic rules and ethical behavior. I further declare that I have fully cited and cited all non-original materials and results for this study as required by the rules and conduct.

Mariya Mina



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List of Abbreviations:

SMEs: Small and Medium Enterprises

ANOVA: Analysis of variances

E-Commerce: Electronic Commerce

KMO: Kaiser–Meyer–Olkin



INTRODUCTION

The study's context, motives, and importance, establish an atmosphere for analyzing the challenges to expanding e-commerce within the SMEs in Morocco (Ha, Van Dung, 2020) The global business scene has experienced a deep change in recent years, caused by the growing abundance of technological innovations. E-commerce, described as performing transactions for businesses across the Internet, has become known as an essential factor in changing how companies run, link with consumers, and engage in the worldwide economy. This changing trend has been especially apparent within advanced economies, where big companies have taken advantage of the potential of e-commerce to acquire an edge over their rivals (Augusto, Lima, Penedo, Oliveira, & Oliveira, 2012) While major corporations have quickly embraced e-commerce implementation, SMEs face unique challenges, specifically in emerging countries like Morocco.

In the ever-changing context of global trade, the acceptance of e-commerce is now recognized as a revolutionary force, offering both potential and difficulties, particularly to Small and Medium Enterprises (SMEs) in ascending countries. The research aims to dive deeply into the distinctive circumstances of Morocco, hoping to uncover the hurdles preventing the broad acceptance of e-commerce within SMEs. Morocco aims to put itself on the technological edge, and knowing and solving such obstacles becomes important for continued profitable development and success. This study focused on hurdles to e-commerce growth within SMEs in Morocco and is set to add to education, government, and business practices significantly. By uncovering the complexities of these challenges, this research attempts to provide helpful information that can influence focused actions, policy suggestions, and capacity-building efforts (Augusto, Lima, Penedo, Oliveira, & Oliveira, 2012).

CHAPTER 1

E-commerce, short for electronic commerce, is the process of buying and selling goods, services, or information using the internet or other electronic means. It has transformed the way businesses operate and how consumers shop, allowing transactions to occur virtually anywhere and anytime (Išoraitė, 2018). E-commerce encompasses a wide range of activities, from online retailing and digital marketplaces to electronic payments and online auctions. Its convenience and accessibility have made it increasingly popular among businesses and consumers alike. Several types of e-commerce cater to different needs and preferences. Business-to-Consumer (B2C) e-commerce involves transactions between businesses and individual consumers, such as online retail stores where consumers purchase products directly from sellers. Business-to-Business (B2B) e-commerce, on the other hand, involves transactions between businesses, such as wholesalers purchasing goods from manufacturers or suppliers. B2B e-commerce often involves large volumes of transactions and is integral to supply chain management and procurement processes (Kumar, 2012).

Another type of e-commerce is Consumer-to-Consumer (C2C), where individuals buy and sell goods or services to each other through online platforms or marketplaces. This model facilitates peer-to-peer transactions and is commonly used on platforms like eBay or Craigslist (Soule, 2018). Moreover, there is Business-to-Government (B2G) e-commerce, where businesses provide goods and services to government agencies through online portals or procurement systems. Overall, the various types of e-commerce reflect the diverse nature of online commerce and the multitude of ways in which businesses and individuals engage in digital transactions.

1. Barriers to e-commerce adoption in Morocco SMes

The global business scene has experienced a deep change in recent years, caused by the growing abundance of technological innovations. E-commerce, described as performing transactions for businesses across the Internet, has become known as an essential factor in changing how companies run, link with consumers, and engage in the worldwide economy. This changing trend has been especially apparent within advanced economies, where big companies have taken advantage of the potential of e-commerce to acquire an edge over their rivals (Augusto, Lima, Penedo, Oliveira, & Oliveira, 2012). While major

corporations have quickly embraced e-commerce implementation, SMEs face unique challenges, specifically in emerging countries like Morocco.

1.1.1. Strategic Management as Conceptual Framework:

Strategic management is a crucial conceptual framework for organisations. Strategic management helps set goals, create plans, and make decisions to gain a competitive edge and long-term success. Strategic management for Moroccan SMEs implementing e-commerce involves analysing the market, understanding technological trends, and assessing the organization's capabilities and resources. This approach requires unified plans to overcome problems such as insufficient digital infrastructure, distrust in online transactions, and legal restrictions. In order to handle these barriers, small and medium-sized firms (SMEs) have the chance to construct individualised plans through the use of strategic management (Takacs, Brunner, & Frankenberger, 2022). These strategies may help people maximise their abilities and minimise their weaknesses. This will prepare them to capitalise on e-commerce opportunities and boost their digital competitiveness.

1.1.2. Factor Effecting the Organizational Process:

Each of these characteristics affects how an organisation runs, and there are many factors that affect its success and efficiency. These obstacles can be categorised by internal and external elements.

1.1.2.1. Internal Factors:

Internal company factors greatly impact organisation. Organisational structure, culture, leadership, and HR are important. The organisation is greatly affected by these elements. The organisational structure determines how tasks are divided and coordinated, which affects efficiency and decision-making. Organisational structure determines this framework. The company's culture are its shared values, beliefs, and standards also affects employee behaviour and motivation, which in turn affects productivity and performance (Iranmanesh, Kumar, Foroughi, Mavi, & Min, 2021). An organization's leadership style shapes its culture, strategic direction, and employee participation. Successful recruiting, training, and development programmes boost company performance. Organisational performance also depends on human resources, including skills, competencies, and motivation.

1.1.2.2.External Factors:

From the outside, the organisational process is affected by many corporate factors. These aspects include competitive, economic, political, legal, social, and technical dynamics. Economic variables, such as market demand and inflation rates, greatly influence corporate operations and financial performance. Political and legal problems, such as government regulations and taxation, present organisations with opportunities and restrictions in their operations. Additionally, socio-cultural developments and customer preferences affect market demand and organisational practices. Technology advancements and digital disruption are transforming sectors and market landscapes, so companies must adapt and innovate to stay competitive in E-commerce adoption in morocco (Benhaddou & Fatima, 2024). Strategic research on competitors' actions and market positioning in highly competitive industries is needed to find opportunities and manage risks.

1.1.3. Process of plan organize implementation control and feedback:

Moroccan SMEs must participate in planning, organising, executing, managing, and providing feedback to overcome digital marketplace challenges and maximise opportunities. To begin planning, set clear e-commerce goals, create strategies to overcome challenges like poor digital infrastructure and trust difficulties, and create action plans to achieve the strategy. These are all the steps needed to execute the plan properly. Technology, human capital, and financial resources are needed to do this. Implementation begins once the strategy is implemented and includes several steps. These include launching online platforms, integrating e-commerce solutions into company operations, and educating personnel to use new digital technology. At this stage, robust management systems are needed to oversee e-commerce initiatives, evaluate performance measures like website traffic and conversion rates, and handle any deviations from the plan (Oppong, Yen, & Merhout, 2005). Finally, collecting feedback from customers, employees, and other stakeholders helps Moroccan small and medium-sized businesses (SMEs) evaluate their e-commerce efforts, identify areas for improvement, and modify their strategy to meet standards.

1.1.4. Utilization of Technological Advances

These issues encompass everything from restricted utilization of technological advances and financial assets to constitutional obstacles and an absence of digital knowledge.

Acknowledging Morocco's profit-making fabric, this investigation aims to dig into the hurdles preventing the broad implementation of e-commerce in this essential industry (Black, 2017). For small and medium-sized enterprises, adopting e-commerce is no more than a choice; it has grown into their survival and development. E-commerce allows SMEs to broaden their reach in the marketplace beyond regional limitations, lower running costs, improve customer interaction, and fight for greater efficiency in the constantly developing business environment (AL-TAYYAR, ABDULLAH, RAHMAN, & ALI, 2021). Understanding the hurdles that prevent the smooth merger of e-commerce is important for creating focused strategies to boost SMEs in the country of Morocco. The achievement of the use of e-commerce revolves around the handiness and usability of digital technology. Morocco's technological infrastructure, including internet access, cell connections, and computer knowledge, will be inspected to find possible challenges (Rüller S. A., 2021)

1.1.4.1. Evaluation

Evaluating the technological capability of small and medium-sized enterprises is crucial for creating solutions that address the technological vacuum and enable businesses to take advantage of e-commerce successfully (Rakshit, Islam, Mondal, & Pau, 2022). The significance of government regulations and efforts to influence the e-commerce environment cannot be overlooked as the country of Morocco places itself as a regional economic hub. Understanding the current policies, rewards, and support systems is crucial for judging the amount to which they help or prevent e-commerce usage among SMEs. The study is going to investigate these regulations with the evolving requirements of SMEs in a fast technological age (Prasanna, et al., 2019). This study focused on hurdles to e-commerce growth within SMEs in Morocco and is set to add to education, government, and business practices significantly. By uncovering the complexities of these challenges, this research attempts to provide helpful information that can influence focused actions, policy suggestions, and capacity-building efforts. Eventually, the objective is to equip Moroccan SMEs to manage the digital world with adaptability, creativity, and an edge over the competition, adding to the country's economic growth.

1.1.4.2.Ever-Changing Context of Global Trade

In the ever-changing context of global trade, the acceptance of e-commerce is now recognized as a revolutionary force, offering both potential and difficulties, particularly to Small and Medium Enterprises (SMEs) in ascending countries. This research aims to dive deeply into the distinctive circumstances of Morocco, hoping to uncover the hurdles preventing the broad acceptance of e-commerce within SMEs. Morocco aims to put itself on the technological edge, and knowing and solving such obstacles becomes important for continued profitable development and success (Oubrich, Hakmaoui, Bierwolf, & Haddani, 2018). As the country Morocco strives to make a place for itself in the emerging digital economy, knowing and reducing hurdles to e-commerce growth within the SMEs is crucial (Amina, 2022). The research presented here wants to add to the debate on creating an ideal atmosphere for the growth and development of e-commerce, eventually pushing Moroccan SMEs into the digital era of technology alongside grit and revolution. Morocco, thanks to its various huge industries and a growing startup environment, rests at an important turning point in its digital technological development (Gupta, 2014)

1.1.4.3. Business in E-commerce

E-commerce possesses the ability to change the way companies work, improving their access to markets and supporting revolution (Gupta, 2014). However, the degree how which SMEs in the country of Morocco may capitalize on the advantages of online shopping is based upon managing an intricate network of hurdles distinct to the country's socio-economic as well as technological background. Morocco's economic and social circumstances serve as a key part of establishing a rightful place for SMEs and their association alongside e-commerce. Considering the details of the economic atmosphere, such as the division of assets, the availability of financial assets, and the current culture of the business, is of the utmost importance for recognizing hurdles that could hinder the smooth merging of e-commerce into small and medium-sized enterprise operations. The legal system controlling e-commerce in Morocco constitutes an essential component of the research (Alsamara, Khalidi, & Hassan, 2020).

Policies created by the Government, laws, and legal systems greatly affect the simplicity by which small and medium-sized enterprises may implement practices related to e-

commerce (Barroso, et al., 2019). Evaluating the compatibility of these guidelines with the evolving requirements of businesses will shed light upon the possible difficulties that result from legislative and governmental difficulties. Morocco's technological environment covers crucial elements such as the usage of the internet, digital proficiency, and the establishment of strong facilities that significantly impact the potential of small and medium-sized enterprises to adopt e-commerce thoroughly (Rehman, 2019). Recognizing issues associated with the simplicity and expense of technology is important for creating approaches that transcend the technological gap and allow SMEs to handle the marketplace on the internet (Sayedi & Isah, 2013).

1.1.4.4. E-commerce Growth

For small and medium-sized enterprises in the country of Morocco, their pathway regarding e-commerce growth has a significant connection to the digital knowledge and abilities of their workforce (Zhu & Luo, 2023). Evaluating the skills of workers in employing digital resources, knowing platforms for e-commerce, and adjusting to changing technologies becomes important. Skill shortages may appear as a major block, needing focused measures to strengthen capacity. It is important to recognize consumers' behavior, desires, and concerns regarding buying things online. Establishing confidence in online transactions, maintaining their information's privacy, and managing their concerns regarding online transactions are all essential components of the investigation. Against this setting, the main goals of this study in Morocco are to thoroughly find and examine the obstacles preventing e-commerce usage among SMEs (Adel & Dahmani, 2023). The approach involves interacting with SMEs across various fields through surveys, conversations, and data analysis. The results present a detailed perception of the difficulties encountered by Moroccan SMEs, giving a basis for developing targeted approaches and recommendations for policy (Youssef & Dahmani, 2023).

CHAPTER 2

The chapter aims to help us understand better by looking closely at the problems and chances of using online business in small Moroccan companies. It uses information from academic papers, magazines, and books to give us important insights and

2.1 Ecommerce Concepts and Types:

In this section, several variables relevant to our topic in Moroccan SMEs' E-commerce adoption is analyzed by encompassing purchase intention, green awareness, perceived value and risk, environmental responsibility, and perceived trust in green practices (Youssef & Dahmani, 2023).

2.1.1. E-commerce Adoption:

The process by which businesses integrate electronic transactions and online platforms into their operations to conduct buying, selling, and other commercial activities over the internet. Studies by the researcher in 2021 delve into the various aspects of e-commerce, including its impact on businesses, consumer behavior, technological advancements, and regulatory (Xu, 2021)

2.1.2 Digital Literacy

The ability to access, understand, evaluate, and utilize information and communication technologies (ICT) effectively and responsibly for various purposes, including navigating online platforms, using digital tools, and critically assessing digital content. Digital literacy refers to the capacity to access, comprehend, evaluate, and utilize information and communication technologies (ICT) effectively and responsibly for diverse purposes. It encompasses skills such as navigating online platforms, employing digital tools, and critically assessing digital content (Bravo, 2021).

2.1.3 SMEs (Small and Medium-sized Enterprises)

Businesses are characterized by their relatively small scale of operations, limited resources, and workforce, typically defined by criteria such as revenue, assets, or number of employees. SMEs play a crucial role in economic development and employment generation. Small and Medium Enterprises (SMEs) are businesses known for their modest scale of operations, limited resources, and workforce. They are often identified based on criteria such as revenue, assets, or number of employees. SMEs play

a pivotal role in driving economic development and generating employment opportunities (Nwachukwu, 2012).

2.1.4 Consumer Perception

The attitudes, beliefs, opinions, and impressions held by individuals regarding e-commerce platforms, products, services, brands, pricing, reliability, convenience, and overall value proposition, influence their purchasing behavior and decision-making processes. Consumer perceptions encompass attitudes, beliefs, opinions, and impressions individuals hold regarding e-commerce platforms, products, services, brands, pricing, reliability, convenience, and overall value proposition. These perceptions significantly influence purchasing behavior and decision-making processes in the digital marketplace (Riquelme, 2010).

2.2. E-commerce as Process:

A strategy plan is being undertaken to help Moroccan SMEs use e-commerce to handle their unique business difficulties. Small and medium-sized firms (SMEs) must first plan, and then assess concerns like digital infrastructure and consumer trust. After that, they propose joint efforts and educational activities to solve these issues. To prepare for e-commerce, organizational operations focus on training staff and coordinating resources. Payment channels, online platforms, and targeted marketing techniques are all part of implementation. Control systems keep activities running smoothly. Inventory management and analytics tracking are examples (Ammar, Haleem, Javaid, Bahl, & Verma, 2020). Iterative adjustments based on stakeholder input allow Moroccan SMEs to extend their e-commerce strategy and exploit digital market opportunities. This makes these SMEs more competitive and expands their reach (Eller, 2020).

2.3. E-commerce Adoption and Economic Development in Morocco

Nong Zhu and Xubei Luo studied the strong link between e-commerce and business success in Jordan, Morocco, and Egypt. The authors employ both the World Bank Enterprise Survey and Economic Research Forum 2022 survey data (Zhu & Luo, 2023). This is done to get critical insights. Their research shows that e-commerce involvement in the three countries is minimal, especially compared to other countries in the territory. According to the report, organizations' e-commerce adoption depends on size, age, industry, and worker education. The study emphasizes this crucial point. E-commerce involvement is positively correlated with several firm success metrics, according to the

study. This area includes output, productivity (particularly in Jordan), exports/imports, and innovation. This shows how these companies can maintain sales levels, which has helped local firms survive. The findings highlight the importance of digitization for inclusive growth and job creation in the Middle East and North Africa (Zhu & Luo, 2023).

The research by Chundakkadan and Sasidharan adds to the literature on government support, e-commerce adoption, corporate innovation, and performance, particularly during the COVID-19 pandemic. Analyzing company data from 31 nations has revealed the relationship between these important elements. Government interventions are vital to changing corporate strategy during times of crisis, as evidenced by beneficial linkages between government backing and e-commerce and innovation. The study found that enterprises with government support had much higher sales growth, demonstrating the favorable effects of such initiatives. The endogeneity issue must be addressed to improve the authors' conclusions. By applying these findings to SMEs, the study can be made more sophisticated and highlight the universality of the links found. This study enhance the understanding of how government support affects e-commerce, creativity, and business success, especially during global disasters like the COVID-19 epidemic. This applies especially to how government aid affects business success (Chundakkadan & Sasidharan, 2023).

M Nazir with their colleagues in the year 2018 discussed the e-commerce adaptation that affects small and medium-sized enterprises (Arsalan, et al., 2018). They said that these enterprises are the main backbone of importance in the developing countries' economies and contribute to the increase in their gross domestic production. Technologies are made in addition to these, but the infrastructure deficiencies lead to the barrier to the productive chances to extend the business from small to large enterprises. According to the author that if the government starts to make policies where the electricity and the increase in the speed of the internet then it will be in the right of online marketing for many companies (Arsalan, et al., 2018). Such styles will allow the public to be attracted by online shopping more. Moreover, product quality matters a lot and, in this case, the trust of the customers should be retained by the small and mid-size enterprises by providing the expected quality product to their customers.

This barrier can be solved if the bank gives infrastructure loans for the ICT to start their e-commerce and thus, the issue for the financial budget would be reduced to a great limit. It has been found in recent years, that government policies including taxes and extra delivery charges included the barrier to e-commerce adaptation in the public which not only affects a company but also contributes to the defeat of competition around the globe (Arsalan, et al., 2018). In addition, proper communication between the customers and the organizations in e-commerce should be done so that the barrier can be reduced and the country will move toward economic growth. The lack of proper individual skills in making the customer feel and touch the product leads the public away from such online shopping.

Abdellaoui Mohammed in the year 2018, with his colleagues and fellows, mentioned the taxation in Morocco that is making a barrier in e-commerce that makes a great difference in the economic growth as compared to other competitive finance. Such issues and barriers cannot be ignored as they greatly affect economic growth and make gross domestic production decrease in a country (Mohammed, Abdellaoui, Hicham, Hassani, & Alaoui, 2018). The article shows that this country, there should be implemented of strategies related to digital technologies for all small to mid-sized enterprises. However, this makes only about 50% of employees rate and the companies of about 95% of Morocco country related to these enterprises. The taxes that are faced by these companies make the economic growth due to online shopping reduce to a low rate (Mohammed, Abdellaoui, Hicham, Hassani, & Alaoui, 2018). It affects the Morocco financial report as the SMSE is considered to be a modest position in the Morocco finances. The escape and fraud in this marketing lead serious impact on the customers for purchasing their products and so does limited purchasing making the companies and organizations suffer from budget. The tax by the government should be made so that the companies can make the step to extend their business to a large level (Mohammed, Abdellaoui, Hicham, Hassani, & Alaoui, 2018).

S Dahbi, with his colleagues in 2019 has written an article where they discussed how e-commerce is hindered in small and mid-sized enterprises. It is mentioned that the technology, financial, cultural, and other factors related to the organizations are the main barriers to the adaptation of such new ways of selling and buying by digital marketing. The writers are thankful to the ICT technology as they made the main

contribution to reducing these barriers to a very appreciative point (Dahbi, Salma, Benmoussa, & Chihab, 2019). But still, the trust in modern digital technology by different companies and organizations is not so visible as the online market is limited use by some customers and organizations. The successful adoption of e-commerce in the Moroccan SMES is divided by the systematic analysis into 4 different types such as the travel agency, the cosmetic companies, the one that manufactures such as candles and vegetable waxes, and the textile sector (Dahbi, Salma, Benmoussa, & Chihab, 2019).

These SMEs lead to the non-adaptation of electronic commerce. Different barriers come in the company such as the organizational size, the manager's attitude, and perceptions, lack of the capability to drive modern techniques, being happy with what they have and not being interested in learning more, etc, where the technology barriers lie in the fact as the lack of the consumer's knowledge about the technology, lack of information technology frustration, lack of the security of the internet, etc. These all led to different perceptions of the customers about the up-taking of e-commerce in their small and mid-sized enterprises (Dahbi, Salma, Benmoussa, & Chihab, 2019).

DRM BENDRAOUI in the year 2019 with their fellows and colleagues discussed the analysis of the trust of the customers and different enterprises in e-commerce. The article demonstrates that although e-commerce has made progress in recent years the expected and the right position has not been achieved yet due to the lack of benefits both to the Moroccan people and the small and mid-sized enterprises. This has also not contributed to the total trade of the developing and developed countries. Trust between the truth and the trust is important for making e-commerce get its desired position (BENDRAOUI & AITSOUDANE, 2019).

The lack of proper satisfaction among the customers about the quality and making their personal information secure will make these enterprises develop trust in their regular and new consumers. The article has described how the new communication style with the customers and new technology adaptations are making online shopping possible to some extent. The lack of proper information about all the charges made the customers dissatisfied and this damages a country's reputation. Such barriers adapting to e-

commerce to trading and its impact on the gross domestic production not only in Morocco but also in the entire World (Dahbi, Salma, Benmoussa, & Chihab, 2019).

The research conducted by **Van Dung Ha** discussed in his article the adoption of electronic commerce (E-commerce) has emerged as a transformative pressure for Small and Medium-sized organizations in growing economies, imparting possibilities for enhanced communications and monetary growth. In the context of Ho Chi Minh Town, Vietnam, this study investigates the determinants influencing the utility of E-commerce in 302 SMEs (Ha, Van Dung, 2020). The first crucial determinant is business enterprise readiness, emphasizing the need for SMEs to own the technological infrastructure, digital capabilities, and organizational potential to integrate E-commerce efficaciously. Secondly, the consciousness of the benefits associated with E-commerce emerges as a pivotal issue, with SMEs needing to recognize the capacity advantage, along with cost savings, progressed competitiveness, and increased customer reach, to drive adoption (Ha, Van Dung, 2020).

2.2.1 Morocco-Turkey Economic Relationship

Sara Sabbaj examines the Morocco-Turkey commercial and economic relationship and its potential. This is achieved by interviewing key players, reviewing the literature, and acquiring international organization statistics. The report describes the trade relationship's history and suggests industries with collaborative potential. Industries include agriculture, textiles, energy, and transportation. Agriculture is emphasized throughout the examination. The analysis showed a steady rise in trade volume, expected to reach \$2.2 billion in 2020, with a focus on renewable energy cooperation. This finding is crucial and warrants attention (Sabbaj, 2023). Despite this positive trend, difficulties remain. These issues include poor transit infrastructure, bureaucratic obstacles, and business owner ignorance. The report suggested improving transit infrastructure, reducing bureaucracy, and encouraging business connections to address these issues. Sabbaj's work highlights the great potential for economic cooperation, particularly in agriculture and renewable energy, and recommends a path for both countries to capitalize on this potential for economic growth and mutual commerce (Sabbaj, 2023).

2.2.2 Barriers to E-commerce Adoption in Moroccan Agricultural Cooperatives

Imad Jabbouri and co-researchers examine the barriers to Moroccan agricultural cooperatives adopting e-commerce and the potential impact on business performance in their research paper. They also examine the business benefits of such integration. Mixed-methods research uses descriptive and inferential statistics and theme analysis. One hundred twenty agricultural cooperatives and thirteen cooperative presidents were surveyed and interviewed for the study (Jabbouri, Imad; Jabbouri, Rachid; Bahoum, Karim; Hajjaji, Yasmine El, 2022). Because cooperatives have low digital literacy, the authors feel one of the biggest issues is a lack of understanding. In an unusual turn of events, the cooperatives believe e-commerce will boost their brand image and competitiveness while decreasing their operational speed. This turn of events is intriguing. Data shows that e-commerce's perceived impact on cooperative enterprises' success is correlated with digitization. This knowledge is crucial. This research helps explain the obstacles Moroccan agricultural cooperatives confront when trying to include e-commerce. These findings also allow policymakers to design regulations that enable these cooperatives' digital integration into Morocco's economic environment to facilitate digital technology integration (Jabbouri, Imad; Jabbouri, Rachid; Bahoum, Karim; Hajjaji, Yasmine El, 2022).

The article examines e-commerce adoption in underdeveloped nations, focusing on Morocco. Adel Ben Youssef and his companions study focusing on the digitalizing global economy. This emphasizes the need to understand the factors that promote e-commerce adoption, especially in emerging nations. The data shows the importance of younger, innovative companies with highly educated workforce in supporting e-commerce adoption. It shows a sensitive link between digital skills needed for jobs and adoption, suggesting a complicated dynamic. It also shows the relationship is difficult. The authors also note that digital platforms and innovative methods influence e-commerce adoption by enterprises. The literature review prepares the empirical analysis, which recommends improved digital skills training, a firm presence on digital platforms, and supportive legislation to promote e-commerce in Morocco and other developing economies (Adel & Dahmani, 2023).

2.2.3 Factors Influencing E-commerce Adoption in Developing Economies

Adel Ben Youssef and Mounir Dahmani's research addresses Moroccan businesses' poor e-commerce adoption. They also highlight the lack of research in this area. In this article logit, probit, and conditional mixed process-probit models are used to explore the main factors influencing e-commerce business practices. E-commerce is more likely to be used by newer, more inventive, and digitally listed enterprises with highly educated personnel (Adel & Dahmani, 2023). This intriguing discovery merits attention. Interestingly, the study found that the digital skills of newly hired employees do not affect the number of enterprises that use e-commerce. Innovative companies are more likely to use e-commerce, demonstrating the value of modern organizational practices. The identification of a correlation highlights this correlation. The authors recommend investing more in such practices, workforce reskilling, and advanced technology to help Morocco integrate e-commerce effectively and efficiently and boost its economy and digital transformation (Adel & Dahmani, 2023).

2.2.4 Analysis of E-commerce Implementation in Moroccan Cooperatives

Youssef Ganoune with other researchers, conducted a comprehensive literature analysis to determine whether Moroccan cooperatives have implemented e-commerce. The Technology Acceptance Model (TAM) was used to frame this study. Considering this, 2015–2022 qualitative and quantitative research illuminates key elements that affect e-commerce business practices (YoussefGANOUNE, AhmedBOURRICHE, & HEDA, 2023). Data shows that perceived value, simplicity of use, trust, perceived danger, and societal influence are important. Online shopping is getting more popular, although most Moroccan cooperatives are still integrating it. Their infrastructure, internet connectivity, and technological knowledge are issues. These practical consequences demonstrate the need for these cooperatives to invest in technology infrastructure, improve trust and security, and train members to overcome obstacles and implement effective e-commerce strategies in the local cooperative sector. All of these are needed to overcome hurdles and adopt effective methods (YoussefGANOUNE, AhmedBOURRICHE, & HEDA, 2023).

Marieme Chouki and co-researchers looked at Moroccan SMEs to determine the challenges of implementing information technology (ITA) in developing nations. ITA

obstacle knowledge is thoroughly examined in the literature review. This examination considered managers, users, organizational resources, and external challenges. The researchers surveyed 147 Moroccan SMEs that were experiencing trouble deploying IT. The data is collected using positivism and quantitative methods. According to the study, which uses Partial Least Squares Structural Equation Modelling (PLS-SEM) for data analysis, user characteristics are major barriers to ITA implementation in Moroccan SMEs. This study sheds light on the unique challenges SMEs face when implementing information technology and shows how Moroccan societal culture affects staff and user characteristics in SMEs (Chouki, Khadrouf, Talea, & Okar, 2022).

2.3. Factors and barriers affecting e-commerce and organizational adaptation:

The internal organisational capacities and limitations of Moroccan SMEs adopting e-commerce affect the adaptation process.

2.3.1. Internal (organizational capacities and organizational barriers):

Moroccan SMEs' ability to adopt e-commerce and adapt to the digital marketplace is driven by internal factors. This contributes greatly to ability. Organisational capabilities—technological readiness, financial resources, and human capital—play a major role. SMEs can better embrace e-commerce since they have a superior technological infrastructure and more experienced people. Internal constraints including resistance to change, worker digital illiteracy, and limited financial investments present challenges. To overcome these problems, the organisation must invest in staff training, technology skills, and a culture of creativity and adaptation (Zahoor, Zopiatis, Adomako, & Lamprinakos, 2023).

2.3.2. External (organizational capacities and organizational barriers):

Moroccan SMEs' organisational adaption and e-commerce uptake are also affected by external factors. Such variables include international trade and the Internet. Consumer behaviour, regulatory frameworks, and infrastructure limitations hinder the industry. These market challenges include infrastructure problems. Customer trust in online transactions and regulatory compliance are two of the most significant aspects of e-commerce success. Digital infrastructure is poor, making it difficult to enter and expand a company's digital presence (Albshaier, Almarri, & Rahman, 2023). Internet

restrictions and unreliable payment mechanisms are among these barriers. Moroccan SMEs must develop strategies to navigate these external challenges to improve their competitiveness and e-commerce implementation. Advocate for regulatory reforms, use coalitions, and invest in infrastructure.



Chapter 3

A RESEARCH ON BARRIERS TO E-COMMERCE ADOPTION IN MOROCCO SMEs

Research on barriers to e-commerce adoption in Moroccan SMEs investigates challenges hindering online business uptake. Factors such as limited internet access, financial constraints, and trust issues with online transactions are explored. Understanding these obstacles is crucial for enhancing e-commerce participation and economic growth in Morocco's small and medium enterprises (BENDRAOUI & AITSOUDANE, 2019). Research on Moroccan SMEs' e-commerce use has advanced our understanding of digitization's opportunities and constraints. Despite this, there is still a large research gap in understanding the complex relationships between technology, economic constraints, and Moroccan small and medium-sized firm adoption rates. There is little study on the nature and severity of these impediments across Moroccan SMEs and locations. Previous research has found many issues, including a lack of financial and technological resources. E-commerce adoption has been shown to affect economic indicators like job creation and revenue generation, but there are few comprehensive studies on the multifaceted relationship between e-commerce adoption and economic growth in Morocco. This is problematic because Morocco is in an economically growing region. Policymakers and corporate stakeholders must grasp these dynamics to create effective policies to promote digitization and increase economic resilience in the face of global changes (Amina, 2022).

3.1 Enhancing E-commerce Adoption in Moroccan Businesses

Adel Ben Youssef studied Moroccan businesses' unexplored e-commerce adoption. This is done via probit model analysis. According to the report, several factors will determine if e-commerce becomes ubiquitous in Morocco. This study shows that younger, more innovative companies are more likely to use e-commerce. The study also highlights the importance of human capital by showing that organizations with more postsecondary graduates use e-commerce. This shows the value of human capital. It's noteworthy that new hires' digital skills didn't affect e-commerce adoption. The research also shows that listing on digital platforms increases e-commerce adoption, emphasizing the importance of a digital presence (Adel & Dahmani, 2023). The research shows that innovation helps

Moroccan businesses adopt e-commerce. It also stresses the significance of strategic investments, staff retraining, and technology to enable e-commerce adoption (Ben, 2023).

Amina Belhoussine's research study examines how SMEs in Morocco are using digital innovation during COVID-19. To boost SMEs, several countries, including Morocco, have advanced digitization initiatives and granted incentives. This is due to economic and health crises. Field surveys and primary data sources are used to assess Moroccan SMEs' use of digital tools including e-commerce and remote work. This evaluation determines digital tool usage. Eliminating intermediaries has enhanced information availability, time savings, and market possibilities. The research also shows that digital technologies help small and medium-sized enterprises (SMEs) compete in domestic and international markets, boosting the economy (Amina, 2022).

Nanda and his fellow studied COVID-19. The study investigated Moroccan clients' e-commerce adoption behavior. To analyze the intention to shop online, the research uses a thorough framework with multiple factors. These include perceived risk, trust, ease of use, utility, behavioral control, and subjective norm. The study found that subjective norms, perceived ease of use, and perceived usefulness positively and significantly affect Moroccans' propensity to buy online amid the health crisis. This information was found by examining 296 replies using structural equation modeling. The study's focus on epidemic-related consumer behavior changes is noteworthy. The survey's overrepresentation of higher education respondents is a limitation, but the findings are useful for marketers and online business owners interested in Moroccan consumers' motivations in the context of the COVID-19 pandemic. A noted shortcoming is that the survey overrepresented higher education respondents. This may affect the generalizability of the findings to the Moroccan community (Nanda, Xu, & Zhang, 2021).

The study of Van Dung Ha described the specific context of Vietnam, especially in major towns like Ho Chi Minh town, E-commerce is positioned as a gateway to superior achievements in technology and science. Big towns are recognized as critical hubs for having access to worldwide technological improvements, making E-commerce adoption imperative for companies in search of success in these environments. Regardless of the

stated significance of E-commerce adoption for SMEs, a notable study gap exists regarding the determinants of E-commerce applications, specifically in the precise context of SMEs in Ho Chi Minh town. This research aim is to contribute by empirically figuring out and measuring the influences of factors together with company readiness, focus, rules, and challenges on the application of E-commerce in SMEs in this region, in the end imparting actionable policy implications for fostering growth and improvement (Ha, Van Dung, 2020)

This research conducted by Inutu Lukonga (2020) studies the challenging situation confronted by small and medium-sized organizations in the MENAP (Middle East, North Africa, Afghanistan, and Pakistan) region despite the efforts of policymakers to foster their development. It emphasizes the significance of SMEs in economic growth and employment, making them a focal point for policymakers. However, the persistent barriers to the development of SMEs in the areas have limited their contribution to employment and monetary growth. Studies conducted in the MENAP region have revealed that although policy initiatives have been effective in boosting the number of businesses, small and medium-sized enterprises (SMEs) face obstacles that impede their growth potential. This is frequently attributed to the incomplete implementation of reforms and difficulties in developing effective strategies, which ultimately result in the prevalence of microenterprises and hinder the full contribution of SMEs to employment. Sustaining ongoing reform initiatives may not be sufficient to attain inclusive growth. The study highlights that the region is experiencing a swift digital transformation of economies, which offers SMEs a chance to improve their productivity and expansion through digital technologies. Scholars and researchers are increasingly acknowledging the transformative power of digital solutions in overcoming conventional obstacles faced by SMEs and empowering them to compete successfully. Moreover, concentrates on the changing role of digital technologies in the development of small and medium enterprises (SMEs), referencing studies that highlight the potential of digital transformation in overcoming current obstacles. The review will investigate how adopting digital solutions can improve the competitiveness and longevity of SMEs, offering a thorough comprehension of the necessary shift in SME development strategies to prioritize digital transformation (Lukonga, 2020).

This research conducted by Hicham Nachit and his co-researchers highlights the importance of digital transformation (DT) within the public sector, acknowledging it as a vital and strategic requirement for governments worldwide. The effect of disruptive digital technologies has precipitated businesses to undertake digital transformation initiatives to redesign approaches, enhance stakeholder involvement, and address the day-to-day demand for performance and transparency from informed citizens. However, despite optimistic expectations, the digital transformation in the public sector is still in its nascent phase, with a dearth of comprehensive evidence on how governments and public organizations approach and execute DT. This study focuses on defining DT and exploring its various aspects so that a solid understanding of the goals and scope of digital transformation initiatives in the public sector can be established (Hicham, Jaafari, Fikri, & Belhcen, 2021).

This research was conducted by Hicham Nachit and his co-researchers study the Technology-Organization-Environment (TOE) Framework as the conceptual basis for examining the contextual factors that impact the implementation of digital technologies in the public sector. This study utilized this framework to comprehend digital transformation in different organizational settings. Researchers have explored how technological factors, organizational attributes, and environmental influences collectively shape the digital transformation landscape within public sector organizations. Moreover, the literature review will concentrate on the structural obstacles that hinder the adoption of digital transformation in the public sector. Researchers are investigating obstacles such as resistance to change, insufficient digital skills, financial limitations, and regulatory challenges. By conducting comparative analyses of various studies, a comprehensive comprehension of the similarities and differences in the barriers encountered by governments worldwide in their digital transformation initiatives can be obtained (Hicham, Jaafari, Fikri, & Belhcen, 2021).

This study was conducted by Dr. David Foya and her co-researcher exploring the overall developments in e-commerce adoption by way of SMEs, identifying key drivers, demanding situations, and influencing factors. Scholars have considerably researched the benefits of e-commerce adoption for SMEs, emphasizing accelerated market reach, cost reduction, and innovation. By grasping these fundamental factors, proceed to comprehend the particular effects of COVID-19-related restrictions on the e-commerce

environment for SMEs. The research highlights the significance of travel restrictions imposed due to COVID-19 on small and medium-sized enterprises (SMEs), which leads to the investigation of existing literature on the interconnectedness of global events, regulatory actions, and the adoption of e-commerce. To explore the studies that analyze the effects of international and domestic travel limitations on SMEs' capacity to participate in cross-border e-commerce and digital transactions. It might emphasize the ability of small and medium-sized enterprises (SMEs) to adapt and withstand external disturbances, providing insights into the approaches employed by businesses to overcome unexpected hurdles (Foya & Garikayi, 2021).

Sofia Mouhallab conducted research and highlighted the definition of small and medium enterprises in Morocco, their importance, and the difficulties and barriers they face. The development and prosperity of small and standard enterprises have been fronting various barriers in Morocco, especially relating to e-commerce. In the first level of 2013, more than 1.99 companies in Morocco were declared as faulty companies. The deficiency quantity ever since 2011 is getting further and more serious and this deficiency is expected to last since 2016. These barriers might be divided into two aspects; Internal and exterior elements. In the primary group, there is a need that can incline the brittleness structure of these organizations (Mouhallab & Jianguo, 2016).

Furthermore, minor production deficiency of financial and practical resources and an absence of electronic techniques. They also have a lack of managerial human capital, skills, and training. A high rate of failure and lack of competition is seen in Morocco. In the second grouping, the weaknesses of SMEs include the e-commerce barriers like they don't have enough computers, internet speed, and a good internet network that caused their failure. Failures in this technical field lead to the shortage of a description of lesser organizations, matters in funding, administration, and tax disadvantages too. These defy made the expansion of SMEs in Morocco problematic. Rather than concentrating on revolution and modern technologies, the governments focused on the survival of these businesses and didn't focus on the right payment methods, focused on the right products and the niche (Mouhallab & Jianguo, 2016).

Hicham conducted detailed research. Readings on modernization have acknowledged in detail the foundations and motorists of improvement, disbursing specific devotion to

technical and structural abilities that establishments need to develop to convert modernizers. Nevertheless, this prose has been quite least organized in probing the aspects that restrict modernization, specifically in emerging realms. The fences tactic to innovation is much more current than that that discourses the factors of revolution. A barrier has quite the potential to deteriorate the whole image of the firm. Specifically, if it is an e-commerce barrier. Legal barriers in Morocco badly affect the development of SMEs there. Other e-commerce barriers that they faced were organizational barriers, financial barriers, technical barriers, regulatory barriers, and behavioral barriers (Hicham, Jaafari, Fikri, & Belhcen, 2021).

Organizational barriers like the absence of a correctly established nationwide plan, strategy communication, and implementation problems were a big problem for SMEs. Financial barriers caused difficulty when companies failed to produce raw materials and the limits of foreign and domestic markets. Behavioral barriers occurred when they didn't understand the needs of the customers, and the perception of risk innovation. Failure in government regulations and political action created a regulatory barrier for the firms. Knowledge barriers occur when people work in firms with very little or no knowledge of the technology and norms of the firm. They were unaware of the working methods with the help of technology. Technology and the internet help a lot in time management and can do the lengthy work of days or weeks in a few hours (Hicham, Jaafari, Fikri, & Belhcen, 2021)

Mohammed along with other authors researched SMEs in Morocco. Studies showed that small and medium enterprises failed to gain commercial aims due to causes like deficiency of private enterprise, acknowledgment, and bad economic supervision. Truly, most of the company administrators do not know about e-commerce, education, and skills, specifically in cash flow and accounting management. Limited financial resources of the firm are one of the main barriers to its success. Failing to solve these problems led to the sluggishness of most of the companies followed by their disappearance. This process affects the development of Morocco's socioeconomic habitat with SMEs making a big contribution (Mohammed, Abdellaoui, Hicham, Hassani, & Alaoui, 2018).

The authors proposed a collective e-commerce and investment supervision scenario that depends upon the definition and understanding of e-learning, allowing the managers to absorb and obtain the information for effective economic supervision and innovative technologies. Without such knowledge, managers cannot resolve technology, financing, and management issues. Illiteracy in modern technology like modern transaction methods, use of rare technology in machinery, and handling of firm problems can lead to the dissolution of the firm. Workers in the firm at every stage need to learn these teachings to save their firm from dissolution. People need to learn the government rules and regulations, consumers' demands in the target market, and finance management. These are the biggest barriers that stop a company from prosperity (Mohammed, Abdellaoui, Hicham, Hassani, & Alaoui, 2018).

Aicha El Alaoui along with co-authors explained the problems of SME development in Morocco. The law and expansion leadership identify the gender gap in SMEs of Morocco, specifically in its official advancing rule. Contingency, information, and networking are crucial barriers to SMEs. Achelhi identified the fourteen barriers that affect the SMEs in Morocco include the heavy cost of innovation, economic risk, the difficulty of finding a partner, the policy of the government, culture, lack of market information, no relationship with the university, no access to modern knowledge, lack of a strategy to guard rational possessions privileges, and lack of consequences of R&D. Most of these barriers are of e-commerce like legal, behavioral, financial and technical aspects (ACHELHI, NARJISSE, MUSTAPHA, & PATRICK, 2016).

E-commerce barriers can be divided into technological and non-technological barriers. Technological issues involve a deficiency of commonly putative morals for quality security and steadfastness. Software progress tools are still developing like HTML and the bandwidth of telecommunication is still not adequate specifically for the commerce of mobile. Non-technical barriers involve privacy and safety concerns that stop customers from buying because he is unaware of the technology. Lack of trust in e-commerce is unknown and strange sellers restrict the buying because of social values. Many public and legal policies like taxation are still to be resolved because of unavailability of the specific methodologies. Also, national and international governments hinder the SMEs. It is difficult to analyze some benefits of e-commerce

because the advertisement issues and measuring methodologies are not available (ACHELHI, NARJISSE, MUSTAPHA, & PATRICK, 2016).

Electronic commerce, or e-commerce, according to Haddoud, Kock, Onjewu, Jafari-Sadeghi, and Jones (2023), has become a disruptive force in the quickly changing world of international trade, changing established business structures and opening up previously unimaginable opportunities for growth. Small and medium-sized firms, also known as SMEs, are essential to the economic structure of every country because they generate employment and foster innovation. It is impossible to overestimate the significance of using digital technology for economic progress as the world grows increasingly interconnected (Haddoud, Kock, Onjewu, Jafari-Sadeghi, & Jones, 2023).

E-commerce not only increases SMEs' competitiveness and operational effectiveness but also opens up new markets for them. Academics and researchers are emerging to see more and more the revolutionary potential of digital solutions in helping SMEs overcome traditional challenges and become competitive. Higher-educated staff members who work for newer, more creative, digitally listed businesses are more likely to use e-commerce. This intriguing discovery merits attention. Interestingly, the study found that the digital skills of newly hired employees do not affect the number of enterprises that use e-commerce. Although there are potential advantages, there are many technological, legal, and cultural barriers that Moroccan SMEs must overcome before adopting e-commerce widely. Trust is still a key component in the acceptance of e-commerce (Haddoud, Kock, Onjewu, Jafari-Sadeghi, & Jones, 2023).

Moroccan consumers and SMEs frequently voice worries about data privacy, online security, and transaction legitimacy. The willingness of SMEs to participate in e-commerce is impacted by widespread mistrust of online platforms brought on by high-profile cyberattacks and fraud instances that occur worldwide. One major obstacle is Morocco's lack of a robust legal framework and regulatory backing for e-commerce. Regulating taxation, consumer protection, and electronic transactions in an unclear or antiquated manner can deter SMEs from adopting e-commerce (Ben, 2023). To create an atmosphere that is favorable to Internet commerce, legislative frameworks must be flexible and unambiguous. Processing payments with ease is hampered by inadequate payment gateways and logistical infrastructure. Ineffective delivery systems and a lack

of options for online payment methods can deter SMEs and customers from participating in e-commerce. Innovative companies are more likely to use e-commerce, demonstrating the value of modern organizational practices. The identification of a correlation highlights this correlation.

The general effectiveness of Internet commerce is impacted by the lack of a dependable and affordable logistics network. Government interventions are vital to changing corporate strategy during times of crisis, as evidenced by beneficial linkages between government backing and e-commerce and innovation. The study found that enterprises with government support had much higher sales growth, demonstrating the favorable effects of such initiatives. The adoption of e-commerce may be hampered by cultural perceptions about conventional commercial methods. Some SMEs may value in-person contacts and well-established business ties over online transactions because they perceive them as impersonal (Dahbi, Salma, Benmoussa, & Chihab, 2019) It takes focused awareness campaigns to address cultural and behavioral elements to persuade organizations to adopt digital mentality.

Researchers Boutbhirt and Adaskou (2023), examine the various obstacles Moroccan SMEs experience while attempting to adopt e-commerce. Through an examination of significant obstacles like deficient infrastructure, restricted digital literacy, and unclear regulations, the aim is to offer a thorough comprehension of the difficulties that these businesses encounter. Moreover, this study will investigate how these obstacles affect SMEs' readiness and capacity for e-commerce, including knowledge from both scholarly studies and real-world applications. Proper communication between the customers and the organizations in e-commerce should be done so that the barrier can be reduced, and the country will move toward economic growth. The lack of proper individual skills in making the customer feel and touch the product leads the public away from such online shopping. Online shopping is getting more popular, although most Moroccan cooperatives are still integrating it. Their infrastructure, internet connectivity, and technological knowledge are issues (Boutbhirt & Adaskou, 2023).

Due to these real-world ramifications, these cooperatives must make investments in technology infrastructure, enhance security and trust, and provide training to members so they may overcome challenges and successfully execute e-commerce initiatives in

the local cooperative sector. E-commerce has changed the face of international companies by opening up new channels for expansion and productivity. By overcoming these barriers, concerned parties can work together to develop Moroccan small and medium-sized businesses in the global digital trade space, encourage economic growth, and fully realize the promise of e-commerce (Boutbhart & Adaskou, 2023). However, there are a few barriers standing in the way of Morocco's SME's broad e-commerce integration.

The Scholar MHamed (2020) examines the main barriers that Moroccan SMEs have while implementing e-commerce. The author also identifies these barriers and suggests potential solutions. Morocco's poor internet infrastructure is impeding the growth of e-commerce, especially in the country's rural areas. According to the International Telecommunication Union in 2022, more than sixty percent of Moroccans had internet connectivity, indicating a substantial digital divide. The lack of digital literacy and experience among employees of small and medium-sized firms is one of the main challenges. Many business owners lack the knowledge necessary to oversee e-commerce operations, web platform navigation, and digital marketing. SMEs are unable to fully participate in online commerce because of outdated equipment and limited access to high-speed internet. This ignorance causes hesitation and fear, which prevents e-commerce from taking off (MHAMED, 2020).

Hassi, Rohlfer, and Jabsen (2022) claim that several obstacles, such as infrastructure and technological limitations, legal and cultural concerns, and other challenges, prevent Moroccan SMEs from embracing e-commerce. Targeted measures can help more individuals adopt e-commerce as Morocco gets closer to becoming a digital economy, which will increase economic growth and competitiveness. To address these issues, a multimodal approach involving government intervention, business collaboration, and educational initiatives is required. Higher-educated staff members who work for newer, more creative, digitally listed businesses are more likely to use e-commerce. This exciting discovery merits consideration. Interestingly, the study found that the digital skills of once-more-hired employees do not affect the number of enterprises that use e-commerce. Policymakers should prioritize building a strong digital infrastructure, create regulations that are both definite and adaptable, and provide funding for digital literacy

programs to assist SMEs in overcoming these challenges (Hassi, Rohlfer, & Jebsen, 2022).

In Morocco, Abderahman Hassi and colleagues conducted research on e-commerce entrepreneurship in 2016. They examined Kamal Reggad, a well-known Moroccan businessman who operates an internet store where he sells and promotes different goods. Menaclick was the name of his business, and he offered discounted goods. In recent years, Kamal has played a significant role in establishing the groundwork for Morocco's e-commerce industry. Kamal took a significant risk by concentrating on the e-commerce sector, which was the Moroccan market. The author emphasizes Kamal's efforts and development, mentioning his arduous pursuit of internet business in Morocco. It was displayed extraverted traits when he talked openly about his idea with a potential investor, and his enthusiasm and perseverance allowed him to secure a substantial amount of funding and was also successful in recruiting more investors through word-of-mouth. They state in their article's conclusion that Kamal's extroverted nature allowed him to create a vibrant workplace that inspired his employees to work hard and stay motivated to finish their daily tasks (Abderrahman Hassi, 2016).

For SMEs looking for efficiency and performance, digital marketing is a fascinating alternative to traditional techniques. Their research attempts to draw attention to the main issues and challenges Moroccan SMEs might encounter as a result of the marketing function's digitization. Using SMEs as a case study, they will try to address a new problem in this context that aims to look into the effects of integrating digital into the marketing function. They collected samples for the exploratory and confirmatory phases i.e. 41 and 4 respectively to accomplish their research. The results have shown that there are several effects on SMEs, so digital marketing has two drawbacks. In summarizing the study's contributions, the authors first point out that the methodology is transparent and depends on the triangulation of qualitative and quantitative data, and that the findings will benefit SMEs, which account for a significant share of Morocco's economy. It will make it possible for SME managers and executives to appreciate how important digitalization is to improving their business and seizing funding opportunities.

Souad Nassir and associates ran research on the factors influencing SME marketing in developing countries. In June 2023, this research was completed. Despite digitization

reforms meant to improve the quality of public services, there are still many developing nations that utilize paper-based presentations, including Morocco. This has resulted in many problems, such as labor-intensive ones, time waste, and increased expenses. One important resolution that has garnered a lot of support is e-commerce. In the context of a developing Marrakech market, the current study intends to explore the primary motivators behind SMEs' desire to adopt electronic bidding. The authors particularly focus on SMEs that are listed on the recently launched Moroccan government website and take part in public procurement procedures. The intention of SMEs to use electronic commerce was positively impacted by social impact and nurturing surroundings. Their research filled a vacuum in the literature regarding SMEs' readiness for e-commerce in Morocco's emerging markets. The study's findings can be used to improve both the implementation of government electronic bidding and the user experiences for SMEs. The study's conclusions also show that SMEs intending to use e-commerce will suffer if they have unrealistic expectations about their level of effort (Souad Nassir, 2023).

Morocco is not immune to the interest that the digital era is generating on a global scale. Digital marketing affects every area of transformation and through SMEs, the economy of a nation rises and decreases. The purpose of this article is to explore the possible effects of digitalization on Morocco's main economic sectors and offer possible solutions. Beyond the predicted negative effects of slower growth and job losses, productivity-enhancing programs and tactics that should be taken into account include building up human capital, loosening restrictions on the labor market, and opening up new job opportunities. Morocco must continue to advance its e-government, especially by bolstering the synchronization of national policies implemented in a coordinated manner. Digital technology adoption by the financial sector will boost economic growth by making financial services more accessible.

However, the rise of e-commerce as a business-facilitating and -promoting industry can also significantly impact traditional business models. Ultimately, digitizing the agricultural sector is one way to address some of the many problems this industry faces. There is still more work to be done to make sure that a digital divide does not occur and that digitizing agriculture can contribute to reducing poverty in Morocco. The analysis of these different industries shows that the success of the digital transformation will

determine how well the Moroccan economy performs in terms of employment, growth, and the reduction of inequality (Tyagi, 2022)

Youssef Tobi studied the Moroccan e-commerce and digitalization landscape in 2023. According to his analysis, young Moroccans without a formal education in Morocco have few options for careers in the country's labor market. Many Moroccans searched for new ways to earn money and secure their financial future as the internet gained popularity. The phenomenon in question has received very little research, and even less has been done to explore the relationship between social values and increase the opportunity for e-commerce employment in Morocco. Interviewing drop shippers and other e-commerce professionals, the author discusses the relationship between social and public employment of e-commerce in the article, since he has already observed that Moroccans who pursue these kinds of career paths are often unemployed and from lower socioeconomic classes. But it's crucial to remember that, if improperly regulated and supervised, e-commerce can exacerbate existing inequality. Thus, to guarantee that e-commerce is inclusive and available to everyone, businesses, lawmakers, and other stakeholders must collaborate. New business models have also surfaced as e-commerce has grown, such as marketplaces, social commerce, and subscription-based e-commerce. E-commerce is expected to be adopted by a growing number of businesses, especially SMEs, to increase their market share and customer base (Tobi, 2023).

3.2. Research Objectives

1. To identify the technological constraints preventing Moroccan small and medium-sized businesses from implementing e-commerce.
2. To research the economic factors preventing Moroccan small and medium-sized firms from implementing e-commerce ventures.
3. To examine the relationships between the identified barriers and e-commerce platform adoption, focusing on their importance and influence.
4. To e-commerce adoption, determinants must be identified using thorough data analysis methods like factor analysis and regression. This is because primary elements must be illuminated.
5. To assess how much the highlighted obstacles explain the disparity in e-commerce adoption among Moroccan SMEs.

6. To promote e-commerce in Morocco's small and medium-sized enterprises, policymakers, business leaders, and other stakeholders must be given insights and recommendations for removing barriers and creating a supportive environment.

3.3. Research Questions

1. What technological challenge do Moroccan SMEs confront while using e-commerce platforms?
2. How do economic constraints like market access and financial resources affect Moroccan SMEs' national e-commerce projects?
3. What is the relationship between the identified impediments and the e-commerce platform used in the Moroccan small and medium-sized firm sector, and what is its relevance?
4. How well do data analysis methods like factor analysis and regression explain the main factors that drive Moroccan SMEs' e-commerce adoption?
5. To what extent do technological challenges and budgetary constraints contribute to the variation in e-commerce adoption rates across Moroccan SMEs?

3.4 Research Significance

Researching Moroccan SMEs' e-commerce adoption can boost innovation, competitiveness, and economic growth. In a globalized, digital economy, understanding digital technology adoption determinants is vital. E-commerce boosts modern economic growth and resiliency. Moroccan scholars and policymakers might investigate Moroccan SMEs' e-commerce adoption issues to design targeted strategies to overcome challenges and capitalize on rising trends. Investigate Moroccan SMEs' challenges and prospects. E-commerce adoption dynamics reveal how technology changes business models and expands market reach. Using digital platforms to communicate with customers, optimize operations, and reach new markets nationally and globally benefits Moroccan SMEs (Touhami Abdelkhalek, 2021). This applies especially to retail, manufacturing, and service industries. When stakeholders understand the many

technological barriers to adoption, they can alter support mechanisms and capacity-building efforts to meet unique needs and unleash progress.

3.5 Socioeconomic Inequities

E-commerce adoption research helps promote equitable economic development and eliminate socioeconomic inequities. E-commerce may generate income, skills, and jobs, especially in neglected and marginalized areas. This makes it easier for SMEs to join digital value chains. There is a system to develop ecosystems of innovation and entrepreneurship, which drive sustainable economic growth and social advancement, and strengthen their market shock resistance. SMEs that can leverage digital technology are more resilient to market shocks. The Moroccan e-commerce adoption study sheds light on the ever-changing legislative and policy environment that governs digital commerce. Evidence-based research can help create and implement regulatory frameworks that promote fair competition, customer trust, and data privacy. This is crucial for governments trying to balance innovation, consumer protection, and market integrity. To foster digital entrepreneurship and investment, SMEs must understand the legal challenges and compliance requirements they face when starting e-commerce. Create an environment that encourages digital entrepreneurship and investment (ALTAYYAR, ABDULLAH, RAHMAN, & ALI, 2021).

3.6 Implementation of E-commerce

The e-commerce implementation study also fosters cross-sector collaboration and information sharing. Stakeholders include government agencies, businesses, academic institutions, and international development partners. Research allows for the sharing of best practices, the identification of new trends, and the collaborative creation of innovative solutions to shared issues (ALLIOUI, Azzeddine; ALLIOUI, Hanane, 2023). Encouragement of communication and collaboration creates these opportunities. Collaborative partnerships can use a variety of knowledge and resources to test new projects, scale up successful interventions, and build support networks for SMEs navigating digital transformation.

3.7. Statement of the Problem:

The problem statement focuses on the barriers preventing Moroccan SMEs from using e-commerce. Many technological and economic barriers prevent the widespread use of e-commerce platforms. This is true even if internet commerce is growing in business. This study analyses Moroccan SMEs' electronic business transaction implementation problems. A comprehensive SPSS data analysis examines the linkages between technological challenges, economic constraints, and e-commerce adoption. The relationship between these three parameters is examined. This analysis uses factor analysis, regression, and hypothesis testing. This research shows a strong correlation between these problems and e-commerce adoption. This highlights how important these difficulties are to digital commerce outcomes. Policymakers, business leaders, and other stakeholders working to foster e-commerce and innovation in the Moroccan small and medium-sized enterprise sector must understand these challenges and find solutions (Abdrabo, et al., 2023).

3.8 Scope of the Study:

The study focuses focusing the barriers hindering e-commerce adoption among Moroccan SMEs. It explores technological, regulatory, financial, and cultural constraints impacting their integration of e-commerce. With 280 participants, including females and males, the survey investigates digital literacy, infrastructure, and perceptions toward e-commerce (Abderrahman Hassi, 2016). By scrutinizing these factors, the research seeks to furnish insights for policymakers and stakeholders to facilitate e-commerce integration within Moroccan SMEs, fostering economic growth and competitiveness.

3.9 Assumptions of the Study:

The study addresses the barriers hindering e-commerce adoption among Moroccan SMEs, aiming to fill existing research gaps. It proposes six constructs: technological infrastructure, regulatory constraints, financial limitations, digital literacy, cultural predispositions, and e-commerce adoption intention. It reviews the literature on e-commerce barriers and presents a new framework for understanding adoption challenges. The study plans empirical tests to examine relationships between these constructs (Belwal, Shibli, & Belwal, 2021). Methodology includes sample description, data collection, and measurement of constructs. Statistical analysis, including

correlation, regression, and demographic analysis, is conducted. The study concludes with a discussion, limitations, and future recommendations, aiming to provide insights into overcoming e-commerce adoption barriers among Moroccan SMEs concisely.

3.10 Research Design

The research design used in this research is mixed techniques such as primary and secondary methods to examine Moroccan SMEs' e-commerce adoption challenges (Turner, 2017). Primary methods to examine the Moroccan SME's e-commerce adaptation challenges include gathering the challenges from primary sources rather than getting information from secondary ones or pre-existing data such as surveys, and different focus groups (Streefkerk, 2018). Secondary research methodology includes those that are collected from pre-existing data, such as the news, the internet, governmental statistics, and organizational bodies. Such methodologies are used to check the challenges that are faced by Moroccan e-commerce and are used to cover their research (Jabbouri, Imad; Jabbouri, Rachid; Bahoum, Karim; Hajjaji, Yasmine El, 2022).

The quantitative method was used to check the challenges of e-commerce adoption in Morocco SMEs. In the quantitative research analysis, the data is analyzed by using the SPSS which is used to organize and handle the large quantity of data where different tests have run. Descriptive statistics that include the means, median, and standard deviations are done that are used to analyze such points as the variability, central tendency, distribution, etc (Narkhede, 2018). In addition, the analysis includes Regression, ANOVA, Factor Analysis, and reliability analysis. Thus, these tests are used to check the challenges of e-commerce by data analysis so that the decisions are taken based on the quantitative analysis. Such methodologies are used to elaborate on what changes should be taken the address the challenges of e-commerce by Moroccan small and large-sized enterprises

3.11 Hypothesis:

The primary hypothesis seeks to understand how the barriers affect e-commerce adoption. The relationship is the main hypothesis.

Social and Culture Barriers:

H0: There is no significant relationship between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs.

H0: Rejected - No significant relationship exists between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs. H1: Accepted - A significant relationship is established between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs. H2: Accepted - A positive relationship is found between the social & cultural barriers and the adoption of e-commerce in Morocco SMEs.

Technical Barriers:

H0: There is no significant relationship between technical barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between the technical barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship between the technical barriers and the adoption of e-commerce in Morocco SMEs.

Economic Barriers:

H0: There is no significant relationship between Economic barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between the Economic barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship between the economic barriers and the adoption of e-commerce in Morocco SMEs.

Legal and Regulatory Barriers:

H0: There is no significant relationship between legal and regulatory barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between the legal and regulatory barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship relationship between the legal and regulatory barriers and the adoption of e-commerce in Morocco SMEs.

Organizational Barriers:

H0: There is no significant relationship between organizational barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between t organizational barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship relationship between the organizational barriers and the adoption of e-commerce in Morocco SMEs.

Political Barriers:

H0: There is no significant relationship between political barriers and the adoption of e-commerce in Morocco SMEs.

H1: There is a significant relationship between the political barriers and the adoption of e-commerce in Morocco SMEs.

H2: There is a positive relationship relationship between the political barriers and the adoption of e-commerce in Morocco SMEs.

3.12 The Conceptual Model:

Both internal and external barriers in Morocco make it hard for people to use e-commerce. The internal environment comprises an organization's readiness and ability, while the exterior environment includes rules, regulations, facilities, and cultural values. Resource limitations, such as needing more money or skilled workers, cause big

problems. Technology skills like using the internet and understanding how to use computers also play a significant role (Mikre, 2011). A broad view of these issues can make it easier for people to use e-commerce and help Morocco's economy grow.

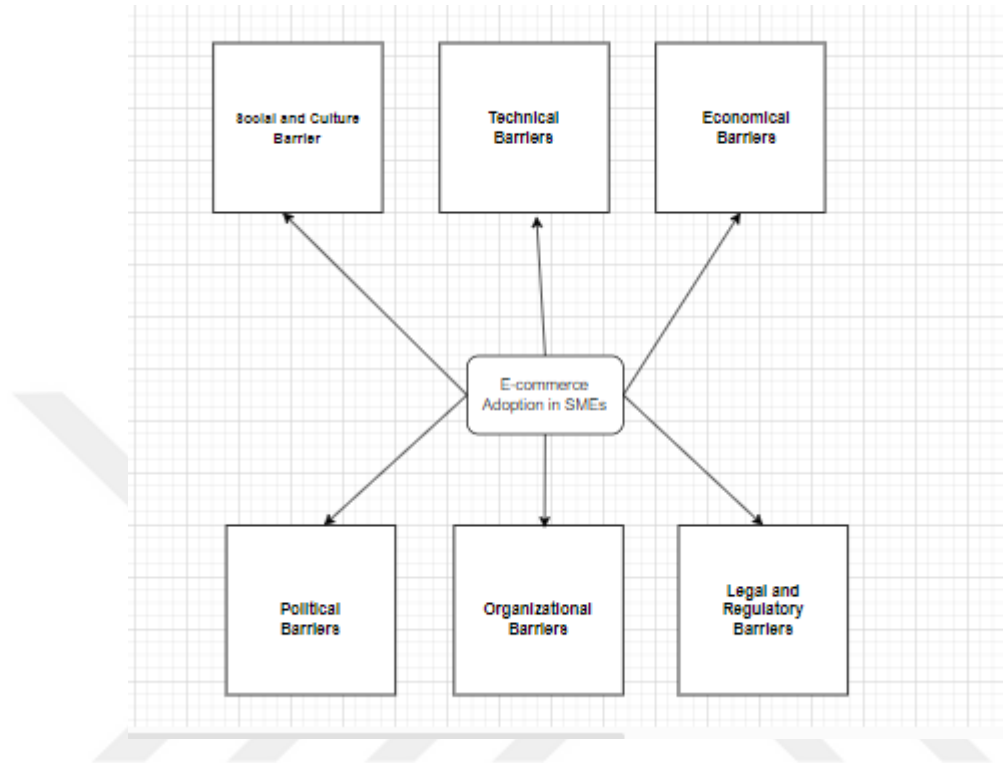


Figure 1 Conceptual Framework

3.12 Questionnaire Design :

The planned and focused execution of data processing and interpretation distinguishes quantitative analysis from other types of analysis. A survey was used to collect data, with a focus on Likert-scale surveys. The survey's design considered demographic and non-demographic participant data. It covered many problem-related topics to achieve this goal. This study aimed to analyze the complex dynamics of Moroccan small and medium-sized enterprises adopting e-commerce. Surveys using Likert scale questions added sophistication to data collection (Schwartz, 2023). This step was essential for accurate results. Likert scales, noted for their ability to capture nuanced responses across a continuum, were used to gather diverse perspectives from research participants. This was done to gather information. This dataset contains demographic data and participants' different views, attitudes, and opinions regarding e-commerce in Moroccan SMEs (Nassir, Lebdaoui, Chetioui, & Lebdaoui, 2023). The Likert scale, commonly used in research for measuring attitudes and perceptions, offers respondents a range of

responses like 'strongly agree' to 'strongly disagree.' It considers scale size, direction, and ordinal nature. Data from Likert scales are analyzed using parametric tests in SPSS for reliability.

3.13 Data Collection

Secondary data refers to information collected by someone else for purposes other than the researcher's current project. It includes data from published sources, research reports, databases, and literature reviews (Hair Jr, 2021) Primary data, on the other hand, is original data collected specifically for the researcher's objectives through methods like surveys, interviews, or experiments (Bendictine , 2023). In this study, a survey method is employed to gather primary data directly from participants. Surveys involve structured questionnaires administered to a sample of respondents to collect information on attitudes, behaviors, or opinions relevant to the research topic

The Moroccan study uses a comprehensive data collection strategy to identify potential impediments to e-commerce adoption. SME owners, managers, and IT professionals provide quantitative insights into their experiences and viewpoints. Since they include members from many small and medium-sized enterprises, focus groups are an excellent method to spark lively discussions about e-commerce implementation issues. In addition, case studies of successful and unsuccessful SMEs give a plethora of stories to supplement quantitative data. These case studies provided diverse viewpoints. Quantitative characteristics include distributing the survey to 280 stratified random samples. This is done to acquire diverse perspectives from various fields and locations worldwide (Robichaud, Cachon, Assaidi, & Ahmed, 2023). These studies quantify opinions and attitudes on e-commerce challenges using Likert scale questions. With this multimodal data-gathering approach, Moroccan SMEs' complex e-commerce implementation environment can be understood.

3.14 Sampling Method:

Sampling in research involves selecting a subset of individuals or elements from a larger population to represent it statistically (Emerson, 2015). . Random sampling is used to select individuals from a bigger group to research objectively. This strategy ensures that everyone has an equal chance of being picked, ensuring that the studies represent the majority of the population. A comprehensive sampling method is used to

examine Moroccan SMEs' e-commerce adoption hurdles in Morocco (Emerson, 2015). SME owners, managers, and IT specialists should be included to ensure a diversified perspective. Focus group talks involve a wide range of small and medium-sized enterprises (SMEs), which helps raise understanding of e-commerce difficulties. Successful and failing SMEs are included in case studies to provide a balanced perspective. A random sample selects 280 participants to ensure that the survey component is representative of several jobs and geographic areas. This is why selection is done. Due to its technique, the survey results are dependable and accurate. With this inclusive sampling strategy, which uses many methods to create a large participant pool, the study was able to identify barriers to e-commerce adoption in Moroccan SMEs. This method helped the study achieve its goals (ALLIOUI & ALLIOUI, 2023).

3.15 Reliability Analysis:

Statistics on dependability are utilized in the conducting of research and testing to evaluate the consistency and stability of measurements. Quantifying the degree to which measurement equipment delivers consistent data across trials is the purpose of this. Cronbach's alpha measures internal consistency reliability, indicating how closely related a set of items are as a group (Vaske, 2015). The application of these metrics ensures that the instrument accurately measures the target construct, which boosts the credibility of the research's findings and conclusions. To quantify data gathering process quality, multiple measures must be used. These findings demonstrate that these instruments are consistent and reliable, which is necessary for relevant results in many domains (Narkhede, 2018).

The reliability indicator known as Cronbach's alpha is used to assess the degree to which a multi-item scale is internally consistent. Using this statistic, reliability is evaluated. The internal consistency test shows that a measurement instrument must have a Cronbach's alpha value better than 0.7 to be dependable. According to this criterion, the scale's items are sufficiently correlated, indicating strong internal reliability (Taber, 2017). Cronbach's alpha greater than 0.7 indicates that scale items measure the same construct. This shows the scale's reliability. Thus, measurement equipment is more reliable in capturing the notion being measured (Alkhawaja, Sobihah, & Awang, 2020).

Table 1 Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.777	.776	8

Table 2 Reliability Analysis

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ADS	26.55	21.897	.453	.250	.757
ADS_A	26.58	22.280	.432	.233	.760
ADS_B	26.60	21.897	.390	.195	.768
ADS_C	26.69	20.938	.511	.291	.747
ADS_D	26.66	21.600	.489	.257	.751
ADS_E	26.77	20.550	.515	.320	.746
ADS_F	26.88	19.373	.610	.446	.728
ADS_G	26.86	21.592	.427	.300	.761

The table shows Cronbach's alpha is 0.776, exceeding the threshold of 0.7. Thus, the internal consistency test is reliable because this result indicates excellent internal consistency in the items tested. According to Huck (2019), Cronbach's alpha measures the internal consistency of a set of items that comprise a scale that assists in establishing dependability. The Cronbach alpha value from the internal consistency test is suggested to be greater than 0.7 (Taber, 2017).

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.890	.891	19

Figure 2: Relatability Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BE	70.05	111.352	.460	.292	.887
BE_A	70.25	107.315	.583	.411	.883
BE_B	70.17	111.576	.434	.264	.887
BE_C	70.19	110.622	.482	.363	.886
BE_D	70.25	109.651	.529	.353	.885
BE_E	70.23	110.813	.439	.266	.887
BE_F	70.24	108.120	.588	.421	.883
BE_G	70.22	108.601	.558	.455	.884
BE_H	70.28	109.412	.501	.391	.885
BE_I	70.25	110.826	.435	.243	.888
BE_J	70.25	109.100	.509	.373	.885
BE_K	70.25	106.681	.602	.446	.882
BE_L	70.19	109.160	.544	.413	.884
BE_M	70.24	107.328	.594	.457	.882
BE_N	70.21	109.271	.556	.392	.884
BE_O	70.25	107.629	.589	.422	.883
BE_P	70.25	110.115	.498	.307	.886
BE_Q	70.58	111.657	.336	.169	.892
BE_R	70.36	107.729	.576	.428	.883

Figure 3Item Total Statistics

In the above tables, the "Reliability Statistics" shows a strong internal consistency along with Cronbach's Alpha of 0.890, which is considered to be high reliability in calculated barriers. Such shows that the items in the questionnaire consistently cover the underlying construct. The reliability estimate remains robust even considering standardized items (Hidayah, 2023). In the 19 items, the questionnaire demonstrates good reliability that not only provides confidence in the instrument's ability but also leads to measuring barriers effectively. All this information is collected by the above

datasets of the relative statistics and the item total statistics for 280 observations of the barriers.

3.16 Data Analysis:

A total of 280 respondents took part in an online survey where questions were asked through the survey platform. The average completion time per respondent was approximately 10-15 minutes. The survey aimed to gather insights into the research topic efficiently and conveniently. The data was analyzed using SPSS to evaluate the barriers to Morocco's e-commerce growth. This study uses "barrier," which refers to variables that limit adoption, and "adoption of e-commerce" itself. Both variables are vital to the inquiry. This study examines Moroccan e-commerce adoption barriers. This study investigates why Moroccan SMEs are less likely to adopt e-commerce due to technological and organizational barriers. This Moroccan small and medium-sized business research project seeks to determine the main e-commerce adoption factors (Ha, 2020).

Descriptive statistics were used to summarize and illustrate the dataset's key components. Descriptive statistics like the mean, median, and standard deviation allowed for a brief presentation of the most significant data patterns and changes. This summary uses descriptive statistics (Mishra, 2019). The e-commerce challenge survey instrument was then reliability evaluated. This improved the study's validity. This improved study validity by ensuring survey items measured target constructs (Ha, 2020).

Research indicated that factor analysis best identified dataset constructs or latent variables. This statistical method clarified complex variable interactions and explained Moroccan SMEs' e-commerce adoption hurdles. The results were used to analyze dependent and independent variables using regression analysis. Regression research determined how much individual factors affected the overall adoption scenario in the context of e-commerce adoption barriers. This method discovered major adoption barrier predictions (Schreiber, James B., 2021).

3.17 Descriptive Statistics:

Descriptive statistics refers to the gender, age, and annual turnover that are found in the descriptive statistics of different numbers of responses but for the present case are 280 responses (Mishra, 2019). The descriptive statistics of the 280 respondents are shown in the figure below:

Descriptives

Descriptive Statistics													
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis			
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
@1.Age	280	3	1	4	505	1.80	.062	1.041	1.083	.958	.146	-.455	.290
@2.Gender	280	1	1	2	365	1.30	.028	.461	.212	.859	.146	-1.271	.290
@3.AnnualTurnover	280	3	1	4	698	2.49	.064	1.064	1.133	.082	.146	-1.225	.290
Valid N (listwise)	280												

Figure 4 Descriptive statistics of 280 responses

In the interpretation of the above descriptive statistics including the age, gender, and annual turnover value. The age for almost 280 observations includes the minimum statistics, maximum statistics, sum of statistics, mean, standard deviation, variance, kurtosis, and skewness (Mishra, 2019). The observations led to the result that the standard deviation of almost 0.62 while the age has been average value of 1.8. Similarly, the range is calculated to be 1-4 years, whereas the skewness comes in the negative value which is -0.455. While the kurtosis has resulted in the normal distribution. The gender's mean value with a standard deviation is 0.028 and the average value is 1.30. The genre's range value has come to be the value of 1 and 2. The skewness has shown, coming like the age one to be moderately negative which is -1.271. The kurtosis has come out to be 0.290. That suggests a distribution which has moderately lighter than that of the normal value (Mishra, 2019). Similarly, the mean, range, skewness, and kurtosis value are calculated to be value of 2.49 with a standard deviation is 0.064, ranges from 1 to 4, the skewness coming be negative and the kurtosis of 0.290 is lighter than the normal deviation value. In the general observation, the valid N of 280 response suggests that all the variable values are between 1 and 4 which indicates extreme values or outliers.

3.18 Regression Analysis:

Regression refers to gaining insight and knowledge of the variables and the constants so that the present data sets' dependent variables include the adoption of e-commerce in Moroccan and the independent variables that mention the barriers to the adoption (Gallo, 2015)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835 ^a	.697	.695	.35788

a. Predictors: (Constant), Barriers

Figure 5 Multiple regression

The model exhibits a high degree of explanatory power and the evidence of this subsequent value of value of 0.697. These statistical values confirm that almost 69.7% of the variability adaptation of the steps to get the e-commerce in the barrier variable. The R-value suggests that there is a strong relation between the barriers and the adaptations of the steps to take e-commerce in Moroccan. In addition to these, the adjusted R square value comes out to be almost 0.695. This is crucial as it suggests that the model's effectiveness is not only a result of the overfitting and reliability when the complex potentials are introduced in the additional predictor's values (Gallo, 2015).

The correlation of the R-value further confirms the relation between the barriers and the adaptation and comes to be 0.835 in the above datasets. This also says that there is a linear relation between these two different variables which says as the barrier increases the adaptation also increases. The standard error in the estimates that are mentioned in the data sets is 0.35788. In short, the multiple regression has confirmed how adaptation increases when the barriers change. This fluctuation is now statistically confirmed by the different regression values. Such values leverage the researchers and other practitioners to confirm how the specific steps should be taken to eliminate the overall hurdles that come with the adaptation of the technology of e-commerce so that Moroccans can take the essential and crucial steps (Gallo, 2015).

Regression ANOVA refers to the method to check the relationship between the sets of variables to make the predictions of the dependent variables with the help of the independent variables or constants (Plonsky, 2017). This model exhibits a significant statistical value that includes both the adaptation of e-commerce and barriers to the technologies. It explains the significant values of the variable and the constants. The table of regression ANOVA is shown in the given table:

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.738	1	81.738	638.197	<.001 ^b
	Residual	35.605	278	.128		
	Total	117.343	279			

a. Dependent Variable: Adoptions
b. Predictors: (Constant), Barriers

Figure 6Regression ANOVA

In the above data set, the significant value of the significant F statistic shows that the barrier inclusion in the model significantly contributes to explaining the variance in the adaptations (Morris & Lieberman, 2023). The low p-value which is almost less than that of 0.005 suggests that the relationship between factors is not only because of three random chance and here we see the rejection of the hypothesis of the null category. Thus, the barriers seem to play a critical role in the adaptation of e-commerce and so the regression model seems to be fit for this purpose.

Technological hurdles positively correlate with e-commerce adoption, according to regression research. The $p < 0.001$ suggests a strong positive correlation between the two. Since the p-value is below the significance level (0.05), we can reject the null hypothesis (Plonsky, 2017). According to this data, Moroccan SMEs' e-commerce adoption is linked to technological barriers. A regression study revealed a substantial correlation ($p < 0.001$) between economic limitations and e-commerce implementation. It cannot accept the null hypothesis because the p-value is below our significance level. Since this is the case, economic challenges may hinder Moroccan small and medium-sized firms from implementing e-commerce.

Hypothesis	Findings	Conclusion
H1: Technological barriers significantly impact the adoption of e-commerce in Moroccan SMEs.	P-value = 0.255	Accepted
H2: Economic constraints have a significant effect on the adoption of e-commerce among Moroccan SMEs.	P-value = <0.01	Accepted

In conclusion, the data provides key insights and findings from the broad study of e-commerce deployment in Moroccan SMEs. These are the analysis results. Using SPSS software, factor analysis, and reliability testing, the study was able to examine the factors that influence digital commerce adoption. This study was made possible by its methods. This makes the investigation possible. The study into technological and economic limits shows that these factors affect e-commerce website adoption (Plonsky, 2017).. Factor analysis reduces many variables into meaningful components, improving the study's analysis. The feasibility of factor analysis explains this. Trust in research findings is strengthened by reliability testing, particularly Cronbach's alpha, which shows research instruments' consistency and stability. This is because reliability testing shows the instrument's consistency and stability (Plonsky, 2017).

Descriptive statistics reveal age, gender, and annual turnover, giving a complete picture of the dataset. Skewness and kurtosis, which reveal distribution features, deviate from perfect symmetry. Values of these attributes show this variance. By thoroughly analyzing descriptive statistics, you can better understand the data and prepare for future research (Mishra, 2019). Testing the idea leads to many discoveries. Since the null hypotheses about technological constraints and economic limits proved wrong, Moroccan SMEs' adoption of e-commerce may be influenced by a major factor. The low p-values provide insights into the barriers preventing organizations from digitalizing and strongly support the alternative hypotheses being examined.

3.19 Factor Analysis

The relevance of an investigation's independent variables can be ascertained through the utilization of factor analysis and reliability testing, which are two of the most significant testing procedures. Factor analysis reduces many variables to a few components and this

method finds variable similarities. This strategy, like removing unnecessary data during data gathering, improves analysis efficiency (Schreiber, 2021). Testing for dependability guarantees that research instruments are consistent with one another and with others. However, both strategies clarify and simplify independent variables and remove unimportant or inconsistent traits. Factor analysis and reliability testing are essential for study technique improvement. These components improve the accuracy and validity of research results. They produce more precise and meaningful data by detecting key patterns and maintaining measurement reliability (Cruz, Groen, & Saunders-Smiths, 2020).

The KMO is a measure of advocacy and is a statistic that is used to assess the advocacy of the data for the conducting of the analysis of the factors (Nasiru, 2020). If the Kmo value comes out to be 1 that is considerable to the desired value that indicates that this data is suitable for any kind of analysis (Alam & Singh, 2023). The rules of KMO are:

1. A KMO analysis value between 0.8 and 1.0 is considered to be suitable
2. KMO analysis value is considered to be average sampling if ranges between 0.7 and 0.79
3. KMO analysis is mentioned as below average if the range is between 0.7 and 0.79.
4. KMO analysis is not suitable if it is less than 0.6 factors (Nasiru, 2020).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	2783.165
	df	351
	Sig.	.000

Figure 7 KMO and Bartlett's Test

In the above data set, the KMO value has come to be 0.911 which is very good, this also suggests that the variables in the above dataset are enough to be interrelated for the factor analysis which is meaningful and reliable (Nasiru, 2020). The Barlet test means to check whether the correlation matrix is different from any identity matrix significantly and whether the relationships between the variables are present or not. The chi-square value, df, and the level of significance have been tested in this analysis and

the values come to be 2783.165, 351, and 0.000. The small p-value indicates that the relation between the variables is significant which supports the suitability of data for such data analysis (Nasiru, 2020). Thus, both tests reveal that the dataset is well suited for the factor analysis. Also tells that the relationship among the variables is most likely to lie in any random case.

Communalities

	Initial
BE	1.000
BE_A	1.000
BE_B	1.000
BE_C	1.000
BE_D	1.000
BE_E	1.000
BE_F	1.000
BE_G	1.000
BE_H	1.000
BE_I	1.000
BE_J	1.000
BE_K	1.000
BE_L	1.000
BE_M	1.000
BE_N	1.000
BE_O	1.000
BE_P	1.000
BE_Q	1.000
BE_R	1.000
ADS	1.000
ADS_A	1.000
ADS_B	1.000
ADS_C	1.000
ADS_D	1.000
ADS_E	1.000
ADS_F	1.000
ADS_G	1.000

Extraction Method:
Principal
Component
Analysis.

Figure 8 Communities

The communalities table indicates the variation in each variable that has been compensated for by the extracted main components. In this scenario, all variables have communalities of 1.000, suggesting that each variable shares 100% of its variation with the retrieved main components. This shows that the main components recovered from the data explain the total variation in the original variables, suggesting a perfect fit of the principal component model to the data. Consequently, all variables are well-represented by the main components, offering a robust solution in the principal component analysis.

Total Variance Explained						
Component	Total	Initial Eigenvalues		Rotation Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.943	33.123	33.123	3.547	13.139	13.139
2	1.602	5.935	39.058	2.801	10.374	23.513
3	1.341	4.968	44.026	2.369	8.773	32.285
4	1.159	4.292	48.318	2.345	8.685	40.971
5	1.121	4.153	52.471	2.131	7.892	48.862
6	1.051	3.892	56.363	2.025	7.501	56.363
7	.950	3.519	59.882			
8	.919	3.402	63.284			
9	.849	3.144	66.428			
10	.771	2.856	69.284			
11	.742	2.748	72.032			
12	.727	2.691	74.723			
13	.701	2.596	77.319			
14	.644	2.386	79.705			
15	.617	2.285	81.990			
16	.559	2.069	84.059			
17	.520	1.927	85.986			
18	.506	1.874	87.860			
19	.459	1.700	89.560			
20	.444	1.645	91.206			
21	.409	1.514	92.720			
22	.384	1.422	94.142			
23	.367	1.361	95.503			
24	.344	1.274	96.777			
25	.315	1.166	97.943			
26	.301	1.114	99.057			
27	.255	.943	100.000			

Extraction Method: Principal Component Analysis.

Figure 9 Total Variance Explained

The table provides the total variation explained by each principal component recovered by principal component analysis. The initial eigenvalues show the amount of variation assigned to each element before rotation, whereas the rotation sums of squared loadings reveal the variance explained by each component after rotation. The cumulative percentages represent the proportion of total variation explained cumulatively by each element. This study's first main component accounts for 33.123% of the total variance, with succeeding components contributing diminishing shares. The cumulative percentages illustrate that the first few components explain a considerable fraction of the variation, with declining returns apparent as more components are added. This shows that the first few components capture the most significant patterns in the data.



Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
BE_M	.692	.013	.209	.197	.162	.162
BE_N	.647	.094	.119	.125	.235	.117
BE_L	.642	.275	.030	.266	.021	-.028
BE_K	.571	.073	.226	.179	.174	.297
BE_O	.564	.352	.207	.099	.076	.094
BE_J	.539	.158	.065	-.025	.427	.091
ADS_D	.355	.354	.296	.354	-.044	.121
ADS	-.007	.650	.096	.051	.352	.233
BE_B	.127	.621	.245	.109	.034	.100
BE	.291	.596	-.033	.101	.026	.210
BE_A	.355	.588	.154	.254	.026	.083
ADS_F	.254	.156	.671	-.030	.236	.306
ADS_G	.168	.101	.639	.022	.360	-.020
BE_Q	-.001	.011	.617	.423	-.076	.096
BE_R	.339	.308	.511	.029	.360	-.076
BE_P	.400	.216	.464	.166	.058	-.016
BE_E	.129	.089	.044	.749	.168	.090
ADS_B	.269	.116	.075	.613	-.026	.275
ADS_C	.267	.286	.212	.426	.167	.221
BE_H	.182	.078	.163	.125	.689	.229
BE_I	.289	-.018	.207	.057	.498	.229
BE_G	.050	.472	.031	.438	.498	.089
BE_F	.185	.363	.126	.454	.461	-.043
BE_C	.234	.092	-.001	.264	.144	.712
ADS_A	-.036	.360	.095	.036	.307	.619
BE_D	.184	.218	.106	.378	.126	.558
ADS_E	.424	.320	.393	-.074	-.085	.438

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 12 iterations.

Figure 10 Rotated Component Matrix

The rotated component matrix illustrates the loadings of variables onto each primary component following rotation. Each cell shows the correlation between a variable and a component, with greater absolute values suggesting stronger relationships. The varimax rotation approach promotes interpretability by maximizing the variation of loadings within each element. In this interpretation, factors having substantial loadings on an

element contribute most to that component's interpretation. The table allows for spotting essential patterns in the data and understanding how variables cluster together within each primary component.

Component Transformation Matrix						
Component	1	2	3	4	5	6
1	.539	.452	.380	.366	.344	.330
2	-.472	.337	-.533	.511	.013	.344
3	-.488	.179	.206	-.480	.656	.164
4	.095	-.790	-.102	.220	.378	.406
5	-.321	-.123	.363	.565	.246	-.608
6	-.369	-.104	.623	.080	-.498	.460

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Figure 11 Component Transformation Matrix

The matrix of component transformations shows how the original components, which can be one to six, are linear combinations of the rotated components. The initial variables, with loadings of 0.539, 0.452, and so on, are the main factors affecting Component 1.

3.20 Research Limitations:

The limitation of this thesis is that it might not apply to other situations because it only looked at small businesses in Morocco. This makes it essential to understand the results in that specific setting. Furthermore, the study uses self-reported data, increasing the chance of answer bias. Because technology and government laws change all the time, some things may become out of date (Adel & Dahmani, 2023). The study finds some problems, but more detailed qualitative information from small business owners and IT experts could help us understand them better. In the end, outside factors like changes in the world economy may make suggestions less valuable, and the time duration to conduct this thesis is limited. Taking these limits into account makes it easier to understand the study results more complexly.

3.21 Results:

The hypothesis testing includes the regression ANOVA, multiple regression along with the beta coefficient in the statistical software SPSS (Cheung, Pesigan, & Vong, 2023) .

This hypothesis includes:

Hypothesis 1:

Null Hypothesis: there is no significant association between the technological barriers and the adoption of e-commerce in Moroccan SMEs.

Alternative hypothesis: technological barriers significantly affect the adaptation of e-commerce in Moroccan's SMEs.

Hypothesis 2:

Null Hypothesis: Economic constraints do not significantly affect the adaptation of e-commerce of Moroccan's SMEs.

Alternative Hypothesis: Economic challenges have a significant impact on the limiting adaptation of e-commerce of Moroccan's SMEs.

KMO and Bartlett's test validates factor analysis. This ensures the dataset is suitable. The high KMO score and significant Bartlett's test show the factor analysis's importance. This implies that the variables are related, confirming the findings. The fact that the factor loadings for each variable are all equal to 1.000 shows the robust relationships between the variables analyzed. Eigenvalues can assist explain principal component analysis variation (Nasiru, 2020). They require that the eliminated components' effectiveness be highlighted. After the first few components, cumulative variance decreases, suggesting datasets have diminishing benefits. This makes the components' effects more complicated. The multiple regression analysis examines how Moroccan SMEs' problems affect their e-commerce adoption. The model's high explanatory power ($R = 0.835$) shows a linear relationship between e-commerce acceptability and implementation barriers. Regression ANOVA strengthens the role of barriers in explaining e-commerce adoption variance (Plonsky, 2017).

These programs should help small company owners and employees utilize technology effectively. Focus on improving understanding of the advantages of e-commerce and delivering hands-on training in digital technologies. Ensure that present legal and regulatory structures align with the increasing demands of e-commerce (Tofan & Bostan, 2022). Regularly examine and update legislation to keep pace with technological changes. Provide explicit guidelines on data security, online purchases, and other relevant elements to develop confidence among SMEs and consumers (Belwal, Shibli, & Belwal, 2021). Encourage coordination among multiple organizations, including government agencies, business associations, schools, and international development partners.

Foster a space for information exchange, best practices, and cooperative efforts to jointly tackle the challenges SMEs encounter in implementing e-commerce. Recognize the variation among SMEs in terms of enterprises and locations. Tailor programs and support systems to manage the difficulties SMEs encounter in different sectors and areas within Morocco (ALLIOUI & ALLIOUI, 2023). This unique strategy guarantees that plans are functional and relevant across numerous company settings. Establish a rigorous monitoring and evaluation mechanism to track the development of e-commerce adoption activities. Regularly monitor the impact of initiatives, collect feedback from SMEs, and make data-driven modifications to plans. This iterative method guarantees that the support supplied remains responsive to the changing demands of SMEs (Dutta, Kumar, Sindhvani, & Singh, 2021).

Multiple studies have shown that digital knowledge and skills are necessary for people to use e-commerce (Xin, Miao, Chen, & Shang, 2022). Because of this, it is suggested that both the government and the business sector fund complete programs to teach digital skills. These programs should help business owners and managers, and the people who work for them, ensuring that everyone is ready for the digital age. The problems mentioned, like inadequate public systems and weak internet connections, point to the need for significant changes in the infrastructure. To make e-commerce run more smoothly, governments and other essential groups should put money into building infrastructure like transportation networks and internet connections.

Policymakers should think about making a setting that is good for business by using rules and rewards that help (Clausen & Rudolph, 2020). Getting rid of problems like tax and legal hurdles will make it easier for small businesses to get involved in online shopping. The reports always stress how important trust and safety are for e-commerce users. Small and medium-sized enterprises should build trust with their customers by being honest about their business. Putting strong protection in place is also essential to lower the imagined risks of online purchases. The research shows that supporting cooperation, especially in farm and green energy businesses, can unlock significant economic potential. Initiatives that support business links, relationships, and knowledge-sharing between Moroccan and foreign organizations can lead to mutually valuable collaborations (Clausen & Rudolph, 2020).

The study regularly shows the positive link between creativity and the expansion of e-commerce. Thus, it is suggested that Moroccan businesses, particularly SMEs, favor strategic investments in new technologies and practices. This includes accepting digital platforms, supporting e-commerce-friendly solutions, and informing of technical advances. As outlined in the research, cultural factors play a part in forming views toward e-commerce. Awareness efforts and training projects should be created to change views and show the benefits of e-commerce. Emphasizing how it can improve competitiveness and company image could help beat reluctance. The effect of COVID-19 on buyer behavior is evident in the research. Businesses, especially SMEs, should stay flexible and change their strategies to meet changing customer tastes, such as the greater need for e-commerce during the pandemic (Nanda, Xu, & Zhang, 2021).

Moroccan small and medium-sized businesses can follow several essential suggestions to adopt e-commerce despite technical and financial challenges. Because Moroccan small and medium-sized businesses know that technology problems make it hard for people to use e-commerce, they should work hard to solve these problems. This could mean spending money on training programs for employees to improve their digital skills, keeping up with technological changes, and encouraging a culture of innovation within the company. Working with technology experts or consultants could help you figure out how to integrate digitally and give you helpful advice (Albukhitan, 2020).

Small businesses in Morocco should do thoughtful economic planning because they know that economic problems significantly affect people's ability to use e-commerce (Ha, Van Dung, 2020) This could mean doing thorough cost-benefit studies, looking into available financial rewards or funds, and thinking about implementing things in stages so that money is better managed. To help the economy, it might be possible to work with banking companies or government programs supporting digital change. The research focuses on how crucial it is to work together to eliminate challenges. The country Moroccan's SME businesses should pay attention to joining forces with other businesses of the same industry to resolve the technology and financial issues. The best method to do things within business networks could aid individuals learn faster and create an environment accepting digital change by the help sharing information and tools (Tyagi, 2022).

Considering the shifting dynamics of modern technology and economic environments, small and medium-sized enterprises should utilize a planned approach (Zahoor, Golgeci, Haapanen, Ali, & Arslan, 2022). Tracking technological advancements, economic evolutions, and business standard procedures are vital. Developing ways to achieve constant versatility and adaptability in the realm of e-commerce will assist SMEs in staying important in new difficulties. Research and development initiatives may contribute to building unique innovations and approaches that address the current challenges that small and medium-sized enterprises are facing currently. Moroccan SMEs should constantly connect with legislative initiatives as well as business groups to promote the digital revolution. Legislation promoting, utilizing technological advances, obtaining government assistance, and forming collaborative ventures may all benefit small and medium-sized enterprises in the world of digitalization (Black, 2017).

It is important for e-commerce strategies to focus on a customer-centered approach. It's possible to make tools and digital experiences easy for the target market to use and more specialized by learning about their likes and dislikes. This makes customers happier and helps people who dislike change adapt to it. Moroccan small businesses can get past the study's problems if they follow these tips. This will set them up for success when they use e-commerce. Because of a combination of technical and economic factors, and needed a broad, flexible approach that stresses teamwork, creativity, and strategy planning. For Moroccan small businesses to successfully use e-commerce, they

need a full, unified plan that surpasses technical, economic, and legal problems. By following these rules, Morocco might make it easier for small businesses to do well in the digital economy, which would help with growth, new ideas, and getting into new markets (Wentrup, Nakamura, & Ström, 2019).

The comprehensive research shows numerous problems that render it challenging for Morocco's Small and Medium-Sized Businesses (SMEs) to take advantage of e-commerce on a big scale. A lot has changed in business, primarily because of new tools. Online shopping has evolved into one of the most significant trends transforming how organizations work and how international marketplaces engage. Online shopping has been rapidly adopted by major businesses in economies that are doing well. Still, small and medium-sized enterprises (SMEs) in emerging countries like Morocco have issues. These challenges involve needing more access to new technologies, money, government issues, and not knowing how to use technology appropriately. Because SME's businesses are essential to the country of Morocco's economy, the research explores the problems that make it hard for e-commerce to work in this critical area (Zaied, 2012).

Financial institutions should offer personalized financial goods and services to support SMEs in financing their e-commerce efforts. This means giving digital change projects cheap loans, grants, and access to startup capital. Public awareness campaigns should be launched to educate Moroccan SMEs about the benefits and opportunities associated with e-commerce adoption. This will help remove myths and urge more companies to accept digital trade. Overall, joint efforts from both the public and private sectors are needed to beat the hurdles hindering e-commerce adaptation in Morocco and drive its broad acceptance among SMEs. By handling these management consequences, Moroccan companies can place themselves successfully in the digital economy and contribute to the country's general economic growth and development.

The data and results provide us with helpful data about how difficult it is for Moroccan small and medium-sized businesses to adopt online business techniques, especially regarding technical and financial problems. Techniques and methods utilized in the research to dive into the connections and patterns that affect how individuals utilize online business are descriptive statistics, factor analysis, dependability testing, and

evaluating of hypotheses through regression analysis are some of the methods and techniques. After discussing the primary data, the chapter then explored in great depth about age, gender, and the number of times they changed jobs each year of the 280 respondents. Essential measures, which include mean values, standard deviations, skewness, and kurtosis, which shed light on the dataset's distribution trends were conducted by applying the statistical analysis.

Cronbach's alpha, reliability demonstrated how constant the multi-item scale used in the research examination was with itself. The Cronbach's alpha value of 0.776 was higher than the minimum value of 0.7, meaning the tested items had great internal consistency. This high internal reliability makes the study results more reliable and shows that the measuring tool is consistent and stable. Regression analysis was used during the hypothesis testing phase to test two main theories about technical and economic hurdles. The regression study showed interesting results, showing a strong positive relationship between technical hurdles and people starting to use e-commerce. Even though the p-value for technical hurdles wasn't quite as high as the usual 0.05, it still showed a strong link, which meant that the theory could be accepted. On the other hand, economic problems greatly affected e-commerce users, as shown by a p-value below 0.01. These results showed that economic problems are a big reason Moroccan small businesses no longer use e-commerce (Rüller, et al., 2022).

Stepping Back ANOVA showed that hurdles are important and play a big role in understanding the differences in how people adopt e-commerce. The low p-value showed that the link between elements was not due to unpredictability, supporting rejecting the null hypothesis. This made the point even stronger that technical and financial hurdles are big reasons people don't use e-commerce more. In reviewing the results, Moroccan SMEs face a dynamic environment on their road towards e-commerce usage. The study's thorough approach, spanning various statistical studies and hypothesis testing, offers a detailed knowledge of the relationship between technology and economic factors. The suggestions drawn from the research underscore the importance of tackling these hurdles carefully through investments in technology, joint efforts, and proactive economic planning (Ng, Kee, & Ramayah, 2020).

As Morocco keeps establishing its mark on the international digital economy, the findings from this study can help lawmakers, business leaders, and industry players create focused measures that promote a favorable environment for e-commerce growth between SMEs. The results add to academic knowledge and offer real implications for companies managing the complicated terrain of digital change in the Moroccan scenario (Rachidi & Mohajir, 2016).



CONCLUSION

This study investigates the contests met by Moroccan SMEs in adopting e-commerce, identifying the status of overcoming these blocks for the country's economic growth and affordability. Through a mixed-methods approach, as well as surveys, focus group discussions, and analysis of secondary data, the research identifies key factors affecting e-commerce adoption. The study highlights the significance of strategic management, both internal and external factors, in shaping the organizational process. It emphasizes the need for a comprehensive plan that involves evaluating technological capabilities, understanding government regulations, and addressing skill shortages. As Morocco proposes to position itself in the digital economy, this research provides valuable insights for policymakers, businesses, and educators to develop targeted strategies and policies that foster e-commerce growth within SMEs. Finally, disabling these obstacles is necessary for Moroccan SMEs to prosper in the ever-changing landscape of global trade and technological advancements.

The challenges and opportunities associated with the adoption of e-commerce in small Moroccan companies. The various aspects include e-commerce concepts and types, digital literacy, the role of SMEs, and consumer perceptions. It emphasizes the strategic planning required for Moroccan SMEs to effectively integrate e-commerce into their operations. The research presented the confident association between e-commerce implementation and economic development in Morocco, while also discussing limitations such as government policies, taxation, and infrastructure shortages. The status of the government that supports and is involved during crises, as verified by the COVID-19 pandemic, is emphasized. Additionally, the impact of trust, customer satisfaction, and communication on e-commerce success. Various studies and analyses contribute to the understanding of factors influencing e-commerce adoption in developing economies like Morocco, with a focus on the agricultural sector and cooperatives. The internal and external factors affecting organizational capacities and barriers are thoroughly examined, emphasizing the need for investments in technology, staff training, regulatory reforms, and infrastructure improvements to foster successful e-commerce implementation in Moroccan SMEs.

One barrier to e-commerce adoption in Moroccan SMEs reveals multifaceted challenges hindering the widespread integration of online business practices. Issues such as limited

internet access, financial constraints, and trust concerns with online transactions have been identified as significant obstacles. Despite advancements in understanding the opportunities and constraints of digitization in Moroccan SMEs, there remains a research gap in comprehending the intricate relationships between technology, economic constraints, and adoption rates. The research showed by various scientists based on the importance of factors like innovation, human capital, and strategic investments in increasing e-commerce adoption.

Nevertheless, obstacles endure, encompassing technological hindrances and inadequate infrastructure, along with legal and regulatory intricacies. The insufficiency of digital proficiency among employees in SMEs, coupled with a deficit in dependable logistics networks and payment gateways, presents obstacles to the extensive adoption of e-commerce. Cultural attitudes, concerns regarding trust, and the absence of a strong legal foundation additionally hinder the advancement of e-commerce in Morocco.

Role of e-commerce in implementation for Moroccan SMEs, emphasizing its possible way to determine invention, affordability, and economic growth in a digital era. The study illuminates the significance of addressing technological, regulatory, financial, and cultural constraints as barriers to e-commerce integration within Moroccan SMEs. By investigating socio-economic discrimination, the research shows how e-commerce can generate income, skills, and jobs in marginalized areas, developing comprehensive economic development. The implementation of e-commerce is represented as a compound for cross-sector association and info sharing among various investors. The study's findings, enclosed by hypotheses and a conceptual model, provide a wide range of information related to the challenges that are faced by Moroccan SMEs in implementing e-commerce. Through diverse methods and a varied sample, the research provides evidence for policymakers and stakeholders to formulate targeted strategies, fostering economic growth and competitiveness in the Moroccan SME sector. The reliability analysis ensures the credibility of the findings, ultimately contributing to the broader discourse on e-commerce integration in the context of Moroccan small and medium-sized enterprises.

The regression analysis demonstrates a strong relationship between barriers and e-commerce adoption, with technological hurdles and economic constraints significantly

influencing the adoption process. The study used statistical methods, including factor analysis and reliability testing, to enhance the accuracy and validity of the findings. KMO and Bartlett's test confirm the suitability of the dataset for factor analysis, reinforcing the reliability of the results. The limitations, such as the specificity to Moroccan small businesses and potential self-reported data bias, are acknowledged. The study emphasizes the importance of understanding and overcoming barriers to foster e-commerce integration, providing a foundation for informed policymaking and strategic planning in the Moroccan SME sector.

For businesses functioning in the background of e-commerce adoption in Moroccan SMEs, it is suggested to prioritize invest in digital organization, confirming strong and consistent systems. Combined efforts with government bodies and business partners can help to resolve legal and regulatory complexities, developing an environment favorable to e-commerce growth. Additionally, businesses should invest in digital literacy programs for their employees to overcome challenges related to a lack of technological understanding (Achmad, 2023).

Academicians and researchers interested in this field should focus on conducting further studies to explore specific factors influencing e-commerce adoption in Moroccan SMEs. Collaborative research projects with industry partners can provide valuable data and practical implications. Moreover, academic organizations can play a role in encouraging digital literacy by providing applicable courses and workshops. A multidimensional approach involving collaboration between businesses, government entities, and academic institutions is essential for addressing the challenges and promoting the successful adoption of e-commerce in Moroccan SMEs (Tobi, 2023).

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Appendix:

Demographic Questions:

1. Age

- 1) 20-25
- 2) 25-30
- 3) 30-35
- 4) 35-40

2. Gender

- 1) Male
- 2) Female

3. Annual Turnover of Your SME:

- 1) Up to 5 million
- 2) Up to 7.5 million
- 3) Up to 10 million
- 4) Up to 15 million

Questions		Options				
1	Businesses in the sector widely adopt online marketing and sales practices.	1	2	3	4	5
2	A highly awareness of the benefits associated with e-commerce for our business operations.					
3	Enterprises have implemented measures to enhance awareness of e-commerce benefits among employees and stakeholders.					
4	Customers significantly influence the business to engage in e-commerce activities.					
5	Linguistic barriers have a notable impact on an enterprise's engagement in international e-commerce.					
6	Organizations are well-prepared to overcome linguistic challenges in the context of e-commerce.					
7	Overcoming linguistic barriers is highly important for the success of an enterprise's e-commerce activities.					

8	The perceived high level of internet security significantly influences decision-making regarding E-commerce practices in enterprises.					
9	Enterprises are well-prepared to proactively address challenges related to internet security in the E-commerce domain.					
10	Improving E-commerce infrastructure is highly important for the overall success of business.					
11	Overcoming the shortage of qualified staff is essential for effectively implementing our E-commerce strategies.					
12	Improving the quality and speed of internet lines is significantly important for the success of E-commerce activities.					
13	Adopting innovations and new technologies has a substantial impact on the overall competitiveness of E-commerce operations.					
14	The presence of a robust financial infrastructure significantly enhances the reliability of an enterprise's E-commerce transactions.					
15	Understanding the potential advantages gained through the adoption of E-commerce is important.					
16	The cost factor has minimal impact on the decision-making process regarding E-commerce adoption within enterprises.					
17	Competitive pressure is a driving force behind the adoption of E-commerce strategies within the sector.					
18	Establishing secure payment infrastructures is highly important for business E-commerce operations' overall success.					
19	Changes in government policy have minimal impact on enterprise's E-commerce strategies.					
20	Enterprises are well-prepared to navigate legal challenges in the application of E-commerce.					
21	Government institutions are adequately prepared to support and regulate E-commerce activities.					
22	Flexibility in working procedures is essential for successfully implementing E-commerce in our business.					

23	The lack of management support has an impact on the successful integration of E-commerce practices in enterprises.					
24	The limited use of Internet banking and web portals does significantly hinder the overall growth of E-commerce among SMEs.					
25	Establishing legal and regulatory systems is highly important for the success of a business's E-commerce initiatives.					
26	Having simple procedures and guidelines is not highly important for successfully implementing E-commerce in business.					
27	Having e-trading legislation is highly significant for the success of a business's E-commerce activities.					