

RESEARCH ARTICLE

EXPLORING THE FACTORS AFFECTING SME FACEBOOK SHOP RETAIL BUSINESSES IN MADAGASCAR: AN ANALYTICAL INVESTIGATION

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ABSTRACT

This study investigates the factors influencing Small and Medium Enterprises' (SMEs) Facebook Shop retail businesses in Madagascar. Amidst the global rise in internet usage, social media platforms play a critical role, particularly in online shopping. Employing a comprehensive methodology, including surveys and validated questionnaires, data were collected from SME owners leveraging Facebook features for e-commerce. Utilizing a dual approach with quantitative and qualitative methodologies, the study employs statistical techniques such as exploratory and confirmatory studies, hypothesis testing, and structural equation modeling using SPSS and AMOS 26 software. The findings reveal that perceived usefulness significantly influences the adoption of Facebook online store, playing a pivotal role in driving Small Businesses' uptake. Conversely, both limited payment options and trust and security concerns are found to negatively impact the adoption of Facebook online store. Surprisingly, perceived ease of use, flexibility adaptability, interaction, and larger businesses do not appear to have a significant positive effect on the adoption of Facebook online store, contrary to expectations. This research is investigating the key drivers affecting the adoption of Facebook Shop Retail Ventures and provides insights for both organizations and researchers.

KEYWORDS

Social Media, Small and Medium-sized Enterprises (SMEs), Facebook online store, Entrepreneurship, Madagascar

1. INTRODUCTION

In the post-pandemic landscape, global Small and Medium-sized Enterprises (SMEs) strive for innovation to broaden their customer reach (Amponsah, 2021). Madagascar's SMEs, crucial for economic growth, foster entrepreneurship and innovation, enhancing competitiveness. Embracing e-commerce, particularly through Facebook online stores, has transformed SME dynamics, allowing them to overcome geographical constraints and compete globally (Alireza, 2014). E-commerce strategies are now vital for SMEs, reducing entry costs and fostering customer relationships (Blend, 2021). In the digital era, the symbiosis of e-commerce and social media, notably Facebook, propels SME success (Burgess and Cooper, 2000; Chen and Zhang, 2015). The rising trend of Facebook online stores in Madagascar revolutionizes business operations, offering an accessible platform for global reach. With adequate support, Facebook's adoption as an e-commerce platform promises sustained SME growth and contributes to Madagascar's economic development.

While promising growth opportunities abound, SMEs in Madagascar face various challenges, with effective marketing being a prevalent issue. This article delves into the challenges and opportunities encountered by SMEs in Madagascar utilizing Facebook online stores for e-commerce, exploring the dynamic interplay of factors shaping their trajectory. Facebook e-commerce empowers businesses with valuable customer insights, offering tools for online store setup, product catalog management, and streamlined shop features (Elaydi, 2018). The platform's analytics tools provide businesses with data on engagement, conversion rates, and user behavior, enabling informed decision-making and improved marketing strategies (Elaydi, 2018; Febrian, 2023).

The adoption of Facebook shop platforms has become crucial for SMEs

looking to thrive in the online business era (Gladys, 2022). One of the main reasons behind the increasing popularity of Facebook platforms among SMEs in Madagascar is the rapid growth of entrepreneurship environment in the country. Moreover, Facebook e-commerce shops have also facilitated the growth of Freelancers, consultants, and professionals from various industries can offer their services through the social media such as Facebook (Feldman, 2018). This has allowed entrepreneurs to access expertise that may not be available locally, enhancing the quality of their services and driving innovation. Another significant benefit of Facebook e-commerce for SMEs is the ability to reach international markets (Kartiwi et al., 2018).

Notwithstanding the myriad advantages associated with employing Facebook shop platforms, Small and Medium-sized Enterprises (SMEs) in Madagascar encounter persistent challenges (Ikram, 2022; Jing, 2022). These encompass constrained payment options, issues related to limited local payment available, considerations stemming from larger businesses, and apprehensions regarding trust and security (Ikram, 2022; Jose, 2018; Ibrahim, 2021). Overcoming these hurdles is imperative for SMEs to maximize the full potential offered by online platforms, particularly Facebook. Despite the nascent state of e-commerce in Madagascar, with a lack of official market size figures, insights from Steelex survey reveal that 65% of Malagasy consumers have yet to engage in online purchases (Amponsah, 2021). Facebook remains the primary conduit for transactions in this context. Contributing to this trend is the limited access to credit cards, with over a third of the population now able to use mobile money for everything. As the impact of the pandemic eased, mobile money services grew faster in 2020-2023, more and more are using mobile money for payment option, as indicated by Madagascar's mobile Boom data (Ikram, 2022).

The social media platform's offers various community groups and forums

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where SMEs can connect with other entrepreneurs, share experiences, and gain support (Prasetyo, 2022). This sense of community can provide valuable insights, knowledge-sharing, and inspiration to overcome challenges and seize opportunities (Jing, 2022). Although Internet users still buy categories of products mainly via Facebook, the share of online shops is growing steadily and noticeably (Mugarura, 2023; Oussa, 2020). According to Stelex statistic study survey, products are categorized by the percentage of online purchases (Febrian, 2023).

Product category	Percentage of response
Food	25,42%
Furniture and decoration	13,56%
High tech products	38,98%
Fashion clothing and accessories	54,24%
Other	33,90%

A substantial portion of online transactions in Madagascar pertains to clothing and hi-tech products, constituting 86% of the market (Jose, 2018). In the vibrant tapestry of Madagascar's economic landscape, the emergence and proliferation of Small and Medium-sized Enterprises (SMEs) represent a dynamic force contributing to the country's economic growth. Against this backdrop, the integration of Facebook as an e-commerce platform introduces a new dimension to the business landscape, offering SMEs a digital storefront to reach a broader audience (Kartiwi et al., 2018; Liu, 2021).

Hence, this study seeks a profound understanding of SME experiences with Facebook online store in Madagascar. Through survey and questionnaires data, it uncovers barriers to effective Facebook utilization, guiding entrepreneurs and researchers in crafting strategies for sustainable SME development in the digital era. As businesses increasingly leverage social media for cost-effective communication, this research becomes imperative in exploring how SMEs navigate the digital sphere and capitalizes on social media e-commerce platforms like Facebook.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

E-commerce platforms in Madagascar have been rapidly growing in recent years, driven by factors such as increased internet penetration, rising consumer spending power, and changing consumer preferences (Amponsah, 2021). This has led to a significant shift in the way businesses operate and customers shop in the country. In addition, mastering promotional marketing can improve online transactions (Elliot, 2002). In fact, E-commerce in Madagascar is more practically used on the social network Facebook (Elaydi, 2018). In addition, some pages, where professional entities market their products, are poorly managed. Indeed, the demonization of subscribers to buy online has impacts on the activities of these entities. Data analysis of e-commerce platforms in Madagascar reveals interesting insights. According to a report by UNCTAD, the number of e-commerce users in the country has been steadily increasing, reaching approximately 2 million in 2020 (Febrian, 2023; Feldman, 2018). This represents a significant growth opportunity for businesses operating in the e-commerce sector.

2.1 Theoretical Support

The report highlights that mobile e-commerce plays a critical role in Madagascar's digital economy. Mobile penetration has been rapidly increasing, and many consumers prefer to use their smartphones to access e-commerce platforms. This trend opens up new possibilities for businesses to reach a larger customer base and drive sales through mobile apps. According Stelex survey statistical study, 77.97% of Malagasy Internet users make online purchases on Facebook (Febrian, 2023; Glayds, 2022).

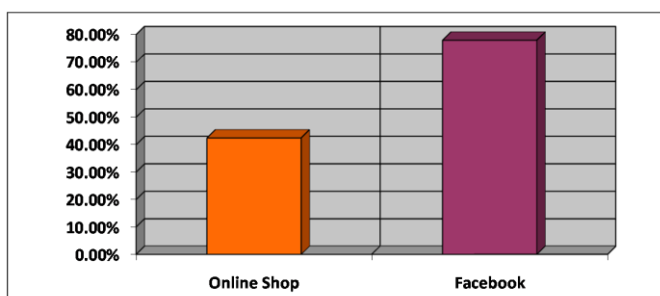


Figure 1: Online shopping in Madagascar

This image provides a snapshot of the e-commerce landscape in Madagascar, emphasizing the prevalence of Facebook as the dominant platform for online sales (Feldman, 2018). Notably, Malagasy individuals predominantly utilize Facebook for purchasing clothing and fashion accessories; often opting for cash or mobile money-on-delivery transactions remains the predominant payment method (Gladys, 2022; Hua, 2021). In terms of promotional marketing, engaging Facebookers with a promotional offer increases the organic reach of a publication. This then produces an important and interesting meaning of the offer for the targets. In this respect, promotional techniques for online sales on Facebook depend on the satisfaction of the participants (Hua, 2021).

By utilizing Facebook online stores, SMEs have the opportunity to expand their customer base beyond their physical location (Feldman, 2018; Liu, 2021). They can reach customers from different regions of Madagascar and even internationally, potentially increasing their sales and revenue (Hua, 2021; Ibrahim, 2021). Compared to traditional marketing methods, Facebook online stores offer cost-effective marketing options (Mansour, 2020; Mesut, 2014). SMEs can create targeted ads, run promotions, and engage with their audience at a fraction of the cost of traditional advertising channels (Mansour, 2020). Facebook has a large user base in Madagascar, more and more SMEs are using this social media platform to sell products and services, so Facebook marketplace have larger businesses (Jose, 2018).

Technology Acceptance Model (TAM), which is commonly used to assess the adoption of technology, including e-commerce platforms like Facebook Shop (Kartiwi et al., 2018). TAM provides a comprehensive framework for understanding the factors that influence users' acceptance and adoption of technology (Liu, 2021). TAM includes constructs such as perceived ease of use and perceived usefulness, which influence users' attitudes and intentions toward using a technology (Jing, 2022; Liu, 2021). Flexibility and adaptability, interaction, limited payment options, larger businesses, and trust and security concerns can also be factors considered within the TAM framework when examining technology adoption and usage (Liu, 2021; Mansour, 2020).

Figure 2 illustrates the proposed research model in this study.

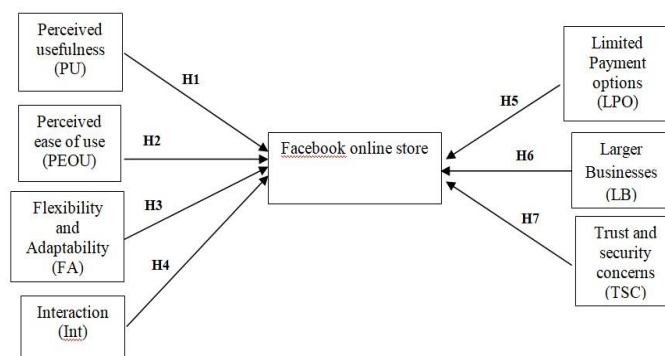


Figure 2: Conceptual model

2.2 Perceived Usefulness

Several studies have demonstrated the importance of perceived usefulness in determining user acceptance and adoption of online platforms. According to Davis, perceived usefulness is a key determinant of user acceptance in the Technology Acceptance Model (TAM), which posits that users are more likely to adopt a technology if they perceive it as useful for their tasks (Chilembo, 2021; Elliot, 2002). Additionally, research by Kshetri, emphasizes the importance of social media platforms, like Facebook, in enabling e-commerce and online retail for local businesses in emerging markets, a finding supported by numerous studies in the context of e-commerce and online shopping (Alireza, 2014). In the specific context of Facebook online store, perceived usefulness may play a crucial role in influencing users' intentions to use these platforms for their shopping needs (Febrian, 2023; Feldman, 2018).

In the specific context of social media platforms like Facebook, perceived usefulness has been identified as a key determinant of user behavior (Febrian, 2023; H, 2021). For example, Lin found that perceived usefulness positively influenced users' intention to use social networking sites, while Kim and Lee reported a positive relationship between perceived usefulness and user satisfaction with social media platforms (Ibrahim, 2021; Jing, 2022). Similarly, Wu and Wang demonstrated a positive relationship between perceived usefulness and online purchase intention among consumers. These findings suggest that when individuals perceive

an online platform as useful for their shopping needs, they are more likely to engage with it and make purchases (Feldman, 2018). Therefore, we posit the following hypotheses:

H1: Perceived usefulness has a significant impact on Facebook Online Store.

2.3 Perceived Ease of Use

A fundamental construct in the Technology Acceptance Model (TAM) introduced by Davis, perceived ease of use plays a pivotal role (Chilembo, 2021). This perception, encompassing the user's views on the simplicity and convenience of employing a particular technology, significantly impacts their inclination towards adopting e-commerce solutions into their operational frameworks (Glayds, 2022). This concept has been extensively explored across diverse technological systems, including various e-commerce platforms (Amponsah, 2021). Perceived ease of use plays a crucial key in the success of e-commerce ventures, particularly on social media platforms like Facebook, within Madagascar's diverse economic landscape by (Burgess and Cooper, 2000). The unique market characteristics of Madagascar, an island nation in the Indian Ocean, encompass a wide array of emerging businesses operating across various sectors. Research indicates a strong association between perceived ease of use and users' intention to utilize online shopping platforms. Additionally, studies have demonstrated that perceived ease of use positively impacts users' attitudes towards online shopping platforms.

In the context of social media Facebook, perceived ease of use has also been identified as a critical factor affecting user behavior. For instance, Lin found that perceived ease of use positively influenced users' intention to use social networking sites (Mansour, 2020). Additionally, Kim and Lee reported a positive relationship between perceived ease of use and user satisfaction with social media platforms (Ikram, 2022). Hence, based on the literature, it is hypothesized that:

H2: Perceived ease of use has a significant impact on Facebook Online Store.

2.4 Flexibility and Adaptability

In Madagascar's diverse market, characterized by unique cultural nuances and consumer preferences, micro enterprises operating Facebook online stores must demonstrate flexibility in tailoring their products and marketing strategies to resonate with the local audience (Mansour, 2020). Flexibility and adaptability are crucial traits for successful e-commerce platforms, allowing them to evolve and address the changing needs of users (Elliot, 2002). In the realm of online shopping, flexibility refers to the platform's capability to accommodate various user preferences and adapt to different usage scenarios (Blend, 2023). By adapting to the dynamic market's distinct characteristics, entrepreneurs can establish a robust connection with their consumers (Elaydi, 2018).

Previous studies underscore the significance of flexibility and adaptability in shaping users' inclination to utilize e-commerce platforms. For example, a group researcher discovered that perceived flexibility positively impacted users' attitudes toward online shopping platforms, while revealed that perceived adaptability significantly influenced users' satisfaction with e-commerce websites (Hua, 2021; Oussa, 2020). In the rapidly evolving technology landscape, businesses, including startups on Facebook online stores, must remain adaptable to integrate new technologies that enhance the user experience (Chen and Zhang, 2015).

In the realm of social media, flexibility and adaptability are also critical factors affecting user engagement and satisfaction on online store. For instance, a group researcher emphasized the importance of social media platforms' flexibility in accommodating users' diverse communication needs (Blend, 2023). Additionally, Chen and Chen found that perceived adaptability positively influenced users' satisfaction with social networking sites (Amponsah, 2021). Thus, the following hypothesis is posited:

H3: Flexibility adaptability has a significant impact on Facebook Online Store.

2.5 Interaction

The landscape of business interactions in Madagascar has experienced a significant transformation with the emergence of Facebook shops (Mohammed and Nusier, 2022). Once primarily a platform for personal connections, Facebook has evolved into a robust marketplace for businesses of all sizes, particularly benefiting entrepreneurs (Mohsin, 2021). Interaction plays a crucial role in shaping users' perceptions and

behaviors in online environments, including social media platforms and e-commerce websites (Gladson and Nwokah, 2017). In the context of Facebook online stores, interaction encompasses the extent to which users engage with the platform's features, such as liking posts, leaving comments, and sharing content by Alraja (Nur, 2023).

Through social media platforms like Facebook, businesses can engage in real-time conversations, answer queries, and build relationships with their audience (Chen and Zhang, 2015). This interactive nature is further enhanced by features such as comments, likes, and shares, which contribute to the organic growth of SMEs. Previous research underscores the significance of interaction in shaping users' attitudes and behaviors on online platforms. According to a study, demonstrated that higher levels of interaction positively influenced users' perceptions of usefulness and enjoyment, while other study author found that increased interaction with e-commerce websites resulted in higher levels of user satisfaction and loyalty (José Bavio, 2018; Blend, 2021).

In the specific context of Facebook online store, interaction plays a critical role in fostering engagement and building relationships between businesses and consumers. Research by Järvinen and Taiminen indicated that active interaction with customers on Facebook positively impacted users' trust and loyalty towards the brand. Additionally, Chen and Lin found that higher levels of interaction on Facebook pages led to increased purchase intentions among users. Base on the literature, the following hypothesis is suggested:

H4: Interaction has a significant impact on Facebook Online Store.

2.6 Limited Payment options

Madagascar, like many developing nations, faces challenges in its payment infrastructure, with limited integration with international payment gateways and financial systems, leading to a reduced number of viable payment options for online transactions. This limitation can create obstacles for businesses operating on Facebook's platform, constraining the ways in which customers can make purchases. Research suggests that the availability of diverse payment methods is crucial for enhancing users' trust and facilitating transactions in online shopping environments (Aishatu, 2022). Digital wallets and online payment platforms, integral components of e-commerce ecosystems worldwide, are limited in accessibility, contributing to the constrained payment.

Previous studies have demonstrated the significance of payment options in influencing users' perceptions and behaviors in e-commerce. For example, found that the variety of payment methods available on e-commerce websites positively influenced users' satisfaction and trust. Similarly, highlighted the importance of payment diversity in enhancing users' perceived convenience and reducing perceived risks associated with online transactions (Behan, 2014; Mesut, 2014). The availability of secure and convenient payment options is essential for facilitating e-commerce activities. Previous research by emphasized the importance of providing multiple payment options on social media platforms to accommodate users' diverse preferences and increase their willingness to make purchases (Naseem, 2020). Drawing from the literature, it can be hypothesized that:

H5: Limited payment options have a negative impact on Facebook Online Store.

2.7 Larger Businesses

Larger businesses possess more resources and capital, allowing for substantial investments in advertising and promotion, leading to increased visibility and exposure to potential customers. Previous research indicates that larger enterprises are better equipped to adopt and utilize e-commerce platforms like Facebook shops, leveraging digital technologies for marketing and sales due to their greater resources and capabilities.

Previous research indicates that small businesses face difficulties attracting customers due to their limited range of offerings, especially when consumers have a broader array of options available from larger businesses. Studies exploring the relationship between business size and e-commerce adoption reveal insightful findings. For instance, discovered that larger firms are generally more proactive in adopting e-commerce initiatives compared to smaller firms. Similarly, noted that larger firms tend to invest more in e-commerce infrastructure and capabilities, resulting in increased online sales and customer engagement (Primananda et al., 2022; Olanmi, 2019). Furthermore, the size of a business can also influence its ability to effectively utilize these channels for marketing and sales. For instance, found that larger businesses tend to

have a larger social media presence and engage with a larger audience on platforms like Facebook. Therefore, it is reasonable to hypothesize that:

H6: Larger businesses have a negative impact on Facebook online store.

2.8 Trust and security concerns

Trust and security have emerged as pressing issues for Small and Medium Enterprises utilizing Facebook's online store. Despite the platform's convenience and potential for reaching a wider customer base, the credibility and safety of these businesses are being adversely impacted (Paraskevi, 2023). Users' adoption and usage of e-commerce platforms, including Facebook online stores, are negatively influenced by trust and security concerns. Trust encompasses users' confidence in the reliability, integrity, and security of the online platform, while security concerns relate to users' apprehensions about the safety and protection of their personal and financial information.

One of the primary concerns facing small-size industries is the lack of trust among potential customers (Ayswarya et al., 2019; Rahman and Raisinghani, 2000). Research indicates that many individuals are reluctant to make purchases through Facebook's online store due to the prevalence of fraudulent activities, scams, and fake listings, which hinder the growth and profitability of entrepreneurs. Additionally, security poses a significant challenge for startups utilizing Facebook's online store feature, as the platform is vulnerable to hacking and cyber-attacks, putting businesses at risk of compromising sensitive customer data, including personal and financial information (Ritesh and Umar, 2018).

Several studies have underscored the significant impact of trust and security concerns on users' intention to use e-commerce platforms. For instance, demonstrated that trust positively influenced consumers' willingness to engage in online transactions, while perceived security risks deterred users from using e-commerce platforms (Ruhre et al., 2017; Ghanem and Aziati, 2020). Additionally, trust and security concerns are pivotal factors in users' adoption and usage behavior. A group researcher found that trust in social media platforms positively influenced users' engagement and participation, whereas security concerns, particularly related to privacy and data protection, have been identified as barriers to users' active involvement in social media activities. Hence, the following hypothesis is proposed:

H7: Trust and security concerns have a negative impact on Facebook online store.

According to the literature review, the following research hypotheses were structured with their relationship each one another to provide a comprehensive framework for better understanding: H1. Perceived usefulness (PU) has a significant impact on Facebook Online Store (FOS); H2. Perceived ease of use (PEOU) has a significant impact on Facebook Online Store (FOS); H3. Flexibility adaptability (FA) has a significant impact on Facebook Online Store (FOS); H4. Interaction (Int) has a significant impact on Facebook Online Store (FOS); H5. Limited payment options (LPO) have a negative impact on Facebook Online Store (FOS); H6. Larger businesses (LB) have a negative impact on Facebook online store (FOS); H7. Trust and security concerns (TSC) have a negative impact on Facebook online store (FOS);

3. METHODOLOGY

3.1 Sampling and Data Collection

This study was adopting a mixed-methods research design, combining both qualitative and quantitative research approaches. Qualitative approaches, including engaging in focus group discussions, were employed to acquire profound insights into the influencing factors (Sheku, 2023; Han et al., 2024). Quantitative methods, through surveys, were employed to collect numerical data for statistical analysis. The study was target small-scale enterprises in various sectors across different regions of Madagascar and was conducted over a period of six months, including data collection, analysis, and report writing.

An online survey was designed using a reliable and validated questionnaire from business owners and leaders using Facebook online market in Madagascar. The survey was disseminated through social media platforms, relevant Facebook groups for local businesses in Madagascar (Tijjani et al., 2023). The survey was gathered both qualitative and quantitative data, including demographic information, perceptions of challenges and opportunities, usage patterns, and suggestions hypotheses analysis method.

A total of 300 questionnaires were issued, yielding 250 valid responses. Structural equation modeling (SEM) was employed in this study to examine the proposed model, owing to its extensive use in business management and related fields, being acknowledged as the most refined and comprehensive system of variance (Berger and Zhou, 2014). A two-step approach was utilized to assess the second-order constructs, facilitating the development of a more concise model.

3.2 Measures

An online survey was designed using a reliable and validated questionnaire to provide a better understanding SME's influencing factors issues study. The survey was disseminated through social media platform on Facebook, relevant for entrepreneurs' associations and organizations Facebook groups. The questionnaire survey was made using a 5-point Likert scale, where 1 indicated strong agreement, 2 agree, 3 represented neutrality, 4 disagree and 5 indicated strong disagreement (Vikas and Sharma, 2017). All measurement items pertaining to the variables, along with their sources and relevant items utilized in this research are available and attached in appendix. Perceived usefulness was assessed using three items, Perceived ease of use was measured by adapting three items, three items was assessed for Flexibility adaptability, Interaction was adapted using three items, Limited payment options, Larger businesses, Trust and security concerns were all measured using three items of each as well.

4. RESULTS

4.1 Descriptive Information

The survey encompassed 250 respondents, with females comprising 52.54% (142) and males 47.46% (108), ensuring diverse perspectives across demographic groups. Age distribution varied: 25.25% (68) were 18-24, 38.98% (73) were 25-34, and 30.68% (71) were 35-44, offering insights into age-related engagement with SMEs on Facebook. A significant 57.38% (116) had university-level education, influencing their platform usage. Retail startups dominated at 77.69% (124), while services comprised 12.25% (112), shedding light on sector dynamics. Regarding experience, 64.48% (147) had 1-2 years, reflecting newer SMEs, and 35.52% (103) had 3-5 years, providing insights from more established enterprises.

Table 2: Demographic statistics information of small and medium enterprises (SMEs)

Demographic Factors	Measures	Frequency	Percentage (%)
Gender	Male	108	47,46
	Female	142	52,54
Age	(18-24)	68	25,25
	(25-34)	73	38,98
	(35-44)	71	30,68
	(45-54)	23	3,39
	(55 and above)	15	1,70
Education Level	High school or below	92	34,75
	College/University	116	57,38
	Postgraduate	42	7,87
Type of SME	Retail	124	77,69
	Service	112	12,25
	Manufacturing	14	10,06
	Other	-	-
Years in Operation	1-2 years	147	64,48
	3-5 years	103	35,52

4.2 Model Analysis

Cronbach's Alpha was utilized to assess the validity and reliability of the variables. A higher alpha value signifies greater internal consistency among the items on the measurement scale. An alpha value exceeding 0.7 is deemed optimal for reliable performance. The research findings revealed that all variable constructs exhibited alpha values surpassing 0.7, indicating satisfactory reliability.

This study employs the structural equation model which provides a framework for assessing the reliability and validity test for each variable

(Perceived Usefulness, Perceived Ease of Use, Flexibility-Adaptability, Interaction, Limited Payment options, Larger Business, Trust and Security Concerns and Facebook Online Store) (Warnaby et al., 2008). The model allows for a quantitative evaluation of the connections among underlying constructs and their manifestations, providing insights into reliability and validity measurement instruments.

The results of the study, shown in the Table 3, indicate that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) demonstrated good reliability, with Cronbach's Alpha values of 0.750 and 0.714, respectively,

assessed through three items each. Similarly, Flexibility and Adaptability (FA) and Interaction (Int) exhibited acceptable reliability, with Cronbach's Alpha values of 0.726 and 0.773, respectively, also assessed with three items each. Additionally, Limited Payment options (LPO), Larger Businesses (LB), Trust and Security concerns (TSC) and Facebook Online Store (FOS) were found to have high reliability, with Cronbach's Alpha values of 0.821, 0.789, 0.734 and 0.844 respectively, each measured with three items. Regular assessments and maintenance of the measurement instrument are essential to ensure the reliability of the variables and maintain data quality.

Table 3: Measurement model and reliability test results

Constructs	Items	α	Means	SD	Skew	Kurtosis	F. L.
Perceived Usefulness	PU1	.75	3.00	0.52	-0.48	-2.57	0.90
	PU2						0.88
	PU3						0.91
Perceived Ease of Use	PEOU1	.71	3.00	0.82	-0.68	-1.04	0.81
	PEOU2						0.89
	PEOU3						0.78
Flexibility and Adaptability	FA1	.72	2.90	1.17	-1.26	-1.18	0.92
	FA2						0.59
	FA3						0.87
Interaction	Int1	.76	3.30	0.94	-0.45	-0.34	0.93
	Int2						0.81
	Int3						0.75
Limited Payment options	LPO1	.82	3.60	0.84	-0.38	-0.37	0.96
	LPO2						0.62
	LPO3						0.78
Larger Businesses	LB1	.78	3.30	0.94	-0.38	-0.34	0.92
	LB2						0.64
	LB3						0.93
Trust and Security Concerns	TSC1	.73	3.40	0.70	-1.17	-2.27	0.89
	TSC2						0.72
	TSC3						0.82
Facebook Online Store	FOS1	.84	3.80	0.74	-1.24	-2.18	0.94
	FOS2						0.79
	FOS3						0.86

Note: SD (Standard Deviation), FL (Factor Loadings)

4.2.1 Evaluation of the Measurement Model

In this study, we also use Average Variance Extracted (AVE), it is a technique employed in Confirmatory Factor Analysis (CFA) to evaluate the convergent validity of latent constructs. It is a measure of how well the indicators of a latent construct represent that construct. AVE is calculated for each latent variable in the model and should be compared to a predefined threshold, often 0.5, to determine if the convergent validity is adequate (Wong, 2014).

Initially, the data underwent analysis by examining central tendency and dispersion, followed by an assessment of validity and reliability (refer to Table 3). The reliability of the scales was evaluated using Cronbach's alpha (CA), with values exceeding 0.7, as suggested. Subsequently, principal component analysis was performed on each item. Convergent validity was then assessed, with recommending that the average variance extracted (AVE) should be ≥ 0.5 (as shown in Table 4). Discriminate validity (refer to Tables 4 and 5) indicates that the square of the average variance extracted (AVE) for each variable must surpass the inter-correlation of the variables.

Table 4: Measurement model and reliability test results

Constructs	PE	PEOU	FA	Int	LPO	LB	TSC	FOS
PE	0.600							
PEOU	0.640	0.589						
FA	0.459	0.673	0.765					
Int	0.542	0.625	0.401	0.501				
LPO	0.350	0.388	0.451	0.589	0.606			
LB	0.350	0.299	0.369	0.407	0.689	0.861		
TSC	0.218	0.398	0.590	0.304	0.408	0.491	0.609	
FOS	0.634	0.328	0.450	0.378	0.404	0.502	0.429	0.521

Note: Values on the diagonal (bold) are the square root of the AVE

4.2.2 Normality and Multi-collinearity test results

This study employs Normality and multi-collinearity tests, the results of both tests are shown in the table 5 and 6 below. According to a study, Multi-collinearity refers to high correlations between predictor variables in regression analysis, while a normality test assesses if a dataset follows a normal distribution. The variance inflation factor (VIF) is a common metric for multi-collinearity, with a VIF value above 10 typically indicating multi-collinearity. Additionally, the Shapiro-Wilk test is commonly used for normality testing, with a test statistic compared to a critical value (e.g., $\alpha = 0.05$). If the test statistic is less than the critical value, failure to reject the hypothesis, indicating that the data can be considered approximately normally distributed.

According to the Kolmogorov–Smirnov test assesses how well a given dataset matches a theoretical distribution, constituting a one-sample evaluation. Conversely, the Smirnov test is a two-sample assessment, determining whether two datasets exhibit similar distributions. Despite this difference, both tests rely on comparing cumulative distribution functions: the two-sample Smirnov test compares two empirical cumulative distribution functions, while the one-sample Kolmogorov–Smirnov test contrasts one empirical cumulative distribution function with a known one.

Model	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PU	0.510	14	.000	0.428	14	.000
PEOU	0.524	10	.000	0.366	10	.000
FA	0.334	16	.000	0.644	16	.000
Int	0.356	9	.002	0.655	9	.000
LPO	0.369	14	.000	0.639	14	.000
LB	0.380	17	.000	0.632	17	.000
TSC	0.499	12	.000	0.465	12	.000

Fit indices	χ^2/df	GFI	TLI	CFI	IFI	RMR	RMSEA
Recommended	$2 < \chi^2/df < 5$	0.90	0.90	0.90	0.90	0.08	0.08
Measured	1.073	0.90	0.93	0.97	0.98	0.062	0.050

Note: GFI (Goodness of Fit Index), TLI (Tucker and Lewis Index), CFI (Confirmatory Fit Index), IFI (Incremental Fit Index).

The model fit indices indicate a satisfactory fit for the structural equation model. With a GFI value of 0.901, suggesting a good fit by evaluating how well the replicated covariances match the observed covariances, and a TLI value of 0.935 indicating a satisfactory fit by comparing the specified model to the null model. Moreover, the CFI value of 0.970 suggests an excellent fit by contrasting the hypothesized model with the null model, while the IFI value of 0.980 also indicates a strong fit, aligning with the CFI in comparing fitness. The RMR value of 0.062 suggests a reasonable fit by measuring the average discrepancy between observed and predicted correlations, and the RMSEA value of 0.050 falls below the commonly used threshold of 0.08, indicating a good fit and considering the discrepancy per degrees of freedom while adjusting for model complexity. Additionally, the squared multiple correlations R-squared value of 0.47 implies that the model accounts for 47% of the variation in the dependent variables, providing insight into the strength of relationships in the model.

No	Hypothesis Relationship	Structural path	t-value	SRW	Decision
1	H1	Facebook <--- PU	1.890	0.262	Supported
2	H2	Facebook <--- PEOU	-0.810	-0.113	Rejected
3	H3	Facebook <--- FA	0.078	0.011	Rejected
4	H4	Facebook <--- Int	0.208	0.029	Rejected
5	H5	Facebook <--- LPO	3.257	0.704	Supported
6	H6	Facebook <--- LB	-1.041	-0.224	Rejected
7	H7	Facebook <--- TSC	2.465	0.337	Supported

Model	Collinearity Statistics	
	Tolerance	VIF
Perceived Usefulness (PU)	0.577	1.733
Perceived Ease of Use (PEOU)	0.448	2.233
Flexibility Adaptability (FA)	0.448	2.233
Interaction (Int)	0.612	1.633
Limited Payment Options (LPO)	0.549	1.821
Larger Business (LB)	0.450	2.224
Trust and Security concerns (TSC)	0.587	1.704

Note: Variance Inflation Factor (VIF)

4.2.3 Evaluation of the Structural Model

As indicated, employing the structural model is necessary for evaluating the linear regression impacts of the dependent variables on each other. A structural equation model, constructed using AMOS, was employed to examine the relationships between the variables. A well-fitting model was considered acceptable if the CMIN/df value, goodness-of-fit (GFI) indices, the Tucker and Lewis index (TLI), and the Confirmatory Fit Index (CFI) exceeded 0.90. Additionally, an adequately fitting model was deemed acceptable if the AMOS-computed standardized root mean square residual (RMR) was less than 0.05, and the root mean square error approximation (RMSEA) fell within the range of 0.05 to 0.08. The fit indices for the model presented in the Table 7 below met the acceptable criteria: CMIN/df = 1.073, GFI = .901, TLI = .935, CFI = .970, IFI = .980, RMR = .062 and RMSEA = .050.

The presented estimation outcomes shown in Table 7 is the structural equation modeling (SEM) analysis conducted within the framework of small medium enterprises. The results are shown that the CMIN/df (Chi-square/degrees of freedom) value of 1.073 indicates a reasonably good fit, given that values close to 1 suggest an acceptable fit. However, it's important to note that the chi-square is influenced by sample size, and a larger sample could potentially result in a statistically significant chi-square.

The following Table 8 presents comprehensive evaluations from the structural model. The analysis of various parameters reveals mixed results regarding their impact on Facebook online store. Perceived Usefulness (PU) shows a positive association with a marginally significant relationship (C.R. = 1.890, $p = 0.059$), supporting H1. Conversely, Perceived Ease of Use (PEOU) exhibits a non-significant negative association (C.R. = -0.810, $p = 0.418$), refuting H2. Similarly, Flexibility-Adaptability (FA) and Interaction (Int) both lack statistically significant relationships with Facebook ($p > 0.05$), contradicting H3 and H4, respectively. However, Limited Payment Options (LPO) demonstrate a significant positive correlation with Facebook (C.R. = 3.257, $p = 0.001$), supporting H5. Conversely, Larger Businesses (LB) do not exhibit a significant relationship with Facebook (C.R. = -1.041, $p = 0.298$), refuting H6. Finally, Trust and security concerns (TSC) display a statistically significant positive association with Facebook (C.R. = 2.465, $p = 0.002$), supporting H7.

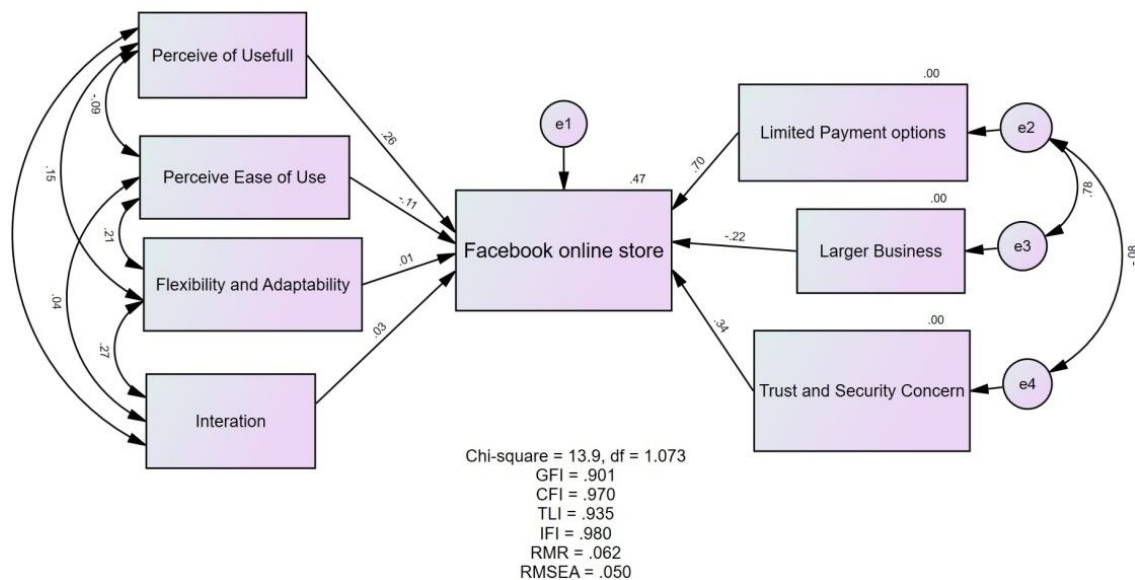


Figure 3: Conceptual model result

Note: This scheme above is a model using SPSS and AMOS software to calculate estimates

5. DISCUSSION

The study delves into the intricate dynamics shaping small and medium enterprises' (SMEs) Facebook Shop retail businesses in Madagascar, against the backdrop of the global surge in internet usage. With social media platforms assuming a pivotal role, particularly in the realm of online shopping, understanding the factors influencing SMEs' adoption of Facebook online store becomes paramount. One of the key findings of the research underscores the significant influence of perceived usefulness on the adoption of Facebook online store. This suggests that SMEs are inclined to embrace Facebook as an e-commerce platform when they perceive it as beneficial to their business operations. This aligns with prior research indicating that perceived usefulness is a critical determinant of technology adoption Davis.

However, the study also reveals some unexpected results. Contrary to expectations, perceived ease of use, flexibility adaptability, interaction, and the presence of larger businesses do not seem to significantly impact the adoption of Facebook online store among SMEs in Madagascar. These contrasts with previous literature suggesting that ease of use and flexibility adaptability are key factors driving technology adoption. This disparity underscores the need for further exploration into the specific contextual factors at play in the adoption of Facebook online store by SMEs in Madagascar. Moreover, the research identifies limited payment options and trust and security concerns as significant barriers to the adoption of Facebook online store among SMEs. This highlights the importance of addressing these issues to facilitate greater uptake of Facebook as an e-commerce platform in Madagascar. It is crucial for SMEs to offer a variety of secure payment options to instill confidence among customers and alleviate concerns regarding the legitimacy and reliability of transactions conducted on Facebook online store.

By providing insights into the drivers and barriers of adoption, the research equips both organizations and researchers with valuable information to inform strategic decision-making and future investigations in this domain. Moving forward, it is imperative to delve deeper into the nuanced contextual factors underlying technology adoption among SMEs in diverse settings, to develop targeted interventions and policies aimed at fostering e-commerce growth and innovation.

6. CONCLUSION

In this study, we embarked on a comprehensive exploration of the factors influencing the adoption of Facebook Shop retail businesses among Small and Medium Enterprises (SMEs) in Madagascar. Against the backdrop of the global surge in internet usage and the pivotal role of social media platforms in online shopping, our research sought to unravel the intricate dynamics shaping SMEs' engagement with Facebook as an e-commerce platform. Through a rigorous analysis of various factors and their impact on Facebook Shop adoption, we have unearthed valuable insights that hold significance for both practitioners and researchers in the field of business administration and e-commerce.

6.1 Key Findings

Our investigation revealed several key findings that shed light on the factors driving and inhibiting the adoption of Facebook Shop retail businesses by SMEs in Madagascar. Firstly, we found that perceived usefulness emerged as a significant determinant of Facebook Shop adoption among SMEs. This underscores the importance of SMEs' perception of Facebook as a beneficial tool for their business operations. When SMEs recognize the value of Facebook Shop in enhancing their sales performance and expanding their customer base, they are more likely to embrace this e-commerce platform as part of their business strategy.

Contrary to our expectations, perceived ease of use, flexibility adaptability, interaction, and the presence of larger businesses did not exhibit a significant positive impact on Facebook Shop adoption among SMEs in Madagascar. These findings challenge conventional wisdom and highlight the complexity of technology adoption processes in diverse contexts. While previous literature has emphasized the importance of ease of use and adaptability in driving technology adoption, our study suggests that other factors may exert greater influence in the specific context of SMEs in Madagascar. Furthermore, our research identified limited payment options and trust and security concerns as significant barriers to the adoption of Facebook Shop retail businesses among SMEs. These findings underscore the critical role of trust and credibility in online transactions and highlight the need for SMEs to address these issues to foster greater customer confidence in Facebook as an e-commerce platform. By offering a variety of secure payment options and implementing robust security measures, SMEs can mitigate these concerns and enhance the adoption of Facebook Shop among their target audience.

6.2 Implications and Recommendations

The insights generated from our study have several implications for SMEs, policymakers, and researchers alike. For SMEs operating in Madagascar and similar contexts, our findings underscore the importance of understanding the perceived usefulness of Facebook Shop and leveraging it to enhance their business performance. By focusing on the value proposition of Facebook Shop and communicating its benefits to their target audience, SMEs can increase their likelihood of adoption and success in the e-commerce landscape. Additionally, our research highlights the need for SMEs to address payment options and trust and security concerns to facilitate greater adoption of Facebook Shop. SMEs should prioritize offering secure payment methods and implementing robust security measures to instill confidence among customers and mitigate potential barriers to adoption. Moreover, SMEs can benefit from enhancing their online presence and engagement strategies on Facebook to foster greater trust and credibility with their audience.

From a policy perspective, our study underscores the importance of creating an enabling environment for e-commerce growth and innovation. Policymakers in Madagascar and similar economies should prioritize initiatives aimed at improving internet infrastructure, promoting digital literacy, and implementing regulations to safeguard consumer interests in online transactions. By fostering a conducive environment for e-commerce development, policymakers can support SMEs in harnessing

the potential of platforms like Facebook Shop to drive economic growth and prosperity.

FUTURE RESEARCH

To further advance research in this area, future studies could explore the specific reasons behind the negative impacts of limited payment options and trust and security concerns, while also investigating alternative strategies to enhance the perceived ease of use and flexibility adaptability of Facebook online store. Furthermore, exploring the role of industry-specific factors and regional variations in the adoption of Facebook online store could offer a more nuanced understanding of this phenomenon, alongside longitudinal studies tracking the adoption and evolution of Facebook online store over time to provide valuable insights into the changing dynamics of e-commerce in the entrepreneurial ventures sector.

Investigating industry-specific factors and regional variations in the adoption of Facebook online store offers a nuanced understanding of this phenomenon. By conducting comparative studies across different sectors and geographic regions, researchers can identify sector-specific challenges and opportunities for small-scale industries. This informs the development of targeted strategies to support startups in different sectors and locations. Moreover, longitudinal studies tracking the evolution of Facebook online stores over time provide valuable insights into changing e-commerce dynamics. Analyzing trends in adoption rates and usage patterns informs strategic decision-making to adapt to evolving market conditions.

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