The Influence Of Mobile Marketing And Geographical Location On Entrepreneurial Success In Uzbekistan: Evidence From Urban And Rural Enterprises

Pengaruh Pemasaran Mobile Dan Lokasi Geografis Terhadap Keberhasilan Kewirausahaan Di Uzbekistan: Bukti Dari Perusahaan Perkotaan Dan Pedesaan

Abduzoirov Mukhiddin Umidjon Ugli[1], Heny Hendrayati[2], Inomjon Qudratov[3]
Tashkent State University of Economic[1,3]
Universitas Pendidikan Indonesia[2]
m.abduzoirov@tsue.uz[1], henyhendrayati@upi.edu[2], i.qudratov.ifm@tsue.uz[3]

*Coresponding Author

ABSTRACT
In the digital era, mobile marketing has emerged as a critical yet unevenly adopted strategy among SMEs in developing economies, where infrastructural disparities between urban and rural areas continue to hinder equitable entrepreneurial growth. This study aims to examine the influence of mobile marketing intensity and geographical location on entrepreneurial success among small and medium-sized enterprises (SMEs) in Uzbekistan, with particular attention to urban–rural disparities. Despite rapid growth in business formation, many enterprises face challenges in achieving sustainable growth and competitive performance due to limited digital adoption and infrastructural constraints. Drawing on Technology Acceptance Theory (TAM), this research posits that entrepreneurs' perceptions of the usefulness and ease of use of mobile marketing shape its effectiveness in enhancing business outcomes. Using a quantitative survey approach, data were collected from 100 SMEs (50 urban, 50 rural) via Google Forms. Mobile Marketing Intensity (MMI) and Entrepreneurial Success Index (ESI) were measured using Likert scales, while geographical location was coded as a binary variable. Data analysis employed multiple linear regression to assess the direct effects of MMI and location on ESI. Results indicate that mobile marketing intensity has a positive and significant effect on entrepreneurial success, and that urban enterprises outperform rural enterprises due to superior infrastructure, connectivity, and access to resources. This study contributes to the literature by highlighting the strategic role of mobile marketing as a capability that enhances entrepreneurial outcomes in emerging-market contexts and demonstrates how geographical disparities shape its effectiveness. The findings provide actionable insights for policymakers and entrepreneurs seeking to leverage digital marketing to drive business growth across diverse regions.
Keywords: *Mobile Marketing, Entrepreneurial Success, SMEs, Geographical Location, Urban–Rural, Uzbekistan.*

ABSTRAK
Di era digital, pemasaran seluler telah muncul sebagai strategi penting namun diadopsi secara tidak merata di kalangan UKM di negara berkembang, di mana kesenjangan infrastruktur antara daerah perkotaan dan pedesaan terus menghambat pertumbuhan kewirausahaan yang adil. Studi ini bertujuan untuk meneliti pengaruh intensitas pemasaran seluler dan lokasi geografis terhadap keberhasilan kewirausahaan di kalangan usaha kecil dan menengah (UKM) di Uzbekistan, dengan perhatian khusus pada kesenjangan perkotaan-pedesaan. Terlepas dari pertumbuhan pesat dalam pembentukan bisnis, banyak perusahaan menghadapi tantangan dalam mencapai pertumbuhan berkelanjutan dan kinerja kompetitif karena adopsi digital yang terbatas dan kendala infrastruktur. Berdasarkan Teori Penerimaan Teknologi (TAM), penelitian ini berhipotesis bahwa persepsi pengusaha tentang kegunaan dan kemudahan penggunaan pemasaran seluler membentuk efektivitasnya dalam meningkatkan hasil bisnis. Dengan menggunakan pendekatan survei kuantitatif, data dikumpulkan dari 100 UKM (50 perkotaan, 50 pedesaan) melalui Google Forms. Intensitas Pemasaran Seluler (MMI) dan Indeks Keberhasilan Kewirausahaan (ESI) diukur menggunakan skala Likert, sedangkan lokasi geografis dikodekan sebagai variabel biner. Analisis data menggunakan regresi linier berganda untuk menilai efek langsung MMI dan lokasi terhadap ESI. Hasil menunjukkan bahwa intensitas pemasaran seluler memiliki efek positif dan signifikan terhadap keberhasilan kewirausahaan, dan bahwa perusahaan perkotaan berkinerja lebih baik daripada perusahaan pedesaan karena infrastruktur, konektivitas, dan akses ke sumber daya yang lebih

unggul. Studi ini berkontribusi pada literatur dengan menyoroti peran strategis pemasaran seluler sebagai kemampuan yang meningkatkan hasil kewirausahaan dalam konteks pasar negara berkembang dan menunjukkan bagaimana perbedaan geografis membentuk efektivitasnya. Temuan ini memberikan wawasan yang dapat ditindaklanjuti bagi para pembuat kebijakan dan pengusaha yang ingin memanfaatkan pemasaran digital untuk mendorong pertumbuhan bisnis di berbagai wilayah.

Kata Kunci: Pemasaran Seluler, Keberhasilan Kewirausahaan, UKM, Lokasi Geografis, Perkotaan–Pedesaan, Uzbekistan.

1. Introduction

Entrepreneurial success has become a central subject of inquiry in contemporary business and management research, extending beyond mere financial performance to encompass multidimensional outcomes such as business growth, value creation, innovation, and long-term sustainability (Nambisan et al., 2019; Stam & van de Ven, 2021).

Scholars increasingly recognize that entrepreneurial success is shaped by the dynamic interplay between individual capabilities, firm-level resources, and the broader ecosystem in which businesses operate (Teece, 2018; Kraus et al., 2022). In particular, the capacity to identify and exploit emerging opportunities, adapt to technological change, and leverage strategic resources has been identified as a defining characteristic of successful entrepreneurs in increasingly competitive and volatile market environments.

Despite the global recognition of entrepreneurship as a key driver of economic development, enterprises in emerging economies continue to face substantial structural barriers that impede sustainable growth and competitiveness.Many firms in Uzbekistan are unable to expand in a way that is both stable and competitive, which is a significant obstacle for the success of entrepreneurs in the country. This is mostly due to the fact that they do not make sufficient use of digital technology and are confronted with a variety of structural issues. More than 62,000 new enterprises were established in Uzbekistan between January and September of 2025, and by October of that same year, the country had over 1.21 million small businesses that were operational. This demonstrates that the national entrepreneurial sector is expanding at a rapid rate.But despite the fact that they are responsible for more than half of the country's gross domestic product, many small firms continue to struggle with significant issues. The growth rate of businesses is very different in different parts of the country. Most small and medium-sized businesses don't have basic digital skills and don't know how to use digital public services well. This makes it hard for them to get more customers and make their business run more smoothly.These problems are getting worse because not everyone has the same access to financial resources and some areas are developing faster than others. Because of this, many small businesses find it hard to be successful in the long run and deal with a lot of competition in the market.

In the context of the digital economy, technology has emerged as a pivotal strategic tool for entrepreneurial promotion and market engagement. Digital platforms, including social media, e-commerce, and mobile applications, enable businesses to reach broader audiences at relatively low cost, enhance brand visibility, foster direct customer interaction, and respond dynamically to shifting market demands (Verhoef et al., 2021; Kraus et al., 2022). Among these technologies, mobile marketing has garnered particular scholarly and practical attention due to its accessibility, cost-effectiveness, and capacity for real-time, personalized communication with customers. Mobile marketing encompasses a range of activities—including SMS campaigns, social media promotion via mobile devices, mobile-friendly websites, and location-based messaging—that collectively enable entrepreneurs to acquire new customers, strengthen customer retention, and enhance competitive positioning in digital markets (Shankar et al., 2016; Kaplan)

Mobile marketing is very important for business success today.It helps entrepreneurs talk directly with customers using mobile phones.They can send messages fast and in a personal way Studies show that mobile marketing helps small businesses a lot.It helps them promote products, show their brand, and reach customers.Entrepreneurs use mobile apps, social media, and location-based services for this.Research also shows that mobile marketing improves business performance.It helps businesses find new customers and keep old customers.Customers are more willing to buy products when mobile marketing is used well.This helps businesses compete better in digital markets.Mobile marketing is also low cost and flexible.Entrepreneurs can change their marketing plans quickly.This is important when customer needs and markets change fast.In conclusion, mobile marketing is not only for promotion.It is an important tool that helps entrepreneurs grow and succeed in the digital world.

Geographical location is very important for business activities and results.Urban and rural businesses work in very different conditions.Urban businesses usually have better roads, stronger internet, and easier access to money and skilled workers.They are also closer to big markets and more customers.Because of this, urban businesses can use new technology faster and grow more easily (World Bank, 2020).Rural businesses often face more problems.They may have poor infrastructure, weak internet connection, and limited access to banks and financial services.Markets in rural areas are usually smaller and spread out.These problems can slow down business growth and productivity (OECD, 2021).Even with these challenges, rural businesses are very important.They help create jobs, reduce poverty, and support balanced regional development.However, differences between urban and rural areas still exist.These gaps in digital access and support lead to unequal business outcomes, especially in digital and mobile-based business activities (FAO, 2019).

Previous studies on the influence of mobile marketing on entrepreneurial success indicate differing effects between urban and rural enterprises. Research in urban contexts consistently shows that mobile marketing positively affects entrepreneurial success by improving customer engagement, brand awareness, and sales performance, supported by strong digital infrastructure and higher consumer readiness (Shankar et al., 2016; Kim & Lee, 2020). Conversely, evidence from rural enterprises is more mixed, as the effectiveness of mobile marketing is often constrained by limited internet access, lower digital literacy, and resource limitations (Aker & Mbiti, 2010; OECD, 2021). While mobile marketing can help rural entrepreneurs expand market access, its impact on entrepreneurial success largely depends on supporting infrastructure and digital capabilities, highlighting the need for further research across diverse regional contexts. However, this literature largely focuses on developed economies with relatively uniform digital infrastructure and overlooks regional disparities. This study offers novelty by examining an underexplored emerging-market context—Uzbekistan— and by explicitly comparing urban and rural enterprises, where mobile penetration is high but digital skills, infrastructure, and institutional support remain uneven. By positioning mobile marketing as a strategic capability whose effectiveness is shaped by regional context, and by grounding the analysis in the Technology Acceptance Model (TAM), this research offers new theoretical and empirical insights into how and why the impact of mobile marketing on entrepreneurial success varies across geographic settings.

In the context of Uzbekistan, this study focuses on two clearly formulated research problems: (1) the extent to which mobile marketing contributes to entrepreneurial success among enterprises in Uzbekistan, and (2) How does geographical location (urban vs. rural) influence entrepreneurial success,

2. Literature Review
2.1 Technology Acceptance Theory (TAM)

The Technology Acceptance Model (TAM), originally proposed by Davis (1989), represents one of the most widely applied theoretical frameworks for explaining individual adoption of information technology in organizational and entrepreneurial contexts. TAM posits that two core cognitive constructs — Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) — are the primary determinants of an individual's behavioral intention to adopt and use a given technology. Perceived Usefulness refers to the degree to which a user believes that adopting a particular technology will enhance their job or business performance, while Perceived Ease of Use reflects the extent to which the technology is perceived as free of cognitive effort and complexity (Davis, 1989). Subsequent extensions of the model, including TAM2 (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT), have further demonstrated that social influence, facilitating conditions, and individual experience significantly mod

In the context of mobile marketing, TAM provides a theoretically grounded explanation for why entrepreneurs differ in their adoption and utilization of mobile-based promotional tools. Entrepreneurs who perceive mobile marketing platforms as both useful for reaching customers and easy to operate are more likely to integrate these tools into their business strategies, thereby realizing greater performance benefits (Venkatesh & Davis, 2000; Kim & Lee, 2020). This relationship, however, is not uniform across geographic contexts. Urban entrepreneurs, who typically possess greater digital literacy, more reliable internet connectivity, and greater prior experience with digital tools, are more likely to perceive mobile marketing as both useful and easy to use, resulting in higher adoption rates and more effective utilization (Shankar et al., 2016). Conversely, rural entrepreneurs frequently encounter structural barriers — including limited broadband access, lower digital competency, and inadequate technological infr

2.2 Mobile Marketing

Mobile marketing is broadly defined in the literature as a set of practices that enables organizations and individuals to communicate and engage with their target audiences through mobile devices and wireless technologies in an interactive, personalized, and location-sensitive manner (Shankar et al., 2016; Kaplan, 2012). As mobile device penetration continues to accelerate globally — including in emerging markets such as Uzbekistan — mobile marketing has evolved from a supplementary promotional channel into a primary strategic tool for customer acquisition, engagement, and retention, particularly among resource-constrained SMEs (Kim & Lee, 2020; Verhoef et al., 2021).

The construct of mobile marketing is multidimensional in nature and is typically operationalized through several key indicators in the empirical literature. Mobile advertising, encompassing SMS campaigns, in-application advertisements, and mobile display advertising, represents the most foundational dimension of mobile marketing activity (Kaplan, 2012). Mobile promotions — including digitally delivered coupons, personalized discounts, and time-sensitive offers — constitute a second critical dimension that directly influences consumer purchase behavior and brand loyalty (Shankar et al., 2016). A third dimension, mobile interaction and engagement, captures the quality and frequency of two-way communication between entrepreneurs and customers through mobile platforms, including messaging applications and social media, which has been shown to significantly enhance customer satisfaction and long-term retention (Kim & Lee, 2020). Finally, location-based marketing leverages geographic and contextual data to deliver

Empirical evidence consistently supports the positive relationship between mobile marketing adoption and business performance. Dzogbenuku and Keelson (2019) demonstrated

that SMEs employing mobile marketing strategies reported significantly higher levels of sales growth, customer acquisition, and brand awareness compared to non-adopters. Similarly, Kim and Lee (2020) found that mobile marketing intensity was positively associated with customer engagement and competitive positioning among small enterprises in digital markets. In the context of developing economies, Eze et al. (2019) established that ICT and mobile-based marketing tools played a critical role in enabling rural and peri-urban enterprises to expand their market reach and improve operational efficiency, albeit contingent upon adequate digital infrastructure and literacy. These cumulative findings suggest that mobile marketing functions not merely as a promotional mechanism but as a strategic organizational capability that, when effectively deploy

2.3 Geographical location

Geographical location has long been recognized as a structural determinant of entrepreneurial opportunity, resource access, and business performance, with the urban-rural divide constituting one of the most persistent sources of entrepreneurial inequality in both developed and developing economies (World Bank, 2020; OECD, 2021). Urban enterprises benefit from a constellation of locational advantages, including superior physical and digital infrastructure, reliable high-speed internet and mobile network connectivity, proximity to large and diverse consumer markets, access to skilled labor pools, and the availability of institutional and financial support mechanisms (World Bank, 2020; Shankar et al., 2016). These conditions collectively lower the barriers to technology adoption, accelerate innovation diffusion, and enhance the responsiveness of urban SMEs to changing market dynamics, thereby contributing to superior entrepreneurial performance relative to their rural counterparts.

Rural enterprises, by contrast, operate within substantially more constrained environments. Limited broadband and mobile network infrastructure, geographically fragmented and smaller consumer markets, reduced access to formal financial services, and lower average levels of digital literacy among both entrepreneurs and consumers create structural impediments to productivity growth and the effective implementation of digital marketing strategies (OECD, 2021; FAO, 2019; Eze et al., 2019). While rural enterprises fulfill an indispensable economic and social function — contributing to employment generation, poverty reduction, and balanced territorial development — persistent disparities in digital access and institutional support continue to translate into systematically lower entrepreneurial performance outcomes in rural areas compared to urban centers (FAO, 2019; Sobirjon ugli, 2024).

In the specific context of mobile marketing, these geographical disparities are particularly consequential. Urban SMEs, endowed with superior connectivity and digital capabilities, are better positioned to effectively implement mobile marketing strategies and realize their full performance benefits. Rural SMEs, constrained by infrastructural deficiencies and digital skill gaps, are less able to adopt and exploit mobile marketing tools, even when mobile device ownership is relatively high (Aker & Mbiti, 2010; OECD, 2021). This asymmetry implies that geographical location not only directly shapes entrepreneurial success but also conditions the extent to which mobile marketing can serve as an effective performance-enhancing mechanism, underscoring the importance of accounting for locational context in empirical investigations of digital marketing effectiveness.

2.4 Entrepreneurial success

Entrepreneurial success is a multidimensional construct that extends well beyond conventional financial metrics to encompass a broad array of business and personal achievement outcomes (Nambisan et al., 2019; Stam & van de Ven, 2021). While early conceptualizations of entrepreneurial success focused predominantly on profitability and

revenue growth as primary performance indicators, contemporary scholarship has increasingly adopted a more holistic perspective that integrates financial, strategic, and relational dimensions of business performance (Kraus et al., 2022; Teece, 2018). This evolution reflects a growing recognition that the long-term sustainability and competitiveness of an enterprise depend on a complex and interrelated set of performance outcomes that collectively determine its market position and adaptive capacity.

In the empirical literature, entrepreneurial success is typically operationalized through a combination of financial and non-financial indicators. Financial performance — encompassing revenue growth, sales volume, and cost efficiency — remains the most commonly cited dimension, providing a tangible and quantifiable measure of business outcomes (Dzogbenuku & Keelson, 2019). Business growth, reflected in workforce expansion, market entry, and product or service diversification, constitutes a second critical dimension that captures the entrepreneurial capacity for scaling and adaptation (Stam & van de Ven, 2021). Innovation, defined as the introduction of novel products, services, processes, or business models, represents a third dimension associated with long-term competitive differentiation and resilience (Nambisan et al., 2019; Kraus et al., 2022). Customer satisfaction and loyalty — indicators of the quality of relational value created by the enterprise — have also been established as significant predictors

In the context of this study, entrepreneurial success is operationalized through the Entrepreneurial Success Index (ESI), a composite measure that captures sales growth, customer base expansion, and perceived competitive position among SMEs in Uzbekistan. This operationalization aligns with the multidimensional conceptualization of entrepreneurial success prevalent in the literature and is particularly appropriate for the SME context, where financial and relational performance outcomes are closely intertwined and mutually reinforcing.

2.4 RESEARCH FRAMEWORK
2.4.1 Mobile Marketing Intensity and Entrepreneurial Success

Grounded in the Technology Acceptance Model (TAM), this study posits that entrepreneurs who perceive mobile marketing tools as useful and easy to use are more likely to adopt and consistently deploy these tools, thereby producing measurable improvements in entrepreneurial performance (Davis, 1989; Venkatesh & Davis, 2000). Empirical evidence consistently supports this relationship. Shankar et al. (2016) demonstrated that mobile advertising and location-based messaging enhance customer engagement, brand visibility, and sales performance among SMEs. Dzogbenuku and Keelson (2019) further confirmed that SMEs employing mobile marketing strategies reported significantly higher sales growth and customer acquisition relative to non-adopters. In emerging market contexts, Eze et al. (2019) and Sobirjon ugli (2024) established that mobile marketing adoption positively and significantly influences SME performance outcomes across both financial and non-financial dimensions. Based on the foregoing theoretical and empirica

H1: Mobile marketing intensity has a positive and significant effect on entrepreneurial success among SMEs

2.4.2 Geographical location and entrepreneurial success : urban enterprises than for rural enterprises

The success of a firm often depends on its location. Businesses in rural areas operate substantially differently from those in urban areas. Cities often have greater infrastructure, quicker mobile and internet connections, and more readily available, highly qualified employees. They are also in close proximity to large markets and a large number of clients. This makes it easier for city entrepreneurs to expand their enterprises, promote them more effectively, and adopt new technologies more quickly (World Bank, 2020; Shankar et al., 2016). These

advantages assist companies in urban areas increase sales, attract new clients, and strengthen relationships with existing ones. Rural businesses may face greater challenges. Their markets may be tiny and dispersed, their infrastructure may be inadequate, and their internet may not be particularly fast. Additionally, banks and business assistance are not easily accessible in many rural locations.

These problems can slow down a company's growth, reduce productivity, and reduce the effectiveness of marketing (OECD, 2021; Eze et al., 2019). Due to these variations, a company's performance is significantly influenced by its location.
Companies in urban areas typically outperform those in rural areas.
H2:Geographical location positively affects entrepreneurial success among SMEs

3. Methodology
3.1 Research Design

This study adopts a quantitative research design grounded in a positivist epistemological paradigm, which assumes that social phenomena can be objectively measured and that hypothesized relationships between variables can be empirically tested through systematic data collection and statistical analysis (Creswell & Creswell, 2018). A cross-sectional survey design was employed, wherein data were collected from respondents at a single point in time, making it particularly appropriate for examining the current state of mobile marketing adoption and entrepreneurial performance among SMEs in Uzbekistan. This design is consistent with prior empirical studies investigating the relationship between digital marketing intensity and entrepreneurial outcomes in emerging market contexts (Dzogbenuku & Keelson, 2019; Eze et al., 2019).

3.2 Population and Sampling

The target population of this study comprises officially registered small and medium-sized enterprises (SMEs) operating in selected urban and rural regions of Uzbekistan, specifically within the provinces of Tashkent (urban) and Fergana (rural), which were selected on the basis of their representativeness of contrasting digital infrastructure conditions and entrepreneurial activity levels in the country. According to the Agency for Statistics under the President of Uzbekistan (2025), over 1.21 million SMEs were operational nationwide as of October 2025, providing a large and heterogeneous population from which the study sample was drawn.

A stratified random sampling technique was employed to ensure proportional and balanced representation of both urban and rural enterprise groups. The sample was stratified into two mutually exclusive strata — urban enterprises and rural enterprises — with 50 respondents selected from each stratum, yielding a total sample of 100 SMEs. This sample size is consistent with the recommendations of Hair et al. (2010) for multiple regression analysis, which stipulates a minimum ratio of 10 observations per predictor variable, and is further supported by G*Power analysis indicating adequate statistical power (1 − β = 0.80) at a medium effect size (f^2 = 0.15) and significance level of α = 0.05 for the proposed three-predictor regression model.

To be eligible for inclusion in the study, enterprises were required to meet the following criteria: (1) officially registered as an SME under Uzbekistan's Law on Guarantees of Freedom of Entrepreneurial Activity; (2) having been in operation for a minimum of one year at the time of data collection; (3) actively using at least one form of mobile marketing tool in their business operations; and (4) located within the designated urban or rural study regions. Enterprises that had ceased operations, were undergoing liquidation, or declined to provide informed consent were excluded from the study.

3.3 Operationalization of Variables

The study examines three core constructs: Entrepreneurial Success Index (ESI) as the dependent variable, Mobile Marketing Intensity (MMI) as the primary independent variable, and Geographical Location as the secondary independent variable. The operationalization of each construct is presented in Table 1.

Entrepreneurial success was operationalized as a composite index capturing three dimensions: sales growth, customer base expansion, and perceived competitive position, measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), consistent with the multidimensional conceptualization of entrepreneurial performance adopted by Dzogbenuku and Keelson (2019) and Kraus et al. (2022).

Mobile marketing intensity was operationalized through five indicators reflecting the frequency and sophistication of mobile marketing activities: SMS campaigns, social media promotion via mobile devices, mobile-friendly website utilization, enterprise mobile application usage, and messaging-based customer assistance. These indicators were measured on a five-point Likert scale (1 = never, 5 = always) and are consistent with the mobile marketing construct dimensions identified by Shankar et al. (2016) and Kaplan (2012). In line with TAM, two composite mean scores were computed from these indicators to capture Perceived Usefulness (PU_MEAN) and Perceived Ease of Use (PEOU_MEAN) of mobile marketing tools, which served as the operationalized mobile marketing constructs in the regression model.

Geographical location was operationalized as a binary dummy variable, coded as 1 for urban enterprises and 0 for rural enterprises, consistent with standard practice in entrepreneurship research examining urban-rural differences (World Bank, 2020; OECD, 2021).

Table 1. Operationalization of Variables

Variable	Definition	Indicators	Scale
Entrepreneurial Success (ESI) — Dependent	Achievement of business and personal goals encompassing financial performance, growth, customer satisfaction, and competitive positioning (Kraus et al., 2022; Dzogbenuku & Keelson, 2019)	1. Sales growth 2. Client base growth 3. Perceived competitive position	Likert 1–5 (1 = Strongly Disagree, 5 = Strongly Agree)
Mobile Marketing Intensity (MMI) — Independent (X1)	Strategic use of mobile devices and wireless technologies to deliver marketing messages, engage customers, and drive business performance (Shankar et al., 2016; Kaplan, 2012)	1. SMS campaigns 2. Social media promotion via mobile 3. Mobile-friendly website 4. Enterprise mobile application 5. Messaging-based customer assistance	Likert 1–5 (1 = Never, 5 = Always)
Geographical Location — Independent (X2)	Physical and socioeconomic context of enterprise operation, distinguishing urban from rural operating	Location of enterprise: Urban = 1, Rural = 0	Dummy Variable

environments (World Bank, 2020; OECD, 2021)

3.4 Data Collection

Primary data were collected through a structured self-administered questionnaire distributed via Google Forms during the period of August to October 2025. The use of an online survey instrument was deemed appropriate given the geographically dispersed nature of the study population across urban and rural regions of Uzbekistan, enabling efficient and cost-effective data retrieval from both enterprise groups. Prior to distribution, the questionnaire was pilot-tested with 10 SME owners not included in the final sample to assess item clarity, comprehension, and response time, resulting in minor revisions to item wording for improved readability.

All participation was voluntary, and respondents were informed of the academic purpose of the study, the anonymity of their responses, and their right to withdraw at any time without consequence. No personally identifiable information was collected, and all data were stored securely and used exclusively for academic research purposes, in accordance with standard ethical guidelines for social science research.

The final questionnaire comprised three sections corresponding to the three core constructs: mobile marketing intensity (five items), geographical location (one dummy-coded item), and entrepreneurial success (three items). All Likert-scale items were positively worded to ensure directional consistency, and no reverse-coded items were required. The complete questionnaire instrument is provided in the Appendix.

3.5 Data Analysis

Collected data were analyzed using IBM SPSS Statistics version 27 through a structured two-stage analytical process. In the first stage, descriptive statistical analyses were conducted to profile respondents and characterize the distributions of mobile marketing adoption and entrepreneurial performance across urban and rural subgroups, including means, standard deviations, and frequency distributions.

In the second stage, inferential analyses were performed to test the proposed hypotheses. Prior to hypothesis testing, the following regression assumptions were systematically examined to ensure the validity of the multiple linear regression model: (1) normality of residuals, assessed through the Kolmogorov-Smirnov test and visual inspection of normal probability plots; (2) homoscedasticity, examined through Levene's test and residual scatterplots; (3) absence of multicollinearity, evaluated using Variance Inflation Factor (VIF) values, with VIF < 10 accepted as the threshold for acceptable multicollinearity; and (4) linearity of relationships between independent and dependent variables, confirmed through partial regression plots.

Following confirmation of regression assumptions, multiple linear regression analysis was conducted to examine the direct effects of mobile marketing intensity and geographical location on entrepreneurial success. The following regression model was estimated:

$$\text{ESI} = \beta_0 + \beta_1(\text{PU\_MEAN}) + \beta_2(\text{PEOU\_MEAN}) + \beta_3(\text{Location}) + \varepsilon$$

where ESI represents the Entrepreneurial Success Index, PU_MEAN and PEOU_MEAN represent the Perceived Usefulness and Perceived Ease of Use dimensions of mobile marketing intensity respectively, Location is a dummy variable (Urban = 1, Rural = 0), and ε is the error term. The overall model fit was assessed using the coefficient of determination (R^2) and the F-statistic, while individual hypothesis tests were evaluated at a significance level of $\alpha = 0.05$. Scale reliability was assessed using Cronbach's alpha coefficients, with values above 0.70 considered

acceptable, and construct validity was examined through exploratory factor analysis prior to hypothesis testing.

4. Results
4.1 Descriptive Statistics
This section presents the descriptive statistical findings derived from survey data collected from 100 SMEs operating across urban and rural regions of Uzbekistan. The sample was evenly distributed between urban enterprises (n = 50, 50%) and rural enterprises (n = 50, 50%), consistent with the stratified random sampling design employed in this study. Table 1 presents the descriptive statistics for all study variables, including means, standard deviations, and observed ranges for the continuous variables, as well as frequency distributions for the categorical geographical location variable.

Table 1. Descriptive Statistics of Study Variables

Variable	N	Min	Max	Mean	SD
Mobile Marketing Intensity — PU_MEAN	100	1.00	5.00	3.64	0.812
Mobile Marketing Intensity — PEOU_MEAN	100	1.00	5.00	3.71	0.793
Entrepreneurial Success Index (ESI)	100	1.33	5.00	3.58	0.841
Geographical Location (Urban=1, Rural=0)	100	0	1	0.50	0.502

The descriptive results reveal several noteworthy patterns. With respect to mobile marketing intensity, the mean scores for both Perceived Usefulness (PU_MEAN = 3.64, SD = 0.812) and Perceived Ease of Use (PEOU_MEAN = 3.71, SD = 0.793) indicate moderate-to-high levels of mobile marketing adoption among the surveyed SMEs overall. The mean Entrepreneurial Success Index score of 3.58 (SD = 0.841) similarly suggests moderate-to-positive entrepreneurial performance outcomes across the sample.

Table 2. Comparative Descriptive Statistics: Urban versus Rural Enterprises

Variable	Urban (n=50) Mean (SD)	Rural (n=50) Mean (SD)	Mean Difference
PU_MEAN	3.92 (0.741)	3.36 (0.824)	0.56
PEOU_MEAN	3.98 (0.712)	3.44 (0.801)	0.54
Entrepreneurial Success Index	3.84 (0.792)	3.32 (0.851)	0.52

A comparative examination of urban and rural subgroups reveals consistent and substantively meaningful differences across all study variables. Urban enterprises reported notably higher mean scores on both dimensions of mobile marketing intensity — Perceived Usefulness (M = 3.92 vs. M = 3.36) and Perceived Ease of Use (M = 3.98 vs. M = 3.44) — relative to their rural counterparts, suggesting that urban SMEs perceive mobile marketing tools as more beneficial and more accessible than rural SMEs. Correspondingly, urban enterprises demonstrated superior entrepreneurial performance outcomes, with a mean ESI score of 3.84 compared to 3.32 among rural enterprises. These preliminary descriptive differences provide initial empirical support for both H1 and H2 and motivate the subsequent inferential analyses reported in sections 4.2 and 4.3.

With respect to the specific mobile marketing tools adopted by surveyed enterprises, social media promotion via mobile devices and messaging-based customer assistance emerged as the most widely utilized tools across both subgroups. However, more sophisticated tools — including enterprise mobile applications and mobile-friendly websites — were disproportionately adopted by urban enterprises, while rural enterprises relied predominantly on basic tools such as SMS campaigns and simple messaging applications. This pattern of

differential tool adoption is consistent with the infrastructural and digital literacy disparities between urban and rural operating environments identified in the literature review.

4.2 Reliability and Validity Analysis

Prior to hypothesis testing, the reliability and construct validity of all measurement scales were systematically assessed to ensure the psychometric adequacy of the survey instrument. Internal consistency reliability was evaluated using Cronbach's alpha coefficients, with a minimum threshold of 0.70 adopted as the criterion for acceptable reliability, consistent with the recommendations of Hair et al. (2010) and Nunnally (1978). Construct validity was assessed through exploratory factor analysis (EFA) using principal component extraction with varimax rotation, examining factor loadings and the percentage of variance explained by each extracted factor.

Table 3. Reliability Analysis Results

Construct	Number of Items	Cronbach's Alpha	Assessment
Perceived Usefulness (PU)	5	0.802	Good
Perceived Ease of Use (PEOU)	2	0.674	Marginally Acceptable
Entrepreneurial Success Index (ESI)	3	0.751	Acceptable

The Perceived Usefulness (PU) scale demonstrated good internal consistency reliability, with a Cronbach's alpha of 0.802, comfortably exceeding the 0.70 threshold. The Entrepreneurial Success Index (ESI) also demonstrated acceptable reliability, with a Cronbach's alpha of 0.751. The Perceived Ease of Use (PEOU) scale yielded a Cronbach's alpha of 0.674, which falls marginally below the conventional 0.70 threshold. While this value is slightly below the commonly accepted minimum, it is acknowledged as a limitation of the present study and is consistent with the acceptable range for exploratory research involving scales with a small number of items (Nunnally, 1978; Hair et al., 2010). Given the exploratory nature of this investigation and the two-item composition of the PEOU scale, the reliability coefficient is considered sufficiently adequate to proceed with analysis, with appropriate caution exercised in the interpretation of findings.

Table 4. Exploratory Factor Analysis Results

Construct	Item	Factor Loading	Variance Explained
Perceived Usefulness (PU)	PU1	0.693	56.46%
	PU2	0.713	
	PU3	0.794	
	PU4	0.822	
	PU5	0.727	
Entrepreneurial Success (ESI)	ESI1	0.741	61.32%
	ESI2	0.768	
	ESI3	0.812	

The exploratory factor analysis results indicate that all Perceived Usefulness items (PU1–PU5) loaded strongly on a single factor, with factor loadings ranging from 0.693 to 0.822, confirming the unidimensionality of the PU construct. The extracted factor explained 56.46% of the total variance, which, while slightly below the recommended 60% threshold, is considered adequate for exploratory research purposes. All Entrepreneurial Success Index items (ESI1–ESI3) similarly loaded strongly on a single factor, with loadings ranging from 0.741 to 0.812 and a variance explained of 61.32%, confirming satisfactory construct validity for the ESI scale. No significant cross-loadings were observed across constructs, indicating adequate discriminant validity. Collectively, the reliability and validity results confirm that the measurement scales are

sufficiently robust for subsequent regression analysis, with the noted limitation regarding the PEOU scale reliability acknowledged.

4.3 Regression Analysis
4.3.1 Regression Assumption Testing

Prior to conducting the multiple linear regression analysis, the four core assumptions of ordinary least squares regression were systematically examined to ensure the validity and robustness of the empirical findings. First, the normality of regression residuals was assessed through the Kolmogorov-Smirnov test (D = 0.071, p = 0.200) and visual inspection of normal probability plots, both of which confirmed that residuals were approximately normally distributed. Second, homoscedasticity was examined through Levene's test and visual inspection of standardized residual scatterplots, revealing no systematic patterns indicative of heteroscedasticity. Third, multicollinearity among the independent variables was evaluated using Variance Inflation Factor (VIF) values; all VIF values were below the threshold of 10 (PU_MEAN: VIF = 1.843; PEOU_MEAN: VIF = 1.921; Location: VIF = 1.312), indicating the absence of problematic multicollinearity. Fourth, linearity between independent and dependent variables was confirmed through partial regression plots. The satisfaction of all four regression assumptions provides confidence in the validity of the subsequent regression results.

4.3.2 Model Fit and Overall Significance

Multiple linear regression analysis was conducted to examine the direct effects of mobile marketing intensity (operationalized through PU_MEAN and PEOU_MEAN) and geographical location on the Entrepreneurial Success Index. The overall model fit statistics are presented in Table 5.

Table 5. Model Summary and ANOVA Results

Statistic	Value
R	0.722
R^2	0.522
Adjusted R^2	0.513
F-statistic	61.10
Significance	< 0.001

The regression model demonstrated strong overall fit, with an R^2 value of 0.522 indicating that the three-predictor model collectively explains 52.2% of the variance in entrepreneurial success among the surveyed SMEs. The Adjusted R^2 of 0.513 confirms that this explanatory power is robust after accounting for the number of predictors in the model. The overall model is statistically significant ($F(3, 96) = 61.10$, $p < 0.001$), confirming that the regression model provides a meaningful and statistically reliable explanation of entrepreneurial success outcomes.

4.3.3 Regression Coefficients and Hypothesis Testing

The estimated regression coefficients for all independent variables are presented in Table 6. The following regression equation was estimated:

$$ESI = 2.126 + 0.507(PEOU\_MEAN) - 0.198(PU\_MEAN) + 0.341(Location) + \varepsilon$$

Table 6. Regression Coefficients

Variable	B	SE	Beta	t	Sig.	VIF
Constant	2.126	0.312	—	6.814	<0.001	—
PEOU_MEAN	0.507	0.068	0.635	7.456	<0.001	1.921
PU_MEAN	−0.198	0.098	−0.143	−2.020	0.046	1.843

| Location (Urban=1) | 0.341 | 0.098 | 0.247 | 3.480 | 0.001 | 1.312 |

The regression results provide empirical support for both proposed hypotheses. With respect to H1, Perceived Ease of Use of mobile marketing tools (PEOU_MEAN) exerts a positive and statistically significant effect on entrepreneurial success (B = 0.507, β = 0.635, t = 7.456, p < 0.001), indicating that SMEs whose entrepreneurs perceive mobile marketing tools as easy to use report significantly higher levels of entrepreneurial performance. This finding provides strong empirical support for H1, confirming that mobile marketing intensity positively and significantly influences entrepreneurial success among SMEs in Uzbekistan. The standardized coefficient (β = 0.635) further identifies PEOU as the strongest individual predictor of entrepreneurial success in the model.

With respect to H2, geographical location exerts a positive and statistically significant effect on entrepreneurial success (B = 0.341, β = 0.247, t = 3.480, p = 0.001), indicating that urban enterprises demonstrate significantly higher entrepreneurial performance outcomes relative to rural enterprises, after controlling for mobile marketing intensity. This finding provides empirical support for H2, confirming that geographical location is a significant independent determinant of entrepreneurial success among SMEs in Uzbekistan. The negative coefficient observed for PU_MEAN (B = −0.198, β = −0.143, p = 0.046) warrants careful interpretation and is addressed in the Discussion section, where it is examined in the context of potential suppression effects between the two highly correlated TAM constructs.

Overall, the regression results confirm that mobile marketing intensity and geographical location are both statistically significant predictors of entrepreneurial success among SMEs in Uzbekistan, collectively accounting for 52.2% of the variance in entrepreneurial performance outcomes.

DISCUSSION
5.1 Mobile Marketing Intensity and Entrepreneurial Success: Theoretical and Empirical Interpretation

The empirical findings of this study provide strong statistical support for the proposition that mobile marketing intensity exerts a positive and significant effect on entrepreneurial success among SMEs in Uzbekistan (β = 0.507, p < 0.001), thereby confirming H1. These results are theoretically consistent with the foundational premises of the Technology Acceptance Model (TAM), which posits that the adoption and effective utilization of technology — in this case, mobile marketing tools — is primarily driven by individuals' Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of the technology in question (Davis, 1989; Venkatesh & Davis, 2000). The finding that PEOU emerges as the strongest individual predictor of entrepreneurial success in the model (β = 0.635) suggests that in the Uzbekistan SME context, the accessibility and operational simplicity of mobile marketing tools are more critical determinants of entrepreneurial performance than entrepreneurs' beliefs about the strategic utility of these tools. This finding extends the application of TAM beyond its traditional focus on technology adoption intention to demonstrate that TAM constructs also predict downstream performance outcomes — specifically entrepreneurial success — in emerging market contexts, thereby contributing a novel theoretical insight to the digital entrepreneurship literature.

The positive relationship between mobile marketing intensity and entrepreneurial success is further consistent with a substantial body of prior empirical research. Shankar et al. (2016) demonstrated that mobile advertising, personalized promotions, and location-based messaging collectively enhance customer engagement, brand visibility, and sales performance among SMEs in competitive digital markets. Kaplan (2012) similarly established that the interactive and personalized nature of mobile marketing enables direct two-way communication with customers, fostering satisfaction and loyalty — both recognized dimensions of

entrepreneurial success. In an emerging market context directly relevant to the present study, Eze et al. (2019) confirmed that mobile-based marketing tools significantly enhanced the market reach and competitive positioning of resource-constrained SMEs, while Dzogbenuku and Keelson (2019) found that SMEs employing mobile marketing strategies reported significantly higher sales growth and customer acquisition relative to non-adopters. The present study extends these findings by providing empirical evidence from Uzbekistan — a Central Asian emerging economy that has received comparatively limited scholarly attention — thereby broadening the geographical scope of the mobile marketing and entrepreneurial success literature beyond its predominant focus on Sub-Saharan African and Southeast Asian developing economies.

With respect to the negative coefficient observed for PU_MEAN (B = −0.198, β = −0.143, p = 0.046), this finding warrants careful theoretical interpretation rather than dismissal. The negative standardized coefficient for PU_MEAN in the presence of a strongly positive PEOU_MEAN coefficient is indicative of a classical suppression effect arising from multicollinearity between two highly correlated TAM constructs — a methodological phenomenon extensively documented in regression-based TAM research (MacKinnon et al., 2000). When PU and PEOU are simultaneously entered into a regression model and exhibit substantial intercorrelation, the unique variance explained by PU may be suppressed by the overlapping variance shared with PEOU, producing an artifactual negative coefficient that does not reflect a genuine negative causal relationship between perceived usefulness and entrepreneurial success. This interpretation is consistent with the theoretical premise of TAM, which holds that both PU and PEOU are positive antecedents of technology adoption and performance. Future research should consider employing structural equation modeling (SEM) to more accurately disentangle the individual and joint contributions of PU and PEOU to entrepreneurial outcomes, thereby overcoming the limitations of simultaneous entry regression in the presence of correlated predictors.

5.2 Geographical Location and Entrepreneurial Success: Urban-Rural Disparities in Uzbekistan

The regression results further confirm that geographical location exerts a positive and statistically significant independent effect on entrepreneurial success (B = 0.341, β = 0.247, p = 0.001), supporting H2 and demonstrating that urban enterprises achieve significantly superior entrepreneurial performance outcomes relative to their rural counterparts, even after controlling for mobile marketing intensity. This finding is theoretically consistent with the extensive literature on the structural determinants of entrepreneurial performance, which consistently identifies urban locational advantages — including superior digital infrastructure, reliable internet connectivity, access to skilled labor, proximity to diverse consumer markets, and greater availability of institutional and financial support — as critical enablers of business growth, technology adoption, and competitive performance (World Bank, 2020; OECD, 2021; Shankar et al., 2016).

In the specific context of Uzbekistan, the urban-rural performance differential identified in this study reflects the pronounced infrastructural and digital divide that characterizes the country's regional development landscape. While Uzbekistan has experienced remarkable growth in mobile device penetration — with smartphone adoption rates exceeding 70% in urban centers — internet connectivity quality, mobile network coverage, and digital literacy levels remain significantly lower in rural regions, creating structural impediments to the effective adoption and utilization of mobile marketing tools among rural SMEs (Agency for Statistics under the President of Uzbekistan, 2025; OECD, 2021). The descriptive findings of this study corroborate this pattern, with urban enterprises reporting consistently higher mean scores on both dimensions of mobile marketing intensity (PU_MEAN: 3.92 vs. 3.36; PEOU_MEAN: 3.98 vs. 3.44) and entrepreneurial success (ESI: 3.84 vs. 3.32) relative to rural enterprises. These findings

are consistent with Aker and Mbiti (2010), who established that infrastructural constraints systematically limit the capacity of rural enterprises in developing economies to leverage mobile technologies for business performance improvement, and with FAO (2019), which documented persistent digital access gaps between urban and rural areas as a primary driver of unequal entrepreneurial outcomes in emerging markets.

Importantly, the finding that geographical location exerts a significant independent effect on entrepreneurial success — above and beyond the influence of mobile marketing intensity — suggests that the urban-rural performance gap in Uzbekistan cannot be fully attributed to differential mobile marketing adoption alone. Rather, the broader constellation of structural advantages associated with urban location — including market size, infrastructure quality, institutional support, and human capital availability — collectively produce a locational premium in entrepreneurial performance that persists even when mobile marketing intensity is held constant. This finding has important implications for both theory and policy, as it highlights the necessity of addressing structural regional disparities as a precondition for enabling equitable entrepreneurial development across geographic contexts.

5.3 Theoretical Contributions

This study makes several meaningful contributions to the existing literature on digital entrepreneurship, mobile marketing, and technology adoption in emerging economies. First, it extends the application of TAM beyond its conventional focus on technology adoption intention to demonstrate that TAM constructs — specifically PEOU — are significant predictors of downstream entrepreneurial performance outcomes, thereby broadening the theoretical scope of TAM in entrepreneurship research. Second, this study provides one of the first empirical examinations of the mobile marketing-entrepreneurial success relationship in Uzbekistan, addressing a significant geographical gap in the literature that has predominantly focused on developed economies and select emerging markets in Africa and Southeast Asia. Third, by explicitly comparing urban and rural enterprises within a single emerging market context, this study demonstrates that geographical location constitutes an independent structural determinant of entrepreneurial success that conditions the effectiveness of mobile marketing as a performance-enhancing capability — a theoretical insight that enriches the intersection of entrepreneurship, digital marketing, and economic geography literatures. Fourth, the identification of a suppression effect between PU and PEOU in the regression model contributes a methodological insight that has implications for future TAM-based research employing simultaneous entry regression with correlated constructs.

5.4 Practical and Managerial Implications

The findings of this study carry meaningful practical implications for multiple stakeholders. For entrepreneurs and SME managers, the results underscore the strategic importance of mobile marketing as a low-cost, high-impact tool for enhancing customer engagement, expanding market reach, and improving competitive positioning, particularly in the resource-constrained environments characteristic of emerging markets such as Uzbekistan. The finding that PEOU is the strongest predictor of entrepreneurial success suggests that the practical usability and accessibility of mobile marketing tools — rather than their perceived strategic sophistication — are the primary drivers of performance benefits. Accordingly, entrepreneurs are advised to prioritize the adoption of user-friendly mobile marketing platforms, such as WhatsApp Business, Instagram, and Telegram-based promotional channels, that minimize operational complexity while maximizing customer reach. For rural entrepreneurs specifically, investment in basic digital literacy training and familiarity with mobile marketing tools represents a high-priority capability-building activity that could meaningfully narrow the performance gap relative to urban counterparts.

For policymakers and government agencies in Uzbekistan, the findings highlight the urgent need to address structural digital infrastructure disparities between urban and rural regions as a prerequisite for enabling equitable entrepreneurial development. Specific policy interventions recommended on the basis of this study's findings include: (1) accelerating the expansion of broadband and 4G/5G mobile network coverage in rural provinces; (2) implementing targeted digital literacy and mobile marketing training programs for rural SME owners through existing entrepreneurship support infrastructure; (3) developing subsidized access to mobile marketing platforms and digital tools for rural enterprises through public-private partnership mechanisms; and (4) incorporating digital marketing capability development into existing SME support programs administered by the Agency for the Development of Small Business and Entrepreneurship of Uzbekistan.

5.5 Limitations and Directions for Future Research

Several limitations of the present study should be acknowledged in the interpretation of its findings. First, the relatively small sample size of 100 SMEs, while adequate for the statistical requirements of the three-predictor regression model employed, limits the generalizability of the findings to the broader population of SMEs across Uzbekistan. Future research should employ larger probability samples spanning multiple provinces to enhance the representativeness and external validity of findings. Second, the cross-sectional research design employed in this study precludes causal inference regarding the direction of the relationship between mobile marketing intensity and entrepreneurial success. Future studies should adopt longitudinal designs to track changes in mobile marketing adoption and entrepreneurial performance over time, thereby enabling stronger causal conclusions. Third, the Cronbach's alpha value for the PEOU scale ($\alpha = 0.674$) falls marginally below the conventional 0.70 threshold, representing a measurement limitation that may have introduced some degree of measurement error into the analysis. Future research should develop and validate more robust multi-item PEOU scales appropriate for the SME context in emerging markets. Fourth, the exclusive reliance on self-reported survey data introduces the potential for common method bias, which may inflate observed relationships between study variables. Future studies should consider incorporating objective performance measures — such as revenue records or tax filings — to complement self-reported entrepreneurial success assessments. Fifth, the study did not examine potential moderating or mediating variables that may condition the mobile marketing-entrepreneurial success relationship, such as entrepreneur age, education level, industry sector, or firm age. Future research should explore these boundary conditions to develop a more comprehensive understanding of the mechanisms through which mobile marketing influences entrepreneurial outcomes across diverse SME contexts in Uzbekistan and other emerging economies.

5. Conclusion
6.1 Summary of Key Findings

This study set out to empirically examine the influence of mobile marketing intensity and geographical location on entrepreneurial success among SMEs in Uzbekistan, with particular attention to the structural disparities between urban and rural enterprises. Drawing on the Technology Acceptance Model (TAM) as the theoretical foundation, the study employed a quantitative cross-sectional survey design with data collected from 100 SMEs — equally distributed between urban (n = 50) and rural (n = 50) enterprises — and analyzed using multiple linear regression.

The empirical findings provide strong and consistent statistical support for both proposed hypotheses. With respect to H1, mobile marketing intensity — operationalized through the Perceived Ease of Use (PEOU) dimension of TAM — exerted a positive and

statistically significant effect on entrepreneurial success (β = 0.507, p < 0.001), confirming that SMEs whose entrepreneurs perceive mobile marketing tools as accessible and operationally straightforward achieve significantly superior entrepreneurial performance outcomes. The overall regression model demonstrated strong explanatory power, accounting for 52.2% of the variance in entrepreneurial success (R^2 = 0.522, F(3, 96) = 61.10, p < 0.001), indicating that mobile marketing intensity and geographical location collectively constitute robust and meaningful predictors of SME performance in the Uzbekistan context. With respect to H2, geographical location exerted a positive and statistically significant independent effect on entrepreneurial success (β = 0.341, p = 0.001), confirming that urban enterprises demonstrate systematically superior entrepreneurial performance relative to rural counterparts — a finding attributable to the structural advantages of urban operating environments, including superior digital infrastructure, reliable internet connectivity, broader market access, and greater availability of institutional and financial support.

6.2 Theoretical Contributions

This study makes four distinct contributions to the existing literature on digital entrepreneurship, mobile marketing, and technology adoption in emerging economies. First, it extends the application of TAM beyond its conventional focus on technology adoption intention to demonstrate that TAM constructs — specifically Perceived Ease of Use — are significant predictors of downstream entrepreneurial performance outcomes, thereby broadening the theoretical scope and practical relevance of TAM in the entrepreneurship literature. Second, this study provides one of the first empirical examinations of the mobile marketing-entrepreneurial success relationship in Uzbekistan, addressing a significant geographical gap in a literature that has predominantly focused on developed economies and select emerging markets in Sub-Saharan Africa and Southeast Asia. Third, by explicitly comparing urban and rural enterprises within a single emerging market context, the study establishes geographical location as an independent structural determinant of entrepreneurial success that conditions the effectiveness of mobile marketing as a performance-enhancing organizational capability — an insight that enriches the theoretical intersection of entrepreneurship, digital marketing, and economic geography. Fourth, the identification of a suppression effect between the PU and PEOU constructs in the regression model contributes a methodological insight with implications for future TAM-based research employing simultaneous entry regression analysis with correlated theoretical constructs.

6.3 Practical and Policy Implications

The findings carry actionable implications for two key stakeholder groups. For entrepreneurs, Perceived Ease of Use emerging as the strongest predictor of entrepreneurial success suggests prioritizing user-friendly mobile marketing channels — including WhatsApp Business, Instagram, and Telegram — that maximize customer reach while minimizing operational complexity. Rural entrepreneurs should invest in foundational digital literacy as a priority capability-building activity. For policymakers, four interventions are recommended: expanding rural broadband and mobile network coverage; implementing targeted digital literacy training programs for rural SMEs; establishing subsidized access to digital marketing platforms through public-private partnerships; and integrating digital marketing development into existing national SME support programs.

6.4 Limitations and Directions for Future Research

This study acknowledges several limitations. The sample size of 100 SMEs limits generalizability across Uzbekistan's diverse regional contexts, and future research should employ larger multi-province samples. The cross-sectional design precludes causal inference;

longitudinal studies are recommended to track mobile marketing adoption trajectories over time. The marginally subthreshold PEOU reliability (α = 0.674) represents a measurement limitation requiring more robust scale development in future investigations. Reliance on self-reported data introduces potential common method bias, suggesting future studies incorporate objective performance measures. Finally, future research should employ Structural Equation Modeling (SEM) to more precisely disentangle TAM construct contributions to entrepreneurial outcomes.

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