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LEVERAGING DIGITAL TOOLS IN THE ECONOMIC DEVELOPMENT OF MICROBUSINESSES IN THE TOWN OF USAQUÉN IN BOGOTÁ - COLOMBIA

Rafael Humberto Pinzón Alfonso^{1*}, Andrés David Serrato Guana²

¹*School of Business Administration, Rector's Office, Bogotá, Colombia. Public Accounting Program. Minuto de Dios University Corporation, UNIMINUTO. Email: rpinzon@uniminuto.edu, <https://orcid.org/0000-0002-0010-8762>*

²*University of Cundinamarca Headquarters: Facatativá, Cundinamarca Colombia, adserrato@ucundinamarca.edu.co, <https://orcid.org/0000-0001-9021-0869>*

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Corresponding Author: Rafael Humberto Pinzón Alfonso
(rpinzon@uniminuto.edu)

ABSTRACT

This study analyzes the relationship between the use of digital tools and the economic development of microbusinesses in the locality of Usaquén, Bogotá. Using an analytical-descriptive approach with a non-experimental design, a structured question-naire was applied to 84 microbusinesses from different sectors, including banking co-rrespondents, minimarkets, beauty salons, stationery shops, and restaurants. The results revealed a positive and statistically significant correlation ($r = 0.972$; $p < 0.01$) between the use of digital tools and the economic growth of these productive units, high-lighting digitalization as a key driver of competitiveness, innovation, and sustainability for small busineses. Despite the benefits identified, relevant limitations persist: high levels of informality (39.3% without commercial registration), limited training in digital technologies (95.2% without formal education), and the perception that implementation costs outweigh the benefits. However, business owners expressed willingness to receive training (63.1%) and acknowledged that social networks, mobile wallets, and communication platforms have been essential for business visibility and management. The study concludes that strengthening public policies focused on digital literacy and business formalization is crucial to enhance the impact of ICT on the economic development of microbusinesses in emerging urban contexts.

KEYWORDS: Digital Tools, Economic Development, Microbusinesses.

1. INTRODUCTION

In the Colombian context, microbusinesses represent a crucial fraction of the popular economy, being a source of income and employment for thousands of families. However, they face significant challenges related to informality, low productivity, and limited access to technological resources. The accelerated digitalization driven by the pandemic evidenced the need to modernize these economic units through digital tools that facilitate administrative processes, marketing, sales, and services. This research proposes an empirical analysis on the impact of the use of these technologies on the economic development of microbusinesses in the town of Usaquén in Bogotá, establishing relationships between digital appropriation and commercial growth in emerging urban environments. It is considered that digital tools facilitate a number of delegated tasks in the different areas of work, education, communication and even in the commercial processes of informal microbusinesses. In this sense, microbusinesses are categorized within the so-called "Small and Medium-sized Enterprises" (SMEs) that are a priority for those responsible for formulating public policies, since they represent 99.5% of the companies in the region (almost nine (9) out of ten (10) are microenterprises) and generate 79% of productive formal employment, contributing 40% to the Gross Domestic Product (GDP) in Colombia, according to data from the Administrative Department of Statistics (DANE, 2025). Thus, Bogotá has 393,385 microbusinesses that represent 97.9% of active companies by size for the period from January to December 2024, according to data from the Bogotá Chamber of Commerce (CCB, 2025). In this way, the digital economy has become a fundamental driver of innovation, economic growth and competitiveness of the formal and informal business fabric (Bessonova, & Battalov, 2020). Despite the growth and importance of microbusinesses in the national economy, a large part operates in the informal sector, lacks technological training and does not have access to support policies that boost their competitiveness. In this context, the following central research question arises: What is the relationship between the use of digital tools and the economic development of microbusinesses in the town of Usaquén in Bogotá?

2. THEORETICAL FRAMEWORK

2.1. *Microbusinesses*

According to DANE in the Microbusiness Survey (EMICRON) III Quarter of 2024, which defines Microbusinesses as an economic unit with a

maximum of nine (9) employed people, which develops a productive activity of goods or services, in order to obtain an income, acting as owner or tenant of the means of production. As for the results for Colombia of the survey carried out, they show worrying figures, since for the third quarter of 2024, the number of microbusinesses decreased 2.0% compared to the same period in 2023. Similarly, the number of people employed by these economic units decreased by 1.1%. Regarding the income of microbusinesses, they decreased 5.2% in this same period of time (DANE, 2024). Microbusinesses are categorized within the so-called "Small and Medium Enterprises" (SMEs) that are a priority for public policymakers in Latin America and the Caribbean (LAC). SMEs represent 99.5% of the region's companies (almost nine (9) out of ten (10) are microenterprises) and generate 60% of productive formal employment. In this sense, the Organization for Economic Cooperation and Development (OECD) aims to contribute to the inclusive, resilient and sustainable recovery of nine countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru and Uruguay) for the economic reactivation of the region (OECD, 2024).

According to Jurado (2023), microbusinesses are small economic and productive units, which have a small number of employees and a low level of capital, assets, and even a limited factor of innovation. These SMEs have several actions; such as those merchants who are dedicated to street vending, neighborhood stores, manufacturing workshops, banking service providers, hairdressers, veterinarians, among others. They are usually managed and operated by one or a few people and their geographical scope can be zonal, local or regional. Research such as that of Cuevas et al. (2005) shows how smaller companies face a double challenge. On the one hand, to adapt to the conditions of new skills and second, to be one of the main sources of job creation. This requires government programs of direct investment for microentrepreneurs, adding to these special programs of business, technological, financial, market strengthening, savings and training for owners and employees. All of this is always aimed at improving formality, competitive position and financial stability.

2.2. *Information And Communication Technologies (ICT)*

Information and Communication Technologies (ICT) play a fundamental role in improving economic competitiveness at the micro and macroeconomic level. In this context, it has been shown that their influence on business productivity

depends on factors such as the degree of diffusion and the widespread use of these technologies. According to Brynjolfsson et al. (2021) and Pieri et al. (2018), the adoption of ICT has a significant impact on companies, especially when they invest in complementary inputs such as organizational capital, which are often overlooked in traditional productivity calculations. Despite the importance of ICTs in increasing business productivity, the use of these technologies in developing economies, such as Colombia, has been relatively slow. Valdés et al. (2019) highlighted that, although technological infrastructure has improved significantly in recent years, there are still limitations that hinder the adoption of ICTs, such as resistance to change by companies and the lack of advances in general-purpose technology.

The penetration of e-commerce, understood as the use of digital communication networks such as the Internet, for the sale and purchase of products and services has boomed (Tavera & Londoño, 2012). The heyday of the internet in the 1990s spurred the growth of e-commerce and placed it on the agenda of policymakers around the world (OECD, 2024). Along the same lines (Aguilar et al, 2009) show how the expansion of the internet has allowed companies to realize the emergence of electronic commerce, known as e-business; This allows them to leverage the network for business growth, both within the organization and at the commercial and institutional points at the local, national or global level.

2.3. *Digital Tools*

The growth of microbusinesses has become relevant in the current economic landscape, especially in contexts where (SMEs) are essential for the generation of employment and the revitalization of local economies. In this sense, digital tools play a crucial role in the development and sustainability of these businesses. This is how the digital economy has become a fundamental engine of innovation, economic growth and business competitiveness, articulated to society, which interact effectively in order to achieve an increasingly willing process on a larger scale (Bessonova, & Battalov, 2020). Social media has also proven to be effective for promoting products and services, facilitating direct communication with customers. In this sense, digital transformation and sustainability are fundamental both for environmental monitoring and part of business efficiency. The use of advanced technologies such as artificial intelligence (AI), the Internet of Things (IoT), machine learning, and blockchain in monitoring business environmental conditions, has provided tools that improve their ability to operate

sustainably and efficiently (Audu et al., 2024).

Following the research of Audu et.al, (2024) account for the importance of the use of digital media in the marketing strategies of MSMEs, which allows small entrepreneurs to effectively use technology to increase the visibility, competitiveness and turnover of their businesses, thanks to technological means. This is how these technologies enable the collection and analysis of real-time data, which is essential for tracking resource use and meeting the sustainability goals of microbusinesses. In the field of education, the integration of digital tools has also become a business in the teaching and learning processes, allowing greater personalization and access to interactive resources. Platforms such as Moodle, Google Classroom, and gamification tools have been shown to improve student engagement and academic performance. In other words, the integration of innovative technologies allows students to practice and learn inclusively in all areas of knowledge at a low cost (Toti & Kerbizi, 2024). The impact of digital tools on work productivity plays an important role, as project management systems (Trello, Asana) and collaboration suites (Microsoft Teams, Slack) have optimized productivity in work environments. These tools facilitate communication, task organization and teamwork, especially in teleworking contexts. Knowledge of terms such as Big Data, Internet of Things IoT, Artificial Intelligence (AI) and Machine Learning (ML), among others, allows SMEs to be more competitive in an increasingly digital market (Adu-Ansere & Lumorvie, 2024).

2.4. *In The Context of the City Of Bogotá*

During the pandemic, Bogotá faced significant challenges that prompted companies to adapt quickly. Small and medium-sized enterprises (MSMEs) had to find in information and communication technologies (ICTs) key tools to maintain their operations during isolation. Using social media for sales social media, such as Instagram and Facebook, has become essential for entrepreneurs in Bogotá. According to the MinTIC, the use of social networks for sales increased by 70% in 2020 among MSMEs (MiPyme Vive Digital, 2025). Video conferencing apps, such as Zoom and Skype, have become an indispensable resource for businesses. According to MinTIC, the use of these platforms increased by 300% in the first year of the pandemic, facilitating virtual meetings and allowing teams to maintain productivity despite physical distance (MINTIC, 2025).

2.5. *In The Colombian Context*

Artificial intelligence (AI) has positioned itself as a fundamental pillar for the economic development and competitiveness of companies in Colombia. According to the Ministry of ICT, "innovation through AI is key to the digital transformation and sustainable growth of organizations" (MINTIC, 2024). This statement highlights the importance of integrating advanced technologies into current business models in microbusinesses. The adoption of digital technologies offers multiple benefits for MSMEs, from improving operational efficiency to facilitating the arrival of new markets. "Companies that invest in digitalization can access tools that optimize their internal processes and allow them to offer a better experience to their customers," the report mentions. This improvement in the customer experience is essential in an environment where competition is increasingly fierce. Studies such as those by Parra et al, (2021) show the need for the National Government to formulate policies on the Internet of Things (IoT), which favor the adoption of e-commerce and mitigate these problems. This would strengthen the competitiveness of SMEs in the sector, leading a true digital transformation in Colombia.

2.6. Informal Trade

At the 113th International Labour Conference, the ILO proposed to formulate innovative approaches to business formalization, because this represents a transformative process that not only promotes economic growth, decent employment and fair competition, but also lays the foundations for sustainable development by encouraging productivity, strengthening compliance with legal and regulatory frameworks, and raising the quality standards of products and services. It is crucial that in the formalization of companies, preconditions are acted upon, to regularize employment and ensure decent working conditions that integrate informal economic units (ILO, p. 12, 2025). The Global Economic Prospects report for June 2025 highlights the need to implement comprehensive public policy measures to combat the negative consequences of informality: low tax collection, restrictions on the ability to respond to economic crises, and precarious working conditions that especially affect women, young people, and low-skilled workers. Inflation in Colombia has remained above target as the monetary policy approach has led to continued easing where fiscal vulnerabilities that have persisted amid falling commodity prices, falling oil prices, and complicated public finances, where the central government's budget deficit widened in 2024 and worsened further earlier this year (World Bank, 2025:70). The lack of state regulation and

supervision is presented as the main cause of informality. In this sense, it is considered that costs in general make informality a logical response to the excess of regulations and taxes levied on commercial and productive activities, making complying with these claims very costly in economic, time, and effort terms (Rubiano, 2014).

2.7. Economic Development

Research such as that of (Xu, 2024) argues that investing in Colombia entails risks and challenges, such as political instability, security problems, and social inequality, due to the fact that this country has been suffering for a long time from internal conflicts (civil war and armed conflict) that do not allow for sustained economic development. Productive exclusion in Bogotá is shown through inequalities in accessibility and the prevalence of informal employment, especially among marginalized populations. The urban perspective reflects a complex interplay of socioeconomic factors that perpetuate informal work as a survival strategy. This situation is aggravated by regulatory frameworks that restrict access to public spaces, which further deepens the time of exclusion (Oviedo, et al. 2025).

3. METHOD

The study was carried out under a descriptive analytical approach with a non-experimental design, aimed at compiling precise scientific descriptions of the phenomenon studied, describing the current reality and its interpretations, identifying usual practices and determining the opinions, beliefs and attitudes of individuals and groups, as well as their growth and development patterns. Likewise, and according to Creswell (2014), the research described as analytical-descriptive corresponds to studies that describe variables and simultaneously analyze associations or patterns, without experimental manipulation or causal inference. To this end, a structured questionnaire was designed that was applied to a non-probabilistic sample of 84 microbusinesses in the town of Usaquén in Bogotá, among which the following were surveyed: banking correspondents, minimarkets, beauty salons, stationery stores, drug stores, restaurants and fast-food businesses, among others. The data collection focused on evaluating the use and exploitation of digital tools for the economic development of microbusinesses in the town of Usaquén through an instrument of 18 questions on a Likert-type scale.

To verify the normality of the variables involved in the study (Table 1), the application of the Kolmogorov-Smirnov test with Lilliefors correction is evidenced, considering that the sample size was

84 observations. The results indicated that both the variable Use of Digital Tools AHD (K-S = 0.082; $p = 0.200$), and the variable Economic Development of Microbusinesses (DEM) (K-S = 0.084; $p = 0.200$) have significance values greater than 0.05. This reveals that the null hypothesis of normality in both variables is not rejected. In this way, it is assumed

that the data are distributed normally, which allows the application of parametric statistical techniques in subsequent analyses. This finding supports the validity of the statistical procedures applied and suggests that the data comply with one of the fundamental assumptions of correlational and regressive analysis (Field, 2018).

Table 1: Kolmogorov-Smirnov Normality Tests.

| Variables | Statistical | G1 | p |
|--------------------------------------|-------------|----|-------|
| Leveraging Digital Tools | ,082 | 84 | ,200* |
| Economic Development Microbusinesses | ,084 | 84 | ,200* |

Note: Kolmogorov-Smirnov Test with Lilliefors Correction.

Source: SPSS Statistical Software Based on Survey Data.

The Cronbach's alpha coefficient obtained in Table 2 was 0.823 for a total of 18 items, which indicates a high level of internal consistency among the items of the instrument used. This value exceeds the commonly accepted threshold of 0.70, suggesting that the questions or statements included in the questionnaire are consistently measuring the same dimension or construct. Therefore, the

instrument can be considered reliable for the evaluation of the phenomenon under study.

Table 2: Reliability Statistics: Cronbach's Alpha Coefficient.

| Cronbach's Alfa | N of elements |
|-----------------|---------------|
| ,823 | 18 |

Note: Cronbach's Alpha Coefficient Reliability Statistics.

Source: SPSS Statistical Software Based on Survey Data.

4. RESULTS

In the detailed analysis of the sociodemographic characteristics of the respondents, the following aspects are visualized according to Table 3. The sample includes 84 micro-businesses in the town of Usaquén in Bogotá, of which banking

correspondents, mini-markets, beauty salons, stationery stores, drug stores, restaurants and fast food, among others, were surveyed. 39.3% of other informal microbusinesses stand out, which include street markets located in front of those that are formal (located in premises).

Table 3: Type of Establishment Surveyed.

| Type of Microbusinesses | Frequency | Valid percentage |
|-------------------------|-----------|------------------|
| Banking Correspondent | 5 | 6% |
| Minimarket | 20 | 23,8% |
| Beauty salon | 7 | 8,3% |
| Stationery | 9 | 10,7% |
| Drugstore | 6 | 7,1% |
| Restaurant & Fast Food | 4 | 4,8% |
| Other | 33 | 39,3% |
| Total | 84 | 100,0% |

Note. Based On the Survey on the Use of Digital Tools in the Economic Development of Microbusinesses in Bogotá.

Table 4 summarizes the legal situation of the above microbusinesses, where respondents were asked for information on whether they had a Single Tax Registry (RUT), a significant majority of 71.4% (60 microbusinesses) if they do, while 28.6% (24 micro-businesses) have not yet registered their trade operations with the country's supervisory body - National Tax and Customs Directorate (DIAN). On the other hand, as for the permit granted by the Chamber of Commerce of Bogotá and whose function is to grant the commercial registry, as well as the promotion of business development and the representation of the interests of commerce before the government and other entities. The survey showed that 60.7% (51 microbusinesses) do have their commercial registry, compared to 39.3% (33 microbusinesses) that have not yet managed such a

registry and that nevertheless carry out commercial functions.

This implies that informality in this segment investigated is very similar to the official figures of the country. According to the DANE statistics department, "in the 13 cities and metropolitan areas, informality was 42.3%, while in the quarter of March - May 2024 it was 41.5%" (DANE, 2025). On the other hand, in response to the question of whether these merchants received training from any government entity in the use of digital tools, 95.2% (80 microbusinesses) said they had not received such training and guidance. Only 4.8% (4 microbusinesses) had any contact, either with the Mayor's Office or Chamber of Commerce. In this context, it can be inferred that this situation is part of the problem that minority trade has in this sector. In

this sense, respondents are willing to receive training in digital tools, as reflected in the answers provided to this item of the questionnaire, with

63.1% of interest in training and training in topics related to their businesses.

Table 4: Legal Aspects of the Microbusinesses Surveyed.

| Item | Characteristics | Frequency | Valid percentage |
|---|-----------------|-----------|------------------|
| Possess Ruth | Yes | 60 | 71,4% |
| | No | 24 | 28,6% |
| | Total | 84 | 100% |
| Chamber of Commerce | Yes | 51 | 60,7% |
| | No | 33 | 39,3% |
| | Total | 84 | 100% |
| He has received training from a government entity in the use of digital tools | Yes | 4 | 4,8% |
| | No | 80 | 95,2% |
| | Total | 84 | 100% |
| Would be interested in receiving training on the subject matter surveyed | Yes | 53 | 63,1% |
| | No | 31 | 36,9% |
| | Total | 84 | 100% |

Note. Based On the Survey on the Use of Digital Tools in the Economic Development of Microbusinesses in Bogotá.

4.1. Levels of Leverage of Microbusiness Digital Tools

The results obtained on the AHD variable (table 5 see in detail) in the town of Usaquén show diverse perceptions among the respondents. Item one (1) regarding the perception of whether the business is sufficiently informed about the advantages of digital tools, 45.2% expressed total disagreement, indicating a significant information gap. Only 30.9% said they agreed or strongly agreed, suggesting a limited penetration of digital knowledge in this business environment studied. Regarding item two (2), on the differentiated relevance of these tools according to the type of business, 57.1% expressed agreement or total agreement, suggesting that entrepreneurs recognize a selective impact of digital technologies according to the sector or economic activity. Likewise, 64.3% of item three (3) considered that these tools contribute to collecting and using data strategically to improve products and services. Regarding the use of mobile wallets such as Nequi, Daviplata or Movii, 59.6% of item four (4) agreed

that their use strengthens financial competitiveness, showing a growing acceptance of digital means of payment. Similarly, 63.1% of item five (5) indicated that digital tools are essential to promote and manage the economic activities of the business.

However, 65.5% of item six (6) of respondents stated that they had not received any type of training in digital tools, and 52.3% of item seven (7) indicated that they had difficulties accessing training resources in this area. This situation could explain why 56% of item eight (8) agreed that the use of digital tools can directly contribute to business growth. In addition, 70.2% of item nine (9) recognized that digital tools provide greater visibility and accessibility to businesses, while 45.3% of item 10 considered that their implementation implies significant costs, which could limit their adoption. Finally, 42.9% of item 11 valued the use of these technologies as key to the accounting and financial control of their companies, although 41.7% expressed disagreement or neutrality (15.5%), which suggests a still ambiguous view regarding their administrative and accounting impact.

Table 5: Variable Results Use of Digital Tools.

| Items | Variable: Use of Digital Tools (AHD) | Strongly Disagree | Disagree | Neither Agree nor Disagree | I agree | Totally agree | Total |
|-------|--|-------------------|----------|----------------------------|---------|---------------|-------|
| 1 | You feel that your business is sufficiently informed about the advantages of digital tools | 45,2% | 10,7% | 13,1% | 21,4% | 9,5% | 100% |
| 2 | He believes that digital tools are more relevant to certain types of microbusinesses than others | 10,7% | 22,6% | 9,5% | 33,3% | 23,8% | 100% |
| 3 | He believes that digital tools can help businesses collect and use data to improve their products and services | 9,5% | 22,6% | 3,6% | 38,1% | 26,2% | 100% |
| 4 | You use mobile wallets as part of your business's financial management | 14,3% | 13,1% | 13,1% | 31,0% | 28,6% | 100% |
| 5 | He believes that digital tools are key to promoting and managing the economic activities of his business | 7,1% | 22,6% | 7,1% | 31,0% | 32,1% | 100% |
| 6 | Have the knowledge to implement digital tools in your business | 65,5% | 7,1% | 7,1% | 9,5% | 10,7% | 100% |
| 7 | Find it easy to access training resources on digital tools for business | 32,1% | 20,2% | 16,7% | 21,4% | 9,5% | 100% |
| 8 | The use of digital tools has directly contributed to the growth of my business | 16,7% | 20,2% | 7,1% | 29,8% | 26,2% | 100% |

| | | | | | | | |
|----|--|-------|-------|-------|-------|-------|------|
| 9 | He believes that digital tools give greater visibility and accessibility to businesses | 9,5% | 16,7% | 3,6% | 33,3% | 36,9% | 100% |
| 10 | The benefits gained from implementing digital tools have outweighed the costs in my business | 29,8% | 15,5% | 25,0% | 15,5% | 14,3% | 100% |
| 11 | Apply digital tools to manage the accounting and financial aspects of your business | 31,0% | 10,7% | 15,5% | 26,2% | 16,7% | 100% |

Note: Based On the Survey on the Use of Digital Tools in the Economic Development of Microbusinesses in Bogotá.

4.2. Levels of Economic Development of Microbusinesses

The findings related to the DEM variable (table 6 see in detail) in the town of Usaquén, show important limitations in terms of knowledge, skills and technological adoption. On the other hand, the level of knowledge in the implementation of digital tools in item 12 shows that 42.9% of respondents were at a medium level, while only 21.5% perceived themselves at high or very high levels. This suggests that, although there is some familiarity, it does not yet translate into a solid appropriation of knowledge on these issues. Regarding the degree of comfort in the adoption and use of digital tools, 34.5% of item 13 said they felt comfortable (high), and only 1.2% were very high, contrasting with 30.9% who had low or very low levels. This reflects a certain openness to these technologies, but still with significant limitations. Similarly, when inquiring about the level of competence in the use of these tools in item 14, 38.1% were at the medium level, while the high and very high levels add up to 34.6%, evidencing a more positive progress, although still

incipient. On the other hand, regarding digital integration in the business as part of the continuous technological improvement of item 15, the results show a low update: 53.6% indicated very low or low levels, and only 7.1% rated them-selves as having very high knowledge. This disconnection can affect the adaptability of microbusinesses in the face of changes in the digital environment. Likewise, the knowledge in cybersecurity and data protection of item 16 was also limited: only 20.3% reported having high or very high levels, while 42.8% stated having low or very low knowledge in this critical area. Regarding the use of social networks in item 17, greater heterogeneity was observed: 29.8% indicated a medium use, and 36.9% manifested a high or very high use, which represents a window of opportunity to strengthen the digital presence. Finally, with regard to implementing digital marketing campaigns, low levels prevailed (47.6% between low and very low), and only 23.8% indicated feeling with high or very high levels of knowledge, confirming a gap in key skills for the effective promotion of products, services and customer loyalty in this surveyed sector.

Table 6: Variable Results Economic Development Microbusinesses.

| Items | Variable: Microbusiness Economic Development (DEM) | Very Low | Low | Middle | High | Very High | Total |
|-------|---|----------|-------|--------|-------|-----------|-------|
| 12 | How do you assess your level of knowledge in implementing digital tools | 15,5% | 20,2% | 42,9% | 17,9% | 3,6% | 100% |
| 13 | What is your comfort level in adopting and using digital tools in your business | 10,7% | 20,2% | 33,3% | 34,5% | 1,2% | 100% |
| 14 | What is the degree or level of competence in the use of digital tools? | 10,7% | 16,7% | 38,1% | 28,6% | 6,0% | 100% |
| 15 | Integrate digital technologies into your business as part of the continuous improvement of your processes | 27,4% | 26,2% | 22,6% | 16,7% | 7,1% | 100% |
| 16 | You feel empowered to protect your business's digital information | 19,0% | 23,8% | 36,9% | 17,9% | 2,4% | 100% |
| 17 | Use social media in a planned way to increase the visibility and sales of your business | 22,6% | 10,7% | 29,8% | 26,2% | 10,7% | 100% |
| 18 | Implement digital marketing campaigns with defined goals to attract and retain customers | 25,0% | 22,6% | 28,6% | 20,2% | 3,6% | 100% |

Note. Based On the Survey on the Use of Digital Tools in the Economic Development of Microbusinesses in Bogotá.

On the other hand, Pearson's relationship coefficient was applied (Table 7), the results show a statistically significant and positive relationship between the use of digital tools and the economic development of microbusinesses in the studied locality ($r = 0.972, p < 0.01$). This coefficient indicates a very strong association, suggesting that as the strategic use of digital tools by microbusinesses increases, there is also an increase in their economic development. The bilateral significance ($p = 0.000$)

confirms that this relationship is not the product of chance, empirically supporting the hypothesis that digital transformation can be a key driver for the growth and sustainability of small businesses, mainly in emerging urban contexts. This finding aligns with previous studies demonstrating how the adoption of digital technologies improves operational efficiency, facilitates innovation, and expands the business reach of microbusinesses in the sector (Kaplinsky & Kraemer-Mbula, 2022).

Table 7: Pearson's Ratio Coefficient.

| Correlations | | Leveraging digital tools | Economic Development Microbusinesses |
|--------------------------------------|---------------------|--------------------------|--------------------------------------|
| Leveraging Digital Tools | Pearson correlation | 1 | ,972** |
| | Sig. (bilateral) | | ,000 |
| | N | 84 | 84 |
| Economic Development Microbusinesses | Pearson correlation | ,972** | 1 |
| | Sig. (bilateral) | ,000 | |
| | N | 84 | 84 |

** The Correlation Is Significant at the 0.01 Level (2 Tails).
 Note: Pearson's Ratio Coefficient. Source: SPSS Statistical Software Based on Survey Data.

5. DISCUSSION AND ANALYSIS

The results reflect an ambivalent situation. On the one hand, there is a progressive appropriation of technologies such as social networks, mobile wallets, cloud storage and video conferencing applications. These tools have been key during and after the pandemic to maintain and grow microbusinesses. On the other hand, most of the respondents stated that they had not received training from the government, which limits the efficient use of these technologies. Despite the barriers, a very strong Pearson correlation ($r = 0.972$; $p < 0.01$) was identified between the use of digital tools and the economic development of businesses. This finding validates previous studies (Kaplinsky & Kraemer-Mbula, 2022; Bessonova & Battalov, 2020) that demonstrate how digitalization improves competitiveness, operational efficiency, and commercial visibility. Microbusinesses that apply digital tools show a greater willingness to innovate, integrate new communication channels with their customers and access new markets. However, critical challenges remain: high levels of informality (39.3% are not registered with the Chamber of Commerce), little digital culture, and the perception that the costs outweigh the benefits of implementing technologies.

6. CONCLUSIONS

The study reaffirms that the use of digital tools

has a significant and positive impact on the economic development of microbusinesses in the town of Usaquén. ICTs are configured as strategic tools to reduce the technological gap, increase revenues and formalize economic activity. However, the findings show that unequal access to training and digital resources limits the transformative potential of these technologies. It is recommended to strengthen government programs such as MSMEs Vive Digital, simplify formalization processes, and articulate efforts between the State, academia and the private sector to design digital literacy strategies. The success of microbusinesses will depend on their ability to adapt to the digital environment and receive support to fully integrate into the country's formal and technological economy.

Institutions such as the Local Mayor's Office, Bogotá Chambers of Commerce and different NGOs can define actions for the economic development of microentrepreneurs in Usaquén, promoting digital incubators, preferential access to online payment platforms and alliances with technology companies. Programs such as Microenterprise Local 5.0 and Local Impulse, together with the Bogotá Smart Territory policy and support from MinTIC and SENA, can be an alternative to promote the adoption of digital tools in microbusinesses, strengthening their competitiveness, access to markets and economic sustainability. In this way, business capacities are strengthened, and collaborative ecosystems of local innovation are generated.

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