

The influence of a digital promotion using Facebook on the expansion of reach in a rural market

La influencia de una promoción digital a través de Facebook en la expansión del alcance en un mercado rural

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Abstract

The use of social networks in rural communities offers benefits of social connection and promotion of products from rural areas, so the objective was to analyse the reach and impressions generated by an advertising campaign on Facebook, by age, gender and cost of the digital promotion of a jaripeo event in a community tianguis in the State of Oaxaca. The method was carried out with an advertising campaign on Facebook, and a sample of 6491 people, the data were analysed descriptively and interpreted through graphs. In the results it was found that the highest reach was in people aged 25 to 34 years and that men had a higher reach in the event. It is concluded that Facebook advertising campaigns are an effective advertising tool because of the reach presented, which improves the economic growth of rural environments.

The Influence of a Digital Promotion through Facebook on the Expansion of Reach in a Rural Market.		
Objectives	Methodology	Contribution
 Analysis of reach and impressions generated by a Facebook campaign  By age  By gender  By cost 	 Descriptive  Segmentation by demographics 	 Improving your visibility and increasing your advertising efficiency  To promote economic growth in rural areas 

Influx, Rural, Communities

Resumen

El uso de redes sociales en comunidades rurales ofrece beneficios de conexión social y promoción de productos de zonas rurales, por lo que el objetivo fue analizar el alcance e impresiones generadas por una campaña de publicidad en Facebook, por edad, género y costo de la promoción digital de un evento de jaripeo en un tianguis comunitario del Estado de Oaxaca. El método se realizó con una campaña de publicidad en Facebook, y una muestra de 6491 personas, se analizaron los datos de forma descriptiva y se interpretaron a través de graficas. En los resultados se encontró que el mayor alcance fue en personas de 25 a 34 años y que los hombres tuvieron mayor alcance en el evento. Se concluye que las campañas de publicidad de Facebook son una herramienta eficaz de publicidad por el alcance presentado, lo que mejora en el crecimiento económico de los entornos rurales.

La Influencia de una promoción digital a través de Facebook en la Expansión del Alcance en un Mercado Rural		
Objetivos	Metodología	Contribución
 Análisis del alcance e impresiones generadas por una campaña en Facebook  Por edad  Por género  Por costo 	 Descriptiva  Segmentación por demografía 	 Mejorar su visibilidad y aumentar su eficiencia publicitaria  Para fomentar el crecimiento económico en entornos rurales 

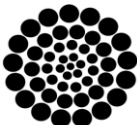
Afluencia, Rural, Comunidades

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## Introduction

In the United States, five prominent platforms have been considered: Facebook, Instagram, YouTube, Twitter and TikTok ([Scharlach et al., 2023](#)).

Because Facebook and TikTok in 2022 and 2023 were the most popular social networks in several countries, as they were used for various purposes and by all age groups, social networks are platforms that can be used to create business and spread products and services ([Metastasio et al., 2024](#)). This is why the study of Facebook creates interest in any type of business.

The analysis of data coming from social networks supports in the advancement of various researches, as the content of users is analysed, which is of importance for any area ([Thakur, 2023](#)).

## Theoretical framework

In Saudi Arabia, research was conducted with 433 participants in the restaurant sector on the interaction and perceived value of followers, through a quantitative method with econometric models whose results indicated that relevant, current and attractive content is perceived by Facebook users which indicates that this can increase sales in this turn of food, as the degree of interactivity and entertainment encourages customers to increase the intention to purchase, in addition to the dissemination of products through the followers themselves ([Bushara et al., 2023](#)).

In a mixed research with 34 graduate students at a public university in the United States, different patterns and correlations of data on the specific use of social networks were found and it was found that the age of 18 to 30 years influences the participation of consumption based on social networks, similarly, the objective of disseminating products or services in social networks is an experience of interest to the consumer, in addition to giving a value of identity and socialisation as motivation to individuals which facilitates marketing ([Shah et al., 2023](#)).

In Malaysia, a non-probability convenience sampling research on Facebook marketing and the use of influencers was carried out with users who already had experience of purchasing products through mobile devices, which showed that there is a significant difference in relation to gender and the relationship of social media use when handled by an influencer, which has been shown that men have a greater purchase effect on a product when it is advertised and recommended by an influencer ([Ooi et al., 2023](#)).

In Machala, Ecuador, a study was conducted with 50 participants to analyse the online purchasing behaviour of consumers in the K-pop industry. A quantitative methodology based on online surveys was used to examine how influencer marketing and perceived value influence purchasing decisions.

The findings revealed that influencer recommendations are key to consumer decision-making, with a significant relationship between perceived value and purchase intention. However, brand loyalty was identified as not having a direct impact on purchase intention, highlighting the need for more effective marketing strategies to address competitive market dynamics ([Moreno-Quizhpe et al., 2024](#)).

In Nigeria, a research study was carried out with 170 respondents from entrepreneurship activities in handicrafts with the inclusion of social media and their experience of social media, which was both quantitative and qualitative, resulting in 74% of the respondents acknowledging the importance of social media in business activities. However, several respondents showed a lack of interest in commercial use, as they used social networks for entertainment and personal use, due to the difficult maintenance costs of the platforms, as well as online fraud and connectivity problems. Therefore, support environments for entrepreneurs should be sought ([Omotosho, 2023](#)).

In Iran, research was conducted using a descriptive-correlational approach to analyse the impact of entrepreneurial thinking of 407 SME managers. To determine the sample size, Cochran's formula was used, resulting in the selection of 197 SME managers using a simple random sampling method.

The results revealed that entrepreneurial thinking is a critical element in managerial decision-making and has a significant influence on the sustainability of SMEs in Iran (Tajpour et al., 2023).

Social capital under a systemic approach in social communication is used and studied by (Kaligis et al., 2024) in a study applied in the community of Komunitas Teras Ciapus, Tamansari district, Indonesia, where micro-entrepreneurs rely on these ecosystems under a digital approach to improve their communication skills and use of social networks in order to penetrate further into e-commerce markets.

The author concludes that the strategy of social capital promotes trust and collaboration among members, which is fundamental to promote a digital culture among colleagues or partners of small locals in rural communities, however, it identifies the need to strengthen social capital in these regions to improve the skills in handling these tools and promote digital transformation.

The study, conducted in Nkomazi, Mpumalanga (South Africa), investigated the adoption of social networking as an advisory tool among smallholder farmers using a quantitative approach applied to 217 randomly selected participants.

Analyses, based on t-tests and ANOVA, showed that factors such as gender, age, education level and cooperative membership significantly influence the adoption of these platforms according to the diffusion of innovations theory.

Farmers value the ability of social networks to improve their farming practices and facilitate access to information, although they faced challenges such as lack of technical knowledge and language barriers.

On the other hand, they recognised the advantages of social media over traditional media, which highlights the importance of receiving guidance on how to integrate social media into their activities (Zondo & Ndoro, 2023).

In an educational environment, the use of social media is also of interest because in order for marketing students to have a similar training to that expected by the industry, it is necessary to incorporate good practices through successful strategies for the implementation of Problem-Based Learning that include the use of social media, serious games, e-learning and feedback mechanisms to promote active learning and student participation (Travassos & Carmo, 2024).

In the city of Abancay, Apurímac, Peru, research was conducted in dental centres, using a non-experimental, cross-sectional and correlational design, with the objective of analysing the relationship between e-commerce solutions and the level of sales in these establishments. Classified as basic research, this study sought to deepen existing knowledge on how e-commerce influences the increase in sales in the dental sector, providing evidence on the importance of these digital tools to improve business results (Barrientos Molina, 2023).

The author Rockenbach & Sakdapolrak, (2017) conducted a desk review of the impact of the use of social media in rural communities in Africa and its importance in communication between local areas engaged in natural resource management, agricultural activities and the management of local support in these areas.

The author collected relevant information between 2000 and 2015 focusing on the operationalisation of social networks, finding that they are used as a means of resilience in the face of the difficulties that these regions are going through, and emphasises the importance that should be given to communication technologies under an approach of interconnection between rural communities, which beyond resilience, serve to facilitate the flow of information and communication, to generate areas of opportunity and knowledge as a boost to these same communities.

The use of social networks in rural communities can have certain implications for the language of the people who use them. A study carried out in several rural communities in Brazil indicates that several technological factors can have an impact on the adoption of linguistic variants, affecting the identity of the regions.

The author indicates that the density of use of these technologies is beneficial for commercial exchange, however they have an impact on the adoption and propagation of traditional uses and customs of the native language of these communities and that factors such as gender and age reveal the importance of the relationship between these two actors, affecting their cohesion (Sharma & Dodsworth, 2020).

The use of social networks in rural communities has both positive and negative effects. A recent desk study by Ghai et al., (2022), targeted adolescents in rural communities in the Global South including regions in the Sub-Sahara, Middle East, North Africa, Latin America, China and South and Southeast Asia and found patterns and gaps in social network use, highlighting the importance of cultural and contextual factors in their use.

The findings indicate that the benefits are oriented towards social connection, social activism, work productivity and access to resources, on the other hand, negative effects are identified, such as: social comparisons, cyberbullying and family disconnection. The author emphasises the need to address and balance the advantages and disadvantages of social networking among adolescents in rural communities and evaluate them in a cultural and social context.

The author Aruleba & Jere, (2022) conducted a study in rural communities in the South African region to identify the challenges that social networks pose in terms of the digital divide in these regions, under a systematic review approach following a PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, found that lack of infrastructure and technological skills are a determinant of access to basic, essential services and development opportunities for people in rural regions, and that inequality in access to social networks limits trade and diversification opportunities for people. The author concludes that rural communities face multiple challenges including: lack of infrastructure, shortage of technological skills, socio-economic problems or limiting commercial and social development in these areas.

## Materials and methods

The research was descriptive in nature in order to analyse the reach of digital promotions through Facebook and to increase the number of visiting users in a rural community tianguis in Oaxaca.

## Sample

The sample was focused on a paid promotion through Facebook on 24 August 2024 in the cultural event with the campaign 'We invite you to the Jaripeo in the Tianguis Chocholteco! This event is organised by the campesino communities of Tepelmeme Villa de Morelos, Concepción Buenavista, and San Miguel Tequixtepec. Starting at 12:00 noon on Sunday 25 August 2024, we are waiting for you! #tepelmememe #oaxacamexico #oaxacatravel #SembrandoVida #jaripeo #comidaoaxaqueña', and has a sample size of 6491 people who were Facebook users.

## Data analysis

The data were collected through Facebook statistics, a data cleaning and preparation of a text file was performed and with them the graphs describing the study variables presented below were made.

## Study variables:

1. **Reach:** This indicator allows us to evaluate the number of people who had some kind of contact with the promoted event. It is a key metric to evaluate the visibility of the campaign on Facebook.
2. **Impressions:** This metric allows us to know the total number of times the content was shown on the screen of a user, regardless of whether it was seen or not.
3. **Age:** It is the age range of the users participating in the study which was considered as follows 1) 18-24 years old, 2) 25-34 years old, 3) 35-44 years old, 4) 45-54 years old, 5) 55-64 years old, 6) 65+ years old.
4. **Gender:** It is important to segment people's behaviour according to their gender identification.



5. **Cost:** This refers to the total expenditure made on the Facebook advertising campaign to promote the event. It is crucial to analyse the cost-benefit ratio and determine the efficiency of the campaign.

## Results

This section presents the results of the Facebook advertising campaign, with the purpose of analysing the impact on the reach of participants and the number of visitors to the cultural event at the Tianguis Chocholteco.

Figure 1 shows the number of people who had some outreach or participation during the event.

### Box 1

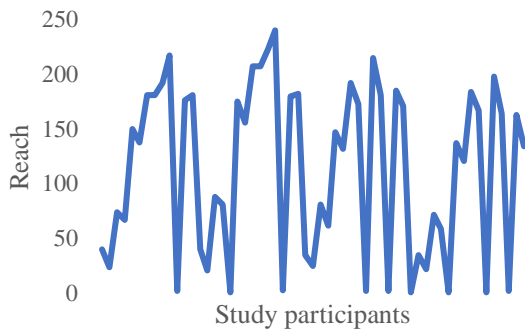


Figure 1

Reach

Source: Own elaboration

Figure 2 shows the extent and impression of the event, note that there is a correlation between the two variables, denoting a direct proportionality.

### Box 2

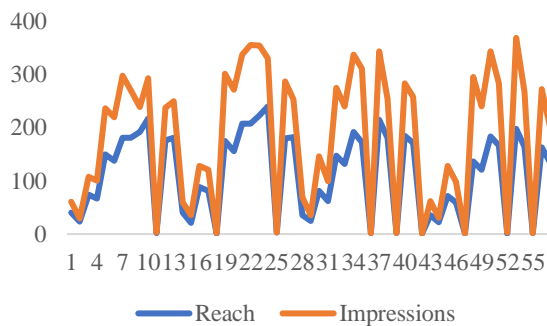


Figure 2

Outreach and printing

Source: Own elaboration

Figure 3 shows the scope and age of the people who took part in the event.

### Box 3

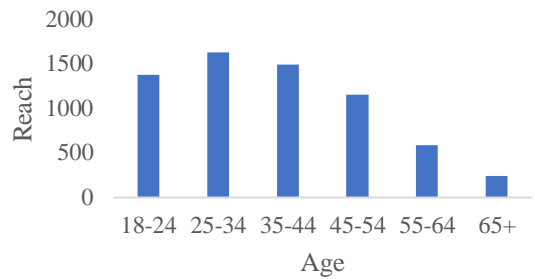


Figure 3

Reach and age

Source: Own elaboration

Figure 4 shows a relationship between outreach and gender presented during the event.

### Box 4

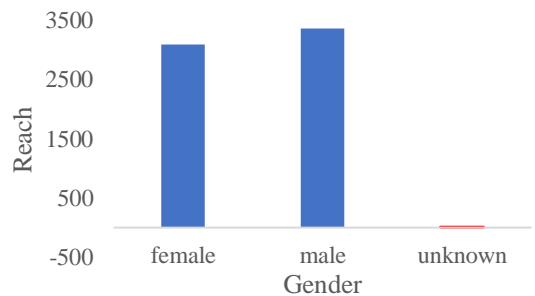


Figure 4

Reach and gender

Source: Own elaboration

Figure 5 shows a Gender and Playback relationship for the video as a whole.

### Box 5

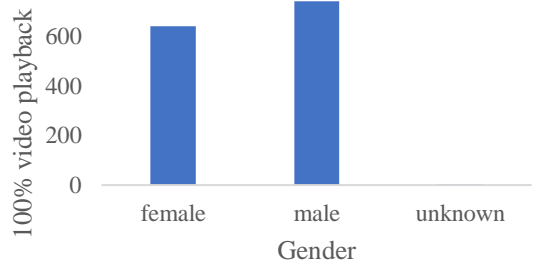


Figure 5

Gender and playback of the video in its entirety

Source: Own elaboration

Figure 6 shows the amount spent in MXN during the event.

Box 6

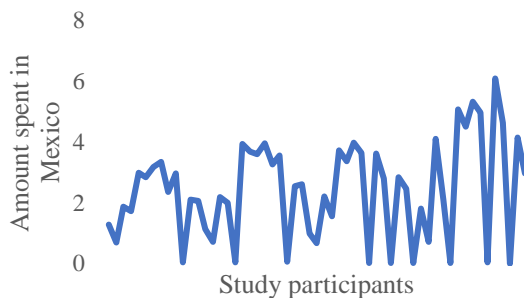


Figure 6

Amount spent (MXN)

Source: Own elaboration

Conclusions

Through this study, the positive impact of the use of the Facebook social network as a digital promotion tool in the Chocholteco community fair in the State of Oaxaca was verified. The results of Figure 1 suggest that there is effectiveness in its use because there was a significant increase in attendees at the Jaripeo event, as well as a large presence in virtual mode both in comments via Facebook Messenger, as well as in live broadcasts and publications that were given throughout the event. Figure 2 shows a positive correlation between reach and impression. Figures 3, 4 and 5 show a significant impact between the variables of reach, gender, age and number of video reproductions on the Facebook platform, and finally in Figure 6, the investment required to achieve the aforementioned results is indicated.

It is important to mention that the ease of disseminating information and encouraging social interaction in these communities where access is often difficult due to their geographical location. It also highlights the importance of direct interaction through the Facebook platform of Oaxacan migrants, who despite the distance, continue to have direct communication with their families, cultural roots, customs and traditions.

Finally, the literature consulted shows that there are various benefits to the use of social networks in rural communities, but there are also major challenges that arise, such as the digital divide and cyberbullying. This is also indicative of the importance of the digital literacy and education that these communities require in ICTs, and thus, using these tools for social and economic growth.

Declarations

Conflict of interest

The authors declare that they have no conflicts of interest. They have no known competing financial interests or personal relationships that might have appeared to influence the article reported in this paper.

Author contribution

*Rico-Ramírez, Diana Laura:* Contributed to internet data search, writing and translation of scientific literature and data cleaning.

*Zarco-Cárdenas, César Alejandro:* Contributed to the search and adjustment of the scientific literature, as well as testing of the association model.

*Jiménez-García, Martha:* Contributed to the introduction, search of scientific literature, data management and validation, revision and editing of the final paper, elaboration of results, interpretation of results and conclusions.

Availability of data and materials

The data obtained in this descriptive research, which aims to analyse the impact of digital promotion through Facebook to increase the reach and impression of visitors in a rural community market in Oaxaca, are available upon request. Access to the data will be granted in compliance with ethical standards, guaranteeing the confidentiality and privacy of the participants involved.

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Abbreviations

TIC Information and Communication Technologies.

## References

### Background

Metastasio, R., Bocci, E., Passafaro, P., Carnovale, F., & Zenone, V. (2024). *The Social Representation of Sustainable Mobility: An Exploratory Investigation on Social Media Networks. Sustainability (Switzerland)*, 16(7).

Thakur, N. (2023). *Social Media Mining and Analysis: A Brief Review of Recent Challenges. Information (Switzerland)*, 14(9), 5–7.

Scharlach, R., Hallinan, B., & Shifman, L. (2023). *Governing principles: Articulating values in social media platform policies. New Media and Society*.

### Basics

Bushara, M. A., Abdou, A. H., Hassan, T. H., Sobaih, A. E. E., Albohnayh, A. S. M., Alshammari, W. G., Aldoreeb, M., Elsaed, A. A., & Elsaied, M. A. (2023). *Power of Social Media Marketing: How Perceived Value Mediates the Impact on Restaurant Followers' Purchase Intention, Willingness to Pay a Premium Price, and E-WoM? Sustainability (Switzerland)*, 15(6), 1–22.

Moreno-Quizhpe, C., Ordóñez-del Rosario, A. A., & Ramón-Herrera, S. (2024). *Influencia del K-pop en el comportamiento e intención de compra del consumidor en línea. 593 Digital Publisher CEIT*, 9(3), 397–409.

Omotosho, B. J. (2023). *Small scale craft workers and the use of social media platforms for business performance in southwest Nigeria. Journal of Small Business and Entrepreneurship*, 35(2), 181–196.

Ooi, K. B., Lee, V. H., Hew, J. J., Leong, L. Y., Tan, G. W. H., & Lim, A. F. (2023). *Social media influencers: An effective marketing approach? Journal of Business Research*, 160(September 2021), 113773.

Shah, D., Webster, E., & Kour, G. (2023). *Consuming for content? Understanding social media-centric consumption. Journal of Business Research*, 155(PB), 113408.

Tajpour, M., Hosseini, E., Ratten, V., Bahman-Zangi, B., & Soleymanian, S. M. (2023). *The Role of Entrepreneurial Thinking Mediated by Social Media on the Sustainability of Small and Medium-Sized Enterprises in Iran. Sustainability (Switzerland)*, 15(5).

Zondo, W. N. S., & Ndoro, J. T. (2023). *Attributes of Diffusion of Innovation's Influence on Smallholder Farmers' Social Media Adoption in Mpumalanga Province, South Africa. Sustainability (Switzerland)*, 15(5).

### Support

Aruleba, K., & Jere, N. (2022). *Exploring digital transforming challenges in rural areas of South Africa through a systematic review of empirical studies. Scientific African*, 16, e01190.

Barrientos Molina, K. N. (2023). *Análisis del E-Commerce como factor relacionado con las ventas en centros odontológicos de Abancay, Apurímac. Facultad De Ciencias De La Salud Escuela Profesional De Ciencias Farmacéuticas*.

Ghai, S., Magis-Weinberg, L., Stoilova, M., Livingstone, S., & Orben, A. (2022). *Social media and adolescent well-being in the Global South. Current Opinion in Psychology*, 46, 101318.

Rockenbach, T., & Sakdapolrak, P. (2017). *Social networks and the resilience of rural communities in the Global South: A critical review and conceptual reflections. Ecology and Society*, 22(1).

Sharma, D., & Dodsworth, R. (2020). *Language Variation and Social Networks. Annual Review of Linguistics*, 6, 341–361.

### Diferences

Kaligis, R. A. W., Pratiwi, A., & Darmaputra, R. (2024). *Utilization of Social Capital in Organizational Communication of Rural Micro-Entrepreneurs to Enter the Digital Ecosystem. Aiccon*, 2022, 588–599.

Travassos, R. A., & Carmo, D. J. (2024). *education sciences Implementing Problem-Based Learning in Marketing Education: A Systematic Review and Analysis. Education Sciences*.

Rico-Ramírez, Diana Laura, Zarco-Cárdenas, César Alejandro and Jiménez-García, Martha. [2024]. The influence of a digital promotion using Facebook on the expansion of reach in a rural market. ECORFAN Journal Republic of Peru. 10[18]1-7: e51018107. <https://doi.org/10.35429/EJRP.2024.10.18.5.7>