Market research for internet sale’s in the municipality of Landa de Matamoros, Querétaro

Investigación de mercados para la comercialización de internet en el municipio de Landa de Matamoros, Querétaro

MORADO-HUERTA, Ma. Guadalupe†*, IBARRA-PÉREZ, Juan, SOTO-SEVILLA, Sergio and MARROQUÍN-DE JESÚS, Ángel

Universidad Tecnológica de San Juan del Río, Unidad Académica Jalpan, México.

ID 1st Author: Ma. Guadalupe, Morado Huerta / ORC ID: 0000-003-0029-4208, CVU CONAHCYT ID: 251130
ID 1st Co-author: Juan, Ibarra Pérez / ORC ID: 0009-006-2921-1348, CVU CONAHCYT ID: 313106
ID 2nd Co-author: Sergio, Soto Sevilla / ORC ID: 0009-004-0361-0530, CVU CONAHCYT ID: 672019
ID 3rd Co-author: Ángel, Marroquí-De Jesús / ORC ID: 0000-001-7425-0625, CVU CONAHCYT ID: 81204

DOI: 10.35429/JBDS.2023.23.9.1.9  Received January 10, 2023; Accepted June 30, 2023

Abstract

The purpose of the study is to identify the characteristics of market behavior in the context of Internet distribution in the municipality of Landa de Matamoros, this, in order to provide an overview that allows companies that wish to enter the area to make decisions. and that also makes it possible to make decisions about the business portfolio that can be derived from the characteristics of the clients, their levels of consumption and their loyalty to existing brands.

237 surveys were applied in the towns of Lagunita, La Vuelta and El Aguacate, this in a random sampling to people ranging from 16 to 50 years old who were in their homes or businesses at the time of its completion, attending to the sociodemographic profile variables, user experience, type of service, brand loyalty, current evaluation.

It was identified that the Federal Institute of Telecommunications provides national and municipal information that allows identifying a macro panorama of market behavior, the contribution of this research being at the micro data level, contributing to the analysis of the microenvironment of small and medium-sized companies in the turn in analysis.

User, Internet, Behavior


† Researcher contributing first author.

© ECORFAN-Spain www.ecorfan.org/spain
Introduction

The topic that concerns us in this article is market research in the telecommunications sector at the micro-regional level, a useful tool in decision-making for micro-enterprises seeking to set up in small towns in our country and which is directly related to the multi-stage model of Internet access, which explains how access to this service occurs, either by imitation or by necessity. It also adds that the adoption of this technology is primarily due to the localities with less development possibilities and that it implies a form of communication and relationship with the surrounding environment.

Thus, the study is descriptive in nature since it does not propose a hypothesis to be proven, however, it is a contribution to knowledge at the local level and the dynamics adopted by the distribution of the Internet after access was given to more companies for its use for commercial purposes. Consequently, the opening of the laws regarding the distribution and commercialization of internet generates new business models at micro and medium enterprise level, this through connection bridges that allow the arrival of the signal to various locations.

On the other hand, the sections of the article comprise the theoretical framework, in which a synopsis of the context of the research is made, as well as the importance of market research applied to various disciplines; this is followed by the data analysis that explains each of the variables that comprise the instrument; finally, there are the conclusions where a reflection is made regarding the findings in the commercial context, and the development of the localities, as well as the opportunities that microenterprises have in view of the market's behavior.

Theoretical framework

Marketing today plays an essential role in the survival of organizations; regardless of global trends and the causes of the pandemic that recently immobilized humanity in the common ways of receiving information through local media and transitory to everyday life; after this period of stagnation, it also brought optimistic effects by revolutionizing this discipline that is traditionally dedicated to "satisfying needs in a profitable way" this, in the approach of Kotler and Keller (2021, p. 5). In the same vein, Armonstrong and Kotler (2013, p. 5) point out that this discipline "is the management of profitable relationships with customers", as well as "is the provision of goods and services to meet the needs of consumers".

In Benassini's approach (2009, p. 26), "market research is the gathering, recording and analysis of all facts about problems related to the activities of individuals, companies and institutions in general". In the specific case of private companies, market research helps management to understand their environment, identify problems and opportunities, as well as to evaluate and develop marketing action alternatives. This assertion makes it possible to glimpse the need to penetrate the environment that surrounds us because it represents a society in constant evolution that requires interpreting these needs in order to contribute with marketing strategies that can be implemented in the environment.

Among other viable tools, it is useful the "Boston Consulting Group Matrix that allows you to give a more accurate location of the situation in which you are to adapt to new demands" (Hernández, 2014, p. 25), thus recognizing the orientation of consumers as a target market and subject of analysis to strategically consider the position in the market and the level of attractiveness of products or services.
In the same vein, it is necessary to mention that the Internet from the point of view of Sevilla (2020), is "a decentralized set of interconnected communication networks that use the TCP/IP family of protocols, ensuring that the heterogeneous physical networks that compose it function as a single logical network, with worldwide reach" (page 2). As Turban (2006) points out, it is a global network of computer networks, often referred to as the "Net". It connects the computing resources of commercial organizations, government, and educational institutions using a common computer communications protocol, TCP/IP. Both authors converge that this means of communication has been so rushed, that it provides the opportunity for connectivity to any being in the world, desiring the facilities from a low cost in any of the available applications to incorporate in turn the different corporations.

According to WEBINDEX report (2014), "the means and freedoms to fully utilize the Web are within the reach of only one in seven people on the planet". Figures that with the technological development and demand for Internet services, have been increasing at a dizzying pace, being mostly perceived as a result of the pandemic only three years to date.

Regarding the "World Wide Web", MDN Web Docs (2022) describes it as "an interconnected system of public web pages accessible through the Internet", MDN Web Docs (2022) describes it as "an interconnected system of public web pages accessible through the Internet". Therefore, the Web is corroborated as one of the applications created on the Internet.

Estimates by Vazquez (2014, as cited in Evans, 2011), indicated that by 2015, there would be a world population of 7.2 billion people who would have 25 billion connected devices, that is, an average of 3.47 connected devices per person, while the estimated population by 2020, there would be a world population of 7.6 billion people who would have 50 billion connected devices, that is, an average of 6.58 connected devices per person. What better way to dimension the paradigms and challenges facing humanity in a technological environment.

Consequently, and according to the publication of the Forbes Mexico website (2021) in its section called Future, "during the last five years, 22 million people have joined the Internet in Mexico, this because of the Covid-19 pandemic", which confirms a growth in the demand for technological services in a hasty manner.

Mexico currently has 129 million inhabitants, 80.9% of whom live in urban areas. The number of mobile devices connected in the country is 115.4 million, which constitutes 89.1% of the population, so that 92.01 million people are connected to the Internet, in addition to 100 million active profiles in social networks as Alvino (2021) points out, which represents that 1.25 number of users have more than one profile per social network.

The current state of the internet in Mexico, highlights that currently 100.6 million Mexicans are internet users through any device, which represents 78.6% of the total population. In addition, it is noteworthy that the main device on which Internet connections are generated are cell phones, since 96.5% of the population uses their cell phones to do so, that is, 123.5 million Mexicans (Rodriguez, 2023).

As described by the Whistleout site (2022), the types of internet in Mexico are as follows:

a) Internet connection via telephone,

b) Internet connection via ADSL

c) Internet via cable TV

d) Internet via fiber optics

e) Internet at home

It is emphasized that the use of optical fiber is an important element in the transmission of information, which is a thin strand no thinner than a hair that is made of glass or silicon, the fiber cable is composed of the mantle, coating, jacket, tensors, core. What is transmitted are light pulses that indicate the bits and also the light intensity indicate the bit difference (Martin, 2015).
Mentions Ortega (2018) that "optical fiber is a thin strand of glass or fused silicon (whose thickness is approximately 0.1 mm) through which information is transmitted in the form of light pulses"; the technological advances described, are perhaps only the beginning of a period of navigation and communication throughout the planet, facilitating interconnection activities before any area of knowledge that leads to transcend multidisciplinary scopes the so-called information age, in which the development of societies is being perfected with the use of information technology, mass media leading to globalization.

Method

According to Mantilla (2015), the market research process refers to the objective and systematic process in which information is generated to assist in making marketing decisions.

Hence the decision to provide through this research an overview of what decisions are being made by this market segment, since since the year 2020 the connection needs in rural areas increased due to social distancing.

In this context, this study provides a scenario of identification of connection needs, as well as preferences to the so-called digital divide, which is a generic concept focused on the availability and material access of the population to the Internet in infrastructure conditions (Toudert, 2019).

The sample is taken in the localities of La Vuelta, El Aguacate and Lagunita, contemplating people between 30 and 50 years of age, which according to the statistics of the National Institute of Statistics and Geography (2020) are in the population range of 15 to 54 years with a record of 1314 people.

Calculating the sample based on a confidence level of 90%, which is reached with a total of 226 people, applying 237 surveys. With respect to data collection, an instrument was created that contemplates the following variables: sociodemographics, internet service contracting conditions, type of service, usage experience and loyalty to current brands.

Considering that according to the multifaceted model of internet access by Van Deursen and Van Dijk (2015), there are motivational conditions for accessing this service, as well as material access, followed by the user's skills.

Therefore, this research would be feeding information for the decision making of those companies that now commercialize internet in the area, which would be part of the material access variables of the aforementioned model.

The analysis is carried out at a descriptive level with the objective of showing the conditions of the service buyers' decisions.

Data analysis

Sociodemographic profile

The profile of the user of the Internet in these localities tends to be 46% Single and 47% Married, the rest in free union.

The study was carried out in the localities of El Aguacate, Lagunita, La Vuelta, which represent 11% of the population at the municipal level, which amounts to 18,794 inhabitants according to the INEGI census. The concentrated response rate is 76% in Lagunita, 15% in La Vuelta and 9% in El Aguacate.

One percent of the study population has an income of less than $1,000 pesos, 51% has an income between $2,500 and $3,000 pesos per month and 39% has an income of more than $4,000.00 according to the study presented. Taking into account the data from the Government in Data Mexico (2023) the average monthly salary in the fourth quarter of 2022 was $3,360.00, in agreement with the study marked, marking a slight difference between what was stated by the people interviewed.

24.2% of the entire municipality has access to the Internet in 2022 according to Data Mexico (2023).
The use of the internet in this case is for communication needs, exclusively for domestic and business use to connect with transactions, use of social networks, and in some cases for "code sales" as it is called for the resale of internet access for a certain period of time.

In addition, the probability of becoming a user, in this case and as shown in a variable below, smaller localities are more likely to have the service for reasons of coexistence and complementarity, as is the case of the locality of El Aguacate, which is the one that shows the greatest agreement with Graphic 1.

At the time of the survey and according to the sample that was taken, the users registered the greatest affluence of Mi PC, Roka 7, Intelcom, BSNetworks and another (Telmex).

This information concentrates some of the elements that make up the multistage accessibility model described by Van (2015). In this analysis of the variable, the term "Internet appropriation" is added, which occurs on a territorial scale according to the size of the population, and depends on age, interests and in this case needs, which then obey that according to the territorial proportion, the geographically larger area would have greater connection conditions than smaller areas.
"In the case of the antiquity with which these arrived to the localities we have that in the first instance Intelcom was installed, followed by BsNetworks, to give way to MiPC and finally Roca7" this according to an interview with the owner of a telecommunications company in the area. (Chacón, F., personal communication, April 24, 2023).

Chacón (2023) mentions that these local internet providers can offer different types of connections, among the most common and well-known are fiber optics and ADSL. At the same time, these businesses make use of wholesalers such as these internet distributors, which in turn make use of wholesale services such as Telmex, Total Play or Axtel, IENTC and Marcatel.

According to data from the Federal Communications Institute (2022), the municipality of Landa de Matamoros has 123 fixed internet accesses with a preponderance in the market of the company América Móvil.

The most recognized brands at national level are Total Play, Grupo Televisa, Telmex and Megacable.

User experience

According to data from the Federal Communications Institute (2022), the municipality of Landa de Matamoros has 123 fixed internet accesses with a preponderance in the market of the company América Móvil.

The most recognized brands at national level are Total Play, Grupo Televisa, Telmex and Megacable.

The Federal Institute of Telecommunications (2022) conducts a study that describes the metrics of Satisfaction of Telecommunications Services, which have a scale similar to the NPS where the scale of 75 indicates a low evaluation, from 75 to 90 as medium, and from 90 to 100 as high. Considering satisfaction and quality, Total Play receives the highest evaluation with the highest number of mentions.

At the micro data level, as illustrated in Graphic 3. Best rated company, the evaluation of satisfaction with the current service indicates that Roka 7 has the best score, followed by Intelcom, BS Networks, Other and Mi PC.

Type of service

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packet Type</td>
<td>A distinction is made between the basic, standard, high and SME plan. Of these, the most popular is the basic plan with 78% of the 237 surveys applied.</td>
</tr>
<tr>
<td>Path through which the signal is received</td>
<td>97% receive the signal via antenna, which indicates that a specific installation is involved.</td>
</tr>
<tr>
<td>Additional services provided</td>
<td>0 NA 79% 1 Security Systems 1% 2 Code sales 3% 3 Software 3% 4 Maintenance, software 10% 5 Maintenance and equipment 4% 49% only contract Internet service.</td>
</tr>
</tbody>
</table>

Table 3 Type of Service
Source: Own elaboration

The type of service is a reflection of the user's skills, since these define the additional services that can be consumed, that is, the use that the use of the connection has and that are derived from factors such as imitation, and that models purchasing behavior by imitating and adopting consumption trends, as stated by the cognitive theory proposed by Tejada (2005), which highlights this multi-stage model mentioned above.
These skills can be those focused on searching in browsers, filling out questionnaires, among others. This is why in Table 3. Type of service, we observe that contracting is reduced to the connection service in the basic plan. On the other hand, the contracting of additional services is derived in the time horizon, since the equipment requires maintenance.

**Current evaluation**

<table>
<thead>
<tr>
<th>Company</th>
<th>Price</th>
<th>Customer service</th>
<th>Unloading speed</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSNetworks</td>
<td>3.88</td>
<td>3.50</td>
<td>3.58</td>
<td>3.48</td>
</tr>
<tr>
<td>Roka 7</td>
<td>3.91</td>
<td>3.67</td>
<td>3.78</td>
<td>3.60</td>
</tr>
<tr>
<td>Intelcom</td>
<td>3.67</td>
<td>3.16</td>
<td>3.27</td>
<td>3.18</td>
</tr>
<tr>
<td>MY PC</td>
<td>3.07</td>
<td>2.64</td>
<td>2.55</td>
<td>2.61</td>
</tr>
<tr>
<td>Other</td>
<td>3.76</td>
<td>3.21</td>
<td>3.26</td>
<td>3.16</td>
</tr>
</tbody>
</table>

**Table 4** Current evaluation shows the perceived performance of the service provided through the contracting of Internet services, with emphasis on price, customer service, downloading, security, coverage, signal and packages.

The perception of adequate performance may be influenced by brand loyalty and by the knowledge and experience acquired by people who use the same brand.

Thus, the overall average shown indicates that Roka 7 is the best evaluated company, having a competitive position in terms of customer service with a score of 3.66, followed in second place by BSNetworks.

**Brand loyalty**

<table>
<thead>
<tr>
<th>Company</th>
<th>MP</th>
<th>P</th>
<th>PB</th>
<th>NP</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSNetworks</td>
<td>15%</td>
<td>15%</td>
<td>23%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Roka 7</td>
<td>9%</td>
<td>16%</td>
<td>31%</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Intelcom</td>
<td>9%</td>
<td>24%</td>
<td>19%</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>MY PC</td>
<td>60%</td>
<td>26%</td>
<td>13%</td>
<td>19%</td>
<td>30%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
<td>19%</td>
<td>13%</td>
<td>19%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Table 5** Brand loyalty

Source: Own elaboration

Loyalty in the marketing context is the dedication that a customer feels towards a brand that pushes him to buy its products and/or services on a constant basis, regardless of competitors, price or convenience.

In terms of this research, there is a consistency in the relationship between brand loyalty and customer satisfaction, since the company with the highest position in service is Roka 7 and likewise in the loyalty indicator.

Followed on this occasion by Intelcom, which is one of the oldest companies in the area. In this case we can speak of an emotional connection with the Roka 7 brand, since it is managed by people from nearby locations, which increases the perception of security and quality when receiving the service.

**Financing**

Funding: This work was funded by the Universidad Tecnológica de San Juan del Río.

**Conclusions**

The Economic Commission for Latin America and the Caribbean in its book "digital economy for structural change and equality" (2013), points out that there is a relationship between internet access and per capita income having a higher incidence among municipalities that do not have internet, adding that access to education also suffers a significant impact.

In the commercial context, with the results obtained, the regional microenterprises can study the level of competitiveness in comparison with the rest of the companies, verifying the indicators in which they are strong.

Adding that the entry of fiber optic comes to add better quality in the internet conditions in addition to the investment or infrastructure needs are essential for a greater presence in the market.

According to the behavior of the market, and given the vision of the microenterprise, it is possible to turn to business models aimed at the hiring of consulting services for online purchases, services properly requested with the network such as financial services, remittances, among others. In addition, there is the generation of micro-enterprises with global presence thanks to the expansion of advertising through social networks.
In addition, this type of businesses that have emerged after the pandemic, have been conveniently placed in the interests of users since it is acquired as a primary need for communication, however after the increase in supply and technological trends will require marketing efforts focused on factors of stability in the connection linked to advertising actions that allow linking the perceived benefit and the offered.

On the other hand, it is worth mentioning that this type of studies can be enriched by describing the infrastructure characteristics of the companies, as well as by measuring the skills of internet use to give a broader picture of the market behavior and the existing supply Mohsenipour et al (2023).

References


Comisión Económica Para America Latina y el Caribe (2013). Impacto económico de las TIC. Economía digital para el cambio estructural y la igualdad.(pp. 34)


ISSN 2444-4960
ECORFAN® All rights reserved.


