

**ORIGINAL**  
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## **Opportunities in e-commerce for the livestock sector in Norte de Santander, Colombia\***

### **Oportunidades en el e-commerce para el sector ganadero de Norte de Santander, Colombia**

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#### **Abstract**

The purpose of this article is to analyze the opportunities of the livestock sector of Norte de Santander within the innovation of e-commerce, through the methodology of bibliographic review of scientific articles and databases at national and international level, in which obtained the information that denotes the lack of diverse knowledge about the new digital technologies, which are available for the commercialization and promotion of the sector, becoming a current shortcoming for the competitiveness of the sector in the medium and long term. It shows how e-commerce is gaining much more strength, improving the obtaining of concepts, facilitating

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the offer of products online; among others, offering advantages to boost and promote livestock in the region.

**Keywords:** E-Commerce, Competitiveness, Livestock Sector, Digital Platforms, Innovation

### **Resumen**

La finalidad de este artículo es analizar las oportunidades del sector ganadero de Norte de Santander dentro de la innovación del e-commerce, por medio de la metodología de revisión bibliográfica de artículos científicos y bases de datos a nivel nacional e internacional, en los cuales se obtuvo la información que denota la carencia de conocimientos diversos sobre las nuevas tecnologías digitales, que están al alcance para la comercialización y promoción del sector, convirtiéndose en una falencia en la actualidad para la competitividad del sector a mediano y largo plazo. Se muestra como el e-commerce va tomando mucha más fuerza, mejorando la obtención de conceptos, facilitando la oferta de productos vía on-line; entre otras, ofreciendo ventajas para dinamizar e impulsar la ganadería de la región.

**Palabras Clave:** E-Commerce, Competitividad, Sector Ganadero, Plataformas Digitales, Innovación

### **SUMMARY**

INTRODUCTION. - RESOLUTION SCHEME. - I. Research problem. - II. Methodology. - III. Writing plan. - 1. E-commerce as a digital tool for marketing the livestock sector - 2. Traditional commerce in the livestock sector. - 3. Opportunities for e-commerce in the livestock sector. - IV. Research results. - CONCLUSIONS. - REFERENCES.

### **Introduction**

This article analyzes the state of the livestock sector in Norte de Santander and the incursion of strategies for business marketing in search of competitiveness and promotion of the sector, under the support of tools that promote planning and improvement of processes within the sector. By observing the new alternatives and digital platforms that are in different changes and constantly updating, it is identified that the traditional forms of marketing have been a challenge for the livestock sector (Grace & Little, 2020), which is adapted to the typical way of marketing, this generates the need and the opportunity to turn to e-commerce; for the ease of choice of products, delivery times, quality, elimination of intermediaries, promotion of the sector and the product.

Jiménez-Lozano (2020) points out that e-commerce also allows the indirect empowerment of the livestock sector in the medium and long term, generating great opportunities for the field for the export of new species to international markets. In Norte de Santander, e-commerce (Carpio-Santos, 2018) has started a new implementation of these digital tools, along with the accelerated progress that has been offered by various platforms to promote or sell and even reach new markets because of the flexibility that this offers us, taking a step towards the innovative and automated future. It is observed as in Colombia, there is a low implementation of these digital methods, and increases in demand for products in different places are increasing every day, challenging producers to circumstances in which they are highly vulnerable to not being competitive. It is essential not to remain stagnant or conservative in these times.

Where everything is advancing rapidly and where competition from foreign companies becomes a great threat, according to Limas-Suarez, (2020), the Commission for the Regulation of Communications notes the acceptance of this medium, the scale production, skilled labor, and infrastructure in which the country's livestock sector is at a disadvantage, the effort to focus

on improving the logistics chain in the sector through digital platforms, making the most of it, eclipsing most of the factors for which other economies have an advantage.

These tools are giving the power to compete dynamically and arduously against these large industries that threaten livestock farmers (Sandoval-Zegarra, 2019) throughout the country, providing value and adding to the experience of working in the sector, becoming an engine to position livestock products through direct sales, first nationally and then internationally.

## **Resolution scheme**

### **1. Research problem**

What opportunities does e-commerce have for marketing in the livestock sector of Norte de Santander in Colombia?

### **2. Methodology**

The present research is of a descriptive-qualitative type, in which a bibliographic review of different authors was used as a first step to obtaining its development, which led to the acquisition of broader information and knowledge regarding the livestock sector and e-commerce (Lai, 2021). This work was done with the support of databases, which enabled obtaining articles and documents from the sector.

The importance of classifying the information and organizing each of the documents implemented in the previous research allows developing a matrix, for the classification of relevant to each of the bibliographic referents that provide foundations to determine the opportunities and benefits that will be obtained in the medium term for the livestock sector (Vargas & Budz, 2019) and the multiple digital ways by which they will increase their competitiveness of Norte de Santander Colombia, this documentary review that consisted of the review of scientific articles and documents linked to the research topic. That boast the existing opportunities in the livestock market at the international level.

### **3. Writing plan**

#### **3.1 E-commerce as a digital tool for marketing the livestock sector**

E-commerce is a digital tool in charge of selling, buying, distributing, and providing much faster information about products using quick access such as cell phones, computers, or applications in which purchases are digital where they get their product information to meet their needs. These virtual technologies have come to change every aspect of marketing and internationalization of products worldwide through the acceptance and increased reach and benefits of these (Khomah, Rahayu & Handayani, 2021). E-commerce consists of selling and purchasing information, services, and products through electronic means, such as the Internet, using communication and information technologies whereby the physical presence of the seller and buyer is not necessary for the transactions.

According to Zuo (2021), e-commerce is given in different ways, and each one leads us to a differential trade. Business to Consumer B2C is the one by which companies are related; this is composed of ordering their materials to others so that their goal continues, Consumer to Consumer C2C online sales such as free market. Government to Consumer G2C, in Spanish,

from consumer to government, are the procedures or payment of taxes. The Organization for economic cooperation and Development (OECD, 2019) exposes the composition of e-commerce steadily growing in the 21st century, with B2B by data transfer accounting for 90.00% of sales value and 10.00% combined B2C and C2C.

Traditional commerce is where the exchange of goods or services between suppliers and consumers occurs in a face-to-face manner, for which an investment will have to be made to obtain a place where commercial transactions will take place along with their products and permits for which it can operate (Poncela, 2019). On the other hand, electronic commerce, or e-commerce, products, and sales are based on different digital platforms with their data exchange and payments through credit cards.

The virtual market is where consumers are in more contact with those who offer the products or services without any intermediary (Manzur Quiroga, Rojas Ortiz, Balcázar González, & Rodríguez-Espinosa, 2020); with the arrival of the virtual market, those aspects of third parties are eliminated since it has a more direct and dynamic way concerning the customer along with the physical way of the market since it can carry out its transactions from any place that has connectivity to carry them out.

In continuity, the physical market has physical places of distribution, in which the consumer's needs can be redirected to the point that I managed to satisfy their need; these places have workers directed by hierarchies, and advertising is given directly to the customer. Norte de Santander, the time of being competitive, must increase to achieve more participation of the sector, intensifying investment in the sectors, or knowledge of technologies (Rana, 2017) and the little use of these means, in which the increase in quality and promotion of products is very efficient, by which it has an advantage of being able to be found 24 hours not only in a local but international sector, customers have interaction long before acquiring their products and much more to what they are looking.

The livestock sectors need to catch up to the old means of promotion due to their lack of knowledge of new alternatives, they do not advance in innovation or transfer their markets, e-commerce is setting a standard compared to traditional trade. As the strength of electronic transactions increases, whether for companies, customers, governments in different markets outside their limits, although its use is generating opportunities, it also brings a fundamental obstacle, the lack of knowledge of these methods of exchange or promotion and the minimum security that they may have when it comes to data protection, in this rapid evolution of technologies and markets there is always the need to advance constantly.

### **3.2 Traditional commerce in the livestock sector**

The report on the situation analysis of the meat chain shows the importance of specialized livestock breeding (production), representing 88.00% (Rural Agricultural Planning Unit, 2020) of the total number of people employed in the rural sector. According to the report of the National Council of the Meat Chain, the activities related to transformation correspond to 91.00% of those employed in the urban area. In the linkage of the population of the livestock activity, whose participation is determined by production activities such as breeding and raising and transformation activities such as production, processing, and conservation within the meat process, both processes exceed the participation of workers of 70.00%, showing the importance that it generates in the economic growth for the rural areas of the department of Norte de Santander. Regarding Formal Channels (National Administrative Department of Statistics,

2021), only 38.00% of the meat is marketed through formal channels, and 72.00% of the meat comes from Animal Processing Plants (PBA) without refrigeration (Table 1).

**Table 1. Formal marketing channels**

| CANALS                    | %     |
|---------------------------|-------|
| Large supermarkets        | 11.00 |
| Institutional market      | 13.00 |
| Industrial market         | 5.00  |
| Specialized butcher shops | 8.00  |

**Source:** Own elaboration.

Livestock in Colombia according to the 2018 - 2022 roadmap of the Colombian Federation of Cattle Raisers (FEDEGAN), generates 810 thousand direct jobs, representing 6.00% of national employment and 19.00% of employment in the agricultural sector and, compared to the Gross Domestic Product (GDP), the agricultural sector contributes 6.00% and livestock contributes 1.40% of the national GDP, the above evidences the need to strengthen this sector for the economy in Norte de Santander.

In Norte de Santander the agriculture, livestock, hunting, forestry and fishing sector contributes 6.80% to the GDP, being the value added by economic activity in the first quarter of 2020, taking into account the importance of livestock in the Department and the amount of employment it can generate and the importance of organizing this sector in terms of negotiation and legalizing informality in the Department's livestock sector is analyzed. Considering the above, it is necessary to find a way for the Department's livestock sector to grow adequately by designing strategies that positively impact the economy, employment and the sector.

### 3.3 Opportunities for e-commerce in the livestock sector

E-commerce is based on purchasing and selling services and products through the Internet and social networks. According to Cordero Linzán (2018), e-commerce uses technology and other means of communication to make commercial exchanges without the need for contact between the buyer and the seller. E-commerce encourages the purchase and sale of products by intensifying processes, making them faster and more efficient. Consumers prefer the opportunity to obtain products more simply, obtaining product information and creating a better interaction with the seller. E-commerce has achieved a greater capacity to attract potential customers than the traditional means currently used by some sectors (table 2).

**Table 2. Types of e-commerce**

|                    |   |
|--------------------|---|
| Trade in services  | They are for face-to-face or remote acquisition, whether related to airline tickets, cinemas, or theaters.  |
| Products           | They are the tangible products for which they are obtained in a virtual or even physical store.   |
| Subscription       | The benefits are obtained concerning each customer's payment on a service or product, either fixed unlimited or limited, the seller collects information from each customer that is of their greatest loyalty while the buyer has advance notice of products, services, discounts and promotions prior. |
| Online advertising | In which the primordial thing is to arrive at the greater number of visits to Web site, in which they found publicity for the user that is related to or of interest of the visitors.   |
| Freemium           | Each of their products are handled in two ways: premium and free; their goal is to make the customer pay attention to the paid products.  |
| E-shop             | Where the promotion and sale is electronic through the web page, its benefits are high since it has an average time of 24 hours.  |

**Source:** Own elaboration.

Freitas (2014) states that traditional commerce is the personal exchange between sellers and buyers. Therefore, a place is fixed where the product transaction will occur and with the required permits. In contrast, e-commerce has different digital platforms that allow commercial exchange and payment using cards and electronic transactions. The agricultural sector, not venturing into new alternatives for promotion and innovation, staying only with the old means, has failed to cross markets, taking into account the impact of e-commerce in contrast to traditional trade.

Electronic transactions have increased, generating a barrier, so knowing the exchange methods and protecting data as technology constantly advances is essential. The department of Norte de Santander could intensify the knowledge and use of technology as a means of promotion, increase quality and thus achieve a competitive advantage locally and internationally. Florez (2012) notes that in Ocaña the inhabitants consider that online shopping provides greater acceptance and convenience, allowing better product access. The above means an opportunity for the sector considering the demand and the boom in agricultural purchases, which allows consumers to obtain quality products more easily; At the same time, in the municipality of Pamplona, promotional strategies have been designed for La Casa de Mercado (Bautista, 2019), to improve competitiveness and increase the development of the economy, allowing to improve processes and achieve a better positioning in the sector over products not offered in the area.

E-commerce platforms allow farmers to satisfy consumer needs, generating innovative ideas that intensify the department's livestock sector, using technology to increase farmers' sales, improving marketing processes, and updating this sector. Table 3 shows the weaknesses, strengths, opportunities, and threats of e-commerce in the livestock sector in the department of Norte de Santander to increase its competitiveness.

**Table 3. SWOT Matrix**

| <b>WEAKNESSES</b>                                    | <b>OPPORTUNITIES</b>                 |
|--|--------------------------------------|
| Lack of access to geographical locations.            | Better prior knowledge of livestock. |
| Lack of protection for perishable products.          | Market expansion.                    |
| Lack of guarantees.                                  | Development of new sales channels.   |
| <b>STRENGTHS</b>                                     | <b>THREATS</b>                       |
| Speed in the search for livestock.                   | Electronic frauds.                   |
| Classification of the price desired by the consumer. | Malware.                             |
| Improved customer service.                           | Lack of ICT knowledge.               |

**Source:** Own elaboration.

Table 3 shows the weaknesses of e-commerce in the sector, highlighting that the routes to access the geographic area are difficult to access or that there need to be more opportunities to access electronic media, thus reducing the scope of the products. On the other hand, it should be considered that transactions involve risks for the consumer and the seller, considering that fraud may occur and there are no guarantees to support them. The strengths are analyzed to improve customer service, taking into account that it is essential for the consumer to know the product and obtain information about it to achieve maximum satisfaction. Norte de Santander could increase its recognition and competitiveness in the livestock sector through innovation.

### 3.4 Research results

A continuación, en la tabla 4 se presentan las estrategias para disminuir las amenazas y mejorar el comercio electrónico en el sector, así mismo, se presentan las fortalezas para sostener el mercado y ser más competitivo.

**Table 4. Implementation strategies**

| SO  | WO  |
|---|---|
| Take advantage of the ease with which the customer gets the description of each product.<br>Use of this media to transcend more and more markets abroad and its recognition.<br>Direct training in customer service.<br>Obtaining new innovative technology to continue realizing new digital channels in the sector. | Request for programs to help the underprivileged.<br>Improvement in the acquisition of programs that protect these new channels.<br>Request for personal and truthful information at the time of transactions.<br>Reach an implementation of guarantees for products that are perishable or difficult to deliver. |
| ST  | WT  |
| Strengthening of digital methods for security and wide presence of product description.<br>Training for customer service.<br>Incentives for obtaining knowledge of new trading techniques.  | To establish alliances with different companies or experts for digital security and access for the commercialization of products.<br>Encourage people to research new technologies.   |

**Source:** Own elaboration.

The strategy of applying electronic commerce in the livestock sector generates a positive increase in this area, because consumers reflect interest in acquiring products more easily to meet their needs, this generates that possibly the entire production of livestock is a step away from the buyers, thus visualizing an anticipation of the information of what you want to buy, all this is achieved through electronic commerce. This information is based on making known the product demanded and thus allowing improved interaction with the farmer, distributor, and final consumer, obtaining great potential in the livestock sector.

In the department of Norte de Santander, the livestock sector needs remodeling, modifications and changes that allow technological innovations and production promotions, through a more innovative methodology to obtain constant permanence in the livestock market. At present, it is of utmost importance the willingness of buyers to be more active and perfected the process, being now essential to rethink how it has been marketing for a long time the products of the livestock sector which has had an increase of failure to medium and small farmers, because they do not have routes to facilitate sales.

The e-commerce plan in the livestock sector of Colombia highly motivates the livestock sector, because it turns out to be a lifesaver for the Colombian countryside, granting an advantage of digital tools that can counteract the transformation where the farmer sees very little utility. The livestock sector has children, youth, seniors and elders who are dedicated to the field, they seek a better quality of life and welfare for their families.

Research done in Colombia yielded successful results, where it is evident that integrating technology into livestock production has great potential for increased commercialization (Montaño, 2017). The region's public and private sector companies provide information on everything related to livestock activities. Livestock farmers can enter the public domain, allowing them to increase productivity, competitiveness and innovation in this sector.

## Conclusions

The development of e-commerce through the application of technology allows better marketing for the livestock sector, offering better quality products and achieving a follow-up that optimizes sales. Through e-commerce and innovation, the livestock sector can reach new consumers and new national markets with the possibility of reaching new potential clients.

Through the SWOT matrix analysis, the opportunities, threats, weaknesses, and strengths of e-commerce in the livestock sector in the Department of Norte de Santander were identified, allowing the creation of strategies to improve the negative aspects and strengthen competitiveness. The results show that the Department of Norte de Santander needs to be aware of the new technological tools and is afraid to use them. Because of this, strategies are created around innovation and to propose a differential trade.

Strategies are proposed for implementing technology in the Department to stimulate the livestock market and reach new potential customers. Through innovation and continuous improvement of information technology tools, we seek to strengthen the digital channels of livestock farmers who remain in the traditional trade. These strategies are focused on the big players in the sector and small and medium livestock farmers to contribute to improving the sector.

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