

ORIGINAL ARTICLE

Perception of the marketing mix in traditional hardware stores in Metropolitan Lima

ABSTRACT

The objective of this paper is to know the perception of customers regarding the marketing mix in the traditional hardware industry in Metropolitan Lima. The marketing mix is a business strategy that has recently undergone a relevant development that has an impact on major challenges in the economy. In this context, the marketing mix is defined in four dimensions: Product, Price, Place and Promotion. The study is of descriptive design, under this methodology was included a survey to collect information from a representative sample of 385 customers of traditional hardware stores. A 15-item Likert scale survey, validated by experts and with high reliability, was used. The results showed that customers consider basic aspects such as product quality and variety, price of hardware stores in the capital is better, distribution channels, logistics and advertising have an important scope and manage to attract customers. Perception levels were between low and fair in most dimensions of the marketing mix. It was shown that there are significant differences in the average perception of the marketing mix dimensions in at least two age groups and in the customers' area of residence. In conclusion, customers have a positive perception of marketing mix strategies and their impact on business results, which is reflected in better sales and therefore higher revenues.

Keywords: Perception; Marketing mix; Traditional hardware stores; Lima Metropolitana.

**Gabriela Sheyla Quijandría
Cabrera**

gabrielaqc18@gmail.com

ORCID: <https://orcid.org/0000-0002-7176-840X>

Universidad Peruana de Ciencias
Aplicadas, Facultad de Negocios,
Lima, Perú

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INTRODUCTION

The hardware industry in Peru is very changing and active, due to the fact that the real estate sector is growing, and the supply of products offered by hardware stores is increasingly higher. The Peruvian News Agency (Andina, 2019) disclosed that according to the Peruvian Hardware Association, there are 18,000 hardware companies that provide employment to 55,000 people. The Ministry of Production expressed that in January 2021, hardware stores increased their sales by 18.7%, which shows an improvement in the sector.

Currently, all organizations apply marketing techniques or tools to satisfy the needs of the user public or target market through their products or services. The marketing mix is fundamental to developing a marketing plan and is based on product, price, place and promotion strategies, better known as the 4Ps. However, it is important to know and analyze aspects of these strategies that throughout history have determined the versatility to strengthen and create new strategies that allow companies to grow by strengthening the products or services they want to market (Trabado, 2018).

At the international level, Chiquillo et al. (2018) showed that a large part of companies lack knowledge about the different marketing strategies, therefore they are affected and do not achieve the expected increase in sales, and Castro (2022) showed that customers have an immense need to obtain products through the Internet, thanks to the variety of information and new means of payment. At the national level, Ascurra and Mas (2019) state that many Peruvian companies have low sales due to the lack of marketing plans that help companies better organize and control the wide range of products they offer to customers in order to achieve higher sales and business optimization. Montenegro and Ventura (2023) demonstrated that the company under study did not consider the marketing mix strategies in all their definition, so the level of perception of its customers was regular. According to the Chartered Institute of Marketing (CIM), marketing is defined as the management of the processes responsible for discovering, predicting and satisfying customer needs for its own benefit.

In the social context, the marketing mix seeks to influence the behavior of the target audience while benefiting society as a whole. It is worth mentioning that some definitions of marketing emphasize the satisfaction of consumers by satisfying their needs through an exchange that adds value and allows the company to achieve long-term profit objectives (Dann, 2010).

For Kotler and Armstrong (2018), the marketing mix is a combination of tactical tools that a firm uses to provoke the right response in a target market; it also includes everything a firm can do to influence demand for a product.

In his presidential address to the American Marketing Association (AMA) in 1953, Neil H. Borden, building on James Culliton's definition of the marketing mix, argued that a sales or marketing manager is like someone who combines several aspects of doing business (Anderson and Taylor, 1995). To this end, Borden recommended 12 factors of the marketing mix: product planning, pricing, branding, distribution channels, sales force, advertising, promotion, packaging, service, display, physical handling, and analysis.

Later, in 1960, McCarthy simplified these variables to four, known as the 4Ps (product, price, place, and promotion). McCarthy's simplification of the 4Ps provides marketers with a clearer and more practical strategic framework for planning and controlling their operations.

In the late 1970s, researchers felt it was necessary to update the marketing mix as consumer demands had changed, and the marketing of industrial products and services had become more prevalent.

Based on the 4P marketing mix, Bernard H. Booms and Mary Jo Bitner developed a 7P service model in 1981. That is, they added three new components to the existing four: Participants, Physical Evidence, and Process. As a result, different perspectives and changes in the marketing mix are seen over time to meet the needs and changing dynamics of the marketplace.

With the emergence of the notion of the marketing mix, and in particular the 4Ps, these concepts have been widely adopted

by managers and academics and have become a significant component of marketing theory, practice and training (Dominici, 2009). Being the most widely used tool for marketing management, the marketing mix has come to dominate marketing practice and research (Chikweche and Fletcher, 2012).

The marketing mix was developed at a time when product manufacturing was the main driver of the economy, so marketing focused solely on transactions and company profitability, with competition, complexity of customer requirements, globalization and technology being seen as influencing marketing concepts and practices (Gök and Hacıoglu, 2010). Since then, marketing has evolved by focusing on the customer and society as a whole and by introducing new components. The 4Ps categorization was appropriate in this situation, and they have not been modified or adapted to current marketing trends, so they may be ineffective in supporting today's marketing activities (Dann, 2010).

In terms of etymology, the word hardware store means iron trade, since in the beginning most of the businesses in this area were run by blacksmiths who sold various tools made of this metal. As a result, important products have been accumulated in this trade for many years, making it a very old business. Hardware stores have a long history as family businesses trying to keep up with technological changes. Therefore, hardware stores were created as modest supply stores close to the people, so that thanks to this business different constructions such as houses, churches and other architectural works that can be appreciated all over the world were built. There is no building, big or small, that has not been touched by the hardware store.

The past played an important role in the history of Peruvian hardware stores, but now, in the digital age, these stores have transformed once again and can now be purchased online. The first online service was launched in the 1990s, and many hardware stores now offer instructional videos to attract do-it-yourselfers.

Hardware and DIY companies are among the few industries that have escaped the consequences of the COVID-19 outbreak. The news-

paper *El País* (2021) reported that in 2020, a year marked by restrictions, fear of going to the store and high economic uncertainty, sales of hardware stores and building materials distributors fell by 1% compared to the previous year. Since then, as people spend more time at home than ever before, the need to modify and test their homes has become imperative.

According to Giurfa (2012), they have a significant advantage in terms of proximity and intimacy with their regular customers, neighbors with whom they can consult on home remodeling. Traditional hardware stores are associated with urgency; this implies that customers who come to buy from this type of business are trying to solve a concrete or specific problem that has occurred in their home, such as a broken faucet or the purchase of a spare part for plumbing, among others. These hardware stores, which are part of the traditional channels, continue to dominate the market. The Peruvian Association of Hardware Stores stated in 2020 that there are about 18,000 stores of building materials and tools throughout the country, and the Mercado Libre platform indicated that the consumption of hardware units ranges between S/ 599 and S/ 929, showing the exponential growth of the sector in Peru (Diario Gestión, 2020).

With the development of technology, it is possible to use social networks to find new consumers and distribute products or services. This search for consumers integrates new customers and can become a source of profit for traditional hardware stores. To do this, you need to know the consumer to understand them; in fact, knowing the customer is the starting point for a successful business. Knowing their desires, preferences, who they are, what they like and dislike, listening to their thoughts and understanding their actions is fundamental (Rivera, 2020). Also, empathizing with customers is very important because it allows understanding their buying patterns and, more importantly, their requirements, which today are increasingly demanding, making it difficult to satisfy their needs.

According to Ryńca and Ziaeeian (2021), when a company has good service rates, customer loyalty increases, which, among other

factors, also influences their choice of purchasing hardware papers. The product must not only better meet the customer's needs, but also understand the value to justify the purchase. This value must be aligned with the price of the product and the customer's entire buying process. Therefore, it is important to ensure that the product is delivered to the customer at the time, place, and quantity requested. It is also important to communicate product availability through positive and practical messages that express the values of the product.

According to the four macro strategies of the marketing mix, traditional hardware stores currently have a strong competitive advantage of product excellence, customer connection, location, and operations (Grewal et al., 2018).

The main objective of this paper is to shed light on customers' perceptions of the marketing mix in the traditional hardware category in the metropolitan area of Lima, to understand the importance of the four marketing mix variables and how they affect the decisions of traditional hardware stores.

METHODS

The research is of descriptive design to know the level of perception of the marketing mix among customers of traditional hardware stores in the metropolitan area of Lima, in order to analyze the evaluation of the subjects of the study on this topic of interest (Hernández et al., 2014).

The population was all adult customers or consumers of hardware stores in Metropolitan Lima (4,666,000 inhabitants), and the sample was selected by random sampling with the required level of confidence and margin of error. The final sample consisted of 385 subjects from the population.

To study the marketing mix, a questionnaire was prepared based on a review of the literature and consultation with experts in the field. The questionnaire contained 15 items to measure the product dimension (4 items), price dimension (3 items), place dimension (5 items), and promotion dimension (3 items), each of which was rated on a 5-point Likert scale. The questionnaire was validated by experts in the

field and the internal consistency was measured by Cronbach's alpha coefficient of 0.915. The questionnaire was administered to the subjects virtually.

Data were collected in an Excel spreadsheet and entered into IBM SPSS version 26 software for analysis. Descriptive statistics were used to summarize the data on the perception of the marketing mix dimensions (product, price, place, and promotion). The frequency distribution, the mean of each item, the mean of three demographic characteristics, and the level of perception of each dimension were calculated.

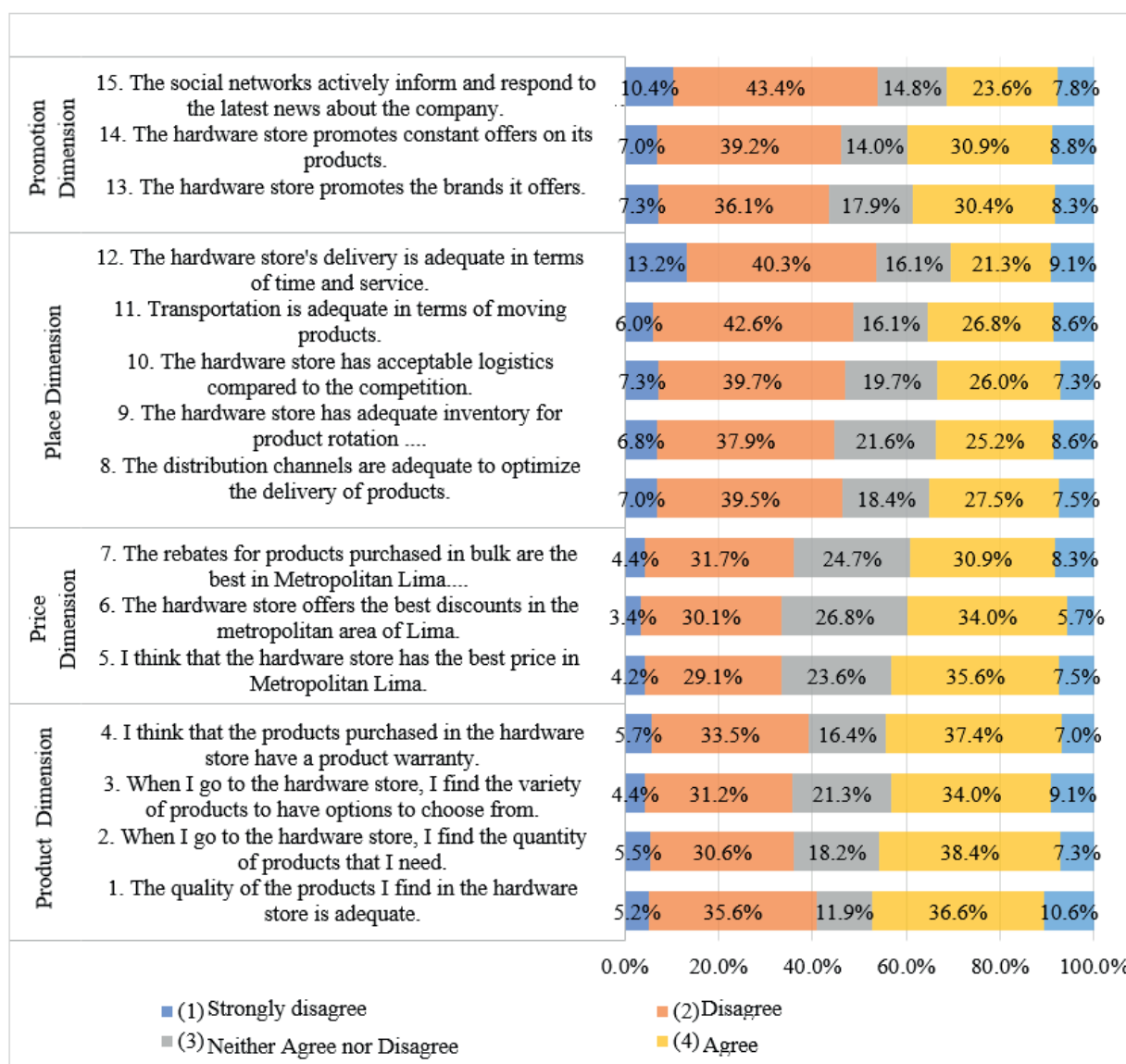
The average customer perception of the marketing mix dimensions was compared according to the age range and sector of residence of customers of traditional hardware stores in Metropolitan Lima, using Student's t-test for comparing means by columns. This test was used to determine the existence of statistically significant differences in the average perception of the marketing mix between at least two groups, and the hypothesis tests determined that the level of significance was less than 0.05 (Hernández and Mendoza, 2018).

RESULTS

Based on the information obtained, the respondents or consumers of hardware stores in Metropolitan Lima were distributed as follows 70.6% male and 29.4% female. The predominant age group was between 26 and 55 years old, with 87.5% of the total respondents. In terms of place of residence, the majority of respondents lived in Central Lima (32.2%), followed by Southern Lima (26.5%), and the rest had much lower percentages.

The descriptive analysis of the perception of the marketing mix of customers of traditional hardware stores in Metropolitan Lima is presented in Figure 1, which shows the percentage frequencies in the five scales evaluated and the mean obtained in each dimension of the marketing mix. The results obtained showed that scales 2 and 4 had the highest concentration of responses, suggesting that participants chose these values as preferred responses. This pattern may indicate an equal distribution of opinions among the scale alternatives or a tendency toward moderate judgments in the as-

Figure 1
Analysis of Rating Scales for Marketing Mix Dimensions.



Note. Prepared by the author, 2023.

pects evaluated. This is why the mean scores are close to the neutral scale, indicating that some aspects have mean scores above 3, while others have mean scores below this reference value. Higher scores imply an overall good opinion of these aspects, while lower averages reflect a more negative perception.

In addition, the average perception of the dimensions of the marketing mix according to age group and area of residence in Lima is shown (Table 1), where the average scores for the Product dimension ranged from 9.87 to 14.98; for the Price dimension, from 7.67 to

11.43; for the Plaza dimension, from 11.37 to 19.24; and for the Promotion dimension, from 6.67 to 11.96. In terms of differentiated groups, the highest averages were found among the youngest, oldest, and Western Lima customers.

Next, the marketing mix dimensions are presented in levels of perception defined as low, regular, and high (Table 2). The results obtained show that the surveyed customers perceive a low level of use of marketing mix strategies in traditional hardware stores in Metropolitan Lima, represented by 34.0%, followed by 33.0% who consider the level to be regular and 33.0%

Table 1*Marketing mix dimensions averaged across two sample characteristics.*

		Dimensions			
		Product	Price	Place	Promotion
Age range	18 - 25 y/o	14.87	11.43	18.48	11.04
	26 - 35 y/o	12.42	9.35	14.16	8.58
	36 - 45 y/o	12.00	8.87	13.38	8.13
	46 - 55 y/o	11.33	8.61	13.22	7.97
	+56 y/o	15.84	11.36	19.24	11.96
District	Central Lima	12.56	9.41	14.22	8.64
	Eastern Lima	12.50	9.03	14.70	8.78
	Northern Lima	9.87	7.67	11.37	6.67
	Western Lima	14.98	10.83	17.26	10.63
	Southern Lima	11.93	9.12	13.84	8.47

Note. Prepared by the author, 2023.**Table 2***Analysis of the perception levels of the sample (N=385).*

Variable and dimensions	Level	Frequency	Percentage
Marketing Mix	Low	131	34.0
	Fair	127	33.0
	High	127	33.0
Product Dimension	Low	133	34.5
	Fair	147	38.2
	High	105	27.3
Price Dimension	Low	152	39.5
	Fair	129	33.5
	High	104	27.0
Place Dimension	Low	139	36.1
	Fair	127	33.0
	High	119	30.9
Promotion Dimension	Low	154	40.0
	Fair	128	33.2
	High	103	26.8

Note. Prepared by the author, 2023.

who consider the level to be high. As for the dimensions or components of the marketing mix, the trend is similar; the perception of the Product dimension, in its majority, is 38.2% of regular level, followed by 34.5% of low level and 27.3% of high level. As for the price dimension, 39.5% are perceived as low, followed by 33.5% as very regular and only 27.0% as high. As for the Plaza dimension, 36.1% perceive it as low, 33.0% as regular and 30.9% as high, and finally, as for the Promotion dimension, 40.0% perceive it as low, 33.2% as regular and 26.8% as high.

In the levels of perception defined above, a varied distribution across the categories was

observed. Some dimensions were perceived mainly at the high level, indicating that participants were happy and satisfied. However, there were characteristics that were perceived at the low and fair levels, indicating potential for improvement or dissatisfaction with those particular aspects.

Hypothesis Testing

The research hypotheses were contrasted:

H1: There is a statistically significant difference in the average perception of marketing mix dimensions between customers of at least two age groups.

H2: There is a statistically significant difference in the average perception of marketing mix dimensions between at least two groups of customers' residential areas.

The results of Student's t-test comparing means by column showed that there are significant differences between at least two groups of customers in the perception of marketing mix dimensions. This means that there is sufficient evidence to show that the perception of marketing mix dimensions is different among different groups of customers. Table 3 shows the results based on bilateral tests assuming equal variances. For each pair of significances, the key to the smaller category appears in the category with the larger mean. In order to determine which groups differ from each other on the marketing mix dimensions, tests were performed that adjusted all pairwise comparisons within a row of each internal subtable using the Bonferroni correction.

Regarding H1, it is shown that there are statistically significant differences in the average perception of the marketing mix dimensions between the customers of groups A and C, as well as groups A and D, E and B, E and C, E and D, while the other groups are

statistically similar in terms of the marketing mix dimensions.

Thus, also for H2, there is evidence of statistically significant differences in the average perception of marketing mix dimensions between customers in groups F and H, as well as groups J and H, I and F, I and H, I and J. The other groups are statistically similar in terms of marketing mix dimensions.

These findings suggest that improvements need to be made in traditional hardware stores with respect to different customer groups in order to develop more effective marketing strategies and, consequently, increase sales and achieve customer satisfaction.

DISCUSSION

In the present research, the responses of the surveyed customers were examined in relation to the scales used in the survey, the averages produced in the items and for each dimension according to three characteristics of the sample.

The results showed that the highest scoring scales are 2 and 4, and the marketing mix dimensions had average scores above and

Table 3

Comparison of traditional hardware store customers' perceptions of marketing mix dimensions across groups.

			Dimensions			
			Product	Price	Place	Promotion
Age range	18 - 25 y/o	(A)	C (.010) D (.001)	B (.010) C (.001) D (.000)	B (.001) C (.000) D (.000)	B (.004) C (.000) D (.000)
	26 - 35 y/o	(B)				
	36 - 45 y/o	(C)				
	46 - 55 y/o	(D)				
	+56 y/o	(E)	B (.001) C (.000) D (.000)	B (.010) C (.000) D (.000)	B (.001) C (.000) D (.000)	B (.001) C (.000) D (.000)
Sector	Central Lima	(F)	H (.000)	H (.001)	H (.005)	H (.001)
	Eastern Lima	(G)	H (.009)		H (.014)	H (.010)
	Northern Lima	(H)				
	Western Lima	(I)	F (.000) G (.011) H (.000) J (.000)	F (.008) G (.012) H (.000) J (.001)	F (.001) H (.000) J (.000)	F (.000) G (.027) H (.000) J (.000)
	Southern Lima	(J)	H (.012)	H (.019)	H (.031)	H (.005)

Note. Prepared by the author, 2023.

below 3 points. Similarly, high averages for the marketing mix dimensions were present among young and older adults, among those who buy electric papers, and among those who live in Western Lima. Marketing mix perceptions were relatively uniform among customers of traditional hardware stores in metropolitan Lima. In general, customers have a low to fair level of perception of the marketing mix dimensions, but there is room for improvement in some respects.

These results are supported by Montenegro and Ventura (2023), who indicate that hardware companies often apply marketing mix strategies on a regular basis. The fact that the product dimension is most often perceived at the regular level indicates that more than a third of customers are satisfied and implies that they are doing something right. However, if the majority of the marketing mix dimensions are perceived at low levels, it indicates that there is potential for improvement in these areas.

Regarding the first hypothesis, it was found that there are statistically significant differences. Younger customers tend to have more positive perceptions of marketing mix dimensions than adult customers. Younger customers may be more satisfied with the variety and quality of hardware products, while adult customers may be more satisfied with the price of the products.

In this regard, a product is understood as a value proposition that helps satisfy a group of needs. Marketing managers of traditional hardware stores must understand and know the importance of satisfying the needs of their customers in order to develop value propositions that are valuable to them (Monferrer, 2013).

Regarding the second hypothesis, it was demonstrated that there are statistically significant differences between customers. Those living in Lima Centro and Lima Sur have a more positive perception of the dimensions of the marketing mix than customers in Lima Norte. Customers living in Western Lima also have a significantly more positive perception of the marketing mix dimensions than those in Central Lima, Northern Lima, and Southern Lima. In this aspect, a great need was found among customers to receive their products

by delivery, in addition to using the different forms of payment that currently exist, which can be implemented with virtual platforms or catalogs (Castro, 2022).

The marketing mix offers many advantages to the organization that uses it. Among them is that by using this model and making the necessary rigorous analysis of its four components, the organization will be able to develop a strategy that will give it a competitive advantage over competitors. On the other hand, in line with the strategic plan it will build, it will be able to define its target market and give a product of value to its consumers through the shopping experience, forging and strengthening the relationship they maintain (Kotler et al., 2021).

Some of the implications for managers of traditional hardware stores is that they must centralize to make improvements in the dimensions of the marketing mix, which according to the results showed that customers perceive positively. Ensure that their products are of high quality, accessible and selected. In addition, address the indicators of the dimensions of the marketing mix that customers perceive negatively.

CONCLUSIONS

Overall, the results of this study indicated that customers of traditional hardware stores in metropolitan Lima have a positive perception of the marketing mix strategies. However, the results also showed that there is room for improvement in some areas, such as distribution channels and communication of incentives to customers.

The most important aspects of marketing to focus on are value creation and consumer behavior and satisfaction. In this sequence of concepts, the role of marketing in traditional hardware organizations includes, but is not limited to, promotion, the company's internal and external interactions, the production of market information for the company, the formulation of strategies, and the evaluation of the performance of its operations.

The use of marketing mix strategies has an impact –and is of great importance—in improving the commercial strategies of hardware companies, domain explained by each component

(product, price, place and promotion) to make profitable decisions, develop in the strong features and limit the weak ones, have competitiveness and adaptation in the market, collaboration between the areas of the company and this leads to results such as in sales growth, satisfaction and customer loyalty.

According to the information received, it is recommended that hardware companies should have presence in digital channels and be prepared to offer delivery services in order to participate in the contact and service with consumers and meet their needs.

REFERENCES

- Anderson, L. and Taylor, R. (1995). McCarthy's 4PS: Timeworn or Time-Tested? *Journal of Marketing Theory and Practice*, 3(3), 1-9. <https://www.jstor.org/stable/40469759>
- Andina. (2019, 27 de agosto). Proyectan que ventas del sector mejoramiento del hogar crecerán 5% en 2019. <https://andina.pe/agencia/noticia-proyectan-ventas-del-sector-mejoramiento-del-hogar-creceran-5-2019-764828.aspx>
- Ascurra Montalvo, A. and Mas Cruz, F. (2019). *Elaboración de un plan de marketing para incrementar las ventas de la empresa 'M&M Fantasy S.R.L' de la ciudad de Chiclayo en el Periodo 2015-2016*. [Tesis de pregrado, Universidad de San Martín de Porres]. Repositorio Académico de la Universidad de San Martín de Porres. <https://repositorio.usmp.edu.pe/handle/20.500.12727/5553>
- Castro Hidalgo, M. (2022). *Diseño de una propuesta de comercio electrónico como estrategia de Marketing Mix en la Ferretería San Francisco Ltda*. [Tesis de pregrado, Universidad Antonio Nariño]. Repositorio Académico de la Universidad Antonio Nariño. http://repositorio.uan.edu.co/bitstream/123456789/6910/1/2022_%20MauricioCastro.pdf
- Chikweche, T., and Fletcher, T. (2012). Revisiting the marketing mix at the bottom of pyramid (BOP): from theoretical considerations to practical realities. *Journal of Consumer Marketing*, 29(7), 507-520. <https://doi.org/10.1108/07363761211275018>
- Chiquillo Rodelo, J.; Pitre Redondo, R., and Hernández Palma, H. (2018). Business marketing and its transformation with the insertion of social networks. *Indian Journal of Science and Technology*, 11(25), 1-5. <https://doi.org/10.17485/ijst/2018/v11i25/129095>
- Dann, S. (2010). Redefining social marketing with contemporary commercial marketing definitions. *Journal of Business Research*, 63(2), 147-153. <https://doi.org/10.1016/j.jbusres.2009.02.013>
- Diario El País. (2021). La ferretería resiste a la pandemia. Economía. <https://elpais.com/economia/2021-01-27/la-ferreteria-resiste-a-la-pandemia.html>
- Diario Gestión. (2020). Comercio ferretero en Las Malvinas aporta el 60% de la totalidad de sus ventas en pandemia. Economía. <https://gestion.pe/economia/ventas-del-sector-ferretero-en-las-malvinas-aporta-cerca-de-s15-millones-diarios-noticia/>
- Dominici, G. (2009). From Marketing Mix to e-Marketing Mix: A Literature Overview and Classification. *International Journal of Business and Management*, 4(9), 17-24. <https://doi.org/10.5539/ijbm.v4n9p17>
- Giurfa, G. (2012). Negocio de ferretería en el Perú. *Ideas de Negocios Rentables*. <http://ideasdenegociosrentables.blogspot.com/2012/08/negocio-de-ferreteria-en-el-peru.html>
- Gök, O., and Hacioglu, G. (2010). The organizational roles of marketing and marketing managers. *Marketing Intelligence & Planning*, 28(3), 291-309. <https://doi.org/10.1108/02634501011041435>
- Grewal, D.; Motyka, S., and Levy, M. (2018). The evolution and future of retailing and retailing education. *Journal of Marketing Education*, 40(1), 85-93. <https://doi.org/10.1177/02734753187558>
- Hernández, R. and Mendoza, C. (2018). *Metodología de la Investigación: Las rutas cuantitativa, cualitativa y mixta*. Mac Graw Hill Education.
- Hernández, R.; Fernández, C., and Baptista, M. (2014). *Metodología de la Investigación*. (6ª ed.). McGraw-Hill.
- Kotler, P. and Armstrong, G. (2018). *Principios de Marketing*. (17ª ed.). Pearson.
- Kotler, P., Keller, K. and Chernev, A. (2021). *Marketing management*. (16ª ed.). Pearson.
- Monferrer, D. (2013). *Fundamentos del Marketing*. Universitat Jaume I.
- Montenegro, M. and Ventura, V. (2023). *Estrategias de marketing mix para la fidelización de clientes de la empresa Ferreteros y Constructores del Norte S.A.C., Chiclayo 2020*. [Tesis de pregrado, Universidad de Señor de Sipán, Lambayeque, Perú]. Repositorio Académico Universidad de Señor de Sipán. <https://revistas.uss.edu.pe/index.php/EMP/article/view/1482>

- Rivera Abad, S. (2020). Estrategias utilizadas por los influencers ecuatorianos como agentes del marketing digital, para promover la venta de productos y servicios en la red social Instagram. *Revista Científica de Comunicaciones*, 11(3), 146–176. <https://doi.org/https://doi.org/10.31207/rch.v11i3.272>
- Ryńca R, and Ziaeeian Y. (2021). Applying the goal programming in the management of the 7P marketing mix model at universities-case study. *PLoS ONE*, 16(11), 1–26. <https://doi.org/10.1371/journal.pone.0260067>
- Trabado, M. (2018, 25 de febrero). Plan de Marketing Digital: Introducción. [Blog]. <http://www.miguelangeltrabado.es/marketing-digital/>

Conflicts of interest

The author has no conflicts of interest to declare.

Author contributions

Gabriela Sheyla Quijandría Cabrera (lead author): research, methodology, writing (original draft, revision, and editing).