



PRICE BEHAVIOR OF THE PHARMACEUTICAL SECTOR FOR DECISION- MAKING PURPOSES

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Abstract-The objective of this work is: Determine the incidence that exerts the calculation of the price elasticity of demand, in the pharmacy sector to make decisions within the department of Cordoba, a research proposal is made that reflects how has been the growth of the pharmaceutical sector in recent years in the city of Monteria, for a total of 333 pharmacies establishments, In addition, a bibliographic review was made, about research projects on the subject, where it is found that the methodology used to do the work is qualitative and descriptive, with results on the price elasticity of demand, elastic, the coefficient is greater than one, when the price changes strongly affects the demand. Then it is presented what are the determinants of price change and that affects the demand for drugs, and finally it is explained how to calculate the elasticity of demand and its characteristics.

Keywords: Pharmaceuticals, Decision making, Elasticity, Demand, Price, Elasticity

INTRODUCTION

The price elasticity of demand is a coefficient that pharmaceutical organizations must calculate to measure the impact of a change in price on demand, which means that the growth indicator through sales, it is important to measure how sales will change, if the price fluctuates up or down, for each case affects the pharmacies in terms of economic and financial sustainability; for this chapter the following objectives were set: Determine the incidence exerted by the calculation of the price elasticity of demand, in the pharmacy sector to make decisions within the department of Córdoba, with its specific objectives which are: To analyze how the entrepreneurs of the pharmaceutical sector make decisions on the increase of prices for the years 2020-2021; To determine the effects of variations or fluctuations in prices on the sales margin of pharmacies in the city of Monteria; To specify the processes for the calculation of the price elasticity of demand pedagogically for entrepreneurs; To analyze the effects on income when the prices of drugs are increased, each of the specific objectives are developed in the contents of this chapter, with the results.

1. METHODOLOGY

The research on the influence of the calculation of the price elasticity of demand will be conducted in the pharmaceutical sector in the city of Monteria, through the type of descriptive and quantitative research, i.e. the information collected in the research process will be taken and a comparison will be made of what they have done during the study period 2020-2021, to describe the two scenarios in which the decisions made with the calculation of the elasticity of demand and the effect it will have on sales will be reflected and the other scenario when the price is determined without knowing how it affects demand. The descriptive research will inquire about: Who of the merchants use these economic tools to make decisions and who do not; what result will be obtained in the margin of sales if it is prudent to raise prices, in the city of Monteria, in the years described above.



The research will be done through a process that has the following roadmap: First we make the preliminary project, to establish the steps to follow with a logical and sequential order, within this process some agreements are proposed with the entities of control and surveillance to determine the means or tools necessary to reach the population under study, The project as such is formulated or inquired as currently do the entrepreneurs to make decisions and trainings of the project as such and then of topics of interest related to the subject to investigate, each and every one of the objectives are developed and scientific productions of generation of new knowledge will be taken, in addition the training on price elasticity of demand and decisions can be taken. The National Federation of Merchants (Fenalco) represents the Colombian merchants and businessmen and attends to their needs. It is based on the defense of democracy and free enterprise to generate better conditions of competitiveness, productivity and sustainability. It works in a transversal and specialized manner in sectors, in accordance with economic, technological and market trends. In the city of Monteria, this institution offered us their valuable and reliable help, seeing that the subject can contribute to the improvement of decision making in terms of prices.

2. RESEARCH PROPOSAL


The price elasticity of demand, measures the effect of change in price on the quantity demanded of a good, i.e. measures the percentage variation experienced by the quantity demanded when the price rises by 1%(Vial & Zurita, 2018), affecting the sales of the organization that makes the decision to increase the price, the research is proposed, with this proposal to demonstrate with a practical and real exercise of a sector of the economy, pharmaceutical the importance of measuring the impact of changes in prices on actual sales and that at the same magnitude generates an impact on profitability. As it is well understood that by increasing sales, if productive resources are well used, profits should increase.

The companies of the commercial sector, more specifically the pharmacies, currently have framed an important growth in the economy of the region, the companies of this sector that belong to the big chains of pharmacies, are administered by means of software, covering bigger markets and positioning themselves in small economies, their decisions are taken from the implementation of models and methods that facilitate the precision of future scenarios, the opposite happens with the smaller companies that do not have the economic and administrative capacities, they still implement manual and empirical processes that do not allow them to make projections with high percentages.

Taking into account the consequences of COVID 19, the research project will take the analysis periods of 2020-2021, to compare the change in the sales margin of the sector under study from the qualitative analysis of the changes brought about by the pandemic, as observed during these periods, through different media speculation on how to protect themselves and the drugs to be consumed if symptoms appear, which involves much consumption of drugs that were necessary in the process of prevention and cure of the virus, several questions arise such as: How many times prices went up and what changes were presented in sales.

Since the goods and services marketed by pharmacies are basic necessities, at what margin should the price be changed so as not to cause a negative effect on the sales margin and therefore on profitability, it is then where a possible affectation of the quantity demand originates.

During the last 20 years Colombia has tried to advance to higher levels of production and marketing, however, there are several components that have not allowed it to achieve the growth objectives, due to the economic environment and also failures in the processes of defining the guidelines that can make businesses sustainable. For the year 2021, according to the Dane, 60.1% of the country's economic activity is of the economic sector, also of the new companies in the commerce sector that were registered corresponds to 12.6% of this indicator an average of 35,000 businesses in the commercial sector are closed nationwide, is then where a question arises: What are the causes that generate closure in companies?



The research project aims to cover the importance of price elasticity of demand in the drugstore and pharmaceutical sector in the city of Monteria, so that the scientific area of a contribution of praxeological knowledge to the sector mentioned.

As shown by the comparative analysis of the progress and growth of economic sectors where indicators such as inflation, unemployment, competitiveness and productivity are very low, we want to show some economic theories, which are necessary to implement in these sectors that hit the family basket, it is then where the business impact of research will give a significant contribution in these sectors.

The research project for the researchers of the Universidad del Sinú, are indicators to be achieved in periods of one year. Contributing to the development of knowledge generation.

BACKGROUND

1. The research conducted by Marina Raije Mattozo Rover, Claudia Marcela Vargas Peláez, Marení Rocha Farias and Silvana Nair Leite was published in 2016 and is entitled "Access to high-priced medicines in Brazil: the perspective of physicians, drugs and users" the objective is to explore the perceptions on access to medicines of the Specialized Component of Pharmaceutical Assistance (CEAF) of the Brazilian Unified Health System (which includes high-cost medicines), by the actors involved in the care setting of the CEAF. Its methodology has a qualitative-descriptive approach and data collection took place through a focus group. The results show that the demand for pharmaceutical products is limited by different factors, including their high price, which, according to the participants, affects health services in general.

2. The work carried out by Ramón Morillo, María Gorgas, Fernando Mugarza, Ana Álvarez, José Poveda and Jesús Díaz published in 2021, entitled "Patient and health practitioner perceptions about the role of hospital pharmacists along the care continuum: the Pharmaconectados Project" its objective was to determine the perception of patients and practitioners about the role of hospital pharmacists in Spain along the care continuum through an analytical methodology of a multicenter cross-sectional study divided into two phases; the results show a satisfactory state of the services provided through the professionals, which is important to recognize because the essence of productivity in the pharmaceutical sector starts from a correct development of the services provided.

3. The chapter published by Rebeca Busto, Helena Fidalgo, Carmen Da Casa and Juan Blanco is entitled "Demand for care from primary care to the traumatology and orthopedic surgery service during the SARS-CoV-2 confinement in Spain", published in 2022, in which it states that the confinement caused by the SARS-CoV-2 virus led to a drastic reduction in the demand for care. The health care provided in Spanish primary care health centers was now provided by telephone, since hospitals were collapsed by patients with the virus, with a referral population of 54.04%, most of whom were women. Therefore, if an epidemiological situation similar to the one experienced in the period of confinement in 2020 were to occur, it would be necessary to have consultations with preferential dedication to the knee and spine condition. Thanks to the above, it is estimated that there are uncontrollable factors that can definitely affect demand and that it is very important to take them into account.

4. The research conducted by María Zuluaga, Natalie Jurado, Julio Solano, María Camila Luna, Beatriz Soto and Ricardo Sánchez, published in 2022 is entitled "The impact of COVID-19 pandemic on the oncology services demand in a middle income setting with the universal health insurance" its objective was to analyze the impact of the COVID-19 pandemic on the demand for oncology services in a middle income country with universal health coverage, through a quantitative approach methodology led by a field study, the results show that there was a generalized decrease in the demand for services at the physical points, outlining other measures to combat the virus; It is concluded that despite the above, it was possible to optimize supplies and measures parallel to the outbreak of the pandemic, ensuring its economy and supply, therefore it is affirmed that the production for supplies could be maintained and encouraged, promoting that the changes in the services provided were not abrupt.




5. The research conducted by Galina Merkuryeva, Aija Valberga and Alexander Smirnov, was published in 2021 and is entitled "Demand forecasting in pharmaceutical supply chains: A case study", its objective is to evaluate the supply chain forecasting with the real case of Pharma Log, its methodology is an experimental analysis with both qualitative and quantitative approach; the results show 3 experiments applying to each one a simple average forecasting model, multiple linear regression and symbolic regression with genetic programming, respectively. From the conclusion it is highlighted that the forecast with symbolic regression is the one that has the lowest error estimation, predicting better the demand, however, the supply chains for the pharmaceutical sector are among the most complex and this complexity limits the development. Demand forecasting is key for logistics management in this area, but it is important that the decisions made in this area are based on correct internal decisions.

6. The work carried out by Tiziana Priede Bergamini, Cristina López-Cózar Navarro, Sonia Benito Hernández published in 2009 entitled "Pharmaceutical manufacturing sector in Spain. Representation of companies in the industry" aims to study the demographic structure for the Spanish pharmaceutical sector and thus analyze the participation of these companies in the economic activity. Its methodology is descriptive with a qualitative approach; the results show the phases of development of pharmaceuticals and that the pharmaceutical companies take weight on the economic activity and most of these their legal form is SA or SL. It is concluded that, for these companies are important R & D activity in search of a more competitive position contributing to a better technological and social process. It is important to highlight this research because it is contextualizing what is happening within this industry and the impact that can be analyzed to generalize other cases.

7. The work carried out by Marta Arce-Urriza and Jose-Javier Cebollada, published in 2011 is entitled "A comparison of consumer behavior in online and offline channels: price sensitivity, brand loyalty and effect of product features" its objective is to evaluate consumer behavior in online and offline channels with data from the 5 main supermarket chains in Spain, its methodology involves a deductive reasoning that for its operation: part of two stages to counter the premises; the results show that the loyalty parameters is higher in the online channel and the absolute value of the price sensitivity parameter is lower in online. The findings have a wide importance in the management of the company not only for product manufacturers, but also for distributors and even for online and multichannel retailers. From this work it is highlighted that there are factors that are not controllable but that should be taken into account to estimate good internal decision.

8. The chapter of a book by Mónica Ausejo Segura, published in 2005, is entitled "The new reference prices: an opportunity in efficient drug management", which contextualizes the parameters of drug prices in Spain and the deficiencies existing in other countries to counteract economic convergence measures on inflation and public deficit related to drug prices. He argues that this problem has been tackled by means of a reference price system where prices are calculated using three factors: cost/treatment/days of each active ingredient. This system is promoted with the intention that, depending on the supply of drugs available in a country, the financier can decide what price he/she is willing to pay. The reference price system has advantages, but it will not solve the problem of pharmaceutical spending growth on its own; other measures are also required. Despite its weaknesses, the system sounds promising and may be a good alternative to apply with more fervor in Colombia.

9. The work carried out by Saúl Escobar Toledo was published in 2014 and is entitled "Minimum Wages: inequality and development" and its objective is to analyze the evolution of minimum wages in Mexico during the last decades and thus determine the impact on growth and employment. The methodology is based on a literature review. The results show that between 2005 and 2014 the total number of workers earning a minimum wage went from 11% to 9%, that there are also other factors that regulate the labor market; and that within this market there is a dysfunctional distribution of income as in other Latin American countries. It is concluded that wage inequality increases informal employment and migration, that a good wage policy is key to the social development of the population, and that wages are no longer considered a growth factor but



a residual variable measured by productivity indexes. As a final note, the work is highlighted because it is very important to take into account the wage measures within a territory, as these also play an important role in decisions.


10. The work carried out by José Antonio Martín-Conde, Enrique Tévar Alfonso, JF García García published in 2011 is entitled "Are drugs worth what they cost?" and its objective is to evaluate the cost-effectiveness of drugs and their productivity in terms of profit in Spain, through a documentary review methodology. The results show that there is an economic problem in this area, linked to public spending and the inefficiency of health entities; in addition, there are different factors that affect the overestimation of the use of drugs. The authors propose a way forward to minimize the problem around: the evaluation of the pharmaceutical supply, the cases of selected financing, the gap between efficiency and effectiveness, and the patients' perspective. This type of projects are taken into account to analyze the decision making process regarding the cost of drugs and which elements stand out in favor of the supply of drugs, and can also serve as a guide for the setting of such prices.

11. The research conducted by Delio Ignacio Castañeda was published in 2014 and is entitled "conditions for organizational learning", its objective is to identify how conditions contribute to learning in organizations, especially: the role of learning culture, training, strategic clarity and organizational support. The methodology has a qualitative approach: a coexistence sample was used for three organizations located in the city of Bogota-Colombia and the number of participants was 613 where 58% were men and 42% were women. Results: a factorial analysis was carried out for organizational learning of 10 items, 4 of which were at the individual level, 3 at the group level and 3 at the organizational level. Conclusion: training processes contribute to the development of workers' competencies, which is key to the company's performance. It is important to take into account the organizational decisions since, through them, problems are solved, opportunities are created and risks are avoided.

12. The research conducted by Alfredo Anaya Narváez, Yaneth Romero Álvarez and John Arturo Buelvas Parra was published in 2020 and is entitled "Poverty and financial inclusion in the municipality of Montería, Colombia", its objective is to verify the incidence of monetary poverty on the financial inclusion of households in the municipality of Montería de Córdoba-Colombia. The methodology: it has a qualitative approach carried out with a probabilistic econometric model called Probit; sample of 556 households from Montería. The results show that there is an inverse relationship between monetary poverty and financial inclusion in the sample. It is concluded that: 41.1% of urban households have financial inclusion and only 10.3% of rural households have financial inclusion, and that there are also other socio-demographic factors that affect this, such as school level. These types of cases are important because the quality of the people also affects demand.

13. The work carried out by José Mauricio Hernández, Elsa María Doria, Laura Herrera, Manuela Arboleda, José Manuel Gil and Lina María Martínez was published in 2021 and is entitled "Out-of-pocket expenses of patients with HIV/AIDS attending a control program in Montería, Córdoba". Its objective is to estimate the out-of-pocket expenses assumed by patients diagnosed with HIV/AIDS who attend a control program for this disease in the city of Montería. The methodology was an observational, descriptive and prospective study with a sample of 43 patients. The results indicate that the expenses assumed by the clients were 273,907 COP, 44% of the sample claimed to receive an economic benefit with an average value of 18,250 COP and that the out-of-pocket costs represent 83% of their income. It is concluded that the patients evaluated have a difficult economic situation to cope with their disease. This type of situation leads many people to erroneously choose between their well-being and stabilizing their economic condition.

14. The study conducted by Alejandro Castaño Ramírez was published in 2011 and is entitled "Attitudes of micro and small business entrepreneurs towards the acquisition of external information for business decision making", its objective is to understand the behavior of micro and small business entrepreneurs related to the acquisition of external information. Its methodology has a qualitative approach with a convenience sampling where 696 companies were surveyed in Bogota: 353 micro and 343 small companies. The results show that there is a good motivation for



the search of external information, which implies a high valuation. It is concluded: the collection of information is incidental and unstructured, an intuitive character is left in front and that the entrepreneurs look for low investment elements such as the use of the Internet. Therefore, it is important for businesses to be recursive and dynamic.

15. This study was carried out by Mónica Franco Ángel and David Urbano Pulido, published in 2010 and entitled "The success of SMEs in Colombia: a case study in the health sector", its objective is to analyze and identify the factors that determine the success of SMEs in Colombia. Its methodology has a qualitative approach and consists of a comparative study with a sample of 4 SMEs in Cali-Colombia belonging to the health sector. The results show that the companies make strategic use of their resources, have influential leaders in the health sector, and have good organizational capacities and access to financing. It is concluded that the factors that influence the success of the companies would be: the latent insertion of strategic resources and capabilities and the contribution of formal and informal institutions. In this sense, it is important to take into account the results of this research and to highlight that the good performance of these companies cooperates with the Colombian economic dynamics.

16. The research carried out by Edgar Caicedo García, Jesús Daniel Sarmiento-Sarmiento and Ramón Hernández Ortega was published in 2022 and is entitled "Inflation and Covid-19: an exercise for Colombia", its objective is to evaluate the changes that the CPI calculation could present in the midst of the pandemic with the methodology in the weighting structure and apparently an inductive method. The results show that the CPI-DANE outperformed the CPI-ACTUALIZED which means that the alternative calculation proposed was higher than the one presented by DANE, however for both cases, the consumption patterns registered in the households allowed a better understanding of the effects in the pandemic. It is concluded that: that there are serious complications in the cost of living of consumers, that there is a discrepancy in the weights of consumption by institutions consulted, and that it is ideal that the CPI weighting structure be updated more frequently. This research corroborates the economic hardship being experienced as a result of the pandemic effect.

17. The study conducted by Luis Calvo Torres, Rafael Bernal Cobo, Juan Pablo Murillo Quintero, Andrés Gaviria Mendoza and Jorge Machado Alba, was published in 2019 and is entitled "Patterns of use of anti-dementia drugs in a group of patients in Colombia", its objective is to determine the prescription patterns of anti-dementia drugs in a population in Colombia. Its methodology is through a descriptive study, the sample is based on a database of 3.5 million members of the Colombian health system. The results show that the most used drug was rivastigmine in 69.6% and memantine in 31.4%. It is concluded that anti-dementia drugs are used with doses lower than those defined, however, they represent an important investment in health. In this sense, the most opportune thing to do is to continue advancing research to promote the efficiency of these drugs at the national level.

18. The work carried out by María Ángeles Murga and María Novo was published in 2014 and is entitled "The training of competences in sustainability: a strategy for the improvement of employability in sustainable societies", its objective is to determine the importance of employability as key training within Spanish companies, its methodology is based on documentary review. The background of the research starts especially in the framework of non-formal education allowing to explain what is the approach of this sustainability. In the results, an integrated matrix by competencies is designed to allow the planning of training projects. In conclusion, training in competencies is key to sustainability in companies that decide to apply these factors; beyond instruments in social progress and quality of life. These studies are essential to understand which factors within the organizations should be strengthened and also have an impact on their sustainability.

19. The work carried out by Begoña Calvo, Miguel Ángel Gastelurrutia, Amaia Urionaguena, Arantxazu Isla, Ana de Pozo and María Ángeles Solinís was published in 2021 and is entitled "Supply of pharmaceutical care services: Key to a new model of health services" its objective is to show the aspects that are taken for the change of model of a care pharmacy, its methodology is a documentary review with reference in the resolution of the Council of Europe (2020) and the

results shed the great impact that contracts health care and promotes recommendations of the agents involved for its implementation. In conclusion, it highlights how important it is to harness the potential within pharmaceutical care as a key to boost internal management and sustainability. This research is directly away from the thematic line of the project, however, cases such as these are timely examples to corroborate how important it is to maintain sustainability within organizations.

20. The following opinion article by José Antonio Sacristán, Tatiana Dilla, José Luis Pinto and Fernando Antoñanzas, published in 2007, is entitled "Economic evaluation of drugs: Experiences and ways forward", this exposes the problem of how high has been the evaluation of drugs in Spain as a prioritization criterion in an environment where the available resources are not sufficient to meet the increasing demand, for this reason its structure is composed of elements that can model the problem: health expenditure, analysis of the efficiency of drugs, budgetary rigidity, budgetary impact, innovation and efficiency. It is concluded that the evaluation methods are well developed and their impact is reflected in the need to prioritize available resources; efficiency analysis is very useful and that being efficient implies spending better and not less. This article highlights the importance of developing an efficient method versus meeting demand.

Change in prices

Prices do not remain constant in the medium term, for various reasons that affect production, production costs, market expectations, and also the demand for the good or services, this will be explained through each determinant that causes a change in prices.

Cost of goods or cost of production: When making the combination of factors in the production process is required to include the cost of raw materials and inputs for the cases of transformation of these, if it is marketing as is the pharmaceutical sector, if the purchase price of the goods increases, in turn the entrepreneur or investor must recover the increased cost, for any of the cases, being that the price is affected by an increase in costs, example: Drugs in some cases are imported and the increase in the exchange rate also contributes to the price variation, at the time of calculating the price through the unit cost and the profitability expected by the investor.

Increase in demand: This determinant can be explained by taking into account various economic cycles; for example, if there are periods such as in the time of covid-2019, more precisely in 2020, due to the need to preserve health, the consumer increases the demand for pharmaceuticals. Consequently, in another period or economic cycle the trader identifies by the sales indicator and perceives a substantial increase in sales and makes the decision to take advantage of the need of the individual and in order to increase their profitability, increase the prices of drugs.

Market expectations: This sector has presented significant increases in sales levels, an indicator that shows a growth with more 330 pharmacies in the city of Monteria-Cordoba, and trends to maintain and preserve health for a long time, the consumer within the goods and services that make up the family basket, integrate products that prevent diseases, such as, for example: Mouthwash, alcohol, Calcium, collagens, vitamin supplements for the brain, Vitamin C, D,A, Medicines for muscle mass, among others, expectations have increased the demand for the good, producing in turn an increase in prices.

Effects of price changes on demand: The demand for goods and services is determined by several factors: price, disposable income, population, substitute and complementary goods, tastes and preferences, expectations, but in the Ceteris Paribus model it has a single or sole determinant which is price when all others remain constant.

Price elasticity of demand: The proportion or factor of price elasticity of demand measures the percentage change in the quantity demanded of a good or service for a given period, as a result of a proportional fluctuation given the price of the good or service. In compliance with the law of demand; when the price rises it generates a decrease in demand and vice versa, when the price falls there is an increase in demand, the coefficient of the price elasticity of demand has a negative slope, according to the economic theory or law of demand, however, a negative sign is applied in the formula shown in the following equation to result in a positive effect, just to

facilitate the explanation of this theory. In other words or synthesized or summarized explanation: the price elasticity of demand, in a period of time; measures the effect of price change in the quantity demanded of a good or service, expressed in a percentage; The equation (1) defines it mathematically.

$$e = (\Delta Q / Q) / (\Delta P / P) = \Delta Q / \Delta P \times P / Q \text{ Equation: 1}$$

e = Price elasticity of demand

ΔQ = Variation in quantity demand: $Q_{(2-)} - Q_{(1)}$

ΔP = Variation of price: $P_{(2-)} - P_{(1)}$

Q = Quantity demand of a period

P = Price of the good or service of a period.

Example: In previous sections it is explained that drugs: Medicines that serve to cure, prevent or alleviate diseases, ailments, in their chemical or natural compositions have the ability to produce effects or alterations in the physiological system of the human being, are staple products of the family basket, however its nature related to health, may place it in a context that is not contemplated in the explanations of the theory of price elasticity of demand, that is to say that although its price changes the quantity demanded may remain the same or increase according to the expectations of the individual.

Classification

Elastic: When (e) is greater than one, the demand is elastic in relation to the price; $e > 1$, i.e. when the variation of the quantity demanded of the periods is divided by the variation of the price of the same period. The higher the elasticity, the greater the effect of price on the quantity demanded of the good.

Inelastic: When (e) is less than one, the demand is inelastic in relation to the price; $e < 1$, when dividing the variation of the quantity demand of the periods by the variation of the price of the same period. The lower the elasticity, the less the price affects the quantity demanded.

Medicines have a price elasticity of demand greater than one, i.e. elastic, when the price of medicines increases, there is a significant change in the demand decreasing, the demand for the good that presented an increase in price decreases and the demand for substitute goods increases.

3. RECOMMENDATIONS

The pharmaceutical sector under study in this research, should analyze the behavior of prices in relation to the affectation of the demand for medicines, although the sector presents a growing behavior from the point of view of the number of pharmacies in the city of Monteria, although it has presented these favorable levels of increase in the number of pharmacies, convenient for consumers, in the sense of competition with diversity of products and prices, should measure the effect of prices for demand, and thus make appropriate decisions that contribute to the sustainability of business in the long term.

If prices increase sustainably, contributing to the increase in the cost of living of individuals, they can generate an inflationary process, also as the elasticity of demand is elastic; they must prepare their inventory of substitute goods in the period where they make the decision of a price increase in other drugs.

CONCLUSIONS

The price elasticity of demand is elastic, i.e., although the price changes upwards the demand always affects the consumer, in the short term, however, it affects in the long term, for the sustainability of business, taking into account that the demand is reflected in the sales indicator and its efficiency makes it profitable and sustainable over time.

By increasing the price of drugs or medicines a change is generated in increased demand for substitute goods, increases the demand for these goods, but lowers the demand for goods that have an increase in prices, it may be a question who overall more profitable or is obtained by sales margin.

There is little research on the subject due to the difficulties encountered in the field study.

To maintain a healthy environment in the economic environment, it is necessary to take into account the variation in demand when the price changes, so as not to affect the profitability of pharmacies.

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