

## Comercialización de leche a través de máquinas expendedoras en el Estado de Tabasco, México

*Milk marketing through vending machines in the state of Tabasco, Mexico*

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### Resumen

El objetivo de la investigación fue obtener información sobre los consumidores de productos lácteos en el estado, sus preferencias y hábitos de compra, a partir de la cual se pudiera comprobar si existen condiciones mercadológicas que garanticen la adecuada implementación de un proyecto para la comercialización de leche a través de máquinas expendedoras en el estado de Tabasco. El tipo de estudio realizado fue de corte descriptivo típico ya que se basó en la aplicación de cuestionarios a 846 familias de un total de 559 114 del estado ubicadas en los diferentes municipios de Tabasco, a través de la determinación de muestras por conglomerados. Su aplicación se realizó a través de alumnos de la Universidad Tecnológica de Tabasco y el análisis estadístico se realizó a través del Software DYANE. Esta investigación demostró que el uso de máquinas expendedoras para la comercialización de la leche en el estado de Tabasco se visualiza bastante factible ya que los hogares tabasqueños manifiestan experiencia en el uso de mecanismos de despacho y una amplia disposición a comprar este alimento a través de este tipo de dispositivos, prescindiendo incluso de un envasado previo, si esto representara una reducción

del precio del venta del producto. También se detectó que existe un mercado de 26 012 familias, es decir, casi el 5 % del total de los hogares de Tabasco que suele adquirir de forma diaria leche fresca (bronca), en cantidades de entre 1 a 3 litros en la búsqueda de frescura y de economía, en puntos de venta cercanos a su hogar, susceptible de ser el mercado potencial de este proyecto.

**Palabras clave:** comercialización de leche, máquinas expendedoras, perfiles de clientes, demanda potencial.

### Abstract

The aim of the investigation was to obtain information about consumers of dairy products in the state, preferences and buying habits, from which you could check for market related conditions to ensure the proper implementation of a project for the marketing of milk through vending machines in the state of Tabasco. The type of study was descriptive typical cut as it was based on the application of questionnaires to 846 families a total of 559 114 state located in the different municipalities of Tabasco, through the determination of cluster samples. His application was made by students of the Technological University of Tabasco and statistical analysis was performed using SPSS software. This research showed that the use of vending machines for the sale of milk in the state of Tabasco is displayed quite feasible since Tabasco homes manifest experience in the use of delivery mechanisms and a wide willingness to buy this food through this Such devices, regardless of prior packaging even if this represented a reduction in the price of sale of the product. It was also detected that there is a market for 26 012 families, ie almost 5 % of all households Tabasco usually acquired for daily milk fresh (raw), in quantities of 1 to 3 liters seeking freshness and economy, in outlets near your home, which could be potential of this project the market.

**Key words:** marketing of milk, vending machines, customer profiles, potential demand.

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## Introduction

Currently Tabasco milk producers are facing major challenges due to several factors that complicate the movement of production. Regional Livestock Union of Tabasco (UGR) brings together 15 000 cattle producers today generate about 300 thousand liters of milk and 17 local associations. However, this organization has faced in recent years severe problems, including financial, which sometimes have slowed their activities and forced the closure of its collection centers scattered throughout the state of Tabasco, deriving this loss of market by the lack of sales ability and domestic competitors entry.

Because of this, most local farmers have chosen to seek strategic alternatives to achieve sustainability of its operations, as were the reduction of milk production, reorientation towards the production of beef cattle and displacement of low production generated to supply micro and small cheese factories around to their municipalities.

Develop the potential in the marketing of dairy products in the state of Tabasco will enable further growth of the agricultural sector and a better distribution of the product among consumers in the state, in close relation to the improved nutrition of the consumer population. The market originated in remote populations of the major cities in the state provide better living conditions, creating jobs where product families in a community can earn income from the sale of various products derived from milk produced in dairy processing cooperatives .

This project aims to provide an update on current consumption habits and potential within the population of the state of Tabasco with respect to milk, according to this information, study the possibility of introducing technological development that is already being used in European countries pasteurization and marketing of this commodity, thus achieving better exploitation of local production processes and approach to the shorter and economical for the consumer markets.

## **METHODOLOGY**

The type of study was descriptive typical cut as it was based on the application of questionnaires to 846 families a total of 559,114 located in the different municipalities of Tabasco, through the

determination of cluster samples. His application was made by students of the Technological University of Tabasco and statistical analysis was performed through DYANE program.

Determination of the sample:

To narrow the total study population families Tabasco and its distribution was detected in the state's municipalities through the Census of Population and Housing 2010 National Institute of Statistics and Geography (INEGI) to obtain an amount of 559 114 households. To this total it was applied the method to calculate finite populations the sample, with a confidence level of 90% and an estimated error of 2.7%, resulting in a total of 846 families were to be subject to study, which they were distributed throughout the 17 municipalities of the state of Tabasco to the collection of information, respecting the distribution of families originally collected in the INEGI. Table 1 shows the distribution of the sample in the state's municipalities.

Instruments:

For the collection of information in this research a structured questionnaire that was key piece to get the data was designed. The structure of the questionnaire was critical for proper obtaining the expected information, its design was distributed by block in search of the fulfillment of the objectives set for this research: 1) buying habits, 2) Consumption of milk, 3) Test concept and 4) User Profile. To validate these instruments collection, proceeded to carry out an initial piloting them in four municipalities in the state, in which process improvement opportunities were identified to them.

Table 1 Determination of the study sample by municipalities in the state

Determinación de muestras por municipio			
	Municipios	Total de Hogares	Muestra por municipio
1	Balancán	14997	23
2	Cárdenas	59591	106
3	Centla	24263	38
4	Centro	168268	253
5	Comalcalco	46466	71
6	Cunduacán	31324	48
7	Emiliano Zapata	7931	12
8	Huimanguillo	42459	48
9	Jalapa	9254	15
10	Jalpa de Méndez	19630	30
11	Jonuta	7520	12
12	Macuspana	37539	59
13	Nacajuca	29029	36
14	Paraíso	21202	33
15	Tacotalpa	10812	16
16	Teapa	13290	22
17	Tenosique	15539	25
		<b>559114</b>	<b>846</b>

Source: Made by myself

Procedure:

The questionnaires are applied through direct interviews to the persons responsible for making purchases of products in the home pantry study way. To understand the results shown later, data classification applied to the sample population, initially mentioning that the people interviewed 70% were women and 30% men, with what was observed buying behavior are presented in both genres. With regard to age it could have an important representation of each of these groups within dairy buyers, obtaining the distribution among respondents as shown in Table 2.

Table 2 Age distribution in the study sample

Valo	Significado	Frecuenci	%
1	de 10 a 15	4	0.47
2	de 16 a 20	27	3.19
3	de 21 a 25	78	9.21
4	de 26 a 30	99	11.69
5	de 31 a 35	149	17.59
6	de 36 a 40	230	27.15
7	de 41 a 45	161	19.01
8	de 46 a 50	40	4.72
9	de 51 a 55	28	3.31
10	de 56 a 60	27	3.19
11	de 61 a 65	4	0.47
Total	frecuencias	847	100

Fuente: Elaboración propia

In the above table you can be displayed that 84% of the responses came from consumers who were between 21 and 45 years old, also allowing the study sample taking into consideration

opinions of children and elderly populations to these ranges. Likewise you can comment that in the occupation of respondents could exist diversity, highlighting the fact that 35% of them were housewives, 31% General employees in a business, 18% were professionals and also presence students, managers and business owners to a lesser extent.

Depending on the needs on the type of study to be performed, the appropriateness of including in the process of gathering information to students on stage to stay, Division of Administration and Evaluation analyzed Univ. Of Technology Tabasco, who within the training process they have lived previous experiences in the collection of information through personal interviews and could carry out the implementation of the surveys in the municipalities to which they belong. Once covered the recruitment and administrative management for the participation of interviewers, face training, in which were explained in detail the background, objectives, purposes and research users, as well as the structure of the different questionnaires were made to be used.

Monitoring and control:

In order to monitor the process of respondent and avoid mistakes, it was necessary to monitor and verify that employees involved were doing their job in implementing surveys with families to which it would apply, thus achieved the objectives, generating more control and organization during the course of the project. He also looked after the intervention in the application of surveys will not affect the results when taking out the findings and then the hypothesis of the project, planning to detail the proper distribution of surveys to municipalities as well as regarding membership levels socioeconomic families surveyed that had a balance in the answers of respondents.

## **DEVELOPING**

Once finished the process of fieldwork and included the information from questionnaires, editing and coding data from the questionnaires was performed. This in order to process the information in the computer and for this we rely on the DYANE program (Design and Analysis of Surveys), in which the emptying of the data was performed in order to represent this information using statistical measures central tendency and simple tabulation of frequencies so that in this way could be seen more clearly the results of the surveys. This in order to meet our target market and

determine the likelihood of acquiring milk vending machines. To present the results found in this study with respect to the possible consumption of fresh milk through vending machines, the findings for each of the analyzed families were broken down, as well as information on international trade experiences and national and international competitors identified through this study.

Derived from the analysis of quantitative data from surveys aimed at families probably consume milk through vending machines, located in the municipalities of the state of Tabasco, the following findings were:

Findings relating to the socio-demographics of Tabasco families and buying habits

1. The status can visualize the presence of a family model consisting of three to five members on average, composed of father, mother and children, aged these last less than 15 years and are expected to reach an unknown number of 230,914 households, representing 41% of all families in Tabasco.
2. Families state faced a difficult economic situation, which limits their ability to purchase products and services necessary for their maintenance, including basic commodities such as the milk. This situation in the homes of Tabasco brand trend toward declining purchase frequency and the number of liters of this food could be sued, putting more weight on the price as a variable selection of products that families acquire Tabasco, above the quality that they could come to offer alternatives within the product and services they need to consume.
3. The 63.40% of the families, who make purchases of products for home pantry are the moms, so it confirms that it is they who play the role of consumers, influencers and decisoras in buying this product homes in Tabasco.
4. They may know that 97.64% of households in the state normally buy daily basic and common products such as tortillas, pozole (beverage widely consumed in the state) and table water jug, which would think that these consumers They could get to consider include buying milk for their home in this frequency range if conditions close to home as these products were equalized.
5. Through this study could be detected in Tabasco families show openness to the use of various mechanisms provided by alternative methods of sale or by the application of technological devices support. An example of this is the fact that a significant percentage of the population,

45%, expressed in this study often purchase products through catalog sales strategies, perhaps appreciate the comfort, service and credit this method gives consumers even at a higher price.

6. The use of internet as a mechanism for consultation during the search of products or performance of procurement processes and from digital portals present in this environment, it was found that the Tabasco population already developed habits and shows that 41.10% use this platform as a sales channel, and 60% of the population today uses vending machines are popular consumer categories such as soft drinks and snacks. Meanwhile, it was learned that Tabasco families used in 57% of cases, payment of purchases of their basic consumer goods through debit and credit and the remaining 43% do disbursing cash.

7. Finally, within this section of the media analysis to the order of importance that the families have access Tabasco, finding that television appears first as a means of increasing penetration (68.9%) were monitored in second Instead mention the Internet (21.6%) is even over the radio (6.7%) and newspaper, which reached only 2.7% of all families analyzed.

Findings relating to the consumption preferences of milk

1. Digging Deeper consumption of liquid milk in the state, it could reaffirm the fact that in most households purchase bottled Tabasco is usually pasteurized milk boat for some of the different national and regional companies that are offered within the state as currently this kind of product is purchased by 69% of families in Tabasco, which is an interesting fact, since the culture of consuming quality hygiene products and has taken strong local roots.

2. But you can not fail to mention that the 11.28% of the study population indicated that taking fresh milk or anger and the remaining 19% said to consume both types of product. Importantly, in the Market Study dairy in the state of Tabasco (Produce-UTTAB 2008 Foundation) these statistics showed different as the percentage of households consuming pasteurized milk was 83.5% and consuming fresh or raw milk was 9.5%, marking a trend of change in consumer preferences and displays an area of opportunity in the marketing of milk in search industrialized freshness and economy.

Consumption of unpasteurized milk pot

3. Specifically in relation to the consumption of pasteurized milk packaged pot within households Tabasco, this study revealed that the percentage of Tabasco families who prefer this kind of product purchase 60% usually buy in supermarkets shops, while The 26.77% are in retail stores from grocers state and 12.60% in corner stores. In the same way it was possible to identify the frequency of most recurrent purchase with the families of the state buy these products it is weekly, and 54% buy milk at this time, followed by biweekly which appears 28.99 % of the



population. It is worth pointing out in this vein, there is an interesting 14.42% of the population that manifests buy milk consumed daily at home and only 2.2% have a habit acquire each month.

4. Trying to understand the relationship between the frequency of consumption and the amount of milk purchased by the families Tabasco, which was questioned why he who is bought with this frequency and could know that 85% of purchases in this period time because that has established the purchase of all products from the pantry to your home, including milk and only 14% mentioned that the reason you buy this product with this frequency is due to the lifetime of the product, which would sound logical if one takes into account that this type of milk has a shelf life of more than three months. Likewise they are learned about the liters of milk boat such family consumed within the time period in which habituated purchase, so that the population of purchase weekly, and as we mentioned is most The 44.13% consume 4 to 6 liters of milk, consumed 27% of 7-12 liters and 26% of 1-3 liters.

5. tabasqueñas households consuming bottled pasteurized milk pot presentation often acquire in whole milk in 59% of cases, presentation is certainly the cheapest, followed by 14% for the lactose-free presentation, making this the functional version of the product with increased demand. The presentations and semi skimmed milk formulas are also present in the homes of Tabasco albeit with lower rates of between 7 and 5%, and the light, and cholesterol version flavored with smaller todavía.4 percentage shares. With regard to the way in which these companies receive the fiber it was found that 50% receive in sacks and 50% receive on stage.

#### Market segment identified

It was concluded that within this large percentage of population of Tabasco consuming bottled pasteurized milk by boat are very specific characteristics that could standardize them as a segment of particular interest, among which are the fact that buy their milk in stores Self, on a weekly basis, acquiring from 4-6 liters every purchase and presentation of whole milk, performing estimates they represent 35% of families in the state of Tabasco, ie approximately 198,604 households

#### Consumption of fresh milk (anger)

6. To understand the other part of the Tabasco families in the study mention the habit of consuming fresh milk or anger, not packaged or pre-industrialized, more widely known questions to your preferences in this regard were also conducted in this research, for example, on the issue of the frequency of purchase it was learned that 62% of the Tabasco population acquires this type of milk makes daily, as opposed to the previous segment and only 27% buy weekly says.

7. Referring to usually buy because this often, families show a more balanced state by stating that 51% buy in this time range that is where you usually buy all the products in your home pantry and behavior that 49% do so for the lifetime of the product. This knowledge allows you to view this consumer is willing to take precautions in search of care quality and freshness of the product, even if it forces you to perform daily processes purchase.

8. With reference to the number of liters of milk to the consumer family of such milk typically acquire each purchase it was noted that 67% buying 1 to 3 liters while acquires 28.52% of 4 to 6 liters and above this quantity of product is only less than 3% of the population makes purchases.

9. On the issue of price at which usually purchase fresh milk or anger, 37% of households in the state said buy at prices between \$ 6 and \$ 8 pesos a liter, in that other 33% usually acquire ranges between \$ 9 and \$ 11 pesos a liter, there is even 22% of the population that says buy more than \$ 11 pesos.

10. questioning with regard to the place of purchase was learned through this research, state that families usually buy this kind of milk home sellers who offer the product relatively at the door of the home, with 73% of households have manifested this ease of access, while another 25% said to get the milk out to acquire small local producers in their community close to home and finally in this category are only 2% that takes this kind of milk in your local retail stores.

11. An important variable of interest for analysis in this research was the reference to know what motivates families state the consumption of this type of milk and in this regard could be found that 37% of families prefer milk anger for its freshness, followed by 36% of those that mention the flavor as the second reason is consumed. It is noteworthy that in addition to the freshness and taste, price is the third cause for the families buy and to a much lesser scale, only 3% and 39% respectively, were the quality and reputation of products .

#### Market segment identified

As can be clearly seen, fresh milk or anger is consumed by a market segment completely different from packaged milk pot, as they are families rather than long life, quality and prestige in the product, seek freshness, flavor field milk price in the dairy alternative to take home. In the same way we see that unlike the previous segment, are families in finding that freshness and not because of that economy, carry out daily purchases of smaller quantities liters of the product, because as we saw gain between 1-3 liters daily and often they buy them at the door of his home at prices between \$ 6 and \$ 11 pesos as current suppliers are given them that facility. It is

estimated that this market segment is composed of 26,012 families, ie almost 5% of all households in Tabasco.

Findings relating to the purchase of milk available in vending machines

1. In this study the possible acceptance of such mechanisms by the families of the state and its willingness to buy milk through this mechanism was analyzed. In this sense, the present study showed that today 60% of households in the state already have significant experience in the use and management of vending machines in purchasing processes, because as has already been mentioned, often occupy to acquire popular product categories, such as soft drinks and snacks. However, you can comment that although this coexistence with these devices dispatch reality is that families in the state not currently receive the benefits that this type of sales channel provided in the marketing of a product because 67 % of them manifested not know that the main advantage of the automatic machines that provide proximity to the consumer by reducing marketing costs and therefore sales prices. This data allows us to see that these benefits spread among families tabasqueñas sales pitch could increase their willingness to buy through this channel.

2. In the same vein of ideas, the study allowed to know that 76% of families in the state of Tabasco not know that today there are vending machines that allow the marketing of bulk milk, pasteurized at low cost, while 23% of families if tabasqueñas already had knowledge of this food is marketed by such mechanisms. Surely this fact also reinforces that people require to receive information in this regard, especially emphasizing the benefits to be obtained to facilitate any commercial effort that seeks to be done through this type of machine. Another important question in this regard was that census was the weight of the container as an essential element in milk purchased by families in the state and at this point it was observed that the main benefit these families perceive the packaging is the fact the product comes ready to serve as 46% of them this comment ago, 33% think that the benefit provided by the container is to store the milk for a while until it is consumed at home and finally remaining 20% appears that the package is useful because it extends the life of milk.

3. Given the possibility to acquire free milk container, this research found that 73.91% of the population if he would buy milk without packaging if it does cause a reduction in the selling price of the product, while 26% do not acquire without packaging even for the benefit of low

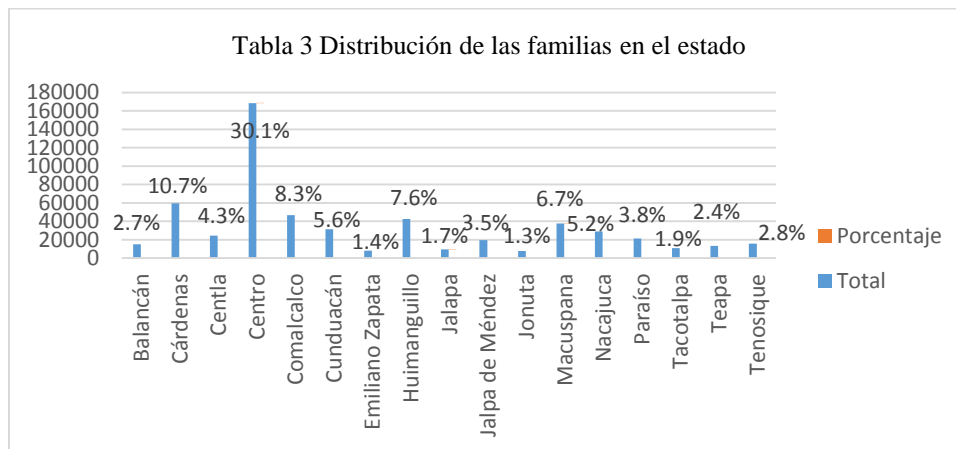
cost. This shows a fairly wide opening to being able to market the bulk milk container dispensing and sometimes reaches absorb up to 50% of the commercial products.

4. The phenomenon described above is also at issue in the study of family preference for an alternative form of transfer of the product purchased in the dispenser to each of Tabasco households and found that 49% would prefer to use returnable containers 27% would be willing to use your own container and the remaining 22% discuss the option of taking disposable bags.

5. Finally, the relationship between the age of the heads of family persons subject to this study and the willingness to buy milk vending machines can be noted that the age groups in which higher willingness to buy was analyzed through these delivery mechanisms are between 31 and 45 years of age between these segments as 69.3% of the total population is concentrated.

Findings relating to the purchase of milk available in vending machines in municipalities.

Below we present in this section the results obtained in this study with respect to consumption of milk and shopping habits found in each of the seventeen municipalities of the state, splitting the initial way with the presentation of population distribution in the different municipalities of Tabasco (INEGI 2010), as can be seen in the accompanying graph, where it can be seen that within the state of Tabasco, the 4 most populated municipalities are the Center, that of Cardenas, Comalcalco and of Huimanguillo, which concentrate 56.7% of the total population of households in the state.



Source: Made by myself

In this vein, one could understand that population wealth these municipalities represent the possibility of having the presence of more customers, however, worth mentioning that the greater the quantity of concentrated population in a city and the urban character it becomes present, the greater the challenge to achieve closeness and convenience in the supply of products and services.

As part of the objectives set for this research, specifically it individualized analysis of buying habits of milk in each of the municipalities of Tabasco was done, performing this analysis initially for their preferences as to the type of milk consumed, as table 4 shows.

Table 4 Type of milk consumed by town

Familias en el municipio		Clase de leche	
		Pasteurizada de bote	Fresca o Bronca
1	Balancán	52 %	48%
	<b>14 997</b>	7 798	7 199
2	Cárdenas	66 %	25 %
	<b>59 591</b>	39 330	15 077
3	Centla	84 %	16 %
	<b>24 263</b>	20 381	3 882
4	Centro	63 %	37 %
	<b>168 268</b>	106 009	62 259
5	Comalcalco	83 %	6 %
	<b>46 466</b>	38 567	2 602
6	Cunduacán	79 %	2 %
	<b>31 324</b>	24 799	652
7	Emiliano Zapata	83 %	17 %
	<b>7 931</b>	6 609	1 322
8	Huimanguillo	23 %	63 %
	<b>42 459</b>	9 706	26 690
9	Jalapa	80 %	13 %
	<b>9 254</b>	7 403	1 234
10	Jalpa de Méndez	66 %	24 %
	<b>19 630</b>	12 862	4 739
11	Jonuta	67 %	33 %
	<b>7 520</b>	5 014	2 506
12	Macuspana	83 %	8 %
	<b>37 539</b>	31 281	3 127
13	Nacajuca	83 %	11 %
	<b>29 029</b>	24 053	3 318
14	Paraíso	91 %	9 %
	<b>21 202</b>	19 275	1 927
15	Tacotalpa	63 %	13 %
	<b>10 812</b>	6 758	1 352
16	Teapa	71 %	10 %
	<b>13 290</b>	9 493	1 265
17	Tenosique	50 %	38 %
	<b>15 539</b>	7 770	5 827

Fuente: Elaboración propia

As shown in the above table, the consumption of pasteurized milk bottle represents the largest consumption in the families of the municipalities, as happens at the state level, highlighting their preference in the municipalities of Macuspana, Comalcalco, and Emiliano Zapata where Centla found that over 80% of households manifest consumption of such milk. However, it should be noted that the consumption of fresh milk or goat has a strong presence in places like Huimanguillo where, unlike the state trend for the consumption of pasteurized milk, this is present in 63% of households. High consumption of such milk are also in towns like Balancán, Tenosique, in the center and Jonuta.

In particular the consumption of pasteurized milk pot, it was learned that there are very specific habits and differential consumption compared the statement to the families of the different municipalities in the state. For example, with reference to the frequency with which households buy pasteurized milk pot, it was found that the period of time that most municipalities purchase is weekly phenomenon occurring in Cardenas, Centro, Huimanguillo, Jalapa, Jalpa Mendez, and Tenosique Macuspana. However, Balancán, Paradise, Nacajuca, Comalcalco and Cunduacán, in greater proportion, families purchase the product fortnightly, while only Jonuta, Tacotalpa and Centla, states do on a daily basis.

In the analysis of consumer families of fresh milk or anger made at the level of each municipality will be able to learn buying habits applied in their procurement processes of this kind of product, as on the frequency at which they are buying the milk, where it could find that in nine municipalities within the protruding Cardenas Jonuta and Macuspana, purchase frequency is daily, while in four it could be observed that the largest proportion of the responses show a purchase weekly, as in the case of Comalcalco, Emiliano Zapata, Huimanguillo and Jalapa. Within this variable, only Cunduacán mentioned that the consumption of this product becomes biweekly.

This research showed that allowed information to analyze consumer maturity of each municipality with respect to conduct procurement processes through automated clearance mechanisms and their willingness to buy milk in automatic vending machines. In this sense it was learned that in nine municipalities that dominates the data is that the population does not usually

use automated mechanisms currently in their purchasing processes, as in Cunduacán, Emiliano Zapata, Jalpa de Mendez and Jonuta. However, one can understand that the situation is very even state as in the other eight municipalities under study families manifest if accustom currently use such mechanisms to purchase some goods and services. Such is the case of Cardenas, Centro, Jalapa and Tenosique. In the analysis of knowledge of the benefits granted such devices to the marketing process, it was noted that only four municipalities in the state, families if they know of these benefits, among them we find Balancán, Jalapa, Macuspana and Tenosique, while in the remaining 13 municipalities, state families are unaware of the benefits that could provide automated mechanisms in procurement processes.

Likewise, you can mention that in only one municipality, Jalapa, families express hear the implementation of such mechanisms in the sale of milk and in the remaining 16 municipalities it is unknown today in some places milk is marketed through automated devices for sale. As monitoring of the importance of packaging one of the basic themes of this study, in the municipalities could be found only in Tenosique the main benefit is granted is the packaging that lengthen the life of the product as in 10 of them, among which stand out Jalapa, Macuspana and Huimanguillo, its importance is that is used to store the milk until it is consumed at home and in the other six, it allows milk is ready to served at any time, as in the case of Centro, Cunduacán and Paradise.

## **CONCLUSIONS AND PROPOSALS**

After the completion of this market research, we can conclude that failed to meet the overall objective initially set for it, which was intended to determine the habits of consumption of dairy products in the state of Tabasco families with to find new trading schemes milk at the state and municipal level. The results obtained in this study allowed the preferences of households in the state in relation to milk they buy, the habits that currently apply when conducting its procurement processes as well as the maturity and willingness of consumers to make use of potential automatic dispensers in purchases of milk for your home.

This research allowed to know that the issue of the distribution of milk in Mexico is related to the mechanisms for collecting, transporting and storing of this food, which are diverse and depend on the production system, marketer agent type, degree of integration, volume and final destination of

the product. Also the market size, diversification and segmentation are basic elements, reflecting production capacity, technological trajectories, strategic investment, distribution forms and differentiated accumulation possibilities.

Sale 1) small-scale natural whole milk (raw) performing small producers to end users located around their farms with limited commercial infrastructure: in the state of Tabasco milk production is shifted to the consumer via three mechanisms fresh but lacking products conditions of food safety widely varying prices ranging from \$ 6 to \$ 10 pesos a liter, 2) sales volume to collection centers industries milk in the town are represented by companies Nestle and currently on a shoestring by the Union brand (company still acquires part of the production of certain municipalities) under credit terms and prices of \$ 5.8 pesos per liter and 3) an important part of the production is sold to local farmers percentage cheese or is self consumed for this use and is paid on hand to approximate prices of \$ 8 pesos a liter. However, these market mechanisms fail to offset the production potential of the state, so that often the overproduction of this food is presented, desnivelando balance between supply and demand, to the detriment of the conditions under which State milk markets.

The results allow families to understand that the state faced a difficult economic situation, which limits their ability to purchase products and services necessary for their maintenance, including basic commodities such as the milk. This situation in the homes of Tabasco brand trend toward declining purchase frequency and the number of liters of this food could be sued, putting more weight on the price as a variable selection of products that families acquire Tabasco, above the quality that they could come to offer alternatives within the product and services they need to consume.

In most homes Tabasco usually buy bottled pasteurized milk by boat on any of the different national and regional companies that are offered within the state as currently this kind of product is purchased by 69% of Tabasco families, which it is an interesting fact, since the culture of consuming quality hygiene products and has taken strong local roots. But you can not fail to mention that the 11.28% of the study population indicated that taking fresh milk or anger and the remaining 19% said to consume both types of product. Importantly, in the Market Study dairy in the state of Tabasco (Produce-UTTAB 2008 Foundation) these statistics showed different as the percentage of households consuming pasteurized milk was 83.5% and consuming fresh or raw



milk was 9.5%, marking a trend of change in consumer preferences and displays an area of opportunity in the marketing of milk in search industrialized freshness and economy.

Within this significant percentage of population of Tabasco consuming pasteurized milk packed boat are very specific characteristics that could standardize them as a segment of particular interest, among which are the fact that buy their milk in supermarkets, with a frequency weekly, gaining between 4-6 liters every purchase and presentation of whole milk, performing estimates they represent 35% of families in the state of Tabasco, ie approximately 198,604 households.

Fresh milk or anger is consumed by a market segment completely different from packaged milk pot, as they are families rather than long life, quality and prestige in the product, seek freshness, flavored milk field and affordable price in dairy alternative to take home. In the same way we see that unlike the previous segment, are families in finding that freshness and not because of that economy, carry out daily purchases of smaller quantities of liters of the product, because as we saw gain between 1 to 3 liters daily and often buy them at the door of his home at prices between \$ 6 and \$ 11 pesos because current suppliers are given them that facility. It is estimated that this market segment is composed of 26,012 families, ie almost 5% of all households in Tabasco.

On the other hand, through this investigation it was learned that in the dairy industry worldwide has enjoyed great commercial experience regarding the use of electronic devices as they are applying vending machines. The use of vending machines in the distribution of milk has been carried out in other countries successfully, specifically because it has allowed to shorten distribution channels, creating direct links between local small producers with their immediate markets, achieving overcome challenges safety and hygiene necessary adding pasteurization, avoiding the use of costly packaging, responding to the growing demand for fresh and natural products for consumers and allowing all these benefits these business models are profitable and fully replicated in similar conditions.

The Tabasco families talking are technologically prepared today to carry out procurement processes supported by electronic devices and demonstrate openness to alternative marketing methods, making appreciate them benefits of speed, independence, comfort, ease of access and costs reduction. Through the results shown above, it is now known that if there are new habits in Tabasco consumers that enhance innovation in business strategies that are proposed, such as the fact purchase products automatically and without the presence of intermediaries, which can be exploited for the marketing of dairy products

This research showed that the use of vending machines for the sale of milk in the state of Tabasco is displayed quite feasible since Tabasco manifest households experience in the use of delivery

mechanisms and a wide willingness to buy this food through this Such devices, regardless of prior packaging even if this represents a reduction in the price of sale of the product. This potential sale could ever be achieved, and even increase, if through promotional strategies is educate the market about this new sales channel and made him aware of the benefits it could provide and whether through distribution strategies They were guaranteed proximity to home. This study allowed to present calculations estimated consumption of fresh milk through automated delivery mechanisms in order to detect which municipalities in Tabasco could have greater acceptance in case of commercialization of this type of food through vending machines, as You can be seen in Table 5.

Table 5 Market potential by town

	<b>Municipios</b>	<b>Mercado potencial (familias)</b>	<b>Consumo diario ( 2 litros diarios)</b>	<b>Ingresos diarios (\$ 8 Pesos x lt promedio)</b>
1	<b>Balcan</b>	<b>1 424</b>	<b>2 848</b>	<b>\$ 22,785.15</b>
2	<b>Cárdenas</b>	<b>3 786</b>	<b>7 571</b>	<b>\$ 60,568.68</b>
3	<b>Centla</b>	<b>1 241</b>	<b>2 481</b>	<b>\$ 19,849.37</b>
4	<b>Centro</b>	<b>14 922</b>	<b>29 844</b>	<b>\$ 238,751.86</b>
5	<b>Comalcalco</b>	<b>822</b>	<b>1 643</b>	<b>\$ 13,146.33</b>
6	<b>Cunduacán</b>	<b>196</b>	<b>392</b>	<b>\$ 3,139.82</b>
7	<b>Emiliano Zapata</b>	<b>419</b>	<b>838</b>	<b>\$ 6,706.07</b>
8	<b>Huimanguillo</b>	<b>2 321</b>	<b>4 642</b>	<b>\$ 37,138.41</b>
9	<b>Jalapa</b>	<b>375</b>	<b>751</b>	<b>\$</b>

				<b>6,006.93</b>
<b>10</b>	<b>Jalpa de Méndez</b>	<b>1 181</b>	<b>2 362</b>	<b>\$ 18,898.81</b>
<b>11</b>	<b>Jonuta</b>	<b>636</b>	<b>1 271</b>	<b>\$ 10,171.54</b>
<b>12</b>	<b>Macuspana</b>	<b>991</b>	<b>1 983</b>	<b>\$ 15,861.05</b>
<b>13</b>	<b>Nacajuca</b>	<b>1 046</b>	<b>2 092</b>	<b>\$ 16,735.02</b>
<b>14</b>	<b>Paraíso</b>	<b>667</b>	<b>1 333</b>	<b>\$ 10,664.86</b>
<b>15</b>	<b>Tacotalpa</b>	<b>321</b>	<b>643</b>	<b>\$ 5,141.61</b>
<b>16</b>	<b>Teapa</b>	<b>344</b>	<b>688</b>	<b>\$ 5,501.05</b>
<b>17</b>	<b>Tenosique</b>	<b>1 108</b>	<b>2 217</b>	<b>\$ 17,734.84</b>

In this sense, we can know that there are municipalities where the number of liters of fresh milk could reach around is relatively low as in the case of Cunduacán, Tacotalpa, Emiliano Zapata, Teapa and Jalapa where the estimated intake would be below the 1000 liters. It was also noted that there are some municipalities that have a diary between 1000 and 2000 liters average consumption within which we find Jonuta, Comalcalco, Macuspana and Paradise.

Finally you can see that the municipalities that have ability to consume higher amounts to 2000 liters would Tenosique, Nacajuca, Jalpa de Mendez, Huimanguillo, Center, Centla, Cardenas and Balancán.

This allows then conclude that if there is possibility of selling milk through vending machines in the state of Tabasco so implementing this system is proposed for sale in the cities detected more readily purchase, upon development of a plan Business per municipality to provide closer to the commissioning of these projects strategies.

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