



THE PROBLEM OF DISTRIBUTION OF FOOD PRODUCTS AND THEIR INFLUENCE ON THE DECISION OF PURCHASING IN THE CONSUMER A CASE STUDY OF MILK PRODUCTS IN THE SOUTH, ALGERIA

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ABSTRACT

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The study aimed to find out and determine the effect of the distribution component and its channels on the purchasing decision of the Algerian consumer towards the Milk factory production in Bechar City, the south of Algeria. A sample consisting of 100 consumers was chosen from the study community, the searchers were used the questionnaire and the interview, SPSS statistical software was used, and after analyzing the data, the study showed that there is an effect of personal variables, gender, educational level, income in influencing the purchasing decision of the consumer, and there is also a relationship between the efficiency of the distribution channels and distributors in influencing the purchasing decision of the Algerian consumer, that was explained The effective role of the distribution channels contributed to raising consumer confidence and thus influencing its purchasing decisions.

Contribution/Originality: This study contributes to existing literature by determining the effect of the distribution component and its channels on the purchasing decision of the Algerian consumer towards the Milk factory production in Bechar City, the south of Algeria.

1. INTRODUCTION

The consumer always seeks to satisfy (Shaughnessy, 2015) his desires and spend his resources to buy goods and services that satisfy his needs, the role of the marketing man here is to win over and influence the purchasing decisions of the consumer through studying his behavior that receives adequate attention, the consumer makes many purchasing decisions about goods and services, so the process of understanding how to take Its purchasing decision is difficult and complicated, because several factors affect the consumer in every stage of the purchasing decision. Further, just as channels (Parinda, Oke, Popoola, Ajagbe, & Olujobi, 2016) of distribution get influenced by consumer behavior dimensions, the reverse influence also has to be noted.

Milk dairy have a strategic (Smallholder, 2008) and important role in providing the milk product and distributing it in a way that satisfies the desires of consumers and their daily needs, as the owners of dairy and milk producers in recent years have become of great importance in the field of production and sale of milk products to

the target markets sometimes to the consumer and other to the factories, they are based on specialization and provision of specific types of milk, Which led to changing marketing or distribution outlets and expanding their geographical reach.

1.1. The Problematic of the Study

To what extent can the distribution element influence the purchasing decision of the Algerian consumer regarding the food product, milk of Southern Bechar milk in Algeria?

1.2. Objectives of the Study

- The aim of this study is to highlight the extent of the influence of distribution and its channels on the final purchase decision of the Algerian consumer towards the direction of dairy products in the south of of Bechar City in Algeria. It also aims to enrich the office balance with a new updated study on the relationship of influence between distribution channels and the decision of the consumer's purchase.
- Clarifying the importance of the study through predicting how the consumer, especially the Algerian, responds to the distribution component and understanding the specific factors of this response.

1.3. Research Hypotheses of the Study

- The study is based on the following hypotheses:
There is a significant impact between the efficiency of the distribution channel and the decision-making of the Algerian consumer in the governorate of Bechar towards the purchase of the milk product (Dairy Southern milk).
- There is a significant impact relationship between the distribution channel and the purchasing behavior of the Algerian consumer towards the purchase of the milk product (Dairy Southern milk) according to demographic variables (gender, educational level, income).

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1. The Definition of Distribution Channel

- A Distribution channels are the network of organizations, including manufacturers, wholesalers, and retailers, that distributes goods or services to consumers.
- A distribution channel is the network of individuals and organizations involved in getting a product or service from the producer to the customer.

In short, distribution is the process of getting the product or service in front of the end consumer. Similarly, it may be useful to give away, or sell at low prices, certain premiums (e.g., T-shirts or cups with the corporate logo.) It may even be possible to have advertisements printed on the retailer's bags (e.g., "Got milk?")

- Other opportunities involve "parallel" distribution (e.g., having products sold both through conventional channels and through the Internet or factory outlet stores). Philips Kotler defines channel of distribution as "a set of independent organizations involved in the process of making a product or service available for use or consumption".
- On this basis, the contribution of the mediator's employment in the distribution channel to reduce transaction costs and contacts with different consumers can be illustrated in the following graph.



Figure-1. The mediator's contribution to reducing the number of communications.

Source: Kotler (2006).

The Figure 1 show that it is an absence of intermediaries as it appears on the left side of the figure, the three producers sell directly to three consumers, and thus produce 09 transactions. Brokers also assist the producers in saving storage costs, and reducing financial risks once ownership of the sold goods is transferred to the brokers, where they bear losses in the event the commodity is not sold. Intermediaries also communicate market information to producers by introducing them to the types of goods that are highly sought after by consumers, in addition to the desires and needs of consumers. Within the framework of producer / distributor relations, there are obligations related to the communication of various documents and the development of certain contacts as well as prohibitions concerning the practices followed by the two categories of partners (Cliquet & Autre, 2003).

The rest, (32 percent) is attributed to other derivatives like yogurts and desserts (Ramdane, Brahim, Tlemsani, & Djermoun, 2019).

The same association reports that the consumption per capita per year in CY2015 averaged 87.6 liters of which 66.1 liters is packaged milk in plastic bags, 16.7 liters is other milk powder and UHT milk. Fresh milk and buttermilk represented only 4.8 liters and 2 liters per year of this total amount (Nabila, 2018).

Table-1. Algerian milk powder imports by origin.

	NFDM	WMP	Total
New Zealand	10595	144902	155497
France	58102	14129	72231
Argentina	3868	19207	23075
Belgium	20901	10549	31450
Poland	31138	5899	37037
Germany	9319	2209	11528
Ireland	800	8881	9681
Netherlands	5667	29997	35664
Great Britain	1247	620	1867
U.S.	1121	0	1121
Canada	11241	200	11441
Uruguay	0	23393	23393
Australia	504	0	504
Switzerland	175	0	175
Sweden	3308	0	3308
Ukraine	1400	700	2100
Spain	147	2358	2505
Turkey	1507	0	1507
Malaysia	0	1158	1158
Others	292	145	437
Total	161332	264347	425679

According to the same study, dairy consumption will continue to grow as dairy has become an integral part of Algerian diet. The diversification of dairy production has increased Algeria’s dairy consumption making it the highest in North Africa (Nabila, 2018).

The milk consumed in Algeria has historically been reconstituted with blends of imported non-fat dry milk and anhydrous milk fat. With the implementation of the development programs and incentives for the integration of fresh milk in the dairy processing industry, local processors began producing pasteurized fresh milk with a 24 hour shelf-life in one liter plastic bags as well as UHT tetra pack fresh milk. The incentive provided to milk producers (breeders) of about 12 AD/L (\$0.114/L), 5 AD/L (\$0.047/L) to milk collectors and 4 AD/L (\$0.038/L) to dairy processors.

The data for the previous Table 1 can be reflected in the following graphic:

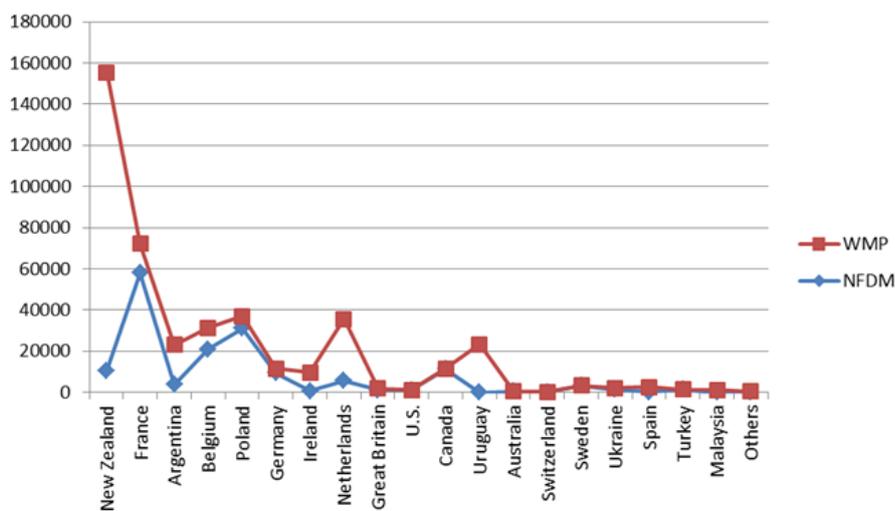


Figure-2. Algerian milk powder imports by origin.

The U.S. accounted for only 0.69 percent of the market.

We deduce from the previous Figure 2 and table In CY 2017, Algeria imported whole milk powder from New Zealand (54.813 percent) followed by the Netherlands (11.34 percent), Uruguay (8.85 percent) and Argentina (7.26 percent).

Most of the cheese was imported from Ireland (38 percent), Netherlands (30 percent), and Germany (7 percent). Butter was also primarily imported from New Zealand (80 percent), Uruguay (5 percent) and Ireland (4 percent) (Solution, 2020).

On the other hand, we find that many studies have confirmed that at the end of 2019, the average per capita consumption of milk and its derivatives exceeds 140 liters per year, while it does not exceed 70 liters per year in neighboring countries.

3. METHODS AND MATERIALS

3.1. Research Model

The following Figure 3 shows the study model, and represents the study of the effect of milk product distribution on the consumer’s purchasing decision.

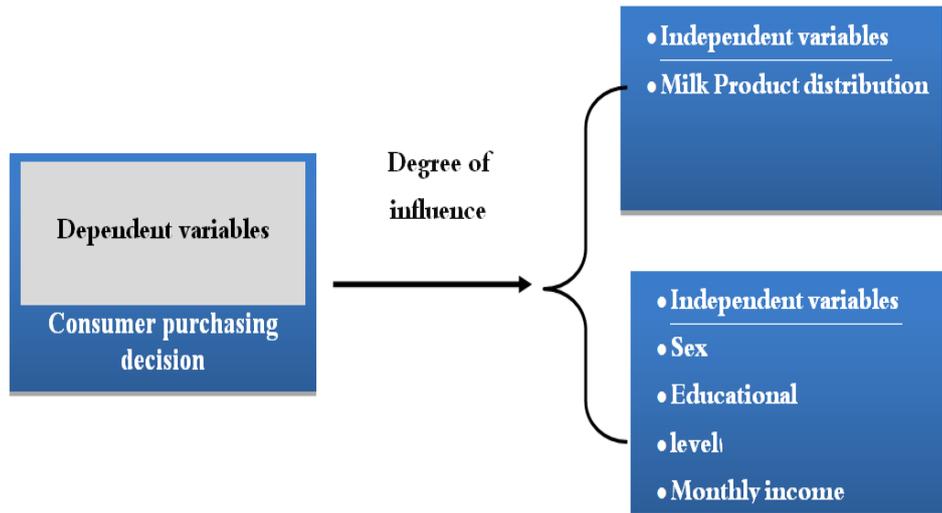


Figure-3. The model of study.

3.2. The Study Population and Methodology

a. Examination Test for Data for Normal Distribution

Table-2. Shows a test for data for normal distribution.

Normal distribution test			
Level of significance	df	Statistic	Purchasing decision
0,229	100	0,958	

From the previous Table 2 and since the significance level of the test for the normal distribution is 0.229 which is greater than 0.05, and through the Figure 4 below, we notice that the data for the purchasing decision are in the middle of the curve and therefore we conclude that the data are subject to a normal distribution.

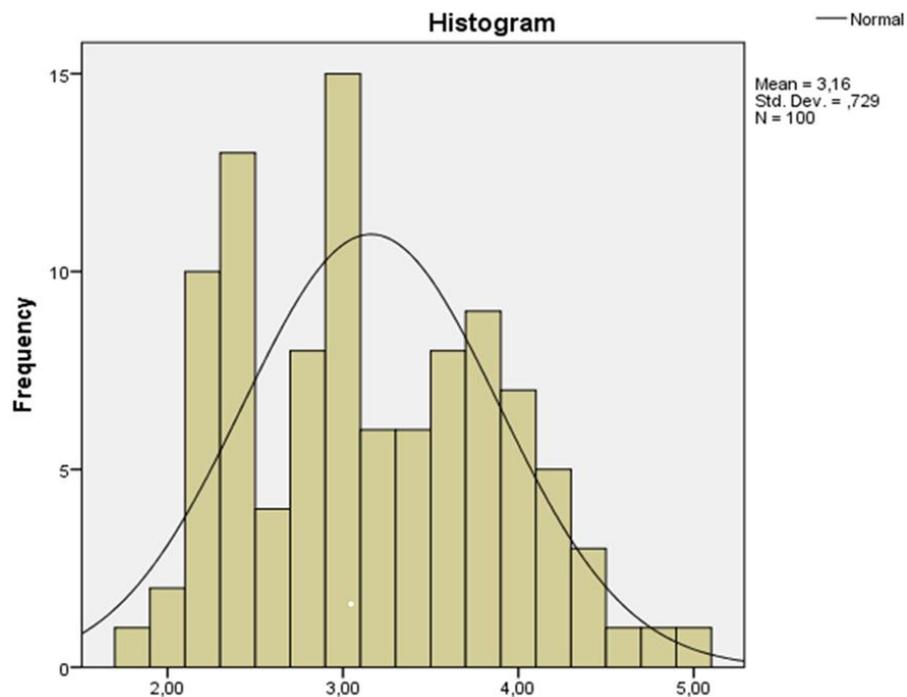


Figure-4. The graphic of Histogram

b. The Tool of Validity and Reliability of the Questionnaire

To ensure the validity and reliability of the questionnaire, we calculated the alpha- Alphakronbach coefficient, which indicates the internal consistency of the questionnaire paragraphs, where if the alpha- Alphakronbach coefficient is greater than the value: 0.60 i.e.

Table-3. Reliability statistics for dependent and independent variables.

Number of phrases	Coefficient of validity	Coefficient of reliability
14	0.907	0.952

From the **Table 3**, it is clear from the indicators in the table that the stability of the distribution pivots and the purchasing decision reached 0.907, and the value of the coefficient of honesty of the two axes reached 0.952, which means that there is a high stability for the study tool, and therefore the study tool achieves a high degree of reliability and stability, and this confirms its suitability for application.

4. DATA ANALYSIS

The following table shows a description of the demographic variables for the study sample, as follows:

Table-4. Data of selected sample.

Variables	Levels	The number	Percentage %
Gender	F	49	49.0
	M	51	51.0
Age	20-30 years	37	37.0
	31-40 years	32	32.0
	41-50 years	19	19.0
	More than 50 years	12	12.0
Monthly income	not working	30	30.0
	Less than 20000 Da	13	13.0
	From 20000 to 40000 Da	24	24.0
	More than 40000 Da	33	33.0

From the **Table 4** it appears that the percentage of males (51.0%), that is, greater than the percentage of females (49.0%), here we can say that the study population is a somewhat masculine society. As we note that the age group between the ages of 20 to 30 years has the highest percentage (37%), followed by the age group (from 31 to 40 years old) with a percentage (32%) of the individuals in the study sample, then the two categories from 41 to 50 years with a percentage (19%) The category is over 50 years old (12%), and here we can say that the study population is a young one.

5. TEST HYPOTHESES

- Test the first hypo these (The hypothesis of proof H_1): There is a significant impact between the efficiency of the distribution channel and the purchasing decision of the Algerian consumer in the city of Bechar towards the purchase of the milk product in southern Algeria than the significance level alpha 0.01).

Table-5. Result of One way ANOVA between the distribution and the purchasing decision.

Std. Error of the Estimate	Adjusted R Square	R Square	R	Model
0,52377	0,484	0,489	0,699 ^a	1

a. Predictors: (Constant), Problem of distribution.

Note: ** Correlation is significant at the 0.01 level.

Table-6. Coefficients For the variables the problem of distribution - the purchasing decision.

Sig.	t	Standardized Coefficients	Unstandardized Coefficients		Model	
		Beta	Std. Error	B		
0,000	7,210		0,191	1,378	(Constant)	1
0,000	9,689	0,699	0,069	0,665	Problem of distribution	

a. Dependent Variable: purchasing decision.

Note: ** Correlation is significant at the 0.01 level.

The above Two tables [Table 5](#) and [Table 6](#) shows that the value of the bilateral correlation coefficient was 0.699, that is, there is an average direct correlation, and the determination coefficient was 0.489, which means that 48.9% of the change in the purchasing decision is due to the change in distribution.

Whereas, the calculated value of F is equal to 93,881 and it is greater than its tabular value which is 3.937, and since the significance level is zero and it is less than 0.05.

The last table also indicates the linear regression equation between the distribution and the purchasing decision according to the following equation:

$$Y = 1.378 X + 0.665$$

- Test the second hypo these (The hypothesis of proof H1): There is a significant impact between the distribution channel, the purchasing behavior and the gender variable towards the purchase of the milk product in southern Algeria.

Table-7. Result of One way ANOVA between the distribution and the purchasing decision.

Gender	mean	DF	Std. Deviation	t	Sig
Male	2,7101	2	0,70137	-2,093	0.0390
Female	2,9985	97	0,67567		

We notice through the [Table 7](#) that the value of the mean of the purchasing behavior of the male sex is estimated at (2.71) with a standard deviation of (0.70) and it is close to the mean of the purchasing behavior of the female estimated by (2.99) with a standard deviation of (0.67), and this means that the purchasing behavior When both sexes are close.

Table-8. Result of One way ANOVA between the purchasing behavior and educational level variables.

	Sum of Squares	DF	Mean Square	F	Sig
Between groups	2,986	2	1,493	3.176	0.046
Within groups	45,602	97	0,470		
Total	48,589	99			

The [Table 8](#) shows that the value of 'F' of the value of purchasing behavior of consumers according to their educational level is estimated at 3.176 and it is a function of degrees of freedom within groups 97 and between groups 2 with a significance level of 0.04.

This means that the purchasing decisions of the end consumers differ according to their educational level.

Table-9. Result of One-way ANOVA between the purchasing behavior and monthly income variables.

	Sum of Squares	DF	Mean Square	F	Sig
Between groups	5,059	3	1,686	3.719	0.014
Within groups	43,530	96	0,453		
Total	48,589	99			

The Table 9 shows that the value of 'F' for the value of purchasing behavior of consumers according to their monthly income is estimated at 3.719, which is a function of degrees of freedom within groups 96 and between groups 3 with a significance level of 0.01.

This shows that the purchasing decisions of the end consumers differ according to their monthly incomes.

6. RESULTS AND DISCUSSION

- 1- The results of the descriptive statistics showed that the overall direction of the sample with respect to the study variables represented in both the distribution and the purchasing decision tends to an average degree which means that there is a distribution (previously mentioned in the questionnaire) in the milk corporation that is met by a purchasing decision among the final consumers (already mentioned in the questionnaire) This may be due to the composition and opinions of the test sample, or to the subjective factor of the test sample.
- 2- The results of the study of the correlation between distribution on the one hand and the consumer's purchasing decision on the other hand also showed that there is an intermediate direct correlation between them, which explains that there is a hidden image, which is represented in the distribution of milk products, which corresponds to a visible image, which is represented in the purchasing decision of the final consumer.
- 3- As for the results of hypothesis testing, we found that there is a statistically significant effect of the distribution on the consumer's purchasing decision, and the reason is due, as mentioned earlier, in the interpretation of the correlation results.
- 4- With regard to the results of testing hypotheses related to the effect of personal variables (gender variable) on the dependent variable (purchasing decision), we found that there is an effect of personal variables represented in the gender of male and female on the purchasing decision, and this may be due to the fact that the decision to purchase is related to female thinking, which is completely different On male thinking during the purchasing process.
- 5- As for (the educational level variable) on the dependent variable (the purchasing decision) we found that there is a significant impact from this educational level variable on the purchasing decision, and this is due to the fact that the educational levels of individuals play an important role in determining their purchasing behaviors.
- 6- With regard to (the monthly income variable) on the dependent variable (the purchasing decision) we found that there is a significant impact of this variable of the monthly income on the purchasing decision among consumers, and this is due to the fact that the purchasing decisions of consumers differ according to their monthly incomes, each on a dinar.

7. CONCLUSION

Through the results achieved, the following recommendations and suggestions can be given:

- The competent Algerian Companies in the Milk Division (distributing milk and its derivatives) must be aware of the role and mediator that the distributive activity plays, channel its channels and use modern methods and marketing activities that counter competition and thus obtain satisfaction and daily satisfaction for the consumer.
- In spite of the processes of organizing milk production and marketing and the support approved by the state to eliminate the fluctuation in the distribution and ensuring that this substance reaches the consumer in coordination with the building blocks, the consumer is another reason to participate in distribution, according to the international standards of the World Food Organization. The average per capita, while the per capita consumption is 145 liters per year, so the consumer needs to rationalize his consumption in making purchasing decisions to purchase the milk product, which affects him economically, socially.

- Distributive activity in the companies of milk in Algeria needs to re-expand the intensity of the wide distribution coverage, increase the distribution channels from distributors, retailers, and even daily shops, especially in seasons and occasions as the occasion of the holy month to eliminate the scarcity of the product.

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