

# Factors of the E-commerce that are Directly Related to the Consumer's Purchase Motivation in Nuevo León, Mexico.

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## Abstract

E-commerce is revolutionizing the way we buy and interact with brands, with advantages in saving time, access to exclusive promotions and automatic payments. For their part, companies have an alternative to achieve greater user loyalty. SMEs and large companies are offering their products and services through these platforms, allowing business development in increasingly globalized environments. With an increasingly strong presence of the internet in everyday life and the security that the banking sector has generated for conducting electronic transactions, people see e-commerce as the perfect option for convenience and time savings.

## Keywords

E-commerce, Purchase Motivation, Perceived confidence, Online store and Consumer

## 1. Introduction

E-commerce is considered as the production, advertising, sale and distribution of products through telecommunications networks (González, 2020). It consists of the purchase and sale of products and / or services, where consumers obtain the information, specifications, characteristics of the product/service and can acquire them through electronic means (Mercado, Perez, Castro, & Macias, 2019) (Hoose, 2018).

The E-commerce can be also be defined as all aspects of business and market processes enabled by the Internet (Mohd Satar, Dastane, & Yusnorizam Ma'arif, 2019). They give a broader meaning to the term, by not only limiting it to commercial but also financial transactions developed between companies, consumers or organizations through an electronic communication infrastructure (Corrales Liévano & Gil Herrera, 2018)

The E-commerce becomes a viable option for SMEs and entrepreneurs to compete alongside large industries. In this research, we seek to propose a methodology so that SMEs and entrepreneurs can increase sales through purchase motivation, achieving greater brand recognition and customer loyalty (Perdigón Llanes, Viltres Sala, & Madrigal Leiiiva, 2018).

Alzate and Restrepo (2016) mention that despite the potential of e-commerce, the lack of consumer confidence hinders purchases through electronic channels, which means that the use of the internet as an alternative to increase sales and distribution of products does not develop in the expected way.

### 1.1 Objectives

The objective of this research is to determine the e-commerce factors that are related to the consumer's purchase motivation in Nuevo León, Mexico.

### 2. Literature Review

The purchase motivation are described as existing needs to be satisfied, including promotions, services, information and acceptance provided by e-commerce sites. (Mercado, Perez, Castro, & Macias, 2019).

Perceived trust refers to the confidence that the client places on the associate and can be defined as the client's psychological state about accepting risks on the internet, based on the expectations they have about the provider. (Metemba & Li, 2018) (Matute, Polo, & Utrillas, 2015). Meléndez and others (2018) observed a positive and significant effect of trust on intention to use the e-commerce platform. This trust that users perceive towards companies and therefore in the perceived usefulness of the website, was found to be positive and significant as a motivation to purchase. They also found a significant relationship with perceived control and ease of use.

E-Commerce platform should be aware that if it is the case that the platform requests too much information, it becomes a perceived risk for the online consumer (Linero Bocanegra & Botero Cardona, 2020). The design of the online store must be constantly adjusted to satisfy the preferences of those who use the online environment, as well as the guarantee of the quality of the texts, images and navigation must be preserved (Geraldo & Wagner, 2017). The authors found in their research that the design of the online store and the promotions significantly affects the intention to buy in electronic platforms.

Linero and Botero (2020), also found that the attractiveness of discounts and promotions, as well as the variety of products offered by the platforms is widely valued by the consumer. The delivery time in the online store is the total time that elapses from when a customer buys a product in the e-commerce until it is delivered to their hands.

According to the review literature, the graphic research model is proposed (Figure 1), which shows the relationship of the independent variables with the dependent variable.

H1: The perceived confidence, the online store design, the delivery time, the discounts and promotions are factors of the e-commerce that are directly related to the consumer's purchase motivation in Nuevo León, Mexico.

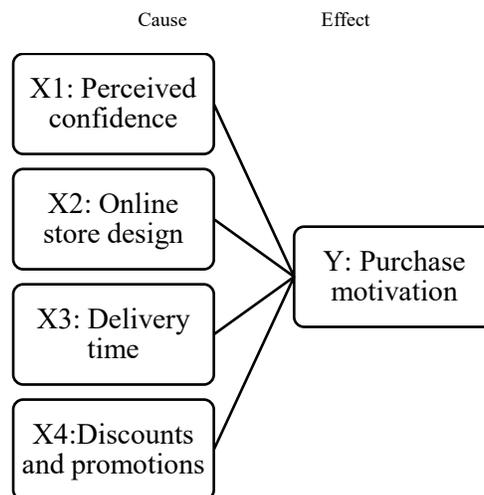


Figure 1. Proposed research model

### 3. Methods

The type of research for this study is quantitative, not experimental, explanatory. It is characterized by being a transactional design in which data is collected in a single moment, in a single time, in this case it will be in 2021. Its purpose is to describe the variables and analyze their incidence and interrelation in a period of time (Hernández, Fernández, & Baptista, 2014).

The research was carried out without deliberately manipulating the variables; it was based on the observation of the variables and their relationships in their natural context to later analyze them, and based on the results of the research, it is established if the mentioned variables of e-commerce are related to the consumer's purchase motivation in Nuevo León, México.

The type of sample was non-probabilistic since that the companies to which the measuring instrument was sent were selected and evaluated. For the identification of the independent variables that affect the dependent variable, the use of multiple linear regression was considered in this study.

### 4. Data Collection

The data collection was carried out through field work, therefore, a measurement instrument was designed, in which information was collected for statistical analysis. From the data collected, we proceeded to verify the hypothesis raised in the investigation. The study considers the population of Nuevo León, México. According to INEGI (2021), in 2020, a total of 5,341,171 population and a sample of 385 population were counted, based on a confidence level of 95%, with a margin of error of 5%.

The questionnaire was distributed electronically through social media platforms. The questionnaire was applied for approximately 6 weeks, beginning in April 2021. Data was collected from 512 responses, where 52 were discarded because control questions were not answered and / or were incomplete. Finally, 460 questionnaires were analyzed for statistical analysis.

The demographic results of the respondents are shown in Table 1.

Table 1. Respondet demographics

Demographic data		Frequency	Percentage
Gender	Female	243	53
	Male	209	45
	Trans/Transgender	2	0.4
	Other gender	1	0.2
	Prefer not to say	5	1
Age	Under 18 years old	18	4
	18 years to 24 years	307	67
	25 years to 34 years	66	14
	35 years a 44 years	15	3
	45 years a 54 years	26	6
	55 years a 64 years	27	6
	Over 65 years old	1	0.2
Study grade	Elementary school	17	4
	High school	85	18
	Bachelor degree	338	73
	Master degree	16	3
	Doctoral degree	1	0.2

	Does not apply	3	1
Current job situation	Part time job	22	5
	Full time job	116	25
	Self-employed	33	7
	Housekeeper	19	4
	Student	156	34
	Student worker	105	23
	Unemployed	9	2

A 32-item measurement instrument was developed from the review literature, as seen in Table 2. Its measurement was made based on a Five-point Likert scale, where 1 denoted Strongly disagree, 2 denoted Disagree, 3 denoted neither was Neutral, 4 denoted Agree and 5 denoted Strongly agree.

To validate the instrument, Cronbach’s alpha coefficients were applied. According to (George & Mallery, 2003) to be acceptable they must be between .70 and .90, where the .70 is the minimum acceptable value, .80 is good and .90 is excellent. As seen in Table 2.

Table 2. Alpha Cronbach Results

Variable	Variable Name	Alpha Cronbach
X1	Perceived confidence	0.825
X2	Online store design	0.890
X3	Delivery time	0.842
X4	Discounts and promotions	0.742
Y1	Resilient supply chains	0.895

## 5. Results and Discussion

A multiple linear regression analysis was performed with the IBM SPSS 23 software to predict the behavior of the dependent variable purchase intent, based on the independent variables, the perceived trust, the online design store, the delivery time and the discounts and promotions.

The multiple linear regression was used, when applied to the collected data of 460 samples, shows result as seen on Table 3. Model 1, indicates that the only independent variable that affects the dependent variable is Online store design. Model 2, indicates that Online stores design and Discounts and promotions variables, affects the dependent variable. Model 3, indicates that Online stores design, Discounts and promotions and Delivery time variables, affects the Purchase Motivation. Finally, Model 4 indicates that the four independent variables in this investigation, has an effect in the Purchase motivation. On the other hand, the Durbin Watson statistic is presented, which indicates that there is no autocorrelation.

Table 3. Statistical results models

Model	R	R square	Durbin Watson
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1	.644	.415	
2	.727	.529	
3	.762	.581	
4	.770	.593	2.019

The independence of the variables is reflected in the Analysis of Variance (ANOVA), which compares the means of each variable presented as seen in the Table 4, where all the models meets the parameter of regression.

Table 4. ANOVA

ANOVA <sup>a</sup>						
Model		Sum de squares	df	Mean Square	F	Sig.
1	Regression	54.804	1	54.804	324.942	.000 <sup>b</sup>
	Residual	77.245	458	.169		
	Total	132.048	459			
2	Regression	69.803	2	34.902	256.246	.000 <sup>c</sup>
	Residual	62.245	457	.136		
	Total	132.048	459			
3	Regression	76.771	3	25.590	211.104	.000 <sup>d</sup>
	Residual	55.277	456	.121		
	Total	132.048	459			
4	Regression	78.266	4	19.567	165.535	.000 <sup>e</sup>
	Residual	53.782	455	.118		
	Total	132.048	459			

a. Dependent variable: Purchase Motivation

b. Predictors: (Constant), Online store design

c. Predictors: (Constant), Online store design, Discounts and promotions

d. Predictors: (Constant), Online store design, Discounts and promotions, Delivery time

e. Predictors: (Constant), Online store design, Discounts and promotions, Delivery time and Perceived confidence

The significance test (Student-T) variables can be seen in Table 5. It can be seen that Model 4 that Online store design has a beta coefficient of .289, Discounts and promotions has a beta coefficient of .322, the variable Delivery time has a beta of .260 and the variable Perceived confidence has a beta value of 130. In the same way in Table 5 is the collinearity statistic, which indicates that there is no collinearity.

Table 5. T Students

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistic	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.689	.131		12.936	.000		
	Online store design	.565	.031	.644	18.026	.000	1.000	1.000
2	(Constant)	1.048	.132		7.920	.000		
	Online store design	.412	.032	.470	12.995	.000	.789	1.268

	Discounts and promotions	.259	.025	.379	10.494	.000	.789	1.268
	(Constant)	.703	.133		5.295	.000		
3	Online store design	.306	.033	.349	9.284	.000	.648	1.543
	Discounts and promotions	.227	.024	.332	9.560	.000	.763	1.311
	Delivery time	.194	.026	.274	7.582	.000	.705	1.419
	(Constant)	.515	.141		3.639	.000		
	Online store design	.253	.036	.289	7.056	.000	.535	1.869
4	Discounts and promotions	.220	.023	.322	9.383	.000	.758	1.318
	Delivery time	.184	.025	.260	7.249	.000	.697	1.436
	Perceived confidence	.118	.033	.130	3.556	.000	.675	1.482

## 6. Conclusion

According to the observed results, the proposed Model 4 with a  $R^2$  of 0.593, as seen in Table 5, the variable that has the greatest weight in terms of its beta, in the explanation of the purchase intention is the Discounts and promotions. The results are in line with previous research findings that demonstrate the positive effect of sales promotions on consumer behavior (Alvarez & Casielles, 2005; Gupta, 1988) as well as strengthens the theoretical assumptions that the sales promotion is an important element to influence purchasing behavior of a customer (Blattberg & Neslin, 1990).

Second, it is the Online store design. Third, it is the delivery time, from when the purchase was generated, until the delivery of this. Finally, it is the Perceived confidence by the consumer towards the e-commerce platform. Equation (1) represents the model of multiple linear regression obtained in this investigation.

$$\hat{y} = 0.515 + 0.130X1 + 0.289X2 + 0.260X3 + 0.322X4 + \epsilon \quad (1)$$

This research recommends, as we verified statistically, that e-commerce platforms should focus in the investments of agile, feasible processes and pay attention to promotional events, payment facilities; as well as a fast, secure and traceable shipment. These factors can be of great help to increase your sales and income.

One drawback of this study is that we have only used online store design factors as antecedents of trust. Jarvenpaa and Tractinsky (1999) had conceptualised that there are other factors such as vendor reputé and vendor size that affect purchase intention. Tan et al. (2007) had shown empirically that external and internal norms affect purchase intention.

For future research the exploration of in depth online store design will provide more data on how to make an attractive and more user friendly platform to increase the online purchase intention to increase online sales. Also an important research to be made in the near future is to expand this study to different consumer cultures, other demographics to compare and get more knowledge on this topic.

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## Biographies

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He is currently part of the FACPYA research coordination. And he also works as a professor-researcher at the Faculty of Chemical Sciences and at the Faculty of Public Accounting and Administration. Federico currently has a SNI Candidate (2020).

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