

# Innovation Proposal in the E-Commerce of Exponential Handcrafted SMEs of Entrepreneur Women With the Interfaces of the Creative Economy

Jovanna Nathalie Cervantes-Guzmán, Universidad de Guadalajara, Mexico

Juan Mejía-Trejo, Universidad de Guadalajara, Mexico

Guillermo Vázquez-Ávila, Universidad de Guadalajara, Mexico

## ABSTRACT

The main purpose of this research is to develop a proposal for innovation in the e-commerce of exponential artisanal SMEs of women entrepreneurs in developing countries using the interfaces of the creative economy. The methodology used was deductive, exploratory, descriptive, correlational, and documentary. The research has the potential to explain the phenomena that are considered as deviation from the prediction or behavioral bias of the decision-making models, to achieve the growth of companies on a larger scale. The study was conducted using a study group: businesswomen.

## KEYWORDS

Behavioral Economics, Decision Making, Neuroeconomics

## INTRODUCTION

SMEs in Mexico constitute 95% of established companies and contribute 23% to GDP, but they have a series of problems that cause 75% to close their operations after 2 years in the market (INEGI, 2010), and their chance of success is on average from 25% to 30% below the world average that is 40% (Fernández, 2010). It is appropriate to highlight that 47% directed by the female gender, contributing 37% of GDP, also contribute 70% of GDP and allocate 70% of their income to the community and family (González, 2016). Despite this, Latin America has the highest rate of business failure run by women. In Mexico alone, 2.2 million formal companies 17.63% are directed by the female gender, in addition, that 50% have a profit of less than \$ 50,000 USD compared to 25% of the companies that operate men (Power & Magnoni, 2010).

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2001), it states that the handcraft sector has a predominant role in economic development and the fight against poverty, but they lack a long way to go to achieve maximum potential in generating employment and income to achieve greater economic growth in developing countries. The handcraft

DOI: 10.4018/IJEEI.2021010104

Copyright © 2021, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.

sector has great untapped potential in e-commerce that can generate a greater amount of income and jobs that produce a social and economic impact on entrepreneurs worldwide and especially women (Foote, 2015).

The main purpose and mission of this research is to develop a proposal for innovation and e-entrepreneurship in the e-commerce of exponential handcraft SMEs of women entrepreneurs using the interfaces of the creative economy.

## **BACKGROUND**

### **Statement of the Problem**

According to the International Telecommunication Union (2015), the internet is used by 43.3% of the world's population, which corresponds to 3,200 million Internet users. The way in which the internet has increased its penetration in the online market has caused changes in the way in which business interacts with consumers, developing e-commerce causing companies to increase the total number of sales and an increase in online retail interactions of consumers (VanderMeer, et al, 2001). The number of digital buyers worldwide is rapidly expanding from 1.32 billion in 2014 to 1.66 billion in 2017 and is expected to increase to 2.14 billion in 2021 (Statista, 2018). What translates into an increase in electronic sales of retailers globally from 2014 in 1336 trillion dollars to 2290 trillion dollars in 2017 and an increase is forecast in 4479 trillion dollars by 2021 (Statistica, 2018). With a participation in retail e-commerce 2016 in the Asia and the Pacific regions with 12.1%, Eastern Europe with 8.3%, North America with 8.1%, Central and Eastern Europe with 3.4% and Latin America with 1.9% (Statista, 2018).

The increase in online shopping has transformed the internet into a powerful force, being a tool that has a great influence on consumer behavior (McGaughey & Mason, 1998), modified the way the individual acquires a product by the large amount of information that it provides, making it easier for the potential client to evaluate the products and / or services of different suppliers, which modifies the traditional buying behavior (Koufaris, 2003). Because it allows the purchase through crossed channels, this together with the development of technological characteristics such as the search for information, the evaluation of the different alternatives offered and the realization of the purchase (Constantinides, 2004).

Electronic commerce offers great potential for the expansion of SMEs into international markets by intensifying the sales power by creating a new distribution channel to reach new customers, develop their own marketing strategies and produce new business opportunities (Colvee 2013). In addition, e-commerce is a powerful tool that allows SMEs to move faster in the development phases by positioning the company in the world market (Hussain, 2013). The proper management of electronic commerce will allow handcraft SMEs to increase their competitiveness (Aragon & Rubio, 2005) in a sector where, despite their significant participation and their annual growth rate of over 4%, they have not been able to increase it (FONART, 2009).

One of the big problems for the integration of SMEs in e-commerce is to achieve efficiency in electronic platforms due to ignorance of customer behavior in decision making (Sacristan, 2013).

In the context of the above considerations, SMEs in Mexico constitute 95% of established companies and contribute 23% to GDP, but they have a number of problems that cause 75% to close their operations after 2 years in the market (INEGI, 2009), and its chance of success is on average from 25% to 30% below the world average which is 40% (Fernández, 2010). At the international level, the percentage of survival and the half-life of SMEs is similar in countries such as Spain, where more than 70% does not exceed 4 years of life and 80% of SMEs fail within the first 5 years, in The United States of America 30% of SMEs do not reach the third year and have an average life of 6 years and in the underdeveloped countries only the first 3 years of life survive between 50% and 75%.

Handcraft SMEs are a great engine of the economy where 47% are directed by the female gender, contributing 37% of GDP, they also allocate 70% of their income to the community and the family, unlike the men who contribute only between 30% and 40% (González, 2016). Despite this, Latin America has the highest rate of business failures managed by women. In Mexico, only 2.2 million formal companies 17.63% are directed by the female gender, in addition, that 50% have a profit of less than \$ 50,000 USD against 25% of the companies that operate men (Power & Magnoni, 2010).

According to the United Nations Organization for Education, Science and Culture (UNESCO, 2001), it states that the handcraft sector has a predominant role in economic development and in the fight against poverty. In addition, preferences in market consumption are changing because they care about the origin of the product, which they produce and how it was manufactured, changing their preferences for mass-produced products at hand, the only one of its kind and independent design (INDEGO Africa, 2016). They have a long way to go to achieve their full potential in employment and income generation to achieve greater economic growth in developing countries.

The handcraft sector has great untapped potential in electronic commerce that can generate a greater amount of income and jobs that produce a social and economic impact on entrepreneurs around the world and especially women (Foote, 2015).

This can be achieved through the use of the interfaces of the creative economy, which is integrated according to the United Nations Institute for Training and Research (UNITAR) by economics and technology. The research will employ in the economic part its sub-branch called “neuroeconomics”, which is integrated by the aspects of behavioral work carried out by economists, psychologists and neuroscientists, for the development of a unified theory of behavior choice; and the technological advances that allow us to look at the brain will eventually replace the simple mathematical ideas of economics with more detailed neuronal descriptions, which allows the human brain to be analyzed so that basic postulates can be empirically studied and lose the axiomatic character (Glimcher, 2003). And in the area of technology, it will focus on electronic commerce; companies use the Information and Communication Technologies (ICTs) as a new channel for the dissemination of products and / or services, appearing a second group of services ICTs formed by electronic commerce that is a way of remote purchases through a Telecommunications network that has increased its potential by adapting people with new technologies.

Scientific knowledge will be advanced in the application of the interfaces of the creative economy, in the e-commerce of exponential handcraft SMEs of women entrepreneurs in developing countries, having the potential to explain the phenomena that are considered as Deviation from the prediction or behavioral bias of the decision-making models to achieve the increase of its market on a larger scale and its growth regardless of its size and location.

The study will obtain information from experts working one of the main internationally recognized NGOs “Artisan Alliance” that work with internationally recognized organizations that support women entrepreneurs in the handcraft industry of developing countries.

## LITERATURE REVIEW

### Handcraft SMEs in the Economic Context of the Countries

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), handcraft products have characteristics that define them as their usefulness, aesthetics, artistic, creative, link to culture, decoration, functionality, traditional, symbolic and significantly social (Etienne-Nugue, 2009).

#### *Handcraft SMEs in Developing Countries*

After agriculture, the handcraft sector is the second employer in developing countries, mostly made up of women who perform traditional handicrafts to obtain economic resources. These countries have

a competitive advantage for their cultural traditions, handcraft skills and specialized raw materials (Foote, 2015).

The handcraft sector is a global creative economy, it can be exemplified by representing it as a country that would symbolize the fourth largest economy and labor force in the world according to the Inter-American Development Bank (IDB). It is a world industry that generates revenues of \$ 34 billion per year, with only developing countries providing 64% of exports worldwide. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2001), it states that the handcraft sector has a predominant role in economic development and the fight against poverty. In addition, preferences in market consumption are changing because they care about the origin of the product, who made it and how it was manufactured, changing their preferences for mass-produced products to the handmade, the only one of its kind and independent design (INDEGO AFRICA, 2016).

### ***Problems and Realities of Handcraft SMEs***

SMEs are a great engine of the Mexican economy, 47% being directed by the female gender, contributing 37% of GDP, also allocating 70% of their income to the community and family to Unlike men who only contribute between 30% and 40% (González, 2016). Despite this, they have a series of challenges that hinder their management, such as the lack of support to achieve the competitiveness of the company, and the responsibility of having a balance between work and family life (Amigón, 2014).

Latin America has the highest rate of business failure run by women. In Mexico alone, 2.2 million formal companies 17.63% are directed by the female gender, in addition their size is smaller since 80% have less than 15 employees compared to 48% of companies belonging to men, and only 4% of companies have more than 100 employees in contrast to 17% of the male gender. In addition, 50% have a profit of less than \$ 50,000 USD compared to 25% of the companies that operate men (Power & Magnoni, 2010).

We can also add to the approach of the problem presented in the analyzed information that the handcraft sector companies are small, are undercapitalized, have relatively non-liquid inventories, have little access to financial services, also present difficulties in selling handcraft products so they depend on external (Fellowships, 2016); so they have a long way to go to achieve their maximum potential in generating employment and income to achieve greater economic growth in developing countries. Producing an opportunity to support artisans the business skills and technical knowledge necessary to maintain and grow their businesses. The handcraft sector has great untapped potential that can generate a greater amount of income and jobs that produce a social and economic impact on entrepreneurs worldwide and especially women (Foote, 2015).

### **Challenges of Female Gender Entrepreneurship**

In countries where there is a greater number of women entrepreneurs there is greater economic growth, in contrast to countries where it is restricted there is a stagnant economy, there is also an impact on the social environment (UNIDO, 2011). In spite of this, there are currently twice as much male as female entrepreneurship (Reynolds, et al, 2002).

The female gender decides to undertake to obtain their own income, develop an innovative idea, move up in their work careers, flexibility between work, family (Heller, 2010) and by necessity, this being a factor that has a direct relationship between the level of development and the business development rate generating a correlation between the developing countries that have a higher rate as opposed to the more developed countries have a lower rate showing a concordance between the levels of low economic remuneration and the creation of a company developed by women (ECLAC, 2004).

### ***Entrepreneurs From Developing Countries***

Research in emerging countries by the National Foundation for Women Business Owners (NFWBO) found that women who own businesses have common characteristics regardless of the business, its

establishment, administration, operation, and goals differs from that of the male gender since they are aimed at owning small businesses, making decisions based on diverse criteria, higher priority to quality of life instead of increasing business income, investments controlled by the lack of support for part of the institutions to obtain credit, limited capital, and mainly seek to reconcile the different aspects of their life; in contrast to their counterparts that focus on financial and economic aspects oriented towards profitability. They have similar problems for the growth of their companies, having common needs to achieve this as access to information, training, technological assistance and access to national and international markets.

The contribution of women in the economy of Latin America and the Caribbean had an increase of 35% in 1980 to 53% in 2007 promoting economic growth, financial security in the family, increase in consumption capacity and reduction in poverty of the region (Pages & Piras, 2010).

Despite the increase in female labor participation, it continues to have several problems, according to the World Economic Forum (WEF) according to the report on the Global Gender Gap 2016 that gender equality in economic activity and Labor will be possible in 170 years (Hernández, 2016). Similarly, the 2009 report indicates that the gender gaps with the greatest degree of relevance in Latin America and the Caribbean are in the sub-indices of economic and political participation.

The gender gap in the business sector increases in developing countries, these being the majority of the countries of the Latin American and Caribbean region, where only 22% of women work independently (Hellen, 2010).

SMEs that are led by 51% by women entrepreneurs generate an important contribution to the economy representing 31% to 38%, which constitutes 8 to 10 million, in formal SMEs in developing countries. Female entrepreneurship is composed of micro-sized SMEs 32% to 39%, small size 30% to 36%, medium-sized 17% to 21% (Shukla, 2011).

### *Support to Women Entrepreneurs in Developing Countries*

Next, the organization that was used in the research is exposed, this is one of the NGOs with the highest international recognition that drive women entrepreneurs to help close the gender gap in the business environment, providing support to access the markets. Within one of its areas, they focus on supporting women entrepreneurs of exponential SMEs in the handcraft sector in developing countries

## **ARTISAN ALLIANCE**

Artisan Alliance is an initiative of the Aspen Global Innovators Group at the Aspen Institute, it focuses on increasing economic value and the sustainable growth of the handicraft sector in economic disadvantage for its integration into global trade. Through formal business training, networking platform, financing, coaching and events (Artisan Alliance Enterprise, 2016).

According to the impact report Alliance for Artisan Enterprise (2016) are integrated:

- 128 member organizations:
  - 58% handcraft businesses
  - 32% organizations that support artisans
  - 10% corporations, foundations and others
- Work in 108 countries
- In contact with 81,045 artisans
- 89% women entrepreneurial artisans reached
- 35 organizations from developing countries

## THEORETICAL FRAMEWORK

The success of a company in electronic commerce, from the business perspective depends on various factors found classified into 3 main categories:

1. Web page design
2. Consumer satisfaction
3. Information contained

### Web Page Design

The web page design is integrated by navigation, appearance and clarity of information.

#### *Navigation*

The navigation element analyzes the way in which the web page can be navigated, because the success of a site depends to a greater extent on the ease of searching and obtaining the information that its content, because if there are difficulties in the first person will leave the website.

For this, a structuring must be established with routes that are clear in their linking and easy to follow links that are able to facilitate navigation and find information for users who are at different levels of understanding (McKinney, et al, 2002).

#### *Appearance*

The appearance of the web page must be attractive to generate and preserve the interest of the audience (Badre, 2002). This can be done through hedonism by exposing exciting, interesting and entertaining features that allow us to capture the user's attention to get its distinction from other websites and achieve customer satisfaction (Zhang & Von Dran, 2000).

By providing a pleasant online visual experience increases participation, enthusiasm, promotion and concentration, causing an increase in confidence in the company's website and generating an increase in the intention to purchase (Liu & Arnett, 2000).

## CLARITY OF INFORMATION

According to Rosen and Purinton (2004) the clarity of information is integrated by the categories of:

- Consistency: The supersaturation of information should be avoided so that it can be clear when reading.
- Complexity: You must give an order and classify the information provided on different topics.
- Readability: People must be able to read and understand information in a simple way.

### Consumer Satisfaction

Consumer satisfaction is the best indicator of a company's success and future growth (Kotler, 1991). It is integrated by trust, commitment and loyalty.

#### *Trust*

Trust is defined as the willingness to trust the seller to make decisions in circumstances where the consumer has a certain degree of vulnerability to the seller (Jarvenpaa, et al, 1999). Likewise, Chaudhuri & Holbrook (2001) conceptualize it as emotional bonding and connection with a company that leads to consumer satisfaction.

Trust from the context of an online client is considered as a cognitive component focused on the brand-consumer relationship, developing a positive exchange relationship between the two (Matzler, et al, 2008).

### ***Commitment***

The commitment is conceptualized by Rusbult, Johnson and Morrow (1986) as the intention of maintaining a long-term relationship with the company.

Online participation is a cognitive and affective commitment to generate an active relationship with the brand and communicate its value, this is integrated by the utility and relevance and the experiential value of emotional congruence (Mollen & Wilson, 2010). When this socialization exists, the shopping experience significantly improves (Srinivasan, et al, 2002)

### ***Loyalty***

Loyalty is considered as the psychological link between the consumer and the company (Chaudhuri & Holbrook, 2001). From a technological point of view according to Dianne (2008), online loyalty is the intention of the customer to buy on a website and revisit the site in the future.

It is a key factor to achieve the success of a brand and its future development (Casalo, et al, 2007), causing the reduction in price sensitivity, stability in retaining customers and greater benefits for the company (Lynch & Ariely, 2000).

### **Contained Information**

As develop their website to provide information about your company and this content vital to determining the success of the site; This is integrated by brand information, product information and e-services.

### **Brand Information**

Consumer cognitive participation online refers to being present in the company environment and learning about their brand and the product they offer (mission, goals, product offer, philanthropic efforts, etc.), through carrying out the actions of searching, interpreting and analyzing the information presented on the website. When users focus cognitively on a brand, their knowledge of the company increases generating emotional bonding and connection causing general satisfaction (Shang, et al, 2006).

### **Product Information**

To increase the number of customers and sales, an analytical description of the products offered on the site must be offered (Cunningham, 2000).

The quality of product information is defined by (Ou & Sia, 2010) as a consumer's perception of the product based on a set of judgment criteria that includes accuracy, relevance and impartial measures; This influences consumer behavior for evaluation and purchase intention (Cao, et al, 2005).

### **E-Services**

One of the important aspects that the website should have to improve customer satisfaction is the electronic service that must be integrated by the support, forums, online registrations, frequently asked questions and security. Being the last one of the most important aspects that more than 70% of users take into consideration, so brands must offer statements of security and privacy of their data for their transactions and thereby increase customer satisfaction (Charles, 2001).

## METHODOLOGY

Based on the needs of the study based on the information obtained from research files, the methodology used in the work was as follows:

- Documentary research. The research is documentary, depending on what was proposed by Pasteur (2013) uses documents, collects information, analyzes and presents results. It was used in the study in order to collect the documents that may be essential to understand and contextualize the study.
- Correlational Research. It allows to relate the variables of the problem in a particular context (Baptista, et al, 2010). One of its main characteristics is that it allows examining the relationship between the variables looking for their association but it is not necessary to find their causal relationships (Bernal, 2010).
- Quantitative Approach. It is defined by Tamayo (2010) as the measurement of the variables and their relationship through a verification to test the hypothesis and validate their theories, offering the possibility of having a broader approach to women in developing countries.
- The sample was women entrepreneurs who lead exponential handcraft SMEs in developing countries, certified by Artisan Alliance.

### Matrix of Operationalization of the Variables

For the realization of the model (Table 1), it included data collection through surveys using the modified Delphi method that integrates neuroeconomics to analyze the participants' perception of a series of questions, being used for the development of causal relationships in complex social and economic phenomena. This was done through a literature review of previous work on the subject, such as:

Table 1. Operationalization of the variables

Subject	General Objective	General Research	Specific Objectives	Specific Question	Variables	Hypothesis	Methodological Analysis
Innovation proposal in the e-commerce of exponential handcraft SMEs of women entrepreneurs with the interfaces of the creative economy	Develop an innovation proposal in the e-commerce of exponential handcraft SMEs of women entrepreneurs using the interfaces of the creative economy	What is the impact of a proposal for innovation in the e-commerce of exponential handcraft SMEs of women entrepreneurs using the interfaces of the creative economy	Expose the economic context of handcraft SMEs and the challenges of gender equity in developing countries	How is the economic context of handcraft SMEs and the challenges of gender equity in developing countries?	Design of the web page	The design of the web page has a positive relationship with the intention to purchase	Quantitative (modified Dephi Method that integrates neuroeconomics)
			Analyze from a quantitative perspective using modified Delphi method that integrates neuroeconomics, the opinion of founder's experts and CEOs that are made up of women entrepreneurs who run exponential SMEs in the handcraft industry in developing countries that are certified.	How is it from a quantitative perspective, using a modified Delphi method that integrates neuroeconomics, the opinion of experts from founders and CEOs who are made up of women entrepreneurs who run exponential SMEs in the handcraft industry in developing countries that are certified?	Consumer	Satisfaction has a positive relationship with the intention to purchase	Quantitative (Modified Dephi method that integrates neuroeconomics)
					Information contained	The information contained has a positive relationship with the intention to purchase	Quantitative (Modified Dephi method that integrates neuroeconomics)



- Master’s thesis with the theme “Internet marketing, website design and consumer behavior” (Elia, 2009), from the University of Manchester.
- PhD thesis with the theme “Online consumer engagement: understanding the antecedents and outcomes” (Rene, 2012), from the Colorado State University.

Using as a basis the research of the doctoral thesis of Nada (2013) with the theme “Project approval decisions: exploring success factors”; The research analyzes the interaction of decision makers, taking into account executives and project leaders through surveys using the modified Delphi method that integrates neuroeconomics (Figure 1).

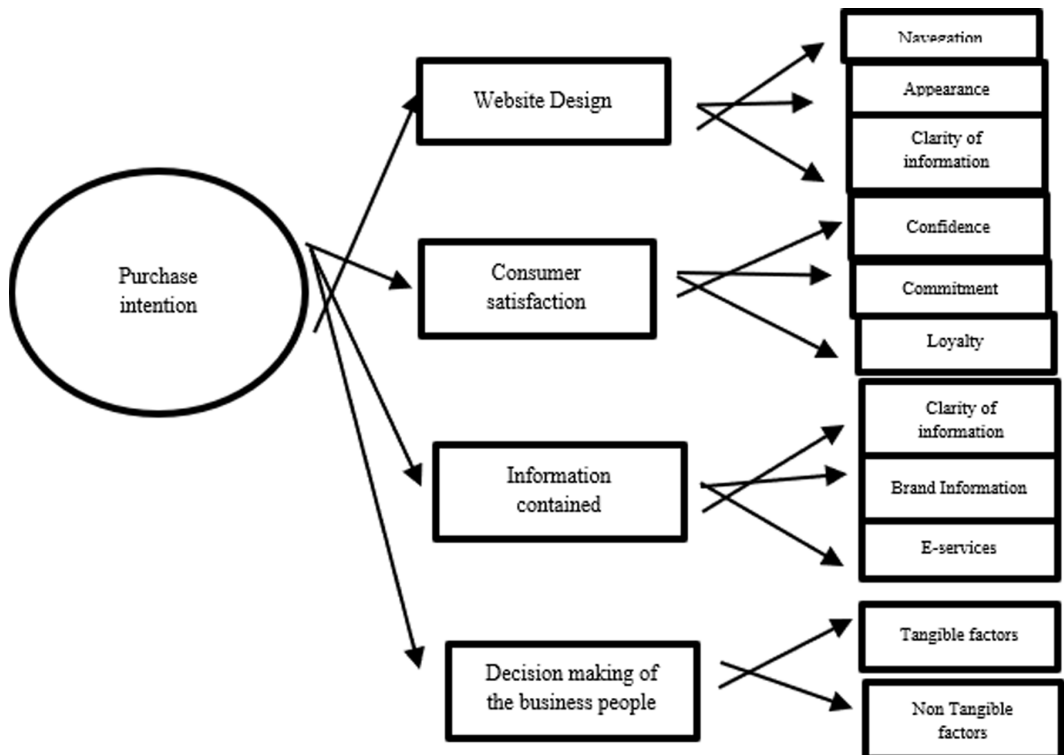
Once the information is collected in a database in Microsoft Excel, the SPSS statistical program was applied to perform the processing and analysis of the results.

The analysis comprised two stages:

1. Statistical representation of data
2. Method for sorting and presenting data

For the analysis, the inferential statistics that are responsible for organizing and summarizing the data (Munch & Angeles, 2006).

Figure 1. Proposed model



## ANALYSIS OF RESEARCH AND RESULTS

It was used the survey using the modified Delphi method that integrates neuroeconomics, for the analysis of the interaction of decision makers. The panel of experts is made up of the CEOs and founders of handcraft SMEs run by women entrepreneurs in developing countries that are certified by the Artisan Alliance.

This was considered pertinent as there was the opportunity to access to a relevant number of experts in the professional and social environment of the object of study.

For the quantitative analysis were used:

The quantitative analysis was used inferential statistics that was performed with a total of 46 items, from this analysis it is determined that the level of consistency and reliability.

Of the proposed factors, Cronbach's Apha, KMO, Bartlett's Test and T-test in each of the dimensions were analyzed. And for the hypothesis test, the Wilcoxon test was analyzed.

In each of the dimensions, several parametric tests were carried out to analyze its validity, reliability and reliability

Weights to assess reliability through the Cronbach Alpha. In terms of internal consistency, there are several reports on the accepted values of alpha ranging from 0.70 to 0.90 (Dennick & Tavakol, 2011). Cronbach's Alpha coefficient was calculated. In the sample that was 0.925 because it is values close to the unit, a data collection instrument is excellent. (See Table 2).

In addition, the Kaiser-Meyer-Olkin (KMO) test was performed for the analysis of components with Varimax rotation that the closer to 1 the value obtained implies that the relationship between the variables is high (Benavente, et al, 2011). The value of KMO is 0.828 which is considered remarkable. Likewise, the Bartlett sphericity test was performed, where, if it is less than 0.05, it is accepted as a null hypothesis, so that the factor analysis can be applied (ibid, 2011). Its significance is 0.000, so factor analysis can be applied (see Table 3).

For the evaluation of the applicability of the questionnaire, it begins with the factor analysis with varimax rotation defined as the simplicity of a factor by the variance of the squares of its factor loads in the observable variables (Perez, et al, 2004), this is for the interpretation of the factors in a faster way, because examining the characteristics of the variables of a group associated with a certain factor allows finding the common traits that allow the identification of the factor and provide the denomination that responds to the common traits (Pérez, et al, 2004)

In addition, the T test was carried out to be used to test whether the average of a population differs significantly from a known given value or hypothesized When Ho (null hypothesis) is rejected and Ha (alternative hypothesis) is accepted as true, because the value of "p" that indicates whether the association is statistically significant, because  $p < 0.05$  expresses that there is little probability

Table 2. Cronbach's alpha

Cronbach's Alpha	N of Elements
.925	45

Table 3. KMO and Bartlett test

Kaiser-Meyer-Olkinof sampling adequacy		.828
Bartlett sphericity test	Approx. Chi-square	32,191
	gl	6
	Sig.	.000

Table 4. Analysis of the variables

Dimension	Cronbach's Alpha	KMO	Barlett's Test (Significance)	Wilcoxon
Website design	0.842	0.770	0.000	Z: -.0182B
				Sig: 0.855
Consumer satisfaction	0.765	0.714	0.000	Z: -.319c
				Sig: 0.750
Information contained	0.888	0.705	0.000	Z: -.159b
				Sig: 0.873

Source: Prepared

that chance was responsible for said association. On the contrary, if  $p > 0.05$ ,  $H_0$  is accepted, so it is shown that the variables are not associated or correlated and chance may be the explanation of this finding (Rubio and Berlanga, 2012). (See Table 5).

Finally, the verification of the hypothetical assumptions that demonstrate the fundamentals of the thesis work, increasing the validity of the methodological construct, being defined, was evaluated by the Wilcoxon test, being a non-parametric analysis. As the non-parametric equivalence of the T test for related samples. It was used to test the hypotheses when exposing if there is a difference between the medians, when the value of the probability associated with the statistic is above the level of significance of 5% or 0.05 the null hypothesis of homogeneity is accepted and it is not possible affirm the alternative hypothesis of differences (Reidl, et al, 2010). (See Table 4).

Table 5. Test T

--	--	Significance	Variable	Item	Significance	Variable	Item	Significance
Web page designs	1	.000	Consumer satisfaction	29	.000	Information contained	13	.000
	2	.000		30	.000		14	.000
	3	.000		31	.000		15	.000
	4	.000		32	.000		16	.000
	5	.000		33	.000		17	.000
	6	.000		34	.000		18	.000
	7	.000		35	.000		19	.000
	8	.000		36	.000		20	.000
	9	.000		37	.000		21	.000
	10	.000		38	.000		22	.000
	11	.000		39	.000		23	.000
	12	.000		40	.000		24	.000
			41	.000		25	.000	
			42	.000		26	.000	
						27	.000	
						28	.000	

## **DISCUSSION**

### **Hypothesis Test 1**

There is no significant difference between the purchase intent and the design of the website.

The null hypothesis is accepted because there is a bilateral asymptotic significance greater than 0.05 with a result of 0.855, so there is homogeneity between the intention to purchase and the design of the website.

### **Hypothesis Test 2**

There is no significant difference between the intent to purchase and the information contained.

The null hypothesis is accepted because there is a bilateral asymptotic significance greater than 0.05 with a result of 0.750, so there is homogeneity between the purchase intent and the information contained.

### **Hypothesis Test 3**

There is no significant difference between purchase intent and consumer satisfaction.

The null hypothesis is accepted because there is a bilateral asymptotic significance greater than 0.05 with a result of 0.873, so there is homogeneity between the intention to purchase and the consumer's satisfaction.

## **CONCLUSION**

Taking into consideration the process and aspects that influence the decision-making of the entrepreneur in the electronic business ico.

This study is very useful because it is a line of research that offers the possibility of designing innovative actions that generate a greater influence on clients and therefore an increase in sales in SMEs for the development and growth of women in countries where process of development.

Generating the possibility of increasing the creative economy of companies to increase the inclusiveness of the workforce in developing countries and preserve important cultural traditions.

Practical implications of the study were conducted using a study group: millenials.

Limitations are in this article the use of any neuroscience technique was not involved, so this particular aspect of the model regarding our current study cannot be fully illustrated.

Future directions will be to use machine learning to increase its development in e-commerce.

## REFERENCES

- Africa, I. (2016). How the artisan sector can change the world. *ONE*. Recovered from <https://www.one.org/us/2016/05/13/how-the-artisan-sector-can-change-the-world/>
- Amigón, E. (2014). En México, 47% de PYMES son comandadas por mujeres. *El Financiero*. Recovered from <http://www.elfinanciero.com.mx/empresas/en-mexico-47-de-pymes-son-comandadas-por-mujeres.html>
- Artisan Alliance Enterprise. (2016). *Impact Report*. Alliance for Artisan Enterprise.
- Baptista, P., Fernández, R., & Sampieri, C. (2010). *Metodología de la investigación*. Publishing Mc Graw Hill.
- Bolton, R., Kannan, P., & Bramlet, M. (2000). Implications of loyalty program membership and service experiences for customer retention and value. *Journal of the Academy of Marketing Science*, 28(1), 95–108. doi:10.1177/0092070300281009
- Cao, M., Zhang, Q., & Seydel, J. (2005). B2C e-commerce web site quality: An empirical examination. *Industrial Management & Data Systems*, 105(5), 645–661. doi:10.1108/02635570510600000
- Casalo, L., Flavian, C., & Guinaliu, M. (2007). The impact of participation in virtual brand communities on consumer trust and loyalty. *Online Information Review*, 31(6), 775–792. doi:10.1108/14684520710841766
- CEPAL. (2004). Novena conferencia regional sobre la mujer de América Latina y El Caribe. *Consenso de México*.
- Charles, F. (2001). *Internet Marketing* (3rd ed.). Academic Press.
- Chaudhuri, A., & Holbrook, M. (2001). The chain of effect from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93. doi:10.1509/jmkg.65.2.81.18255
- Colveé, J. (2013). *Guía práctica de e-commerce para pymes: primeros pasos hacia el éxito*. Anetcom Ediciones. [http://video.anetcom.es/editorial/GUIA\\_E-COMMERCE\\_BR.pdf](http://video.anetcom.es/editorial/GUIA_E-COMMERCE_BR.pdf)
- Constantinides, E. (2004) Influencing the online consumer's behavior: the Web experience. *Internet Research*, 14(2), 111-126.
- Cunningham, M. (2000). *Smart Things to Know About E-Commerce*. Capstone.
- Dennick, R., & Tavakol, M. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 53-55.
- Dianne, C. (2008). Modeling Web Site Design across cultures: Relationships to Trust, Satisfaction and E-Loyalty. *Journal of Management Information Systems*, 24(4), 47–72. doi:10.2753/MIS0742-1222240402
- Elia, M. (2009). *Internet marketing, website design and consumer behaviour* (Master's thesis). University of Manchester.
- Etienne-Nugue, J. (2009). *Hablame de las artesanias*. UNESCO.
- Fellowships, E. (2016). From kitsch to craft to economic growth. *Huffpost*. Recovered from [https://www.huffingtonpost.com/eisenhower-fellowships/from-kitsch-to-craft-to-e\\_b\\_9387292.html](https://www.huffingtonpost.com/eisenhower-fellowships/from-kitsch-to-craft-to-e_b_9387292.html)
- FONART. (2009). *Manual de Diferenciación entre Artesanía y Manualidad*. Recovered from <https://www.fonart.gob.mx/web/pdf/DO/mdma.pdf>
- Foote, W. (2015). Tapping the potential of the artisan economy. *Forbes*. Recovered from <https://www.forbes.com/sites/willyfoote/2015/09/29/tapping-the-potential-of-the-worlds-fourth-largest-economy/#3ea27e3f1aa2>
- García, M., & Lena, F. (2018). Aplicación del método Delphi en el diseño de una investigación cuantitativa sobre el fenómeno FABLAB. *EMPIRIA. Revista de Metodología de Ciencias Sociales*, 129-166.
- Glimcher, P. (2003). *Decisions, Uncertainty and the Brain: The Science of Neuroeconomics*. The MIT Press. doi:10.7551/mitpress/2302.001.0001
- Griffin, J. (2002). *Customer Loyalty: How to earn it, how to keep it*. Jossey-Bass.

Heller, L. (2010). *Mujeres emprendedoras en América Latina y el Caribe: realidades, obstáculos y desafíos*. Santiago de Chile: United Nations.

Hernández, L. (2016). Igualdad de género sería posible en unos 170 años, según el WEF. *El financiero*. Recovered from <http://www.elfinanciero.com.mx/economia/igualdad-de-genero-economica-y-laboral-una-realidad-en-170-anos-wef.html>

Hussain, A. (2013). El potencial del comercio electrónico: oportunidades para las PYME de los países en desarrollo. *Revista del centro de comercio internacional*. Recovered from <http://www10.iadb.org/intal/intalcdi/PE/2014/14253.pdf>

INEGI. (2009). *Censo Económico. Micro, pequeña, mediana y gran empresa*. Recovered from <https://www.inegi.org.mx/est/contenidos/espanol/proyectos/censos/ce2009/default.asp?s=est&c=14220>

INEGI. (2010). *Conociendo México. Análisis de la demografía de los establecimientos 2012*. Recovered from [http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod\\_serv/contenidos/espanol/bvinegi/productos/metodologias/analisis\\_demog/analisis\\_demog12/Met\\_ade12.pdf](http://internet.contenidos.inegi.org.mx/contenidos/Productos/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/analisis_demog/analisis_demog12/Met_ade12.pdf)

International Telecommunication Union. (2015). *Measuring the Information Society Report*. Ginebra: ITU.

Jarvenpaa, S., Tractinsky, N., Saarinen, L., & Vitale, M. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer-Mediated Communication*, 5(2), 2. doi:10.1111/j.1083-6101.1999.tb00337.x

Koh, J., & Kim, D. (2004). Knowledge sharing in virtual communities: An e-business Perspective. *Expert Systems with Applications*, 26(2), 155–166. doi:10.1016/S0957-4174(03)00116-7

Kotler, P. (1991). *Marketing Management-Analysis, Planning, Implementation and Control* (7th ed.). Prentice-Hall, Inc.

Koufaris, M. (2003). Applying the technology acceptance model and flow theory to online consumer behavior. *Information Systems Research*, 13(2), 205-223.

Liu, C., & Arnett, P. (2000). Exploring the factors associated with web site success in the context of electronic commerce. *Information & Management*, 38(1), 23–33. doi:10.1016/S0378-7206(00)00049-5

Lynch, J. Jr, & Ariely, D. (2000). Wine online: Search costs affect competition on price quality and distribution. *Marketing Science*, 19(1), 83–103. doi:10.1287/mksc.19.1.83.15183

McGaughey, R., & Mason, K. (1998). The Internet as a marketing tool. *Journal of Marketing Theory and Practice*, 6(6), 1–11. doi:10.1080/10696679.1998.11501800

McKinney, V., Yoon, K., & Zahedi, F. (2002). The measurement of Web-customer satisfaction: An expectation and disconfirmation approach. *Information Systems Research*, 13(3), 296–315. doi:10.1287/isre.13.3.296.76

Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63(9-10), 919–925. doi:10.1016/j.jbusres.2009.05.014

Nada, D. (2013). *Project approval decisions: exploring success factors* (PhD thesis). University of Calgary, Canada.

Organización de Estados Americanos (OEA). (2013). *RSE, PYMEs, e igualdad de género: módulo de capacitación*. Recovered from [http://www.oas.org/en/sedi/desd/csr/workshop\\_panama/docs/csr%20smes%20and%20gender%20equality%20module%20with%20case%20stories%20spanish%20final.pdf](http://www.oas.org/en/sedi/desd/csr/workshop_panama/docs/csr%20smes%20and%20gender%20equality%20module%20with%20case%20stories%20spanish%20final.pdf)

Ou, C., & Sia, C. (2010). Consumer trust and distrust: An issue of website design. *International Journal of Human-Computer Studies*, 68(12), 913–934. doi:10.1016/j.ijhcs.2010.08.003

Pagés, S., & Piras, C. (2010). *El dividendo de género: como capitalizar el trabajo de las mujeres*. BID.

Pasteur, L. (2013). *Características y diferencias de la investigación documental, de campo y experimental*. Formación de competencias para la investigación.

- Pérez, Y., & Coutín, A. (2005). La gestión del conocimiento: un nuevo enfoque en la gestión empresarial. *ACIMED*, 13(6). Recovered from [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1024-94352005000600004&lng=es&tlng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1024-94352005000600004&lng=es&tlng=es)
- Powers, J., & Magnoni, B. (2010). *Dueña de tu propia empresa: identificación, análisis y superación de las limitaciones a las pequeñas empresas de las mujeres en América Latina y el Caribe*. WA: Fondo Multilateral de Inversiones, BID.
- Reidl, L., Cuevas, C., & López, R. (2010). *Métodos de Investigación en Psicología*. Universidad Nacional Autónoma de México. Recovered from <https://www.ruam.unam.mx/objeto/7987/metodos-de-investigacion-en-psicologia>
- Renne, A. (2012). *Online consumer engagement: understanding the antecedents and outcomes* (PhD thesis). Colorado State University.
- Reynolds, P., Bygrave, W., Autio, E., Cox, L., & Hay, M. (2002). *Global Entrepreneurship Monitor, 2002 Executive Report*. Babson College.
- Rickwood, C., & White, L. (2009). Pre-purchase decision-making for a complex service: retirement planning. *Journal of Services Marketing*, 23(3), 145-153.
- Rosen, D., & Purinton, E. (2004). Website Design: Viewing the web as a cognitive landscape. *Journal of Business Research*, 57(7), 787–794. doi:10.1016/S0148-2963(02)00353-3
- Rubio, M., & Berlanga, V. (2012). Cómo aplicar las pruebas paramétricas bivariadas t de student y ANOVA en SPSS. *REIRE Revista d' Innovació i Recerca en Educació*.
- Rusbult, C., Johnson, D., & Morrow, G. (1986). Predicting Satisfaction and Commitment in Adult Romantic Involvements: An Assessment of the Generalizability of the Investment Model. *Social Psychology Quarterly*, 49(1), 81–89. doi:10.2307/2786859
- Ruyter, K., Wetzels, M., & Kleijnen, M. (2000). Customer adoption of e-service: An experimental study. *International Journal of Service Industry Management*, 12(2), 184–207. doi:10.1108/09564230110387542
- Sacristan, J. (2013). La pyme tiene problema para lanzar su e-commerce. *El economista*. Recovered from <https://www.economista.es/catalunya/noticias/4766122/04/13/La-pyme-tiene-problemas-para-lanzar-su-e-commerce.html>
- Shang, R., Chen, Y., & Liao, H. (2006). The value of participation in virtual consumer communities on brand loyalty. *Internet Research*, 16(4), 398–418. doi:10.1108/10662240610690025
- Shukla, M. (2011). *Entrepreneurship and small business management*. Kitab Mahal.
- Srinivasan, S., Anderson, R., & Ponnarolu, K. (2002). Customer loyalty in e-commerce: An exploration of the antecedents and consequences. *Journal of Retailing*, 78(1), 41–40. doi:10.1016/S0022-4359(01)00065-3
- Statista. (2018). *E-commerce share of total global retail sales in 2016, by region*. The Statistics Portal. Recovered from <https://www.statista.com/statistics/239300/number-of-online-buyers-in-selected-countries/>
- Statista. (2018). *Number of digital buyers worldwide from 2014 to 2021 (in billions)*. The Statistics Portal. Recovered from <https://www.statista.com/statistics/251666/number-of-digital-buyers-worldwide/>
- Statista. (2018). *Retail e-commerce sales worldwide from 2014 to 2021 (in billions U.S. dollars)*. The Statistics Portal. Recovered from <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>
- Tamayo y Tamayo, M. (2009). *El proceso de la investigación científica* (5th ed.). Editorial Limusa.
- UNESCO. (2001). *Artesanías creadoras*. París: UNESCO, Sección de Artesanías y Diseño.
- Unión Nacional de Productores Artesanales de México. (2011). *Las manos del mundo*. Recovered from <http://www.lasmanosdelmundo.com/>
- VanderMeer, D., Dutta, K., & Datta, A. (2012). A Cost-Based Database Request Distribution Technique for Online e-Commerce Applications. *Management Information Systems Quarterly*, 36(2), 479–507. doi:10.2307/41703464
- Zhang, P., & von Dron, G. (2000). Satisfiers and dissatisfiers: A two-factor model for website design and evaluation. *Journal of the American Society for Information Science*, 51(14), 1253–1268. doi:10.1002/1097-4571(2000)9999:9999<::AID-ASII1039>3.0.CO;2-O

*Jovanna Nathalie Cervantes-Guzmán is an internationally recognized entrepreneur. Winner of entrepreneurship awards. Selected by the U.S. department in one of the most recognized programs for young entrepreneurs.*

*Juan Mejía-Trejo earned his engineer in telecommunications and electronics systems degree (1987) in the Escuela Superior de Ingeniería Mecánica Eléctrica (ESIME) of the Instituto Politécnico Nacional (IPN), México. He is a former manager (1987-2008) of Teléfonos de México and earned his Ph.D. in Management Sciences in 2010 at Escuela Superior de Comercio y Administración (ESCA) of IPN. He is a professor at Centro Universitario de Ciencias Económico Administrativas (CUCEA) at Universidad of Guadalajara (UdeG) since 2010. He is a researcher in the development of several kinds of innovation such as product, service, marketing, process, organizational, business model, and social innovation. He is currently the coordinator of the Ph.D. in Management Sciences at CUCEA UdeG.*