GRAPHIC DESIGN AND THE E-COMMERCE MODEL FOR SOCIAL NETWORKS: CASE STUDY IN RIOBAMBA

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Abstract: This research aims to analyze the graphic design and the e-commerce model applied in the graphic pieces disseminated by the companies "Baltimore Food and Drink" and "Humo Smokehouse" on the social network Facebook from March 2020 to February 2021. The methodology was qualitative-quantitative, where the interaction of users and the posts published by the companies under study were analyzed. This information was used to validate the hypothesis. The documentary method helped study the problem of collecting information to analyze the elements of literacy, e-commerce models and interaction. The inductive method allowed the premise to emerge from the observation that in the social network Facebook, companies published graphic pieces to promote their products or services during the pandemic. This resulted in 24 analysis matrices, in which visual literacy elements, user interaction and the e-commerce model used by the companies are considered, observing that user interaction changes according to the use of visual literacy elements and the e-commerce model used. Consequently, it is concluded that the use of visual literacy elements and the e-commerce model influence user interaction. It is recommended to appropriately apply graphic design elements in all visual arts to fulfill their communicative function and generate more interaction with users.
Keywords: <GRAPHIC DESIGN>, <E-COMMERCE MODEL>, <VISUAL LITERACY>, <ADVERTISING>, <INTERACTIVITY>, <RIOBAMBA (CANTON)>.

INTRODUCTION

Social networks are a means of mass communication currently used by a high percentage of the world's population. Thanks to this and the easy access that human beings have to a social profile, social networks have allowed companies engaged in any type of activity to make themselves known online. With their arrival, companies have been forced to change the way they conduct business transactions, eventually changing how they make known the products or services they offer.

This research shows the analysis of the graphic design and the E-commerce model used by companies dedicated to selling fast food located in the city of Riobamba. This case study analyzed the companies "Baltimore Alimentos y Bebida" and "Humo Smokehouse", which have a Facebook page in which it was possible to analyze in detail how they used the graphic elements and also the type of E-commerce model they used to interact with the user.

The proper use of graphic design is essential to clearly communicate the information that the sender wishes to convey. To achieve this, it is necessary to correctly use the elements of visual literacy and the E-commerce model, which are essential in a graphic piece.

It is the graphic designer's responsibility to know the correct use of each visual element placed within a graphic art, since they have to capture the attention of the target audience while satisfying the

needs of the sender. For this purpose, the use of photographs, text, typography, illustrations, color, layout, among others, allow to influence the user's interaction.

Through a methodological file, 24 graphic pieces of the companies from March 2020 to February 2021 were analyzed to know how they used visual literacy elements and in what percentage these elements were used correctly, and with the results obtained to test the hypothesis. In each of the 5 chapters contained in this research project it is possible to know how the companies used graphic resources to their advantage to publicize their products.

THEORETICAL FRAMEWORK

The presence of the Internet has a direct impact on the business environment, affecting its productivity and, therefore, a country's economy. Information and communication technologies (ICTs) are an integral part of any type of business, regardless of their size. If used properly, ICTs can improve a company's economic performance. Nowadays, due to the availability of electronic equipment that allows navigation on the Internet, companies can interact more easily with consumers, who in turn are gradually adapting to the emerging forms of commerce (Barrientos, 2017b: p.43).

The Ecuadorian market is constantly growing, and so is e-commerce in Ecuador growing rapidly. In this regard, the 70 billion dollars generated in online sales throughout Latin America, 250 million dollars correspond to this country, despite having several useful technological tools for businesses. In this sense, e-commerce in Ecuador is growing rapidly and of the 70 billion dollars generated in online sales throughout Latin America, 250 million dollars correspond to this country, despite having several useful technological tools for businesses. The weak point of several people, whether they are micro, small, medium or large entrepreneurs, is the lack of knowledge about the proper use of technological and graphic resources that exist both to create visual pieces and to disseminate them through digital platforms (Ramirez, 2017, p.2).

In recent years, E-commerce has become increasingly popular among people and this is on the rise due to the health crisis generated by COVID-19. The fear of becoming infected in a public space forced all people to maintain a forced social distance and this, in turn, forced several industries and businesses to close totally or partially, causing an increase in online commercial activity due to the need to buy or sell food and medicines among other items. In the last decade, E-commerce has grown in Ecuador, thanks to the training and networking directed to business owners. Before the pandemic, a study was conducted in which it was revealed that 35% of people surveyed said that they almost always shop online, 31% of respondents said that they occasionally made online transactions and 34% of the surveyed population said that they had never or almost never made commercial transactions online. Similarly, the Ecuadorian Chamber of Electronic Commerce says that during the pandemic E-commerce has increased in a high percentage because everyone was forced to do business online as a more reliable and safer way to avoid contact infections, which also means that the 65% who occasionally or never shopped online were forced to use a digital platform that allows them to purchase basic necessities and medicines, among other items. In this way, the pandemic overcame one of the biggest challenges presented within the industry in Ecuador because the user, due to lack of knowledge and distrust, preferred to make any type of transaction in a physical or face-to-face manner (PWC,2020).

Graphic Design

Human beings have always looked for a way to graphically show ideas or concepts in a way that would allow them to store information visually, giving clarity and order to the information. Over time, this need has been solved by various artists, painters and scribes, thus the term"Graphic Design" emerged in the twentieth century by the hand of William Addison, a renowned designer, calligrapher and typographer who first used this term to call himself as a professional who orders printed communications structurally and visually (Saloma,sf, pp.6)

Basic elements of graphic design

The graphic designer has a variety of design elements that will allow him to create or build a graphic piece. Each piece of design will always try to communicate a message, and that message will reach

the target group to which it has been addressed. That is why design elements can be defined as all those visual tools that, when used correctly, will generate meaning (Universidad, 2021).

Semiology and Semiotics

Semiotics and semiology are those disciplines that deal with the study of signs and their meanings in human communication. Although they are sometimes used as synonyms, there are some subtle differences between them.

Semiotics and semiology are important in graphic design because they help design professionals understand how these signs can be used to convey a specific message. Designers can use these concepts to create more effective designs in communicating a specific message to a specific audience.

Visual Literacy

Refers to the ability to read and interpret colors, shapes, text, images and other visual elements used in graphic communication. It can also be defined as the ability to understand the visual language used in graphic design, similar to the way written language is read and understood in text. Visual literacy enables graphic designers to generate effective messages in a visual form that people can understand and appreciate.

Visual Communications

Munari (2008, pp79) defines visual communication as everything that the human eye can perceive, and the meaning of each of the elements that man can perceive will depend on the context in which it is found. In everyday life there are different visual messages, allowing us to divide visual communication into intentional or casual. The receiver will always interpret casual communication freely, regardless of whether the message may be scientific, aesthetic or of any other kind. On the contrary, intentional visual communication will always be perceived by the meaning given by the sender.

Advertising Design

Frascara (2009) defines advertising graphic design as a variation of each of the elements that make up the advertising piece which will always be subject to the area of utility, time, customs and culture since advertising has several approaches to communication, which is why it is advisable to study the duration in time that the graphic piece will be serving its function. The advertising design can also be defined as creating visual elements that properly ordered can persuade the target audience so that the receiver can interact with the issuer.

E-comerce

E-commerce is an activity that allows generating commercial transactions such as purchasing and selling goods, services and products, among others. Through the Internet, people can make their purchases from their computers, smartphones and digital assistants, using the network to make transactions and achieve contact between companies and consumers not only through a website but also on other platforms such as social networks because these facilitate the businessman to know and interact more easily with the target audience.

Types of E-comerce

Business to Consumer (B2C)

The B2C, or business-to-consumer, refers to a business model in which the company will have direct contact with the final consumer from the beginning of the purchase until the end. This type of transaction allows eliminating intermediaries, making the purchase faster, safer and guaranteeing the prices, making them even more accesible.

Business to Business

Unlike the previous model, B2B or business-to-business is a more formal type of electronic commercial transaction since the communication is only between companies to acquire supplies, products or services. This type of product is usually automated in the network because it includes a larger purchase and sale area due to the fact that each of the companies has specific needs which will be satisfied by other companies that can meet their needs.

Social Networking

"Social networks are those sites found on the Internet in which the user can share and publish any type of personal or professional information with other people, whether known or unknown" (Celaya, 2008). On the other hand, Hutt (2012) defines social networks as those spaces conceived virtually with the purpose of making the interaction between several people easier.

Table 1: Social network indicators

BRAND REACH IN NETWORKS	It is necessary to know a brand's reach or if the brand is becoming known. Therefore, it is necessary to follow the reach of the publications on social networks. In this way, it will be known if the publications that are being made have little or a lot of reach.
NUMBER OF FOLLOWERS	The greater the number of followers, the greater the possibility that an advertisement will spread more quickly and there will be repercussions in the publications; otherwise, if you do not have many followers, the growth and diffusion of both the page and the advertisement will be slower.
IMPRESSIONS	When talking about impressions, it refers to the number of followers, likes, comments and shares, that is to say the interaction that the user had with the advertisement, the greater the number of impressions, the greater the possibility that the publications will reach a greater number of people

Source: Own elaboration

METHODOLOGY

A mixed or qualitative-quantitative approach can be understood as "(...) a process that collects, analyzes and pours quantitative and qualitative data into a single stud" (Tashakkori and Teddlie, 20002, cited in Barrantes 2014, p.100).

The quantitative approach allows to identify and gives way to the formulation of a scientific problem so that, after that, a bibliographic review according to the topic can be carried out, in such a way that allows to build the theoretical frame of reference. After doing this, a research hypothesis is formulated, specifying in the latter the variables that are fundamental within the research, all those that are operationally and conceptually defined.

The mixed type of research is selected due to the use of data collection instruments which allow tabulating the user's interaction with the graphic advertising pieces and analyzing the visual elements used in the graphic advertising posted on the social network Facebook in the period March 2020 - February 2021 of the companies Baltimore Food and Drinks and the Humo Smoke House.

Documentary Research

The Documentary Research allows the study of the problem with the purpose of expanding knowledge. This type of research with the use of different logical and mental procedures generates the analytical process of the matrices and collects useful bibliographic information during the study to deepen the topics.

It is based on a bibliographic source to collect all the information that is useful about graphic design and the E-commerce model used by the companies mentioned above within the social network Facebook. During the process, the collecting of bibliographic data allows to obtain information on graphic design, design elements, visual communication, advertising design and E-commerce model, which are reflected in this analysis process.

RESEARCH METHOD

Inductive Method

For this research, the inductive method began with an observation from which the following premise emerged: within the social network Facebook, companies posted graphic pieces in order to promote

their products or services in times of pandemic and it is observed that the interaction of users change according to the use of visual literacy elements and the E-commerce model used by the companies.

1.1. Population and sample

The following criteria are considered when choosing the companies as the object of the study.

Table 2: Population criteria

CRITERIA
The population that will be part of this study are all those companies located in the center of the city of Riobamba that have a Facebook page with more than a thousand followers.
In order for these companies to be part of the study population, they must have been operating for at least 4 years and, above all, they must have publications on their social networks before, during and after the period March 2020 - February 2021.
The companies that are part of this study must have as their economic activity the sale of fast food products.
The following products are considered as fast food: Hamburgers, Wings, Ribs, Roasts, French fries, sandwiches and snacks.
The companies to be studied must have an active and public Facebook account in order to analyze the visual literacy in each of their publications.

Source: Own elaboration

Table 3: Sample

BUSINESS ACCOUNT	DATE OF ACTIVITY OF THE FACEBOOK PAGE	NUMBER OF FOLLOWERS
Baltimore Food And Drinks	March 2014	6,600
Humo Smokehouse	June 2017	12,524

Source: Own elaboration

Table 4: Publication and Interaction Period March 2020 - February 2021 Baltimore Food And Drinks

PUBLICATIONS PER MONTH				INTERACTIONS PER MONTH			
March	April	May	June	I like it	I love it	I care about	I am amazed
14	17	21	22	613	129	1	2
July	August	September	October	It saddens me	It angers me	I enjoy it	Comments
8	5	2	4	2	0	2	46
November	December	January	February	Shared			
2	3	20	3	792			
TOTAL	**121**			**TOTAL**	**1587**		

Source: Own elaboration

Table 5: Publication and Interaction of the Period March 2020 - February 2021 Smokehouse Smoke

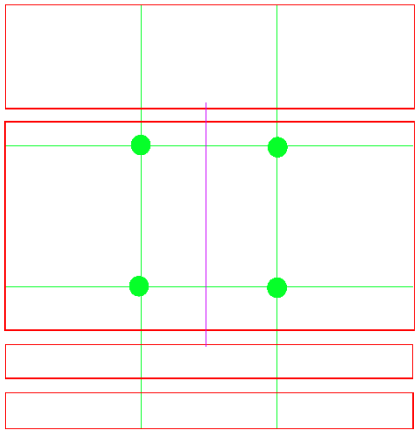
PUBLICATIONS PER MONTH				INTERACTIONS PER MONTH			
March	April	May	June	I Like it	I love it	I care about	I am amazed
30	34	27	27	5522	1205	603	77
July	August	September	October	It saddens me	It angers me	I enjoy it	Comentarios
35	26	28	38	39	117	597	1257
November	December	January	February	Compartidos			
59	38	33	59	2014			
TOTAL	**434**			**TOTAL**	**11431**		

Source: Own elaboration

ANALYSIS AND INTERPRETATION OF RESULTS

Based on the problem, a monthly post published on the social network Facebook by the companies "Baltimore Food and Drinks and Humo Smokehouse" in the period March 2020 - February 2021 is analyzed as a selected population, to analyze the graphic pieces and the E-commerce model to determine the impact of the use of visual elements and the application of the E-commerce model in the interaction of users.

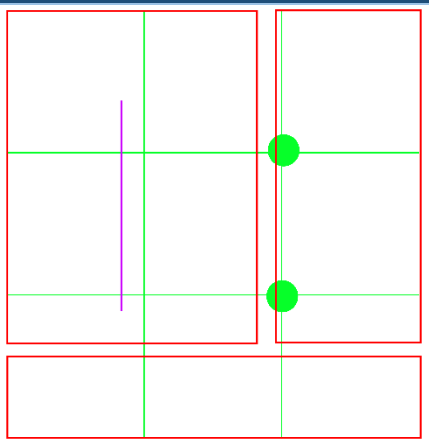
Table 6. "Baltimore Food and Drink" company analysis sheet, MARCH 2020

GENERAL DATA			
TIME: 17:12 **COPYWRITING:** We receive your orders by GoUbi, Rioencomiendas, DEWAN, or at 0984001022/0986839338			
POST	**RETICULA**		
			
VISUAL LITERACY			VISUAL LITERACY
MAIN COMPONENTS	○ Punto ○ Línea ○ Plano ● Volumen		
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ● Logotipo ○ Logo ○ Isologotype ○ Does not contain	● Illustration ○ Photography	
	Color		
	According to its temperature	● Warm ○ Cold	
	Según su matiz		
	○ Primary	● Secondary ○ Tertiary	
	Textura	**Tipografía**	
	○ Natural ○ Artificial ○ Does not contain	**Primary:** Decorative **Secondary:** Sans Serif **Tertiary:** Sans Serif **Fourth:**	
	Equilibrium		

FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	● Symmetrical ○ Asymmetric	○ Unstable ● Stable	○ Very Unstable
	● Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	● Unity ○ Fragmentation	● Economy ○ Profusion	
	● Reticency ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ● Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Coherence ○ Variation	
	○ Realism ● Distortion	● Profound ○ Plane	
	○ Sequentiality ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	○ Law of thirds	○ Golden Ratio	
	Tension		
	● Leveled	○ Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ● Symmetric ○ Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
COMPOSICIÓN RETICULAR	○ Hierarchical ○ Modular ○ Manuscript ● Columns	**Percentage with respect to image and text** Image: 70% Text: 30%	
INTERACCIÓN			
I like it: 3 I love it: 1 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 8 Comments: 0	
PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Contrast	● Coherence ○ Functionality	○ Simplicity
MODEL E-COMERCE	○ B2B ● B2C		
CONCLUSION	Redundancy in the use of the logo, the illustration has no relation between the service it provides, the contact information above the colored spot at the bottom of the graphic piece does not match the contact information in the copywriting. The percentage of adequate use of visual elements is 10%.		

Source: Own elaboration

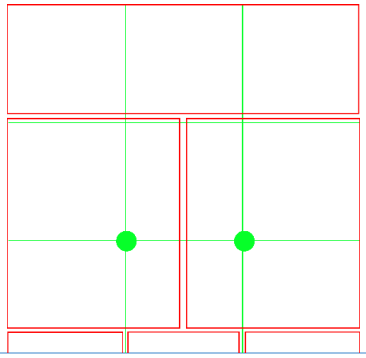
Table 7. Company analysis sheet of "Baltimore Food and Drinks", APRIL 2020.

GENERAL DATA			
TIME: 17:26 **COPYWRITING:** Baltimore Lunch time!!; Menu, April 9, 2020			
POST		**RETICULA**	
			
ALFABETIDAD VISUAL			
MAIN COMPONENTS	● Point ○ Volume	● Line	● Plane
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ● Logo ○ Imagotipo ○ Isologo	○ Illustration ● Photography	
	Color		
	According to its temperature	○ Warm ● Cold	
	According to its nuance		
	○ Primary	● Secondary	○ Tertiary
	Textura	**Tipografía**	
	● Natural ○ Artificial ○ Does not contain	Primary: Script Tertiary: Sans Serif No Contains	Secondary: Sans Serif Fourth:
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	● Symmetrical ○ Asymmetric	○ Unstable ● Stable	○ Very Unstable
	● Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	● Unit ○ Fragmentation	○ Economy ○ Profusion	
	○ Reluctance ● Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ○ Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	

	● Realism ○ Distortion	● Deep ○ Plane
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity
	Tension lines	
	● Law of thirds	○ Golden Ratio
	Tension	
	○ Leveled	● Minimized ○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Circular ○ Triangular ○ Radial ○ Pyramidal ○ Es ● Symmetrical ○ El ○ Balanced ○ Blade
RETICULAR COMPOSITION	○ Hierarchical ○ Modular ○ Manuscript ● Columns	**Percentage with respect to image and text** Image: 50% Text: 50%
INTERACTION		
I like it: 3 I love it: 1 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 1 Comments: 0
PRINCIPLES OF VISUAL LOGIC	● Hierarchy ○ Consistency ○ Simplicity ○ Contrast ○ Functionality	
MODEL E-COMERCE	○ B2B ● B2C	
CONCLUSION	The photograph does not match the text inside the graphic piece, the text placed at the bottom is not easy to read on mobile devices due to its color and its narrow size. Appropriate use of visual elements: 12%.	

Source: Own elaboration

Table 8. Analysis sheet of the company"Baltimore Food and Drink", MAY 2020.

GENERAL DATA	
TIME: 15:34 **COPYWRYTING:** From this #Monday, May 4; we attend your #domiciles from Monday to Saturday from 3 p.m. to 9:30 p.m. We accept all #creditcards #orderadomicilio #riobamba #momentsbaltimore	
POST	**RETICULA**
	

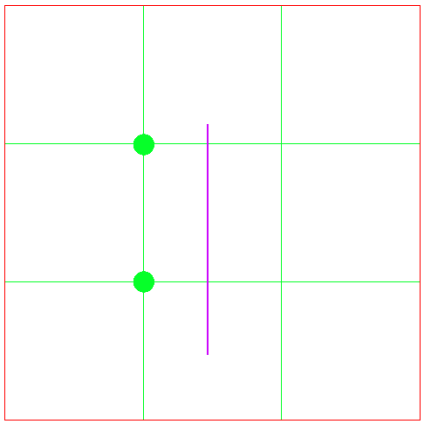
VISUAL LITERACY			
MAIN COMPONENTS	○ Point ○ Volume	● Line	● Plane
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ● Logo ○ Imagotipo ○ Isologo ○ Does not contain	○ Illustration ● Photography	
	Color		
	According to its temperature	● Warm ○ Cold	
	According to its nuance		
	○ Primary	● Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial	**Primary:** Script **Tertiary:** Sans Serif	**Secondary:** Sans Serif **Fourth:**
FUNCIONES Y RELACIONES COMPOSITIVAS	**Equilibrium**		
	○ Symmetrical ● Asymmetric	● Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ● Complexity	
	○ Unit ● Fragmentation	○ Economy ● Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	● Activity ○ Passivity	○ Subtlety ○ Audacity	
	● Neutrality ○ Accent	○ Consistency ○ Variation	
	● Realism ○ Distortion	● Deep ○ Plane	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	● Law of thirds	○ Golden Ratio	
	Tension		
	○ Leveled	● Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ● Symmetrical ○ Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
RETICULAR COMPOSITION	● Hierarchical ○ Modular ○ Manuscript ○ Columns	**Percentage with respect to image and text** Image: 80% Text: 20%	
INTERACTION			

I like it: 3 I love it: 0 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 30 Comments: 0

PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Consistency ○ Simplicity ○ Contrast ○ Functionality
MODEL E-COMERCE	○ B2B ● B2C
CONCLUSION	Use of narrow typography at the top of the piece which is not very noticeable, lack of spelling, redundancy in copywriting and artwork. Appropriate use of visual elements 8%

Source: Own elaboration

Table 9: Analysis of the company"Baltimore Food and Drink", JANUARY 2021

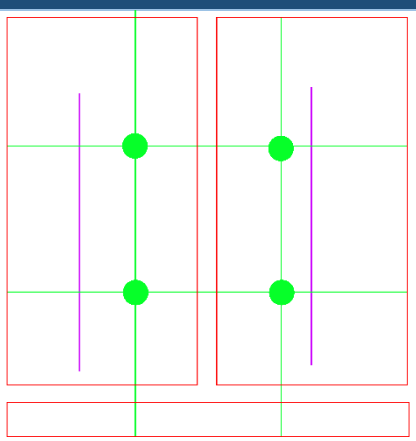
GENERAL DATA	
TIME: 11:57 **COPYWRYTING:** #today #January1st, 2021 starts the year with #baltimoremoments. We are open from 3 to 9:30 p.m. Or order them #adomicilio 🛵 at the following link: https://api.whatsapp.com/send?phone=593984001022* #happy2021	
POST	**RETICULA**
	

VISUAL LITERACY		
MAIN COMPONENTS	○ Point ● Line ○ Plane ○ Volume	
ELEMENTOS COMPOSITIVOS	**Visual Identifier**	**Image**
	○ Isotype ○ Logo ○ Imagotipo ○ Isologo ● Does not contain	○ Illustration ● Photography
	Color	
	According to its temperature	● Warm ○ Cold
	Primary	
	○ Primary ● Secondary ○ Tertiary	
	Texture	**Typography**

	○ Natural ○ Artificial ● Does not contain	**Primary:** Sans Serif **Tertiary:**	**Secondary:** Serif **Fourth:**
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	○ Symmetrical ● Asymmetric	○ Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	○ Unit ○ Fragmentation	○ Economy ○ Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ● Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	
	○ Realism ○ Distortion	● Deep ○ Map	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	● Law of thirds	○ Golden Ratio	
	Tension		
	○ Leveled	○ Minimized	○ Maximized
ESQUEMAS COMPOSITIVOS	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ○ Symmetrical ● Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
COMPOSICIÓN RETICULAR	○ Hierarchical ○ Modular ● Manuscript ○ Columns	**Percentage with respect to image and text** Image: 50% Text: 50%	
INTERACTION			
I like it: 0 I love it: 0 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Compartidos: 1 Comentarios	
PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Contrast	○ Consistency ○ Functionality	○ Simplicity
MODEL E-COMMERCE	○ B2B ● B2C		
CONCLUSION	The text is lost with the background, it does not transmit any type of emotion, the background photograph is perceived with a saturation of elements, loss of the visual identifier. Adequate use of visual elements: 0%.		

Source: Own elaboration

Table 10: Analysis sheet for the company"Baltimore Food and Drink", FEBRUARY 2021.

GENERAL DATA		
TIME: 17:51 **COPYWRYTING:** This #saturday celebrate #sanvalentin day with us. Accompany our menu with our #happyhour of @corona_ecuador and @stellaartois_ec beers. OPEN DOORS: 4 p.m. And from 8 p.m. enjoy the best of romantic music with the #show #live of the SUPER TRÍO SENSACIÓN 🎸 Reserve your table at: 0984001022 #baltimoremoments		
POST	**RETICULA**	
		
VISUAL LITERACY		
MAIN COMPONENTS	○ Point ● Line ○ Plane ○ volume	
ELEMENTOS COMPOSITIVOS	**Visual Identifier**	**Image**
	○ Isotype ● Logo ○ Imagotipo ○ Isologo	○ Illustration ○ Photography
	Color	
	According to its temperature	● Warm ○ Cold
	According to its nuance	
	○ Primary ○ Secondary ● Tertiary	
	Textura	**Tipografía**
	○ Natural ● Artificial ○ Does not contain	**Primary:** Script **Secondary:** Sans Serif **Tertiary:** Sans Serif **Fourth:**
FUNCIONES Y RELACIONES COMPOSITIVAS	**Equilibrium**	
	○ Symmetrical ● Asymmetric	○ Unstable ○ Stable ○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity
	○ Unit ○ Fragmentation	○ Economy ● Profusion
	○ Reluctance ● Exaggeration	○ Predictability ○ Spontaneity

	○ Activity ● Passivity	○ Subtlety ○ Audacity
	○ Neutrality ○ Accent	○ Consistency ○ Variation
	● Realism ○ Distortion	○ Deep ● Plane
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity
	Tension lines	
	● Law of thirds	○ Golden Ratio
	Tension	
	● Leveled	○ Minimized ○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Circular ○ Triangular ○ Radial ○ Pyramidal ○ Es ○ Symmetrical ○ El ● Balanced ○ Blade
RETICULAR COMPOSITION	○ Hierarchical ○ Modular ○ Manuscript ● Columns	**Percentage with respect to image and text** Image: 60% Text: 40%
INTERACTION		
I like it:0 I love it: 0 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 1 Comments: 0
PRINCIPLES OF VISUAL LOGIC	● Hierarchy ○ Consistency ○ Simplicity ○ Contrast ○ Functionality	
MODEL E-COMERCE	○ B2B ● B2C	
CONCLUSION	The narrow coarse typography in the color spot at the top of the graphic piece does not allow for proper readability. Appropriate use of visual elements: 20%.	

Source: Own elaboration

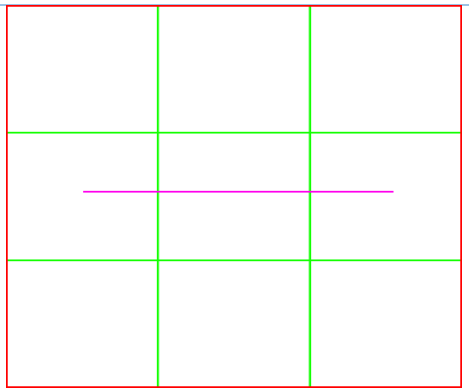
Analysis and interpretation of the results obtained from the Baltimore food and Driks company.

In the analysis of the graphic pieces disseminated in the social network Facebook from March 2020 to February 2021, it is evident that there are few notions of the use of visual elements resulting in advertising pieces with common errors such as saturation of elements, use of typographies that make reading difficult, there is no defined graphic line that allows the user to identify that it is an art of the company Baltimore Food and Drinks, redundancy in the information contained in the visual piece with copywriting, spelling mistakes and poor organization of the elements.

Results of the analysis sheet of the company "Humo Smokehouse."

Table 11: Company analysis sheet"Humo Smokehouse", MARCH 2020

GENERAL DATA	
TIME: 6:59 **COPYWRYTING:** Important Announcement	
POST	**RETICULA**

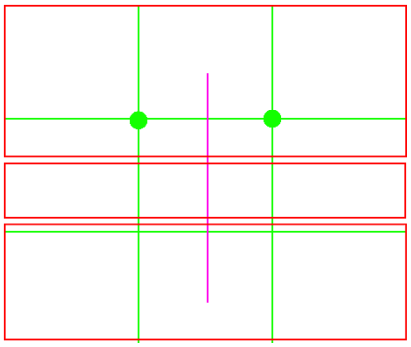


VISUAL LITERACY			
MAIN COMPONENTS	○ Point ○ Volume	○ Line	○ Plane
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ○ Logo ● Imagotipo ○ Isologo ○ Does not contain	○ Illustration ○ Photography ● Does not contain	
	Color		
	According to its temperature	○ Warm ● Cold	
	According to its nuance		
	○ Primary	● Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial ○ Does not contain	**Primary:** Sans Serif **Tertiary:**	**Secondary:** Sans Serif **Fourth:**
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	○ Symmetrical ○ Asymmetric	○ Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	○ Unit ○ Fragmentation	○ Economy ○ Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ● Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	
	○ Realism ○ Distortion	○ Deep ● Plane	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	○ Law of thirds	○ Golden Ratio	
	Tension		

	○ Leveled	○ Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ○ Symmetrical ● Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
RETICULAR COMPOSITION	○ **Percentage with respect to image and text**	**Percentage with respect to image and text** Image:0% Text: 100 %	
INTERACTION			
I like it: 26 I love it: 5 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 21 Comments: 0	
PRINCIPLES OF VISUAL LOGIC	● Hierarchy ○ Contrast	○ Consistency ○ Functionality	○ Simplicity
MODEL E-COMMERCE	○ B2B ● B2C		
CONCLUSION	Excessive text, unattractive background, the company's graphic identifier is difficult to visualize. Appropriate use of visual elements: 5%.		

Source: Own elaboration

Table 12: Company analysis sheet"Humo Smokehouse", APRIL 2020

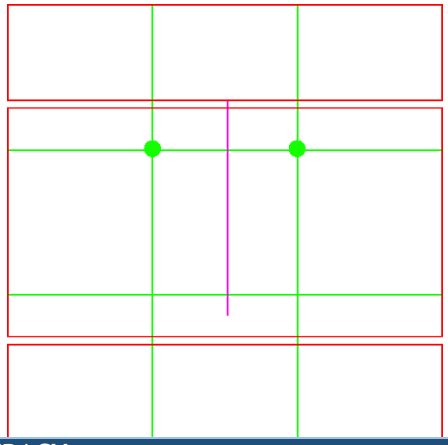
GENERAL DATA		
TIME: 17:41 **COPYWRITING:** Do you already know what to order for this Tuesday? Don't forget that we have all the promos available.		
POST	RETICULA	
		
VISUAL LITERACY		
MAIN COMPONENTS	○ Point ○ Volume	○ Line	● Plane
COMPOSITIONAL ELEMENTS	Visual Identifier ○ Isotype ○ Logo ● Imagotipo ○ Isologo ○ Does not contain	Image ● Illustration ○ Photography	

	Color		
	According to its temperature	● Warm ○ Cold	
	According to its nuance		
	● Primary	○ Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial ○ Does not contain	**Primary:** Sans Serif **Tertiary:**	**Primary:** Sans Serif **Tertiary:**
FUNCIONES Y RELACIONES COMPOSITIVAS	**Equilibrium**		
	○ Symmetrical ● Asymmetric	○ Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	○ Unit ○ Fragmentation	○ Economy ● Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ● Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	
	○ Realism ● Distortion	○ Deep ● Plane	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	● Law of thirds	○ Golden Ratio	
	Leveled		
	○ Leveled	○ Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ○ Symmetrical ● Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
RETICULAR COMPOSITION	● Hierarchical ○ Modular ○ Manuscript ○ Columns	**Percentage with respect to image and text** Image:25% Text: 75%	
INTERACTION			
I like it: 18 I love it: 3 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 14 Comments: 0	
PRINCIPLES OF VISUAL LOGIC MODEL	○ Hierarchy ○ Contrast	○ Consistency ○ Functionality	○ Simplicity
	○ B2B		

E-COMMERCE	● B2C
CONCLUSION	There is no hierarchy in the elements; it uses two graphic identifiers, thus generating redundancy and disorganization of the graphic elements. Appropriate use of visual elements: 5%.

Source: Own elaboration

Table 13: Analysis sheet for the company "Humo Smokehouse", MAY 2020

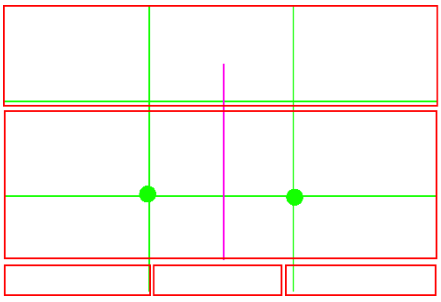
GENERAL DATA			
TIME: 14:45 **COPYWRITING:**#SmokeSweepstakes For this Wednesday, May 6 only, to all your purchases are entered to win 50 wings for # Mother'sDay.🧔🧑🧔🧓			
POST	**RETICULA**		
			
VISUAL LITERACY			
MAIN COMPOMENTS	○ Point ○ Volume	○ Line	● Plane
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ○ Logo ● Imagotipo ○ Isologo	● Illustration ○ Photography	
	Color		
	According to its temperature	● Warm ○ Cold	
	According to its nuance		
	● Primary	○ Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial ○ Does not contain	**Primary:** Script **Tertiary:** Sans Serif	**Secondary:** Sans Serif **Fourth:**
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	○ Symmetrical ● Asymmetric	○ Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	

	○ Unit ○ Fragmentation	○ Economy ● Profusion
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity
	○ Activity ○ Passivity	○ Subtlety ○ Audacity
	○ Neutrality ● Accent	○ Consistency ○ Variation
	○ Realism ● Distortion	○ Deep ● Map
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity
	Tension lines	
	● Law of thirds	○ Golden Ratio
	Tension	
	○ Leveled	○ Minimized ○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Circular ○ Triangular ○ Radial ○ Pyramidal ○ Es ○ Symmetrical ○ El ● Balanced ○ Blade
RETICULAR COMPOSITION	● Hierarchical ○ Modular ○ Manuscript ○ Columns	**Percentage with respect to image and text** Image:30% Text: 70%
INTERACTION		
I like it: 8 I love it: 4 I care about: 1 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 12 Comments: 0
PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Consistency ○ Simplicity ○ Contrast ○ Functionality	
MODEL E-COMMERCE	○ B2B ● B2C	
CONCLUSION	Too many typographic elements, redundancy in copywriting and image content, unattractive and unaesthetic artwork. Appropriate use of visual elements: 10%.	

Source: Own elaboration

Table 14: Analysis sheet for the company"Humo Smokehouse", JANUARY 2021

GENERAL DATA	
TIME: 11:32 **COPYWRYTING**Start the year with some delicious wings from #Humo Today we are open!!!! In our branch located in front of the bullring. ✅Attention from 6pm to 9:30pm	
POST	**RETICULA**

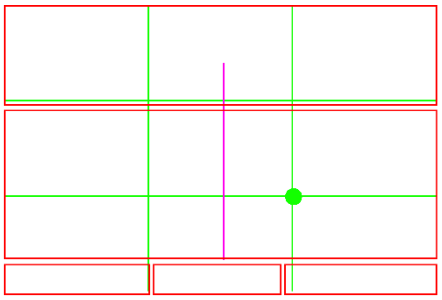


VISUAL LITERACY			
MAIN COMPONENTS	○ Point ○ Volume	● Line	○ Map
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ● Logo ○ Imagotipo ○ Isologo	● Illustration ○ Photography	
	Color		
	According to its temperature	● Warm ○ Cold	
	According to its nuance		
	● Primary	○ Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial ○ Does not contain	**Primary:** Sans Serif **Tertiary:** Sans Serif	**Secondary:** Sans Serif **Fourth:**
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	○ Symmetrical ● Asymmetric	● Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	○ Unit ○ Fragmentation	○ Economy ● Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ● Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	
	○ Realism ○ Distortion	○ Deep ● Map	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension lines		
	● Law of thirds	○ Golden Ratio	
	Tension		
	○ Leveled	○ Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular	○ Circular ○ Radial

		● Pyramidal ○ Symmetrical ○ Balanced ○ That ○ Ele ○ Blade
RETICULAR COMPOSITION	● Hierarchical ○ Modular ○ Manuscript ○ Columns	**Percentage with respect to image and text** Image:10% Text: 80%
INTERACTION		
I like it: 11 I love it: 2 I care about: 0 I enjoy it: 0	I am amazed: 0 It saddens me: 0 It angers me: 0	Shared: 5 Comments: 0
PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Contrast ○ Consistency ○ Functionality ○ Simplicity	
MODEL E-COMERCE	○ B2B ● B2C	
CONCLUSION	Unattractive background, typography with unnecessary borders, saturation of elements, unnecessary color stain, incorrect artwork format for post resulting in loss of information. Proper use of the elements: 0%	

Source: Own elaboration

Table 15: Analysis sheet for the company "Humo Smokehouse", FEBRUARY 2021

GENERAL DATA	
TIME: 16:50 **COPYWRITING:** !! HAPPY VALENTINE'S DAY COMBO !!😉 😎ENJOY WITH THAT SPECIAL PERSON THIS VALENTINE'S DAY, PARTNER OR FRIEND THE BEST ONLY AT #HUMOSMOKEHOUSE 😎. ✅16 WINGS +HEART-SHAPED BOX ✅ POTATO PORTION. ✅ ONE-LITER SACHET ✅1CUP SED VELVET CAKE 👀!!PLACE YOUR ORDERS !!🔥 !!WhatsApp 👉👉👉👉👉👉 https://bit.ly/3lhBx7X 📱+593 99 261 7549 Matriz Olmedo between Francia and Lavalle 📍. Miguel A. León Av. and Unidad Nacional Av. See less - in Riobamba.	
POST	**RETICULA**
	

VISUAL LITERACY			
MAIN COMPONENTS	○ Point ● Volume	○ Line	○ Plane
COMPOSITIONAL ELEMENTS	**Visual Identifier**	**Image**	
	○ Isotype ● Logo ○ Imagotipo ○ Isologo	○ Illustration ● Photography	
	Color		
	According to its temperature	● Warm ○ Cold	
	According to its nuance		
	● Primary	○ Secondary	○ Tertiary
	Texture	**Typography**	
	○ Natural ● Artificial ○ Does not contain	Primary: Tertiary: No Contains	Secondary: Fourth:
FUNCTIONS AND COMPOSITIONAL RELATIONSHIPS	**Equilibrium**		
	○ Symmetrical ○ Asymmetric	● Unstable ○ Stable	○ Very Unstable
	○ Regularity ○ Irregularity	○ Simplicity ○ Complexity	
	○ Unit ○ Fragmentation	○ Economy ○ Profusion	
	○ Reluctance ○ Exaggeration	○ Predictability ○ Spontaneity	
	○ Activity ○ Passivity	○ Subtlety ○ Audacity	
	○ Neutrality ○ Accent	○ Consistency ○ Variation	
	○ Realism ○ Distortion	○ Deep ○ Map	
	○ Sequencing ○ Randomness	○ Acuity ○ Diffusivity	
	Tension line		
	● Law of thirds	○ Golden Ratio	
	Tension		
	○ Leveled	○ Minimized	○ Maximized
COMPOSITIONAL SCHEMES	**Usual schemes**	○ Diagonal ○ Triangular ○ Pyramidal ○ Symmetrical ○ Balanced	○ Circular ○ Radial ○ Es ○ El ○ Blade
LATTICE COMPOSITION	○ Hierarchical ● Modular ○ Manuscript ○ Columns	**Percentage with respect to image and text** Image:70% Text: 30%	
INTERACTION			
I like it: 31	I am amazed: 0	Shared: 10	

I love it: 15 I care about: 0 I enjoy it: 1	It makes me sad: 1 It Angers me: 1	Comments: 0
PRINCIPLES OF VISUAL LOGIC	○ Hierarchy ○ Consistency ○ Simplicity ○ Contrast ○ Functionality	
MODEL E-COMMERCE	○ B2B ● B2C	
CONCLUSION	Saturation of graphic and typographic elements, incorrect use of script typography in long texts, inadequate chromatics, and extensive copywriting with errors in the wording. Proper use of the elements: 5%.	

Source: Own elaboration

Analysis and interpretation of the results obtained, Humo Smokehouse company

The excessive use of visual elements in the company's graphic pieces results in posts with saturation of visual elements, lack of organization, no hierarchy and errors in the distribution of typographic elements, this makes the graphic pieces posted on social networks not very effective and attractive to the user. Despite this, it can be seen that they post daily advertising pieces with which they obtain interaction.

Analysis of results

In the Baltimore Food and Drinks company, despite having 9 years of activity on its Facebook page, it is evident that the publication of advertising pieces is not continuous and that the posts it has on its social network lack design fundamentals resulting in graphic pieces saturated with visual elements that do not meet a communicational objective generating visual noise. At the same time, not having a graphic line also causes the loss of the visual identity of the brand, affecting user interaction, because although the company has more than 6,000 followers, only 13% of them interact within the social network annually.

On the other hand, Humo Smokehouse has a Facebook page with more than 12,000 followers. This company makes at least one post per day and in turn uses paid advertising to achieve a greater reach. Unfortunately, the lack of knowledge of the use of graphic elements makes their arts are saturated with visual elements that do not meet any communicative function and in most cases become unaesthetic and attractive to the user. As a result of this, although there are several post in the month, the maximum reach it has in its content is 26%, taking into account that this percentage obtained is organic and paid.

HYPOTHESIS TESTING

Hypothesis

The appropriate use of graphic elements and the E-commerce model in the social networks of Baltimore Food and Drinks and Humo Smokehouse have an impact on customer interaction.

Table 16: Analysis points for the period March 2020 - February 2021

Month	Baltimore Food and Drinks			Humo Smokehouse		
	Design elements	**Model *E-commerce***	**Interaction**	**Design elements**	**Model *E-commerce***	**Interaction**
March	10%	B2C	12	5%	B2C	52
April	12%	B2C	5	5%	B2C	35
May	8%	B2C	32	10%	B2C	25
June	5%	B2C	1	7%	B2C	21
July	5%	B2C	1	8%	B2C	21
August	7%	B2C	20	10%	B2C	14

September	12%	B2C	10	12%	B2C	85
October	2%	B2C	9	8%	B2C	138
November	15%	B2C	24	5%	B2C	16
December	0%	B2C	4	0%	B2C	7
January	0%	B2C	1	0%	B2C	18
February	20%	B2C	1	5%	B2C	59
RESULTS						

Source: Own elaboration

The results of the table of analysis points show that in each of the months both companies have very low percentages in the use of design elements; both establishments use the E-commerce model, which is business-to-consumer or also known as B2C; in addition, the last parameter analyzed provides a better overview of user interaction within the social networks of the companies, as Humo Smokehouse has the highest number of interactions within the period analyzed.

Table 17: Data Consolidation Baltimore Food And Drinks

Percentage of the appropriate use of design elements in graphic pieces	8%
E-commerce model	B2C
Percentage of interaction period March 2020 February 2021	13%
Average number of publications per month	10,08

Source: Own elaboration

Baltimore Food and Drinks adequately uses design elements in 8% of its graphic pieces each year, the E-commerce model with which it is managed within social networks is B2C, which means that it has direct contact with the consumer without intermediary facilitating communication with the consumer. Considering that its page has more than 6,000 followers, only 13% of users interact with its posts and the average number of publications per month is only 10.08 advertising pieces, resulting in 120.96 arts per year. This means that of the 120 annual reactions that the establishment has, it would get 1 reaction for each post.

Table 18: Data consolidation Baltimore Food And Drinks

Percentage of the appropriate use of design elements in graphic pieces	6%
E-commerce model	B2C
Interaction period March 2020 February 2021	26%
Average number of publications per month	35,67

Source: Own elaboration

Humo Smoke House annually uses design elements adequately in 6% and, like the other company, the E-commerce model used is B2C, which allows it to constantly interact with the consumer. Taking into account that the establishment has more than 12,000 followers the annual interaction is 26%; the average number of publications per month is 35.67, meaning that the company annually posts around 428.04 graphic pieces per year, and although its content lacks design fundamentals, the fact that it has more publications and a greater number of followers allows it to have more interaction.

The data consolidation tables of the companies prove that the proper use of design elements and the E-commerce model have an impact on user interaction and also reflect that the number of posts made by these establishments has a lot to do with the high or low number of consumer interactions, as can be seen in the data consolidation. Baltimore Food and Drinks has 2% more in the proper use of visual elements than the other company and even so user interaction is lower than that of Humo Smokehouse, which despite having a lower percentage in the use of graphic design elements, its average number of publications is almost 36 posts per month, thus achieving that 26% of users interact within its page.

Consequently, the results obtained from the analysis of the graphic pieces show that if the hypothesis about graphic design and the E-commerce model affecting user interaction is confirmed, although there are other parameters that also have to do with consumer behavior, such as paid advertising,

the number of posts per week, number of followers, type of content, etc., all this will always be linked in one way or another with the proper use of the design elements.

CONCLUSIONS

After gathering all the necessary information through the review of books, magazines, articles, blogs, web pages, physical and electronic documents, it was determined that indeed the sales strategies used before were different from those used during the pandemic due to the abrupt change in commercial transactions, marking a before and after.

This research project concludes that companies have a social network where they disseminate advertising graphic pieces to publicize their products or services, but they lack knowledge on the use of graphic design elements.

Through the application of a methodological sheet, it was possible to clarify how visual literacy and the E-commerce model was used by companies with or without knowledge, which provided important and enriching qualitative-quantitative data to validate the proposed hypothesis.

It is concluded that the data obtained from the methodological sheets determined the incidence of graphic design and the E-commerce model on user interaction in the selected arts, identifying other parameters that influence user interaction but that are linked in one way or another to graphic design and the E-commerce model.

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