

Effectiveness of B2B digital marketing strategies for lead generation

Case study: Lumiart, lighting company based in Guatemala

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AFFIDAVIT

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ABSTRACT

Lumiart is a family business firm born in Tegucigalpa, Honduras. In 2000, its product and service were oriented in lighting, offered to both public and private projects. Over the past 20 years, Lumiart has used traditional marketing strategies to leverage sales, and more importantly, gain trust from its customers. Moreover, they started in the past few years to implement digital methods to attract new customers and digital platforms to engage with new targets. In 2019 they opened a new store in Guatemala that phases new challenges to get new customers and build trust in their products and services. The business targets B2C clients, but most of their profit comes from the B2B projects they generate. Since it is a new operation, they need to get the most B2B leads to improve their chance of closing big lighting deals and earning revenue for the new process.

The theoretical part of the present study aims to understand digital marketing in B2B business, explain Lumiart case study and the digital marketing strategies and goals for Lumiart. The second part focuses on the following research questions: (1) Determine which digital marketing channel is the most effective for B2B lead generation for Lumiart. (2) Which audience in digital media attracts the most leads for B2B customers for Lumiart? (3) What change of digital campaign settings caused the most significant improvements for lead generation in B2B customers for Lumiart?

Quantitative data was collected using Google Ads and social media reports. The methodology for addressing the research question consisted of developing a digital campaign using Google Ads and display network remarketing and social media platforms such as Facebook and Instagram to generate leads. The campaign was executed for four weeks implementing weekly analytics check, which led to learning from every trial and adjusting the drive to improve results.

The key contributions are summarized in the following facts: (1) For the present experiment; it is determined that the most effective digital medium for B2B lead generation for Lumiart was Facebook. (2) The results showed that the cities most interested in the experiment for Facebook and Instagram were: Guatemala City, Huehuetenango, San Marcos, Petén, Quetzaltenango, Izabal, Totonicapán and Sololá. For Google, in descending order, we have Guatemala City, Quetzaltenango, Izabal, Chimaltenango and Sacatepéquez. (3) The predominant demographic group by age for Facebook and Instagram consisted of people between 25 and 34 years old. For Google, the age segment ranged between 18 and 24. (4) The demographic group by gender for Facebook, Instagram, and Google, was male. (5) For Facebook, the change in settings that had the most significant impact on generating leads changed from 6 images to only one promotional image and communication via direct message instead of filling out a form with personal information.

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LIST OF ABBREVIATIONS

B2B: Business to business

B2C: Business to customer

PPC: Pay per click

ROI: Return of investment

RQ: Research question

SKU: Stock keeping units

1 INTRODUCTION

This master thesis aims to understand the effectiveness of digital marketing strategies for lead generation designed for the lighting company Lumiart based in Guatemala. The focus is on B2B companies, which all need to consider the following questions: (1) Determine which digital marketing channel is the most effective for B2B lead generation for Lumiart. (2) Which audience in digital channels attracts the most leads for B2B customers for Lumiart? (3) Which digital campaign settings change caused the most significant improvements for lead generation in B2B customers for Lumiart?

To answer these general questions, the topics of Lumiart case study, digital marketing in B2B business, digital marketing into B2B perspectives need to be highlighted first.

This introductory chapter provides a synopsis of the master thesis, namely the work's context, the research aims and objectives, the methodological approach and the structural overview of the thesis.

1.1 Context

Lumiart is a company founded in 2000 and its main headquarters are in Tegucigalpa Honduras. During its beginner phase, the company focused on selling support material for construction projects. Over the course of time, the owners noticed the ever-growing demand of lighting products.

The existing lighting products that could be accessed at the time, were imported from the USA to Honduras, and their prices were high. As a result, they started searching for lightning suppliers with accessible prices in Mexico. Soon after, Lumiart began a commercial relationship with TecnoLite, a Mexican brand offering competitive prices in the market. During its first years of operation, the exclusive representation of the brand was obtained in the Honduran territory, and sales increased rapidly throughout the country.

The company focused on B2B business, since its main clients were hardware stores and construction projects. These sales formed the backbone of the business from the start. The owners of the company (Antonio and Solange) started doing sales-routes all around the country, during which they introduced themselves to the owners of various hardware stores, and showed them their available products and services. Antonio traveled every week around rural areas, whereas Solange moved around the city.

According to Antonio, current CEO of the company, the consistent visits to B2B customers, and their varied inventory, generated confidence in the brand. Later on, they hired road vendors, who were able

to further cover the territory of Honduras. They also implemented on-site training for hardware store customers to promote products that had low inventory turnover, and to launch new products. Thanks to these activities the company managed to grow further in the B2B segment.

However, the brand they sell has many SKUs, so the company was in need of opening a physical store. Before this, their only point of contact with the client was during their visits, when they would personally show their products. Therefore, with the aim of displaying all the products that the brand offered, and eventually becoming a central point of sale for its B2B customers, they opened a physical store.

The physical sales point was vital to take the company to a higher business level. The store generated a greater number of B2B clients such as construction companies, banks, gas stations, restaurant chains, hotels, medical centers, shopping centers, and many others. Over the years, three more sales points opened in the countryside, making Lumiart a leading lighting company in Honduras.

For the context of the present investigation, it is important to mention that, in the company's 20-year history, all the deals of B2B customers were generated by certain fundamental factors: constant customer visits, providing product samples, a varied available inventory, and regular advice on lightning projects. According to Antonio, all B2B sales during his twenty years of experience have always had human contact, and they happen through physical visits to the client. In other words, the lead has been generated by face-to-face interaction.

In 2019, due to the political instability of Honduras, the company decided to open a store in Guatemala City. Lumiart was looking for areas with a larger economic development, and Guatemala City fulfilled the criteria. Their overall objective is to expand sales all over Central America.

As the Guatemalan branch opened, it faced new difficulties. Due to the Covid-19 pandemic, as well as being a new provider in the Guatemalan market, obtaining B2B clients has been difficult. Additionally, competition in the lightning field is strong, as there are three companies that have dominated the lightning market for the past twenty years. Therefore, the company decided to opt for a digital B2B marketing strategy to attract clients, and minimize physical contact.

Solange, co-founder of the company, mentioned that the pandemic has come to drastically change the way in which they had planned business. Now, customers contact them through their digital channels, such as social media, and their website. Therefore, a digital B2B marketing strategy is necessary to generate sales.

Antonio and Solange are convinced that their way of doing business will go digital, or at least on the first stages of a sale. They made their first digital sales during the past months, which came to show how clients have lost the fear of digital sales. In addition to this, the founders believe that a better use of resources can be made by investing in digital media instead of the field visits that usually do not generate sales until a third or fourth visit. The approach can initially be done digitally, and then become a physical appointment that closes the sale.

Therefore, the research carried out for this thesis will be focused on the transition from traditional offline B2B marketing in Honduras, to the new digital B2B marketing in Guatemala. It is important to mention that the case study is focusing on B2B businesses, since this type of negotiation is what generates 80% of sales in the company's headquarters. In sum, B2B sales are the backbone of the business. Currently, the store in Guatemala is mainly selling online to B2C clients, which generate a lower volume of sales, and the operation has not become profitable.

This master's thesis aims to create a solid body of research that will help the company develop a digital strategy for the generation of B2B leads. The analytical part will provide a better insight on how the company should use digital tools to promote its sales to meet the objective of creating value for all stakeholders.

1.2 Research aims and objectives

The author of this thesis is the sales manager of Lumiart in Guatemala. The manager's main responsibility is to increase the country's sales to B2C and B2B clients. The company opened its doors to the Guatemalan market in November 2019, while carrying out specific B2C marketing campaigns on social media networks. These campaigns had favorable results, as it was possible to create sales by combining online advertising with the customer's visit at the point of sale. Both of these factors became fundamental at the time of closing a sale. However, as previously mentioned, according to historical data sales to B2C only generate 20% of the company's total profit goal. Therefore, finding B2B clients became a crucial step.

Various strategies were developed in order to create revenue. One of them consisted of providing personalized advice during the development of lighting projects for architects, civil engineers, and construction companies, among others. Visits were made to the clients' facilities and projects. Samples and competitive prices were provided for these types of clients. These efforts slowly increased the pull of customers in this segment. No digital approach was used for this segment, as based on previous experience, there had been no results.

In March 2020, a road salesman was hired. He would oversee selling to hardware store customers, thus increasing the company's sales volume. However, as a result of the recent pandemic in Guatemala, routes to the interior of the country were forbidden to non-fundamental companies. As a consequence, all planned strategies to create revenue could no longer be performed, as they required physical contact. Lumiart architects' visits to construction projects, just like sales representatives' visits to hardware stores could not be performed, which was detrimental to the company.

The author perceives the need of both the company, and the clients to find products, and services digitally in an efficient way. Due to this emergent need, the research of this thesis aims to find how to make an effective digital campaign targeted at the B2B segment for generating leads. The thesis proposes (1) determine which digital marketing channel is the most effective for B2B lead generation for Lumiart. (2) determine which audience in digital channels attracts the most leads for B2B customers for Lumiart? (3) determine which change of settings of the digital campaign caused the greatest improvements for lead generation in B2B customers for Lumiart? The thesis aims to introduce more digital marketing to the company, as well as provide new suggestions for the practice of new campaigns in this segment. The following investigation will help the company understand better its market and its target audience, just like how to engage better with them to accelerate the sales funnel for B2B customers.

1.2.1 Research questions

The main research question (RQ1) is: *Determine which digital marketing channel is the most effective for B2B lead generation for Lumiart?*

The research context is broadened with further questions:

(RQ2): Which audience in digital channels attracts the most leads for B2B customers for Lumiart?

(RQ3): Which change of settings of the digital campaign caused the most significant improvements for lead generation in B2B customers for Lumiart?

1.3 Methodological approach

Quantitative data will be collected using Google Ads and social media reports.

To determine which digital marketing channel is the most effective for B2B lead generation, first we have to address what is a MQL (marketing qualified lead). Given that not all leads generated by the campaign will be quality leads, it is important to determine essential factors that will determine an MQL.

- A. Leads that express a real interest in the service by contacting via online contact form, direct Facebook message, phone call.
- B. The lead must leave their real data to be able to contact them.
- C. They must belong to the B2B segment.

To determine which channel attracts the most leads for B2B customers, three simultaneous campaigns will be launched on Instagram, Facebook and Google Ads. The main objective of Instagram and Facebook campaigns is to fill out a form with the personal data of the clients. In the case of Google Ads, clicks will be directed to the contact tab of the website. Week after week, the MQL will be segmented and determined to obtain the best scope of quality leads.

In addition to being able to measure user behavior within a website, Facebook pixel will be installed on the website. This will allow the improvement of the campaigns by launching the first test and thus achieving better results in the following attempts to generate leads that visit the website.

To determine which audience in digital channels is optimal for B2B customers, in the case of Google Ads, a search volume acquisition study will be carried out. Initially, specific keywords related to the products will be selected. Then, narrower keywords will be determined to attract leads according to different locations in Guatemala. This initial experiment, will make it possible to visualize the specific segmentation according to the locations searching the chosen keywords, and will establish which keywords to use in the following campaign.

In the case of Facebook and Instagram, the audience can be segmented in a more specific way, from age, gender, location, to interests, behaviors and pages with which they interact. The same segment locations determined by the Google Ads volume study will be employed for this campaign. The latter will be launched displaying only the ad's image along with a message. Given that this is the first attempt at performing an Instagram/Facebook ad campaign, this first test will produce valuable information to apply for future social media ads.

In regard to the last question of the study, about which change of settings of the digital campaign caused the greatest improvements for lead generation in B2B customers for Lumiart, the general process of campaign creation in the three digital platforms aforementioned will be outlined.

The first step is to define the marketing objectives which can be: interaction with a publication, video reproductions, website traffic, reach, conversions to the website, messages, likes to the page or responses to events. During the four weeks, it will be determined if the marketing objective that was initially set should be changed to generate more leads for B2B.

The second step is the definition of the budget. The four weeks of the experiment will have the same budget, so this factor won't affect the experiment.

The third step is to establish the audience. As previously explained, the audience will be established either by keywords, location or even by determining a niche segmentation according to interests, and followed pages related to Lumiart. The goal is to establish a segmentation through repetition, in order to lower cost per lead.

Finally, the last step is the definition of the image and/or message that will be used in the ads for Facebook and Instagram. The image can be changed in each ad campaign repetition, as well as the keyword and message for the Google Ad. Therefore, the aesthetic and copywriting aspect will have room for improvement.

The four steps described, excluding the budget, will have modifications according to the development of the campaign. This will allow improvement to obtain accurate leads, and will ultimately aid to answer the main question of the present research: which digital marketing channel is the most effective for B2B lead generation for Lumiart?

2 LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to provide a better understanding of Lumiart case study, explaining in a timeline the history of the company and all the marketing and sales strategies used by the company to increase the number of customers in the B2B segment. These mentioned strategies are known as traditional digital marketing strategies, which have had excellent results for the company during its twenty years in the market. (Chapter 2.2.1 and 2.2.2).

Additionally, chapter 2.2.3 will explain some digital marketing strategies that the company has developed in its last three years in the market and its general results in B2B and B2C customers. These chapters aim to explain in a holistic manner the strategies that the company has used for twenty years and the new need they have to migrate from these traditional strategies to digital due to the pandemic situation in Guatemala.

Finally review of available literature on the field of digital marketing, and B2B marketing, will serve the purpose of providing a pool of reliable information to feed the current research. It will seek to answer the research questions stated previously, just like summarizing the main arguments currently available in the field. The following subsections will illustrate digital marketing, social media marketing, online marketing strategies, the digital channels in current use in Guatemala, the process of defining a B2B segmentation, and finally, a summary of the tools and technologies to properly monitor digital performance. (Chapter 2.3)

2.2 Lumiart background history

Soluciones Inteligentes S.A de C.V, SOINSA, was born in the year 2000 in the city of Tegucigalpa. The corporation's purpose was to offer the Honduran market anchor, fixation and support solutions for construction projects, and related industries. Later on, they incorporated a lighting line to provide options to the need for products that included design, quality and innovation. This is how, in 2002, the company Tec nolite from México granted SOINSA the exclusive distribution of their prestigious brand; which they managed to position at a national level in a few years. SOINSA began to distribute the Tec nolite brand throughout the national territory, following a wholesale business model. Ever since, SOINSA has been part of the most popular lighting group in the Mexican market, with a presence in Central America, the Caribbean and South America through the Tec nolite brand.

During the period of 2006-2019, Lumiart managed to expand on a national (Honduras) and Central American (Guatemala) level. In 2006, the first retail store called Lumiart was born in the city of Tegucigalpa. Lumiart becomes a new SOINSA business model, given that the sale of lighting products was directed to individual customers instead of only to other companies. In 2010 they opened the Lumiart store in San Pedro Sula, in 2016 they opened another store in La Ceiba, and, finally, in 2019 they expanded on a Central American level with the opening of the first Lumiart store in Guatemala City.

Line of business: SOINSA is dedicated to the distribution and marketing of lighting products. They are characterized by offering quality products, but more than that, they offer a lifestyle, since they have a team of collaborators specialized in understanding that lighting is an art, and under that commitment, they always offer the best advice to their clients.

General facts about the company: Soluciones Inteligentes has its main office in the city of Tegucigalpa, in the area referred as Journalist's suburbs. The main warehouse department is located in this facility, and from here all products are distributed nationwide. This location also houses the departments of accounting, credit and collections, customer service, maintenance and guarantees, and internal audit.

The Lumiart stores in Tegucigalpa are located on Boulevard Morazán, in the La Época Shopping Center. The Lumiart San Pedro Sula store is located on Avenida Circunvalación, in the Atlantic Business Center; the store in La Ceiba is located in Plaza Toronjal, and the Lumiart store in Guatemala City is located in zone 4.

The company has 64 employees in total including in the main office, the three stores in Honduras, and the store in Guatemala City. These locations encompass the administrative department, sales team, electrical technicians and warehouse managers.

Business philosophy: The growth achieved over the years is due to an innovative philosophy that highlights fast delivery and an optimal level of service for its clients. The company is currently a market leader in the field of lighting products, where they have managed to build long-term business relationships based on trust, respect and teamwork. That is why, as part of its values, they always work with integrity, commitment, and respect with those who make the company possible: clients, suppliers, and staff.

SOINSA's goal is to continue driving new trends in lighting, venturing into automation, but also to continue to position the brand throughout Honduras and Guatemala, and thereby remain at the

forefront of lighting; while meeting the expectations of the customers with quality products, and proven efficiency.

Mission: Provide innovative lighting solutions committed to the quality of our products and efficient service to the customers.

Vision: Consolidate ourselves as the leading lighting company in our country, constantly offering innovation and timely solutions through our products with committed human talent.

Products: SOINSA offers lighting solutions for the Honduran and Guatemalan market. It is a company that distributes lighting products, LED applications, automation products, ventilation, interior, exterior and industrial lighting, as well as light bulbs and various electrical accessories.

SOINSA offers more than 2000 articles, which fulfill the need of light saving, efficiency and innovation of the latest architectural trends. These products meet high quality standards that are required by the sector on a national, and international level. They also offer a wide product portfolio, just like service levels according to the needs of the market.

2.2.1 Marketing strategies of Lumiart for B2B customers

The information provided in this chapter summarizes the sales and marketing experience of the founders of the company, José and Solange, also complemented by the strategies implemented by Maria José, the commercial manager of the company. Sales information is not provided, but photos and evidence of the strategies are presented, as well as the results monitored by the founders and commercial manager. The strategies presented were focused on the B2B customer segment, specially hardware stores and construction projects.

Direct sales: consists of marketing and sales directly to customers. Direct sale was the first strategy used by Lumiart to increase sales. José, the founder, had the responsibility of undertaking the sales-routes around the country to find hardware stores that could sell the lighting brand TecnoLite. Due to the constant visits to clients, the company could increase its presence in the national territory of Honduras by selling to renowned hardware stores in the country.

Direct sales for the company had three important steps. First the sales representative visits offering innovative products and prices to hardware stores. It was important for the sales representative to address the owner or the manager of the hardware store to have a higher possibility of closing a deal. The second step was offering the hardware store a cabinet displaying the various products. As seen on Figure 1, an example of the display cabinet in one of the hardware stores, Juticalpa Olancho, in

Honduras. The cabinet worked as a hook to create a first sale, as it tied the customer with their first purchase order. It also helped promote in site sales for the hardware store and for Lumiart.



Figure 1 Product display in a hardware store in Juticalpa Olancho, Honduras (Polanco, 2020)

To maintain the loyalty of the customers, pop-up stands in the point of sale were executed. The pop-up stands were a marketing strategy to promote new products or increase sales in hardware stores. These consisted of the Lumiart staff arriving at the hardware store with music and gifts to encourage customer engagement, with the purpose of promoting new products or inventory turnover. According to Maria José, the current commercial manager of Lumiart, the pop-up stands rather than significantly increasing sales volume, helped to increase customer loyalty which in the long term meant an increase in sales. Figure 2 displays an example of pop-up stands in Tegucigalpa.



Figure 2 Example of pop-up stands in Tegucigalpa (Polanco, 2020)

Other relevant customers in the B2B segment for Lumiart are construction companies, banks, gas stations, restaurant chains, hotels, medical centers, shopping centers, and many others. These

customers were also addressed via direct sale, by Solange the other founder. She had the responsibility of visiting this segment. Solange indicates that when she saw any construction site in an early stage, she immediately visited the project and asked for an appointment with the project manager to offer the products and services of the company. Both founders indicate that having personal contact with the owner of the project or the hardware store was a fundamental factor in closing a possible sale.

Translating the importance in sight of the owners we can correlate “personal contact with the right person” with MQL (marketing qualified lead), in which the present thesis has as main goal to attract this type of lead.

Print advertising:

SOINSA used print advertising in newspapers to attract more customers. Image 3 shows a newspaper article that Lumiart published with the aim of making people aware of LED technology and changing their halogen bulbs to LED, promoting energy savings for homes and businesses. This article also took the opportunity to promote the decorative lights of the brand and the location of the company.

By publishing an interesting article about a new product, several visits to the store from hardware store representatives took place, just like representatives from the hotel sector, shopping centers and various franchises. In sum, they were able to sell to many companies by showcasing substantial facts about saving energy.

Maria José, the commercial manager, indicated that the newspaper ad was published when it was not yet that expensive. The results of the newspaper ad were dependent on the content of the article and the interest this caused on readers. Therefore, this was not a sustainable way of promoting as there was no specific way to measure the direct results in sales. Over time this means of communication became very expensive for the brand, so they stopped using this medium.



Figure 3 Example of Lumiart newspaper advertising (Polanco, 2020)

Another example of print advertising was promotion in construction and architecture magazines. This type of promotion was directly segmented to civil engineers, architects and those interested in construction. The goal was to show the new products and generate interest in the segment to be considered for current and future projects.

According to María José, customers came to the store with the magazine in their hands, showing the model that interested them. This served as an important insight for the procurement department, to know the models that customers were looking for the most and to maintain the adequate stock to be able to supply the demand.

Just like the newspaper, this media became very expensive over time, which is why they had to reduce the number of ads and the size of the ads.



Figure 4 Example of Lumiart magazine advertising (Polanco, 2020)

Referral (word of mouth/WOM):

According to José, word of mouth was one of the most important marketing strategies in the business. It was impressive to visualize the scope that had to be fulfilled in time for a project with an important client. The client, whose needs were met, referred the company to his peers and a pool of clients who trusted the company was created.

In the case of projects, it was important to comply with the delivery times of the products and apply the necessary guarantees if a product failed. In the case of hardware stores, delivery within 48 hours was a new feature that appealed to clients, since at that time they were the only company that offered this short delivery window.

Another important aspect that customers appreciated was the inventory that the company had. While some companies kept 10 to 20 units of product, Lumiart offered up to 100 units and with the possibility of importing more in a reasonable time for the customer.

WOM worked in a very positive way in the company, but it also had a negative impact when the client's expectations were not met, it brought instant repercussions to the company. Solange remembers a situation in which the complete lighting of the parking lot of a shopping center was sold. The electrical connections were not made correctly, and the lights were burned, in this case the warranty did not apply as it was an installation error. Failure to resolve this client promptly impacted the sales of this specific product throughout the country, as a bad perception of the product was created.

Due to the importance of WOM, the company began to create special policies for B2B clients with the aim of serving them as well as possible, and ceasing to guarantee policies of the public. The policy was to make the customer happy with their purchase, and in case of a problem, resolve it as soon as possible.

Trade shows:

Participating in construction or hardware trade shows was important for the company as it created brand presence and trust for customers in the B2B segment. Being able to visualize a striking stand of the company with an exhibition of products allowed to schedule meetings with clients of the B2B segment. With this strategy the company gained confidence for project clients, hardware stores and franchises.

The tradeshows segmented people interested in these types of products, and gave the brand and the company the opportunity to present themselves directly with the personnel in charge of procurement or the owners of the companies themselves.

The advantage of this type of strategy was that the people who attended were already interested in the products. The main disadvantage was that competing companies also participated in the same room.

Participating in trade shows has always been very expensive, so over the years it was determined which tradeshows were worth going to and which only to attend as a guest.

With this type of strategy, sales were rarely closed directly at the stand. To be able to close sales using the tradeshows strategy consisted of getting the important contacts and doing a follow-up job. Usually the sales of this strategy could be visualized in a period of 3 to 6 months.

Product training:

Over the years, Lumiart has used the strategy of training Architects and Engineers on TecnoLite products. TecnoLite has more than 2,000 SKUs with different functionalities. Publicizing the characteristics of the product has helped the company to sell a wide range of products.

To have a diversity of products is a differential factor that sets the company apart, since most competitors have a limited amount of products (on average, around 100). It can be a disadvantage also if the customer does not know the products, as they can fall into low-turnover products due to ignorance about their functionality.

The company seeks to inform customers about new lighting technologies and thus manages to introduce innovative products to the market. This strategy has also worked to retain customers, since they become acquainted with the support and shared knowledge of the brand, they prefer to stay loyal to it, just like recommending it for other projects.

Figure 5 shows the invitation to a training held within the Lumiart facilities. These training sessions aim to attract customers to the store so that they can see the plethora of products available first hand.



Figure 5 Example of Lumiart training advertising (Polanco, 2020)

It is important to mention that all strategies previously described, worked to attract customers in the B2B segment. To retain them, close sales, grow the company, and gain the loyalty of the customers, further strategies were employed.

The company stands out for having high inventories available to meet the needs of customers, while maintaining a high number of SKUs, product delivery in less than 48 hours nationwide, and most importantly, a personalized customer service.

2.2.2 Digital marketing strategies for Lumiart

Due to the current pandemic in the world, the founders are convinced that their way of doing business will go digital, or at least on the first stages of a sale. They made their first digital sales during the past months, which came to show how clients have lost the fear of digital sales. In addition to this, the founders believe that a better use of resources can be made by investing in digital media instead of the field visits that usually do not generate sales until a third or fourth visit. The approach can initially be done digitally, and then become a physical appointment that closes the sale.

After explaining the traditional strategies Lumiart has used to increase its sales in the last twenty years, the following subsections will illustrate digital marketing, social media marketing, online marketing strategies, the digital channels in current use in Guatemala, the process of defining a B2B segmentation, and finally, a summary of the tools and technologies to properly monitor digital performance. It will serve the purpose of providing a pool of reliable information to feed the current research. It will seek to answer the research questions stated previously, just like summarizing the main arguments currently available in the field

2.3 Digital marketing

Magnotta (2019, p. 152) suggests that the digital transformation process is drastically changing marketing. Companies can not only reach their customers, but the customer should be able to reach them or their competitors. This can only be done by moving from mass communication channels, like newspaper ads, to more targeted and personalized communication in which customers have a closer relationship with the brand. This is achieved through the use of digital tools. Magnotta states that “(t)he most relevant digital tools used by marketers are online marketing, social media, and mobile marketing aimed at creating loyal customers, building strong brands, and generating profits.”

Moreover, online marketing brings numerous benefits to companies. They can pay to advertise their products on various social media channels, and get free word-of-mouth promotion from blogs or social media conversations. Companies are able to engage with their customers through custom content that attracts their interests, which leads to a positive customer experience.

Digital tools ease the digital marketing environment, in specific the exchange of information between users and brands. New technologies provide marketers the aid to communicate with customers without difficulties. Sheldrake (2011, p. 74) explains how digital technologies contribute to the current outbreak of marketing innovations through their following seven features:

1. Reliable and low-cost circulation of advertisement (e.g. memory sticks).
2. Immediate and low-cost two-way communication.
3. Possible amplified broadcasting, unicasting, and multicasting.
4. Possible communication from users at a known or zero cost.
5. Possibility of answering information requests, immediately and automatic.
6. Inherent communication: familiarizing with the recipient’s opinions, perception and use of product by tracking their actions, commentaries, and conduct.
7. Collecting conversations or any communication for analysis and assessment.

These seven features allow marketers to determine target customers, just like establishing a closer relationship with them. The digital conversation between customer and company is described by Kaufman and Horton as an open dialogue and two-way communication up and down the organization (Kaufman & Horton, 2015, p.20). It is proven that feedback and ideas are now shared more easily than before. Therefore, existing communication systems are being altered, encouraging collaboration and

collective decision-making. In the current online world, contact between companies and customers is two-way, from up to down and vice versa.

Besides the effective form of communication between customer and company, digital marketing brings great benefits to firms. A study carried out in 2011 among Portuguese companies employing digital marketing revealed that 82% of directors (of 170 completed surveys) depended strongly on digital marketing to build their brand, 72% relied on it to “improve knowledge”, and 70% to boost communication flow. Contrary to common belief, hardly 37% of managers considered the connection between digital presence and internal marketing relevant, and only 41% found the promotion of social activities on social media as important. The outcome comes to prove how little digital marketing is shaped by external influences (Tiago & Veríssimo, 2014, p. 705).

More recent literature also highlights the many benefits of integrating digital marketing to B2B business tactics. The one major aspect that aids companies the most is the ability to target prospective customers precisely (Pandey & Gudipudi, 2019; Pandey et al., 2020). For instance, marketers can contact specific department executives, in a former way, thanks to LinkedIn. This boosts a corporation’s sales, as it aids to monitor B2B customer engagement, first-hand sales conversions, and allows to get to know the prospective client and produce content that might attract them specifically (Pandey et al., 2020).

A list of further various benefits of having a digital presence for a company can be observed in Table 1. Out of 170 surveys filled out by managers of big Portuguese companies, the great majority believed a digital presence enhances information gathering and feedback, followed by considering it a user-friendly tool, the improvement of knowledge, and benefits internal and external relationships, among others. In conclusion, digital marketing relies on communication, yet it is not restricted to message. Digital marketing expands to creating a connection with customers, as well as producing, and preserving brand awareness (Tiago & Veríssimo, 2014, p. 705).

Table 1. Benefits of digital presence

Benefit type	% ^a
Improves information gathering and feedback	87
User-friendly tool	85
Increases knowledge	85
Promotes internal and external relationships	82
Supports decision-making process	60
Increases productivity	58
Better outcome measurement	53

Note: N = 170

^a Percentage of respondents rating 4 or 5 on a 1–5 scale where 5 = extremely important.

Table 1 Benefits of digital presence (Tiago & Verissimo, 2014)

There is an ever-growing number of B2B companies adopting digital marketing, as it greatly benefits them in particular. The key component of digital marketing, as stated previously, is the ability of a two-way direct communication between company and client. This feature is crucial in B2B business as their audience tends to be narrower. PPC advertising, blog marketing, and, in specific, social media marketing allow B2B companies to excel at creating a bond with clients. The consequential benefits of digital marketing cannot be replicated by offline print or broadcast marketing (M. Miller, 2012, p. 9). In the following sections these fields of digital marketing will be further illustrated.

2.3.1 Channels for B2B digital marketing

A valuable element of digital marketing for B2B is the specific channels in which strategies are carried out. Each platform should have a unique strategy but in order to plan one, the correct channel to create leads must be determined. Social media platforms are a great option since they are known to bring profits with little investment, and they promote communication (Magnotta, 2019, p. 156). According to Magnotta, the central three types of platforms for social media are communities and forums, blogs, and social networks, such as Facebook, Instagram, Twitter, LinkedIn, Snapchat, Reddit, YouTube, etc.

- **Communities and forums:** In their majority, these are established by individuals without a commercial pursuit. While other types are financed by companies with the intention of promoting their product through independent members. The secret to a successful forum is to create a sense of closed community, in which members feel comfortable enough to share information about the specific product they gathered for. A possible setback is an eventual

dispute with negative comments, to which social listening is the only solving factor.

- **Blogs:** The digital word of mouth. There are many types of blogs, personal ones with small following, and ones that target to influence a broad group. The latter is the case of company blogs which seek to gather groups of people interested in a specific interest related to their product. Companies take the chance to analyze their blog visitors, while keeping an eye on their competitor’s blogs.
- **Social media networks:** Each platform has a specific pool of users that should not be considered clients as the nature of the networks is not commercial. The art of persuading them to consume a product is more difficult, therefore, each platform should have a unique marketing approach (Magnotta, 2019, p. 156).

2.3.2 Digital Channels in Guatemala

Internet penetration is defined as “the portion of the population that has access to the Internet” (<https://www.igi-global.com/>). Central America, in general, is still a space of increasing internet penetration. While the USA and Europe have 95 percent of internet usage, Central America reported 63 percent in 2019, and 66 percent by February 2020 (Digital, 2019; Kemp, 2020). Guatemala reported 11.54 million internet users in January 2020. This number grew by 217 thousand (+1.9%) between 2019 and 2020. Internet penetration in Guatemala stood at 65% at the beginning of 2020. The table below presents detailed numbers of social media users in Guatemala.

	Facebook	Instagram	LinkedIn	Twitter
Number of people that can be reached with adverts	7.40 million	1.80 million	890 thousand	532.5 thousand
Reported advertising reach compared to total population aged 13+	59%	14%	8.4%	4.2%
Quarter-on- quarter change in platform’s advertising reach	+200 thousand (+2.8%)	+9.8%	+2.3%	-1.1%

Table 2 Internet penetration in Guatemala

Out of the total 11.54 million internet users in Guatemala, 7.90 million use social media. This number grew by 534 thousand (+7.2%) between April 2019 and January 2020. Social media penetration in Guatemala stood at 45% in January 2020 (Kemp, 2020).

In terms of Guatemalan mobile connection, the numbers are even higher. There were 21.1 million mobile connections in Guatemala in January 2020, which is higher than the current 17.25 million inhabitants in the country. The amount of mobile users is equivalent to 119% of the total population (Kemp, 2020).

2.3.3 Social Media Marketing

Within the digital marketing realm, a specific niche has to be addressed, namely social media marketing. Since a great amount of people can be approached on social media platforms, they qualify as the perfect channel for marketing (Ozuem, 2017, p. 299). However, these networks do not have a commercial purpose, which complicates the process of converting followers into clients. The solution is to focus on bonding with followers, running ad campaigns, and creating unique content tailored to their interests to potentially turn them into customers (Magnotta, 2019, p. 157).

Marketing on social media can be performed in two ways. The first option is through organic social media marketing, which refers to non-paid marketing endeavors. The second option is social media advertising, which refers to paid forms of promotion on social media platforms (Ozuem, 2017, p. 299). These two forms of social media marketing are dependent on each other. They will be described separately, but in order to have a successful paid campaign, organic promotion must be performed.

Organic social media marketing starts when marketers get permission to talk to the platform's users. This permission is granted at the moment the user follows the marketers page, and is automatically exposed to their content. These users engage with the content with likes, comments or shares, which expose the post to the rest of the user's friends and followers. This engagement creates a ripple effect in which many other users (mainly friends and followers of the first user) become acquainted with the page's content; this is known as word-of-mouth or organic content promotion (Ozuem, 2017, p. 301).

In addition, organic social media marketing is strongly tied to having a rigorous schedule of advertising, and portraying an honest image. Scheduling posts in advance to ensure a constant flow of social media presence is a crucial component of the word-of-mouth or organic advertisement. Users have to familiarize themselves with the brand to eventually share it. Moreover, the content should spread truthful messages about the company's aim, otherwise negative engagement might emerge. A study

showed that for social media advertisements must be credible, create a good impression on users, and fulfill promises to its consumers (Boateng & Okoe, 2015, p. 255-256).

There are five different structures of organic social media marketing that should be employed simultaneously to ensure success (Ozuem, 2017, p. 301):

1. messages,
2. pictures
3. videos
4. live videos
5. brand communities.

The use of these five media forms can be applied to all social media platforms that allow its use, which creates a uniform and identifiable brand to large groups of users. By using all five forms, the brand increases the possibility of organic user traffic, and corresponds to all types of users. For example, users who usually only scroll down the platform's feed will prefer pictures and videos, while users who prefer direct contact will pay attention to live videos. Messages and pictures provide basic static information about the company, videos give a realistic approach to the information, and live videos allow interaction with the brand in actual time. The latter in particular can be used to promote special events, like product launches or the specific instructions on how to use a new product. These types of live events create loyalty and trust bonds with customers, which strengthens the core of organic social media marketing: an honest, well-intentioned image of the company.

Along with the complete use of social media tools, a posting schedule has to be prepared to achieve results through organic marketing. The most crucial factors in planning a posting schedule are frequency and time, namely the amount of posts per day, and times of the day to post. Exact time and amounts depend on each social platform. Ozum recommends that marketers construct their own schedule based on prior experience, and in the case of no experience, adopting a generic posting schedule suffices. However, Arens (2020) carried out a thorough analysis of ideal times to post on different social media platforms according to niche.

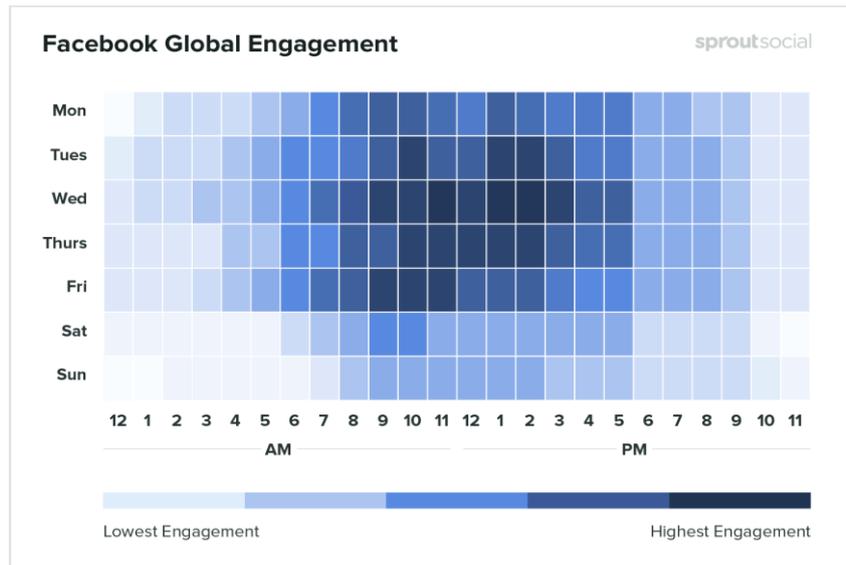


Figure 6 Facebook Global engagement (Arens, 2020)

The Facebook engagement rate on a global level peaks between 11 a.m. and 1-2 p.m. The best day to post about any topic is on Wednesday and the worst day is Sunday. Further recommended times to post, either paid or non-paid posts, are Tuesday through Thursday between 8 a.m. and 3 p.m. The worst period of time to post is every day before 7 a.m. or after 5 p.m. This analysis suggests that users of Facebook have the tendency of checking this platform around midday and staying off of it after working hours. Arens suggests to mix this posting schedule with the profiles of the segmentation.

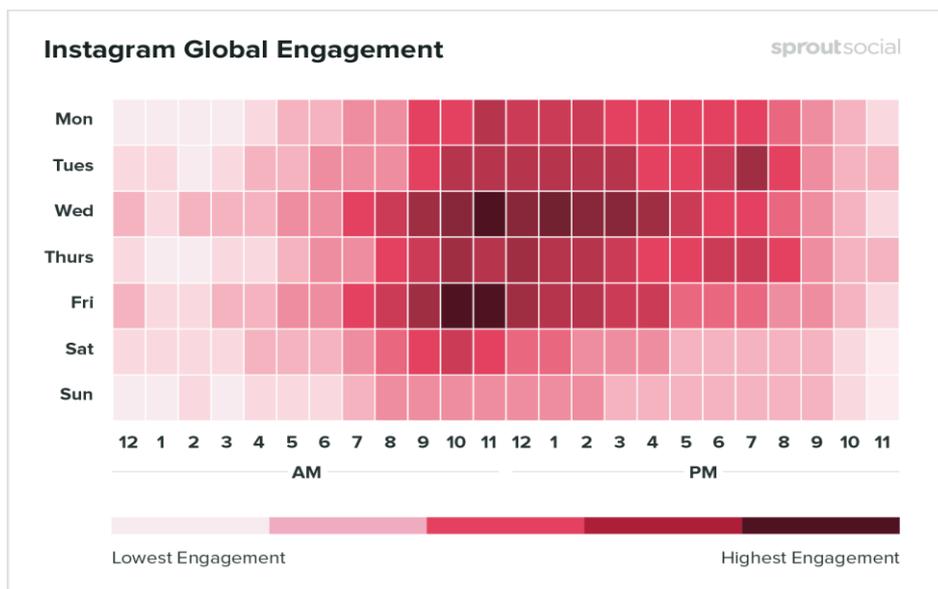


Figure 7 Instagram global engagement (Arens, 2020)

The time analysis of Instagram, the second most logged-in social media site projected to increase its user base over the coming years, turned out to be similar to Facebook. Instagram’s engagement rate

increases on Wednesdays at 11 a.m. and Fridays between 10 and 11 a.m. The best day to post, either organically or paid, is Wednesdays and the worst day is on Sundays. Similarly to Facebook, users access Instagram at noon during the week, and log off on weekends. For a consistent posting schedule the times to take into consideration are Monday through Friday between 9 a.m. and 4 p.m.

There is a current debate on whether organic social media marketing is actually effective, since one can easily build an online community by paying advertisement. With the ever-changing adjustments to the social platforms algorithms, a marketer cannot expect to achieve their promotion goals only by posting at specific hours of the day. Businesses are still using organic promotion on multiple channels to acquire customers and build brand awareness (Santiago, 2019).

As Santiago (2019) states it, organic social media is certainly still effective. First of all, it is free. A brand has unlimited access to an audience, and while it might take longer to build a community, it is still possible by posting regularly about a certain topic. Moreover, social platforms can be used as a customer service tool, with automated instant responses. Un-paid advertisements are great to build brand awareness, and credibility, as users are more likely to interact with a brand's post than with a random ad. In sum, organic promotion is indeed effective and recommended for companies.

Moving on, the other type of social media marketing is social media advertising, also known as paid advertising. This form of promotion started in 2005 on Facebook and has expanded to all social media platforms. The biggest difference to organic advertising is its refined goal-oriented characteristics. Paid promotion allows marketers to choose an exact niche segmentation. Currently there are three types of objectives that can be achieved by paying ads on social media platforms (Newberry, 2019):

- Awareness: create brand awareness and expand recognition.
- Consideration: direct traffic to a website, boost engagement, promote app downloads, video views, create leads, or simply motivate people to contact the brand over messenger.
- Conversion: online conversions, direct traffic to offline stores, or make sales.

Furthermore, these ads have advanced targeting options that permit the exposure of a brand to a specific audience. In contrast to offline marketing, this form of promotion targets people beyond the usual demographic information (Ganguly, 2015). These refined target options can be set according to:

- **Interest:** targeting according to user's listed interests, skills, pages and users they follow, or activities they perform. This target can be set through keywords which can be as general as an

industry (e.g. construction, lightning) or very specific, like a product (e.g. energy-saving bulb). This option is available on Facebook, Instagram, Twitter, and LinkedIn.

- **Behaviour/Connection:** this option allows marketers to reach users according to their purchase behaviour and device usage, or to users who have a connection with the page, event, or other followers.
- **Custom:** custom targeting consists of uploading lists of addresses, phone numbers, or usernames to the platform in order to reach a specific group.
- **Lookalike:** as its name suggests, this option targets people that have similar profiles to the existing followers of a page. This option is especially useful for companies looking to increase their following (Ganguly, 2015).

The form these paid ads can take are:

1. picture ads,
2. video ads,
3. carousel ads, (a string of multiple pictures in one ad)
4. slideshow ads,
5. canvas ads (using pictures and videos in one ad) (Ozuem, 2017, p. 303).

It is recommended that the marketer chooses the type of ad that has had more success before as an unpaid post (Santiago, 2019).

2.3.4 Google Ads

An alternate digital marketing channel that differs in nature and target from social media marketing is Google Ads. This is a PPC (pay-per-click) form of advertising products online that claims to guarantee results for B2B companies (Miller, 2012, p.12). Given its straightforward format of appearing to potential customers at the precise time they search for something related to the advertised product, Google Ads ensures exposure at the time it makes sense, and to the people it should attract (Perricone, 2020). Moreover, Google search is an essential component in the tactics of reaching B2B buyers, as a total of 62% of B2B buyers state that a web search was one of the first encounters they used to start their purchase quest (Albacross, 2019).

Google Ads present the desired ad to possible leads who might be interested in the product. These ads are run based on a bidding system in which advertisers bid on specific search terms and/or keywords related to the product or service they wish to promote. The ad of the bid's winner is displayed in search results pages, YouTube videos or other websites, according to the chosen ad campaign (Perricone, 2020).

The most basic, and relevant component of Google Ads is the Google Keyword Planner. This feature should be the first step to any Google Ads campaign as it provides thousands of potential keywords related to the product. These words and phrases describing the product determine when and where the ad will appear. People that enter the same, or similar, search term on Google are eligible to see the ad. Alternatively, keywords are also used to match the ad to related networks. Therefore, high-quality, relevant keywords are to be chosen to ensure a successful campaign (Keywords: Definition, n.d.).

After setting up the Google Ad campaign based on relevant keywords, the next most crucial aspect are the main seven metrics to measure the PPC performance, namely Return on Advertising Spend (ROAS), Cost Per Conversion / Acquisition (CPC / CPA), Conversion Rate, Clickthrough Rate (CTR), Cost Per Click (CPC), Quality Score, and Impression Share. As Brooks Manley, a Digital Marketing Expert explains, setting up campaigns and not analysing them is like throwing away money. In his words, “Google Ads need to be monitored, evaluated, and optimized. They need to be analyzed regularly” (Manley, 2019). Further details about the mentioned metrics can be seen in Section 2.6.

One more aspect to note is that the nature of B2B Google Ads focuses on lead generation rather than forthright sales. Paid ads appearing on search queries are the best path to bring prospective clients into the sales pipeline. Regardless if people turn to clients or not once they are taken to the landing page, they become acquainted with the website and the service. At this point a recommended point of contact is to offer website visitors to sign up for a newsletter or provide a form of contact to add all visitors to the sales database. This way, a relationship with the prospect can be started (Albacross, 2019). Further strategic details about Google Ads can be seen in Section 2.5.

2.4 B2B Segmentation

One of the most basic steps towards a successful digital marketing campaign is identifying the segmentation. According to Miller (2012) segmenting an audience goes before creating a strategy. This way the strategy is tailored to attract the ideal clients. In order to do this, the many segments of a company’s customer base must be identified, followed by determining their use of digital media to make purchasing decisions.

The path to determining a segmentation can take many forms based on the level of complexity. As seen in Figure 8, the road to selecting a segmentation can be easy if the group is defined by convenient factors such as location and language spoken in the company. The decision gets a bit complex if the

factors are defined by “firmographics,” which involves the size of a potential client company or the products made (Hague & Harrison, n.d.).

Firmographics are descriptive features of companies, organizations, entities, and any other type of firm. The data collected about firms is equivalent to what demographics are to individuals. Both firmographics and demographics have the purpose of segmenting an audience. Moreover, firmographic segmentation seeks to identify B2B customers based on shared features. These are described as variables employed to form a firmographic target market. Among the variables, the following fields can be considered (Mialki, 2019):

- Industry
- Annual revenue
- Company size
- Location
- Sales cycle stage
- Status
- Performance over time
- Executive title

While the use of firmographics is one of the most usual strategies to arrive at a segmentation, Hague and Harrison encourage the marketer to choose one based on behavior or needs instead. The elements that lead the segmentation based on behavior are complying to the price the client wants, the delivery, and quality of the products. By acknowledging the client's purchase behavior, the company can adjust to their liking if possible (Hague & Harrison, n.d.).

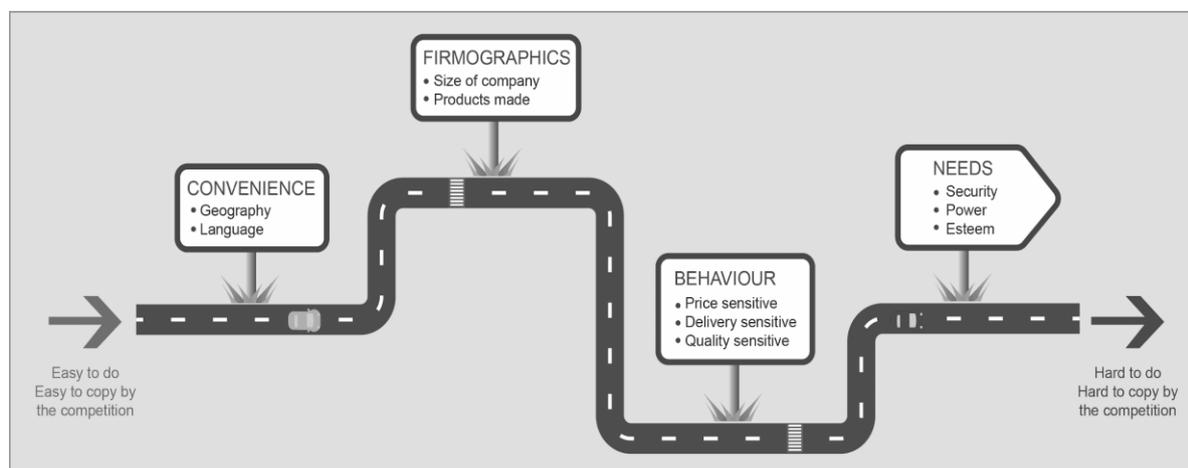


Figure 8 The Road to a Needs-based segmentation (Hague & Harrison, n.d.)

The last step in the path is appointing a segmentation based on the client's need. By fulfilling the client's needs, the purchase becomes indispensable. In turn the company feels secure, in power, and respected while buying the product, and this marks a precedent for future business. The key to pinpointing the needs of another company is maintaining a connection with them, and keeping their contact information up-date. Lastly, to know the client's need, the simplest way to know it is by asking them directly.

Alternatively, a statistical approach can be taken to arrive at a segmentation based on needs as well. A factor analysis can be performed to expose the connection between the general satisfaction with a supplier and the satisfaction of that supplier in other aspects to find the client's needs. The statistician can group segments that pair well together, for instance companies that want low prices with some extras, others that have environmental concerns, or people that want various services along with the product, and are willing to pay for it. In short, instead of asking directly, the specific needs of a client can be addressed through a short questionnaire, and this would help create groups of clients that make sense (Hague & Harrison, n.d.).

2.5 Digital Marketing Strategy for B2B companies

Traditional, offline marketing strategies encompass three aspects: product, internal, and external environment. While digital marketing includes these three aspects, it goes even deeper in each of the stages. Hence, B2B digital marketers must adopt a holistic strategy to ensure the fulfillment of every business activity. A multilayered approach was presented by Bakhtieva (2017, pp. 465-468), in which she presents the following elements as subjects of focus:

Product

- **Ease of Use:** the implementation of new technologies, such as mobile marketing (Jung, 2014).
- **Interactivity:** Holliman & Rowley (2014) encourage B2B digital marketers to change the focus from selling a product, to helping and interacting with the customer. Consequently, the content targeted towards the customer becomes more relevant. The result should be a positive and deepened customer experience.
- **Information Flow:** this element consists of the consumption of information by the customer, either started by them or the company. Bakhtieva emphasizes on the quality of information distributed, as this influences the decision-making of the customer.

Internal Environment

- **Assets:** referring to the access of effective IT equipment, such as software and networks. These aid the company examine their marketing campaigns.
- **Skills:** the proper training and facilitation of competence in regards to digital marketer, for example, IT skills, storytelling, and analytical thinking. (Royle & Laing, 2014).

External Environment

- **Audience/Customer Journey:** map a customer journey to identify their purchase history, loyalty and awareness towards the brand. These three aspects serve to identify the efficiency of every stage.
- **Touchpoints:** create a digital strategy in which every contact point of customer-company becomes an interaction, and creates a purchase.

Only by tackling these elements one by one, will a company be able to spot any weakness in their B2B digital marketing strategy (Bakhtieva, 2017, pp. 465-468).

2.6 Social Media Marketing Strategy for B2B companies

As social media has granted power from company/brand to user/customer, all marketing strategies should be carefully planned to avoid conflicts. Customers may complain publicly about the company's services or products, or even about the content shared. Hence, customers have the platform for diffusing negative reviews, which can be avoided by creating strategies that control digital marketing activities (Ozuem, 2017, p. 299).

Ozuem (2017, p. 299-300) advises marketers to create long- and short-term online marketing strategies. Short-term strategies should be constantly updated in order to adapt them to the current online environment, and to the customers interests.

On the broadest level of planning a marketing strategy, Newberry and LePage (2020) suggest eight steps to follow to create an ideal social media strategy:

1. Establish social media marketing goals that are connected to the business aims. Given that without a specific aim, there is no success to measure nor ROI to see. In addition, these goals need to be set according to the S.M.A.R.T. framework: Specific, Measurable, Attainable, Relevant, and Time-bound. They propose an attainable goal example, which consists of a company using Twitter for customer support, and reducing the response rate to two hours by the end of the quarter. This a specific goal, that can be performed and easily measured.

2. Getting to know the audience in order to tailor personalized content that they will like, share, and comment on. This step is crucial to turn followers into customers. The general aspects to know are age, place, average income, work field, and interests.
3. Being acquainted with the competition to learn from their online activities.
4. Audit social media. In the case that a profile is already set, it is recommended to notice what is working, who is engaging and why.
5. Open profiles in the selected social media platforms, or improve the already existing ones. It is pivotal to fill out every profile field, as well as adding keywords related to your brand to be easily found.
6. Take stimulus from similar accounts. This means taking examples of campaigns, visuals or forms of communication from other brands to attract similar customers.
7. Organize a social media content calendar. When to share what type of content is the only way to create an impact, always making sure the content is relevant to the aim of the company.
8. Lastly, assess and modify the strategy. Meaning, adjusting the strategy according to the setbacks encountered during the process.

Focusing on B2B social media marketing, the one aspect that sets B2B digital strategies from B2C is aiming at building online relationships with other companies and organizations rather than individuals. This way the relation moves from transactional to relational, building trust and visibility among firms instead of people (Iankova et al., 2019). In fact, existing literature suggests that industrial transactions are mostly successful, as the image of suppliers investing in building bonds with firms is seen as more favorable (Anaza et al., 2020; Doney & Cannon, 1997). Meaning that all in all, the best online or offline marketing strategy for B2B companies is to focus on relationship-building rather than a desperate sale.

When it comes to specific platforms, according to a study carried out in 2018 (Iankova et al., 2019), a great number of B2B companies agreed that LinkedIn is the most significant social platform for B2B business relations. In general, social media was seen as less important, at the time of the study, to perform B2B business, than it was to B2C, or B2B2C firms. The latter presented some interesting outcomes, as B2B2C companies showed the greatest interest in social media as a channel to provide good customer service, just like creating relationships with customers (Iankova et al., 2019).

However, the efficacy of online channels vary from country to country. The study previously mentioned determined that LinkedIn is the best platform for B2B online business. The reality is that this is right

for the USA but not for countries in Latin America. LinkedIn's user base in the U.S. is extremely higher (154 million users) than it is in, i.e., Brazil (35 million users). LinkedIn was launched in Brazil in 2010, and in the US in 2002. In terms of active use, 43% of LinkedIn's traffic comes in from the U.S. alone (Vieira et al., 2019). In sum, there is no specific literature determining what social media platforms are the most effective to create leads in Guatemala. Therefore, the current study will take the statistics (as seen in 2.3.2) as a basis about the most used channels.

2.7 Google Ads Strategy for B2B companies

The Google Ad campaigns tend to be very straightforward and do not require a detailed strategy. These campaigns usually consist of the following three important elements, in the respective order:

1. Google Keyword Planner: a tool further explained in 2.3.4, which provides the marketer with sufficient keyword suggestions related to the product or service.
2. Google Ads: creating the ad campaign based on the keywords.
3. Metrics: which can be found in the Google metrics dashboard.

In terms of metrics, the most important Google Ad metrics, specially for a business looking to grow, are (Manley, 2019):

- Return on Advertising Spend (ROAS) = \$ spent on ads / \$ received from ads. This can be measured by monitoring sales and tracking where the leads came from. Ideal metric: positive, but it is recommended to compare the return on ads to the return from other channels, to prioritize the best performing one.
- Cost Per Conversion / Acquisition (CPC / CPA): the amount spent on each action. Ideal metric: depends on the nature of call to action, so no specific metric should be expected.
- Conversion Rate: the rate at which users take the desired action post-click. Ideal metric: between **2%** and **5%** but depends on the nature of the call to action.
- Clickthrough Rate (CTR): the number of people that have seen the ad and clicked. Ideal metric: an average CTR of **1.91%** on the search network and **0.35%** on the display network.
- Cost Per Click (CPC): the cost per click of a user. Ideal metric: a drop of **10%** over the course of a year.
- Quality Score: an estimate of the quality of the keywords. Ideal metric: between **7** and **10**, out of **10** points.

- Impression Share: how frequently the ad is showing compared to how frequently they could have shown. If the ad is not showing it may be due to a limited budget or to Google's ranking method that prioritizes other ads that users are more likely to click. Ideal metric: **70-80%**.

All of these metrics can be easily added to the Google metrics dashboard. They should be monitored with a cyclical approach. Bids and keywords may be adjusted on a weekly basis, optimization of ad copy and landing page on a monthly basis, and performance of keyword research on a quarterly basis (Manley, 2019).

2.8 Conclusion

The present literature research sought to find the available material regarding lead generation through digital channels for B2B companies. This theoretical overview showcased the views of various actors in the digital industry, as well as studies carried out. In its majority, the sources were from recent years given the ever-changing nature of the digital world. The academic field of digital marketing for B2B business offers a myriad of different sources. However, none of them specialized in B2B businesses from the South of the hemisphere (in specific Latin America), which became a setback during the research. This might be due to the following aspects:

- a. Internet penetration in Latin America, specifically in terms of digital marketing practices, are not yet as developed as in the west.
- b. Companies in this part of the world still believe that face-to-face business is better.

However, the theoretical framework helped clarify the following:

1. Digital marketing tactics are of great benefit to B2B companies when performed properly.
2. B2B companies should focus on relations rather than transactions, even in the digital world. In other words, building lasting bonds with possible clients through digital channels is more important than attempting a sale right away.
3. Social media marketing helps B2B companies create and maintain such bonds with prospective clients, as well as providing content catered to them.
4. Google Ads are the ideal tactic for directing traffic to a company's website, which in turn enhances brand awareness.
5. The segmentation should be based on needs rather than physical, or locational features of companies.

6. Lastly, outcomes in digital marketing from the west are not always applicable to the rest of the world (as is the case of LinkedIn in the USA in contrast to Brazil in 2.6). However, their models can be taken as examples, and slowly adapt these strategies to the chosen market.

3 METHODOLOGY

3.1 Introduction

This chapter aims to present the methodology and instruments used, the data analysis approach, and various challenges during the investigation.

The chosen research design used quantitative approaches, collecting primary data from Facebook, Instagram and Google Ads. The author gathered experimental data by controlling and manipulating some variables in the investigation. As the methodology used weekly improvements to answer the RQ established, the campaign's initial set-up will be explained.

3.2 Selection of methodology

There is no specific literature determining what social media platforms effectively create leads in Guatemala. Therefore, the current study will take the statistics (as seen in 2.3.2) as a basis for the most used channels. Out of a total of 11.54 million internet users in Guatemala, 7.90 million use social media. This number grew by 534 thousand (+7.2%) between April 2019 and January 2020. Social media penetration in Guatemala stood at 45% in January 2020 (Kemp, 2020). Facebook and Instagram were chosen as the preferred social networks to experiment since Facebook has a 59% reach in advertising and Instagram 14%. LinkedIn and Twitter were ruled out because their reach is not significantly enough for the present study.

According to research, Google search is an essential component in reaching B2B customers, as a total of 62% of B2B buyers state that a web search is one of the first encounters to start a purchase quest (Albacross, 2019). There is no information regarding the effectiveness of Google Ads in Latin American countries. However, it has potential since there were 21.1 million mobile connections in Guatemala in January 2020, which is higher than the current 17.25 million inhabitants.

To determine which channel was the most effective for generating leads in the B2B segment, three simultaneous campaigns were carried out on Facebook, Instagram and Google Ads. The initial set up of each campaign was developed based on business experiences on the B2B segment, competitor analysis, information provided by google and social media, and the literature review.

Google Ads initial set-up

The most basic and relevant component of Google Ads is the Google Keyword Planner. It provides thousands of potential keywords related to the product. These words and phrases describing the product determine when and where the ad will appear. People that enter the same or similar, search term on Google are eligible to see the ad. Alternatively, keywords are also used to match the advertisement to connected networks. Therefore, high-quality, relevant keywords are to be chosen to ensure a successful campaign (Keywords: Definition, n.d.).

The Google Ads campaign's initial set-up was determined using the Google Keyword Planner, where keywords were used to describe the products and services that Lumiart customers in the B2B segment usually look for. Keywords of the three strongest competitors in the B2B lighting segment in Guatemala were also used as a first input. However, the tool entrusts keywords related to the industry and the campaign's goal to obtain better results.

In this first step, Google Keyword Planner statistics were downloaded, where the search volume of the keywords proposed by the platform was observed.

A search volume query was performed with the aim of determining the budget forecasts, taking into consideration the keywords report. The experiment's determined location was throughout the country of Guatemala, since B2B clients have hardware stores in different cities all over the country.

When performing the search volume query, the following results were obtained:

With the proposed plan, 1.2 thousand clicks, 11 thousand impressions and 10.7% CTR would be generated for \$180 a month.

Tu plan puede generar 1,2 mil clics por 180 US\$ y un CPC máx. de 0,24 US\$ ©					
Clics	Impresiones	Coste	CTR	CPC medio	Posic. media
1,2 mil	11 mil	180 US\$	10,7 %	0,15 US\$	1,5
<small>Presupuesto diario: 6,98 US\$</small>					

Figure 9 Search volume and budget forecast for initial Google Ads campaign

The keywords to obtain the results presented are the following: "hardware store", "led", "lamps", "ceiling lamps" and "hardware store articles".

Palabras clave

	Impresion...	Clics	CTR
ferreteria	1.770	211	11,9 %
led	1.369	131	9,6 %
lamparas	963	191	19,8 %
lamparas techo	849	108	12,7 %
articulos de ferreteria	596	86	14,4 %

Figure 10 Keywords planning for initial Google Ads campaign

The number of impressions was taken as a reference to choose the study's keywords as they were directly related to the number of clicks. The CTR could not be selected as a parameter to pick the keywords as the number of impressions of these keywords, and the number of clicks was deficient. Therefore, you would have a high CTR, without reaching enough people. This was due to the deficient outcomes. First, the number of impressions varied between 4 and 9, and the number of clicks between 1 and 2, which would not significantly impact the company's reach.

According to the previous conclusion, it was determined that a better reach would be obtained by targeting mobile devices. This decision agrees with the theory regarding the use of the internet on mobile devices in Guatemala to prioritize ads on this type of device.

A summary of the Guatemalan mobile connection: there were 21.1 million mobile connections in Guatemala in January 2020, higher than the current 17.25 million inhabitants. The number of mobile users is equivalent to 119% of the total population (Kemp, 2020).

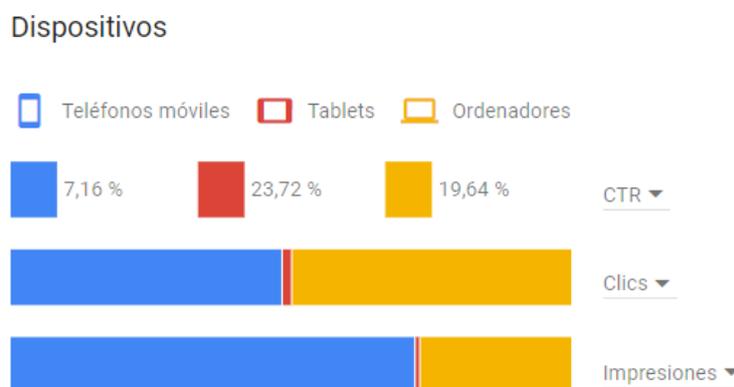


Figure 11 Devices set up for initial Google Ads campaign

It is important to note that although the Keyword Planner can provide information about keyword targeting, campaign performance depends on many factors (for example, bid, budget, product, and behavior of the campaigns clients in your sector).

For this specific experiment, three metrics were used to measure the campaign's performance; first, the number of clicks were to be an early indicator of success. This indicator helps to know at an early stage how the campaign is developing. However, the effectiveness of a campaign cannot be determined solely through clicks.

Another indicator used to measure the success of the campaign was the Clickthrough rate (CTR), as it tells how many clicks we receive per impression. According to the initially proposed plan, it should have 10.7% CTR; however, it is known that average CTR in the industry is 1.91% on the search network and 0.35% on the display network.

Finally, a form for potential clients was added, where it is proposed that the potential client enters their email and telephone number to have the data and contact them directly. Although the Google Ads platform can add up to ten fields for the potential customer to fill in, it is known that the user experience must be facilitated to have good results. This will provide us with information from clients interested in having company information (MQL), which is the research's primary goal. However, the two-previous metrics (clicks and CTR) cannot be ruled out. The duration of the experiment will only be four weeks. It is intended to analyze data, infer and improve the campaign weekly.

Facebook and Instagram initial set up

During 2020 the company has launched campaigns on Facebook, and Instagram mainly focused on B2C clients. Different hanging lights are displayed in living rooms, dining rooms, bedrooms, decks, etc. The main goal was for the customers to imagine the product in use at home, and thus encourage a purchase.

Below is the status of the number of followers on both Facebook and Instagram of the company page. There are more followers on Instagram; however, the difference is not significant. Additionally, the public that usually interacts with the campaigns is 63.4% women and 36.6% men. In terms of age, the target group is between 25 and 44 years old, which makes up 80% of the total audience.

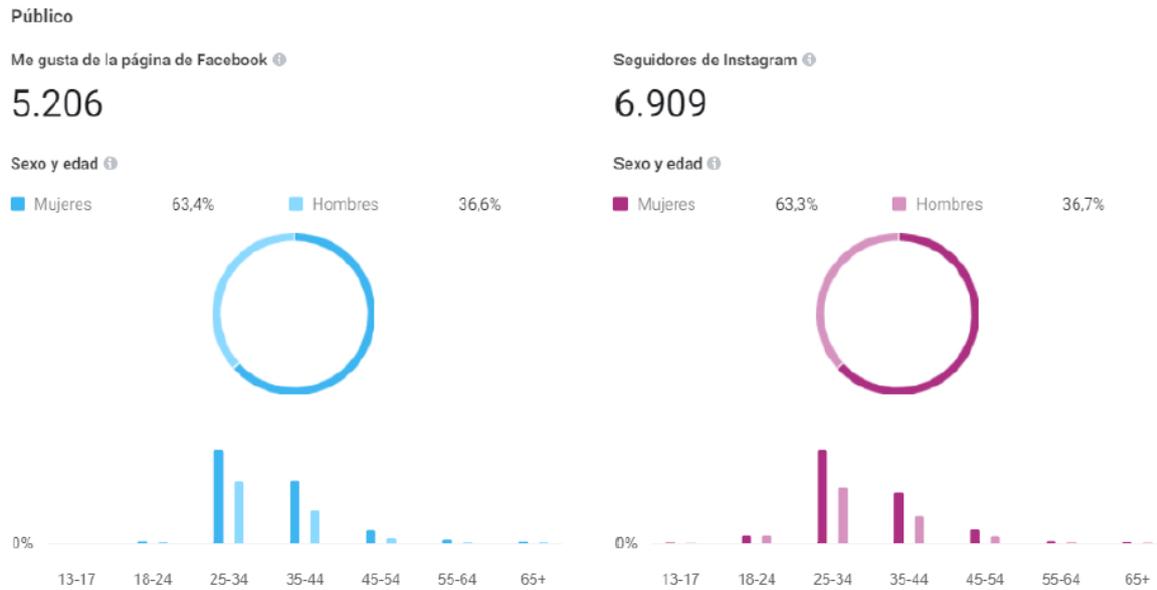


Figure 12 Age and gender segmentation in 2020 on Lumiart's Facebook and Instagram

In terms of location, it can be observed that of both Facebook and Instagram's audience, more than 84% of the people who interact with the company's ads are in Guatemala City. However, it is worth noting that some of the largest cities in Guatemala such as Quetzaltenango, Huehuetenango, and Mazatenango, also observe the advertisements and some sales have been closed in these cities, mostly in the B2C segment.

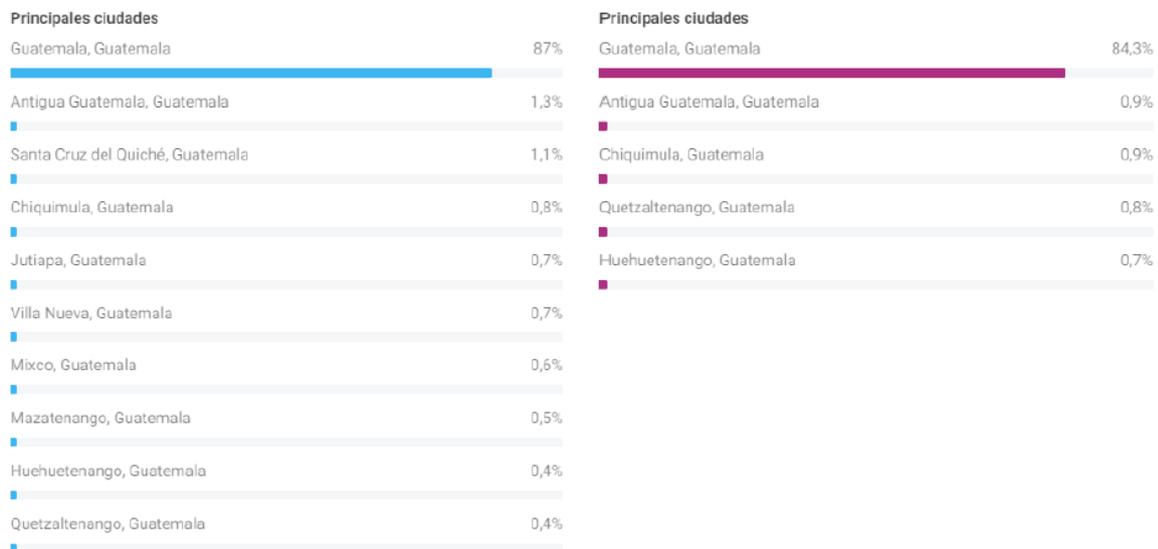


Figure 13 2020 Location Segmentation on Lumiart Facebook and Instagram

Although this data is essential for the B2C segment, it cannot be taken as a reference to perform the B2B segmentation. This study will be carried out to promote products for hardware stores, which

happened to be the largest B2B segment of Honduran market. There are dominant hardware stores in Guatemala City, but this is also a strong business in Guatemala's other cities. Therefore, it is expected that advertising has a better reach at the departmental level.

The settings of the Google Ads were equal to the social networks ones. This was decided with the intention of comparing the development of the campaigns under equal conditions. The campaigns were monitored in the first week and modified accordingly.

The main objective of both campaigns was to get more potential customers. Like Google Ads, a form was created to place the person's name, phone and email on Facebook and Instagram. The first segmentation was left open for Guatemala, meaning that neither gender nor age was selected. This way, the campaign would determine if the advertisement attracted the attention of a specific city. Additionally, the same indicators as in Google Ads were measured: number of clicks, CTR and leads.

Display image

The display image would be the first contact between the company and B2B businesses. Therefore, creating a persuasive image for the target segment was crucial. An image research was conducted, which analyzed ads from the most popular hardware stores and wholesale businesses in the lighting field. The following characteristics were found in most of the ads: Eye-catching title, striking colours, images of various products, straightforward prices, discounts, warranty offers and a brand logo.

There is a hardware fair (Fig.14 "Feria Ferretera") in Guatemala City that usually takes place in November, but it was cancelled due to the pandemic. Many businesses in the field create ads specifically for the event. The layout of these ads was imitated, as the target audience familiarizes these ads with reasonable prices and encourage purchases more easily.

In sum, it was decided that the image will have the following text:

- **Title:** The best hardware fair prices
- **Colours:** brand colours, different shades of blue and orange.
- **Pictures of various products:** High rotation LED products (downlights, T8 tubes)
- **Product prices:** the prices were placed in a big and clear font.
- **Offer:** below the product price, a discounted price was placed
- **Warranty:** a two-year warranty was offered
- **Brand:** Hummer products logo

Below is the example of the image to be used in the three campaigns.

PRECIOS DE FERIA FERRETERA

PRODUCTOS LED: GARANTÍA 2 AÑOS

Hummer Lights **lumiart**

Para más información contactanos:
mercadeo@lumiartgt.com
3241-3750

DESCUENTO HASTA 30%

Producto	Antes	Ahora
REFLECTOR SOLAR 40W	Q 700.00	Q 490.00
LÁMPARA DE CALLE SOLAR 45W	Q 1.000.00	Q 690.00
LÁMPARA DE CALLE 120W CON FOTOCÉLULA	Q 950.00	Q 665.00
REFLECTOR LED 50W	Q 200.00	Q 140.00
SPOT 24W	Q 110.00	Q 77.00
SPOT 18W	Q 60.00	Q 42.00
SPOT 12W	Q 45.00	Q 31.50
SPOT 6W	Q 30.00	Q 21.00

PRECIOS DE FERIA FERRETERA

PRODUCTOS LED: GARANTÍA 2 AÑOS

Hummer Lights **lumiart**

Para más información contactanos:
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DESCUENTO HASTA 30%

Producto	Antes	Ahora
REFLECTOR SOLAR 40W	Q 700.00	Q 490.00
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REFLECTOR LED 50W	Q 200.00	Q 140.00
SPOT 24W	Q 110.00	Q 77.00
SPOT 18W	Q 60.00	Q 42.00
SPOT 12W	Q 45.00	Q 31.50
SPOT 6W	Q 30.00	Q 21.00

Figure 14 Display images used for Google Ads



Figure 15 Display images used for Facebook and Instagram

The figure consists of four promotional graphics arranged in a 2x2 grid, each with a teal background and a white grid pattern. Each graphic features a circular badge at the top center that reads "HASTA UN 30% DE DESCUENTO".

- Top-Left:** Titled "PRECIOS DE FERIA FERRETERA". It features two products: a "REFLECTOR SOLAR 40W" (Solar Reflector 40W) with a price of Q 700.00 (Offer: Q 600.00) and a "LÁMPARA DE CALLE SOLAR 45W" (Solar Street Lamp 45W) with a price of Q 1,000.00 (Offer: Q 900.00).
- Top-Right:** Titled "PRECIOS DE FERIA FERRETERA". It features two spotlights: a "SPOT 12W" (Spot 12W) with a price of Q 45.00 (Offer: Q 35.00) and a "SPOT 6W" (Spot 6W) with a price of Q 30.00 (Offer: Q 23.00).
- Bottom-Left:** Titled "PRECIOS DE FERIA FERRETERA". It features two spotlights: a "SPOT 24W" (Spot 24W) with a price of Q 110.00 (Offer: Q 80.00) and a "SPOT 18W" (Spot 18W) with a price of Q 60.00 (Offer: Q 40.00).
- Bottom-Right:** Titled "PRECIOS DE FERIA FERRETERA". It features two products: a "REFLECTOR LED 50W" (LED Reflector 50W) with a price of Q 200.00 (Offer: Q 150.00) and a "LÁMPARA DE CALLE 120W CON FOTOCELDA" (120W Street Lamp with Photoresistor) with a price of Q 950.00 (Offer: Q 800.00).

Each graphic also includes the logos for "Hommer Lights" and "lumiar" at the bottom center.

Figure 16 Display images used for Instagram stories

Budget

For the three campaigns, a budget of \$50 per week, per digital channel was selected (a weekly total of \$150). The amount summed up to a total of \$600 for four weeks. This campaign set up was the only one that was not modified throughout the campaign. This budget was chosen because it is the monthly authorized amount for digital media development by Lumiart.

3.3 Research instrument

Quantitative primary data was collected using the Google Ads platform and Facebook Business for Facebook and Instagram campaigns.

3.4 Data analysis

The data extracted from Google Ads, Facebook and Instagram platforms were analyzed weekly. In the first week, important information was collected about the number of ad impressions, the number of clicks, CTR's and information from potential customers (MQL). An analysis was carried out to determine the settings that performed well and those that did not in the respective campaigns. Changes were proposed for the following week to improve the campaigns. Some of the changes were the keywords in Google Ads and the segmentation in social networks.

To further narrow down the well-performing settings, only one parameter was changed per week. The main objective was to determine which channel generates more leads at the end of the campaign.

3.5 Conclusion

This chapter clarifies the methodology of the investigation. The main reasons for extracting information from Google Ads, Facebook and Instagram were explained. In addition to the details of the campaign preparation on the three platforms, the process to conclude a target audience was determined, a competitor analysis was carried out, and good performing practices were learned. The main metrics to be measured throughout the four weeks of the experiment, just like their importance were explained. This provided a factual basis to continue with the result interpretation in the next chapter.

4 RESULTS AND DISCUSSION

4.1 Introduction

Chapter 3 describes in detail the methodology, the explanation of the data analysis approach, and the challenges of the investigation, which is the basis for the analysis and interpretation of the information obtained in this research. The present chapter seeks to explain in detail the results of the three simultaneous campaigns during each week, as the methodology used weekly improvements to answer the RQ. Additionally, graphs will be displayed to compare each digital medium's performance, which will finally provide us with the answers to the research questions.

4.2 Week one results

Table 3 shows a general analysis of the most critical metrics of this campaign. The number of impressions, number of clicks, CTR and number of leads. The digital medium with the best performance was Facebook because it had a more significant number of impressions, clicks, leads and CTR. Despite having a higher number of clicks than Instagram, Google did not have any leads, so two situations could be inferred. The first was that the ad was not what they were looking for because the website's bounce rate corresponded to 55.78%. The second situation could be that the customer did not want to leave their personal information, meaning that they would prefer another way of contact (e.g. store visit).

Digital media	Impressions	Clicks	CTR	Leads
Week 1 Facebook	33137	972	2.93 %	62
Week 1 Instagram	19653	191	0.97 %	9
Wee 1 Google Ads	8290	234	2.82 %	0

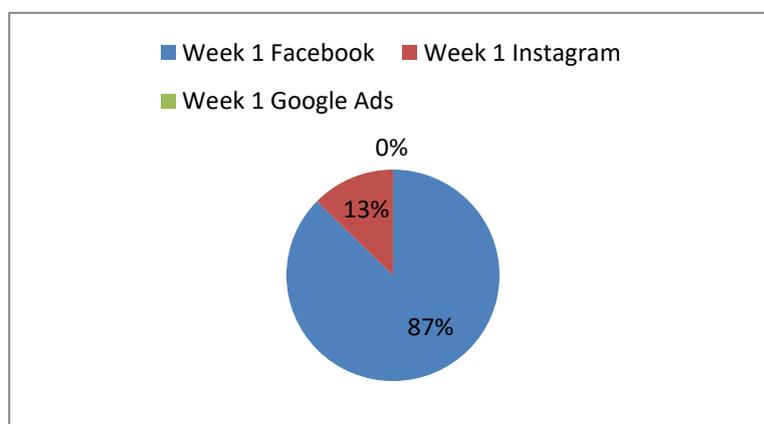
Table 3 Digital media metrics for week 1

Graphs based on indicator (impressions, clicks, CTR and leads) and digital medium are shown below. In Graph 1, 87% of the leads obtained came from Facebook and 13% from Instagram. These 71 leads were contacted by phone and email. 100% of them responded positively.

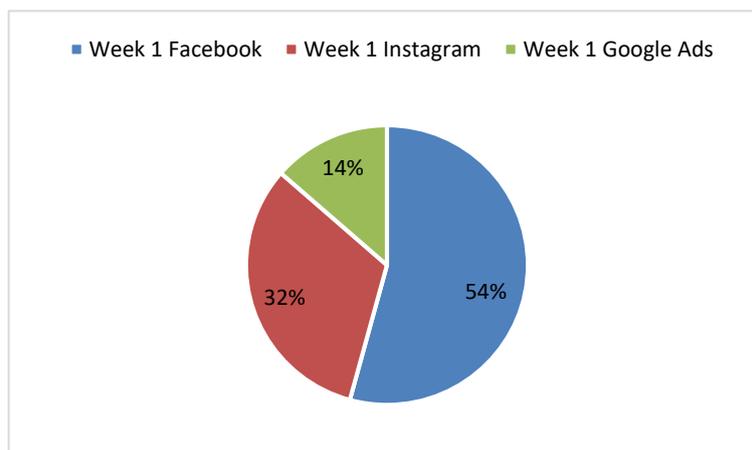
Regarding the percentage of impressions, 54% corresponds to Facebook, 32% to Instagram and 14% to Google. As mentioned in the theoretical framework, although impressions cannot be the only factor in determining a campaign's effectiveness, they are an early indicator of success. Regarding the number of clicks, Facebook prevailed with 69%; however, Google had a slight improvement compared to Instagram (17% vs 14%). Although Google had a slight improvement over Instagram, this digital medium's campaign failed to generate any leads.

The CTR indicator is vital for this study, as it shows the relationship between campaign impressions and clicks. According to the theoretical framework, an ideal CTR is 1.91%. Instagram was below the accepted average with 0.97%, Facebook with 2.93% and Google Ads with 2.82%. The last two platforms exceeded the general standard, a positive indicator for the performance of this campaign.

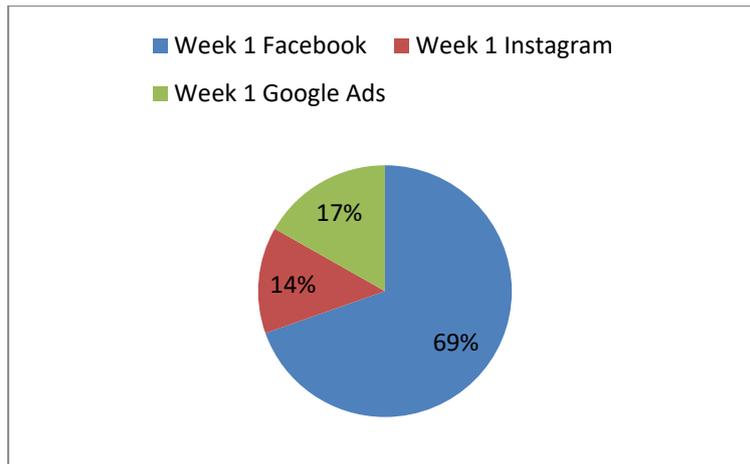
In general, Facebook performed better than Instagram and Google Ads. In this specific experiment, a direct relationship could be observed with the number of impressions, clicks, and CTR, translating into the number of leads received. Nevertheless, this is not always the case; as can be seen with Instagram and Google Ads. Although Google Ads had a superior performance in CTR and clicks, this was not directly reflected in the number of leads received.



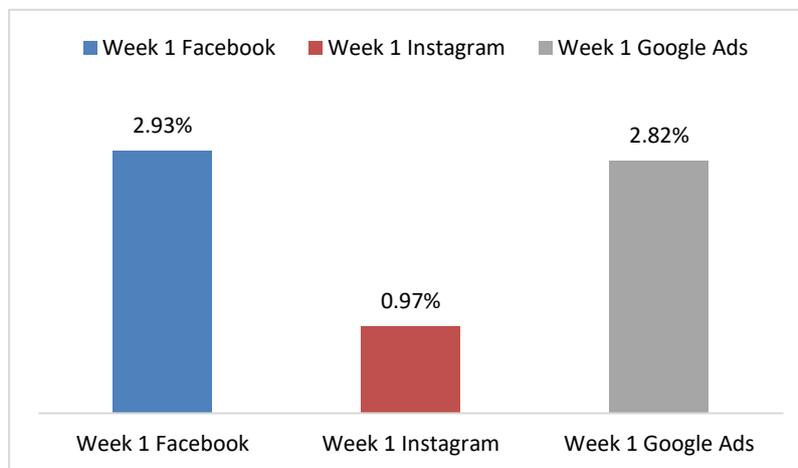
GRAPH 1: WEEK 1 LEADS



GRAPH 2: WEEK 1 IMPRESSIONS



GRAPH 3: WEEK 1 CLICKS



GRAPH 4: WEEK 1 CTR

Next, a specific analysis by digital means will be presented, to justify the changes that must be made in the Facebook, Instagram and Google Ads campaigns and to guarantee better performance the following week.

4.2.1 Google Ads interpretation week 1

Figure 17 shows the keywords used in the Google Ads campaign and its cost, clicks, and CTR performance. The word "hardware store" is one of the keywords with the highest number of clicks and the best conversion rate. However, when delving into this word, it can be seen in figure 18 that people were looking for specific hardware stores, for example, "Ferretería Petapa", which is a well-known hardware store in Guatemala. Therefore, the website's bounce rate during this period was so high, as people were looking for information from specific hardware stores. So, the campaign's first change will be to eliminate "hardware" from the keywords used and search for better keywords to obtain leads. This keyword condensation helps to target better those who are genuinely interested in our product.

As indicated in the methodology, although the keyword planner can provide us with valuable information to choose the appropriate keywords for the success of the campaign, the knowledge of the business also helps us eliminate options that the keyword planner presents us. In this case, a very general word was chosen, which caused potential clients not to be interested in our ad, as it did not represent what they were looking for.

Palabras clave de búsqueda [+ AÑADIR PALABRA CLAVE](#)

	Coste	Clics	CTR
● Ferreteria	38,18 US\$	90	10,71 %
● Lamparas	3,32 US\$	11	7,75 %
● Led	2,30 US\$	6	5,13 %
● Articulos de ferreteria	1,68 US\$	3	9,38 %
● Lamparas techo	0,49 US\$	1	6,67 %

[GESTIONAR PALABRAS CLAVE >](#) < 1 / 1 >

Figure 17 Keywords, costs, clicks and CTR week 1

Búsquedas [?](#) Ordenar por: [Clics](#)

BÚSQUEDAS	PALABRAS
ferreteria petapa	el tejlar ferreteria
luminare guatemala	ferreteria cerca de mi
ferreteria novex	ferreteria san miguel
ferreteria el vapor	ferreteria gonzález
arenal ferreteria	casa del carpintero xela
cortina de luces led	didisa zona 9

[TODAS LAS BÚSQUEDAS >](#) < 1 / 4 >

Figure 18 Google searches week 1

Within the campaign's initial set up, an advertisement was made on Google search and another ad on Google display. The budget setting aimed to optimize either of the two ads depending on each one's demand. It can be seen in table 4 that the Google search ad had a higher interest, so most of the budget was directed to this type of ad, leaving only \$ 1.18 of the total budget for Google display. The next significant change in the campaign is to use 50% of the funds for Google search and the other 50% for

Google display. This decision should increase the appearance of ads on pages of interest to potential customers and generate leads.

The research supports the decision to increase the display budget. Since the keywords that have been chosen related to the business, such as "lamps", "led", "ceiling lamp", did not have a good performance, it can be inferred that the search demand for products in Lumiart's field is not yet created. Although the literature confirms that 62% of B2B buyers started a purchase quest through a web search (Albacross, 2019), there is no exact information on Latin America regarding this digital medium's effectiveness. Therefore, the client must be approached through Google display so that they can get to know Lumiart. Google display would also increase the chances of having an MQL.

Google	Cost	Impressions	Clicks	CTR	Leads
Google search	\$52.33	7370	218	2.96 %	0
Google display	\$1.18	920	16	1.74 %	0

Table 4 Google Ads and metrics for week 1

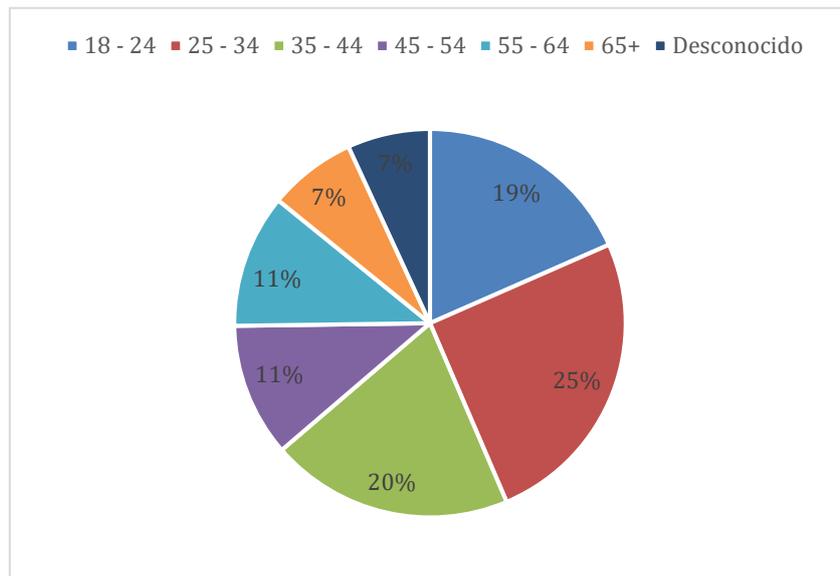
One of this experiment's main objectives is to know the optimal audience for Lumiart to narrow down a target audience and have better long-term results in future campaigns. In the case of Google, you cannot visualize audiences as specific as Facebook and Instagram, so three demographic groups were chosen to describe the audience.

The first group was determined by location, since the ad is aimed at hardware stores across the country, it is useful to know which departments will generate sales. The second group is determined by age, as this would allow us to see the specific generational niche of our clients. The third group is determined by gender, which is particularly intriguing. Lumiart's social networks have a 63% participation of women on both Facebook and Instagram. However, it does not mean that advertising for B2B businesses is necessarily female majority. The findings will better describe the new segment audience for the company.

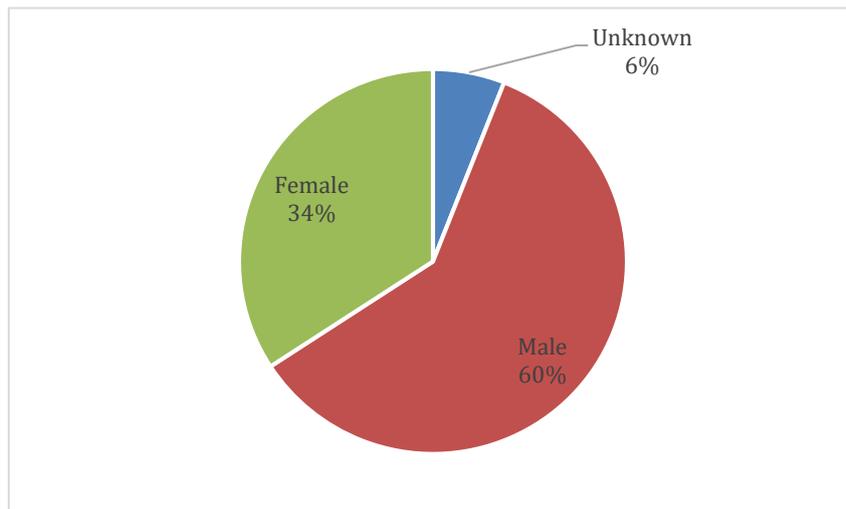
Audience by geographic location: in Appendix 1, it can be seen that the ad was shown predominantly during the first week in Guatemala City, followed in descending order by Sacatepéquez, Quetzaltenango, Izabal, Santa Rosa and Escuintla.

Audience by age: in Graph 5, it can be seen that 25% of those interested in the advertisement are between 25 and 34 years old, followed by the second strongest group between 35 and 44 years old with 20%.

Audience by gender: Graph 7 shows 60% of the audience is male, and 34% is female. These results are the opposite of the historical segmentation by gender of the company in social networks, so it is an essential insight for campaigns aimed at the B2B segment for hardware businesses.



GRAPH 5 : DEMOGRAPHIC GROUP BY AGE



GRAPH 6: DEMOGRAPHIC GROUP BY GENDER

4.2.2 Facebook and Instagram analysis week 1

Next, an analysis will be presented in the locations where Facebook and Instagram ads had the best performance, to determine what settings should be made to optimize the campaigns.

In Table 5, it can be seen that most of the campaign's impressions were generated through the mobile phone.

During the first week, Facebook had a more favorable result since the number of leads was greater than that of Instagram. Instagram's cost per result was five times higher than Facebook's \$5.56 compared to \$0.74.

The importance of the device desktop in the campaign cannot be ruled out as it shows a good CTR compared to other devices. However, it can be seen that users receive more advertising on mobile phones. In the present experiment, we intend to change the campaigns' configuration focused only on mobile devices to optimize the budget further.

Ad name	Device platform	Reach	Impressions	Results	Cost per result	Clicks	CPC (cost per click)	CTR
Semana 1 Feria Ferretera IG	mobile_app	13416	19653	9.00	5.56	66.00	0.76	0.34
Semana 1 Feria Ferretera	mobile_app	18764	32835	62.00	0.74	547.00	0.08	1.67
Semana 1 Feria Ferretera	desktop	200	302			7.00	0.06	2.32

Table 5 Device platform results from Facebook and Instagram week 1

Table 6 shows in which location the campaign had the best results. In the case of Facebook, the Feed had the most impressions, followed by the most leads. In second place is Marketplace, and finally Facebook Stories. In the case of Facebook search, no favorable results were obtained, so this location must be removed in the campaign settings. The same conclusion can be seen on Instagram, most of the impressions and leads correspond to the ads presented in the Feed, followed by the stories. In the case of Instagram Explore, there was no lead.

During the second week of the experiment, priority was given to Facebook's and Instagram's Feed, followed by Marketplace and finally, Stories of both digital media.

Ad name	Location	Reach	Impressions	Results	Clicks	CTR
Semana 1 Feria Ferretera	search	61	61			
Semana 1 Feria Ferretera	feed	11032	18202	39.00	340.00	1.87
Semana 1 Feria Ferretera	marketplace	8956	13960	19.00	205.00	1.47
Semana 1 Feria Ferretera	facebook_stories	808	914	4.00	9.00	0.98
Semana 1 Feria Ferretera IG	feed	8504	11582	6.00	40.00	0.35
Semana 1 Feria Ferretera IG	instagram_stories	5012	7086	3.00	24.00	0.34
Semana 1 Feria Ferretera IG	instagram_explore	912	985		2.00	0.20

Table 6 Location results from Facebook and Instagram week 1

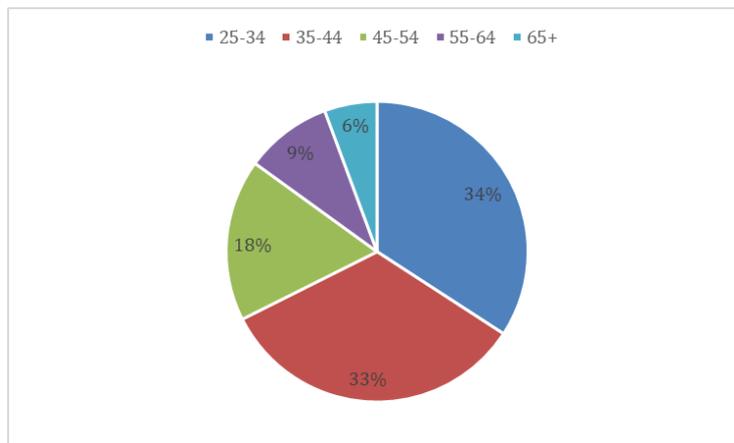
Although both Facebook and Instagram campaigns were planned with the same settings, the different use of these social networks in the country can be clearly seen. As indicated in the theoretical

framework, Facebook has a 59% reach in advertising and Instagram 14%. For a company, monitoring which digital medium has a better reach is vital, since it effectively determines the budget allocation.

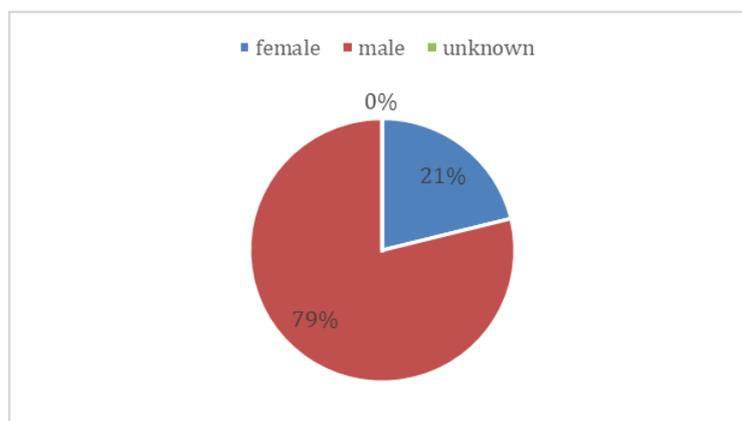
The audience by geographic location ranked as follows: Guatemala City, followed by Quetzaltenango, San Marcos, Huehuetenango, Chiquimula and Sacatepéquez. This result matches the Google campaign's geographical outcome. The departments that match are Guatemala City, Sacatepéquez and Quetzaltenango. Escuintla and Izabal could also be considered, as they were in the top 10 locations where the campaigns had the most impressions.

The audience results determined by age can be observed in Graph 7. 34% of those interested in the advertisement were between 25 and 34 years old, followed by the second most substantial group ranging between 35 and 44 years old with 33% — these results matched with the demographic outcome of Google Ads.

The audience determined by gender is shown in Graph 8. 79% of the audience is male, and 21% is female. These results are the opposite of the historical segmentation by gender in social networks. The results of Google Ads also showed that the majority was male over female.



GRAPH 7: DEMOGRAPHIC GROUP BY AGE



4.2.3 Change of settings week 1

Below is a summary of the changes to make in the three campaigns to optimize the budget and obtain better results.

Regarding Google Ads, the campaign's first change will be to eliminate "hardware" from the keywords used and search for better keywords to obtain leads. This will help us better target those who are genuinely interested in our product. The second significant change in the campaign is to use 50% of the budget for Google search and the other 50% for Google display. To increase the appearance of ads on pages of interest to potential customers and to generate leads.

In the case of keywords for Google, the prefixes such as distributor, supplier, and wholesale will be used followed by the words used in the first week such as lamp, led, bulb, lighting, lights to better segment the B2B clients. In Appendix 2, the list of all the keywords used for the second week can be found.

For Facebook and Instagram, the same changes will be implemented to determine if these alterations positively influenced the campaign. The first change to be executed is to allocate the budget for mobile devices only, since it is clearly shown that the leads generated were only through this medium. The second change corresponds to targeting ad locations for Facebook only on the Feed and Marketplace. For Instagram, the change would be in the Feed and Instagram Stories.

A change in Google Ads', Facebook's, and Instagram's target audience will not be proposed, to continue receiving information about the sectors interested in the products, just like the age and gender of people interested in the ads. The main goal is understanding the B2B target for this campaign, as there is currently no information regarding this segment in the company.

4.2.4 Limitations of experiments week 1

Among the main limitations of the experiment is the current pandemic situation in the world and Guatemala, which has dramatically affected the economy. However, it has promoted the use of digital media to make purchases. According to the newspaper La Vanguardia (2020), the pandemic has affected consumer buying habits. The uncertainty due to the economic situation makes consumers more cautious when purchasing, comparing online prices from different providers. Moreover, it also indicates that there has been an unprecedented increase in online sales during the lockdown. Therefore, having active campaigns on social media and Google could be a competitive advantage during this time of uncertainty.

The country's sanitary measures to prevent coronavirus spread will be explained, as any further implementation in the retail sector could significantly impact the present research.

The current cautionary measures are:

- A mask should be used in all public places.

- After 9:00 pm, alcohol can no longer be sold in restaurants or bars.
- The number of people allowed inside a store is meagre.

If none of these measures changes, then no social or economic impact will be taken into account for the present study.

4.3 Week 2 results

Table 7 shows the collected results of week 1 and week 2 of this experiment's digital media. The digital medium that had the best performance during the first two weeks of the investigation was Facebook. It had a more significant number of impressions, clicks, leads and CTR. The second-best performing digital medium in terms of the number of impressions, clicks and leads was Instagram, however, the CTR compared to Google Ads is slightly lower.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Facebook	71253	1996	2.81%	126
Instagram	34853	316	0.90%	22
Google Ads	8290	234	1.41%	0

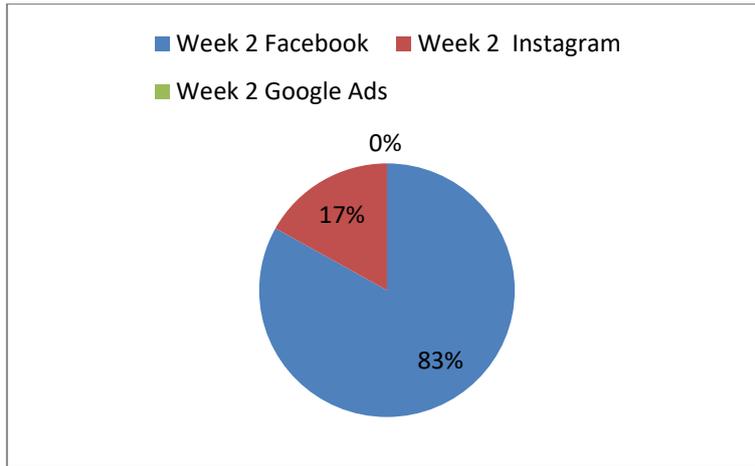
Table 7 Digital media metrics week 1 and week 2

First, it should be noted that during week 2, the Google Ads campaigns in both search and display did not succeed, as there was no demand during this week, so Google did not use the established budget. The reasons for this failure will be expanded in section 4.3.1.

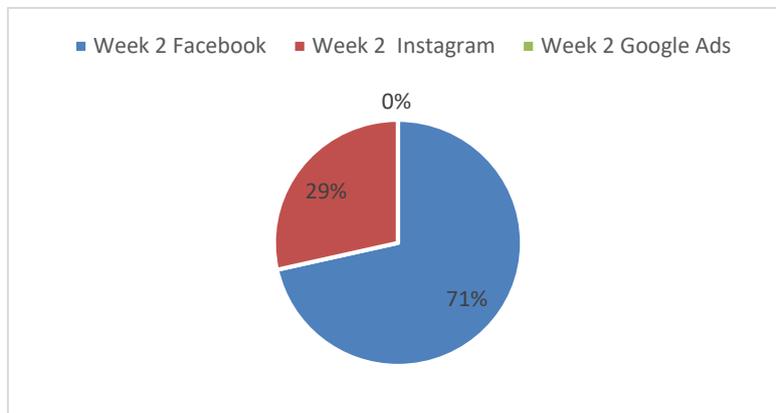
Graph 9 shows the indicator results (impressions, clicks, CTR and leads) according to the digital medium. In this Graph, 85% of the leads obtained came from Facebook and 15% from Instagram. Regarding the percentage of impressions, Graph 10 shows 62% corresponds to Facebook, 31% to Instagram and finally 9% to Google. The number of clicks can be seen in graph 11; Facebook commanded with 78%, 13% on Instagram and 9% on Google.

As aforementioned, during the first week's test, an ideal CTR would be 1.91%. Instagram gathered 0.90%, Facebook 2.81% and Google Ads 1.41% of CTR. Both Instagram and Google Ads are below the general average. To improve the CTR in week 3, more substantial changes must be implemented in the three campaigns. These changes will be explained in point 4.3.1.

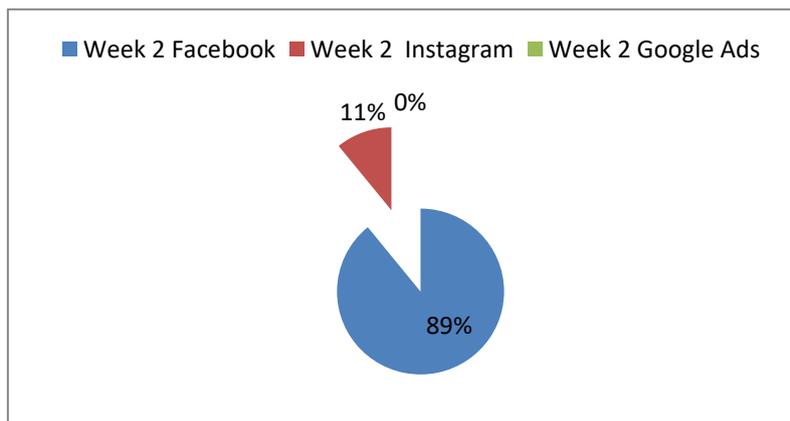
In general, it can be inferred that Facebook performed better than Instagram and Google Ads. In this specific experiment, a direct relationship could be observed with the number of impressions, clicks, and CTR, translating into the number of leads received.



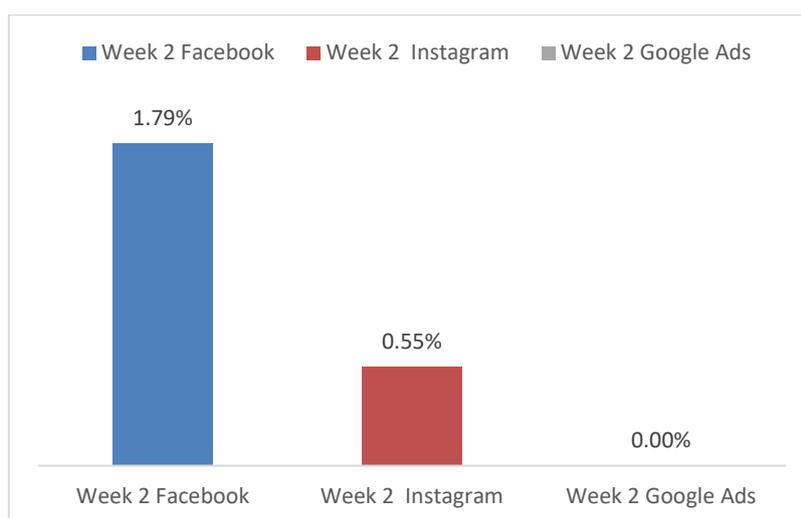
GRAPH 9: WEEK 2 LEADS



GRAPH 10: WEEK 2 IMPRESSIONS



GRAPH 11: WEEK 2 CLICKS



GRAPH 12: WEEK 2 CTR

Below is a comparison between week 1 and 2 for each digital medium to determine if the campaigns' configuration changes were effective.

4.3.1 Week 1 and week 2 analysis and changes for week 3

It can be seen in Table 8 of Facebook media, that the number of impressions, clicks and leads increased in the second week. The CTR decreased. However, the number of leads increased slightly. It could be said that distributing the budget only on mobile devices, in the Feed and Marketplace helped to have a more significant number of impressions and clicks, which lightly improved the number of leads received.

It is crucial to determine how to allocate the budget and know if the campaign's changes positively impact; this must be done with the feedback from the client who leaves their data.

In the second week, calls, emails, and contact via WhatsApp were exchanged with the leads. Most of these customers focused on the 6-watt spot.

Even though the campaign was aimed at eight different products, a greater demand for the 6-watt spot could be observed during these two weeks of the experiment. Therefore, to generate greater engagement in the posts, the number of products to be offered was reduced. The ads focused only on the spots (3 products), and the number of posts was reduced. Instead of publishing a gallery of 6 images, the ad consisted of only one.

Although this change may impact other products' sale, the main objective is to get new customers from the B2B segment, and then offer the range of products once the customer's attention has been obtained.

Another significant change that will be implemented for the third week is to eliminate the contact form. Instead of customers leaving their data, the client can communicate directly with the company's sales executive through direct message. This action is expected to increase the number of leads, since the author believes that leaving personal data can be a limitation of contact with the company. This change will be done on Facebook and Instagram. For Google, the form will be removed, and a contact button will be placed.

Facilitating contact with the company can benefit the sales funnel. However, on many occasions, you can lose track of the sale by not having customer data due to not having a phone number or an email to contact the client. But it could be compensated with the number of leads received and personalized real-time attention.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	33137	972	2.93%	62
Week 2	38116	1024	2.68%	64
Difference	4979	52	-0.25%	2

Table 8 Facebook week 1 and week 2 comparisons

In the case of Instagram, the opposite of Facebook could be observed. There was a lower number of impressions, clicks, and CTR than the first week of the experiment. However, a more significant number of leads agrees with the theory indicating that a campaign's success cannot be stated solely by impressions or clicks, but by the expected result, which are the leads.

It is essential to mention that during the two weeks of the experiment, people who did not fill in their data in the forms, have personally come to the store asking for the experiment's offers. These customers were obtained through Facebooks ads. In total, four sales from customers in the B2B segment were closed via this method. In conclusion, some people see the Facebook ad, do not leave their data, but acknowledge it, and take action.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	19653	191	0.97%	9
Week 2	15200	125	0.82%	13
Difference	-4453	-66	-0.15%	4

Table 9 Instagram week 1 and week 2 comparisons

In the case of Google Ads, during the second week, the budget was segmented 50% for Google search and 50% for Google display. More specific words were placed for the B2B segment to improve the keywords, such as distributor, supplier, wholesale, followed by the most common and searched words of the field such as lamp, led, bulb, lighting, lights. All the terms and phrases used were of broad match, this means that if potential customers search for similar words or phrases, our ad will appear. During

this week, Google did not consume the established budget, as neither the display nor search campaigns had no results.

In general, it can be inferred that during the second week, precise and long-drawn words were used for the B2B segment, so the campaign was not successful.

Although the searched words had the potential for the campaign, there were no exact searches or those related to the products we are trying to promote during this specific week. Google works differently from Facebook and Instagram since this medium only consumes the budget if there is a demand from consumers.

One of Google Ads' limitations is that Lumiart had never invested in this medium, so finding relevant keywords for the business took longer. Besides, the company invested in social networks (Instagram and Facebook) already for one year, which has generated trust in people who have seen the brand more frequently.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	8290	234	2.82%	0
Week 2	0	0	0	0
Difference	-8290	-234	0	0

Table 10 Google week 1 and week 2 comparisons

To ensure that the third week is successful, the following actions will be taken. Simpler keywords will be placed (see Appendix 3), such as bulb, led, spotlight, lamp, led, light, etc. These words have a search level of 110 to 1900 weekly. The maximum bid per word is \$ 0.50; the competition level is medium to low. The keywords used by our competition will also be used.

Of the 237 keywords used by the market, 53 words will be used, focusing only on 20% of the market keywords. Additionally, these keywords will be shown 100% in-display ads with the call to action button indicating the option to "contact the store."

These actions are intended to generate a more significant number of impressions, clicks and leads. 100% of the budget will be used on display with remarketing and retargeting strategies, take advantage of the funds in interested clients, and create brand awareness.

4.3.2 Location, gender and age segmentation

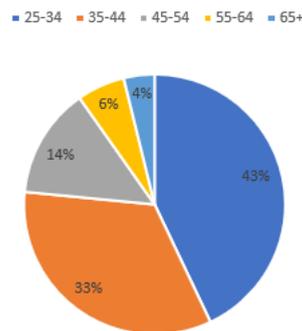
To answer RQ2, which audience in digital channels attracts most B2B customers for Lumiart? The audience will be determined by location since the experiment aims to reveal which areas, other than Guatemala City, are interested in Lumiart products.

Determining the segment by location is vital for the company since most of the B2B hardware stores segment is located in Guatemala's other cities. It is intended to create an expansion strategy considering the areas that show the most interest in our products.

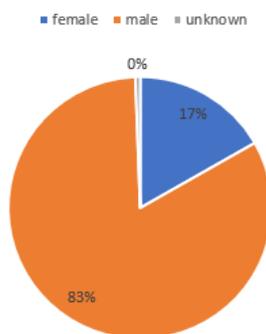
The target locations determined in week 1 were, Guatemala City, followed by Quetzaltenango, San Marcos, and Huehuetenango. The first four locations remained the same during the second week. However, the departments of Chiquimula and Sacatepéquez were no longer in the top 7 areas. In its place is Alta Verapaz, Escuintla and Izabal. The results of the location segmentation can be seen in Appendix 4.

The audience determined by age can be seen in Graph 9. Unlike week 1, the group between the ages of 25 and 34 increased from 34% to 43%. The second age group between 35 and 44 years old remained the same as the previous week with 33%. The number of impressions in the groups 45 years and older decreased. Like the first week, the main segments of interest are still ages 25 to 44 years old.

The audience determined by gender can be seen in Graph 12. This graph shows a slight increase in the male population. From 79% in week 1, the percentage increased to 83%. The female rate, therefore, decreased to 17%. Lastly, 0.05% is an unknown gender.



GRAPH 11: DEMOGRAPHIC GROUP BY AGE WEEK 2



GRAPH 12: DEMOGRAPHIC GROUP BY GENDER WEEK 2

The segmentation by location, gender and age will help the company direct more effective promotions for the B2B segment both within Guatemala City and in the country's other cities. It should be considered that this is only a first step in the company's segmentation process since they are general variables that must be narrowed down to have a smaller and more effective segment.

4.3.3 Limitations of the experiment week 2

During the second week of the experiment, the measures to prevent the coronavirus were not changed. However, during this week, there were civil protests all over the country against government decisions. The protests turned violent, causing political and economic uncertainty. This event turned out to be a negative factor for the performance of the campaigns.

4.4 Week 3 results

Table 11 shows the collected results of week 1 to 3 of this experiment's digital media. The digital medium that had the best performance during the first three weeks of the investigation was Facebook because it had a higher number of impressions, clicks, leads and CTR. The second-best performing digital medium in terms of the number of impressions, clicks and leads was Instagram. However, the CTR compared to Google Ads was still slightly lower.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1-3 Facebook	97697	2981	3.11%	194
Week 1-3 Instagram	56217	481	0.85%	32
Week 1-3 Google Ads	27576	533	1.46%	0

Table 11 Digital media metrics week 1, 2 and 3

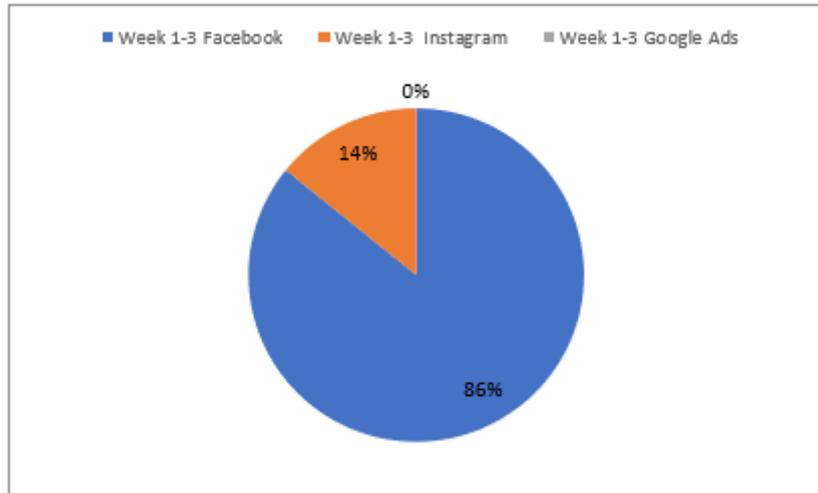
Graph 13 shows the results by indicator (impressions, clicks, CTR and leads) and digital platforms. In Graph 13, 86% of the leads obtained came from Facebook, and 14% from Instagram. Graph 14 shows 54% of impressions correspond to Facebook, 31% to Instagram, and 15% to Google. The number of clicks in graph 15, Facebook prevailed with 75%, 12% on Instagram and 13% on Google.

As mentioned in the first week, an ideal CTR is 1.91%. Instagram achieved 0.85%, Facebook 3.11% and Google Ads 1.46% of CTR. Instagram is below the general average. Even though Google has a better click-through rate, it didn't generate any leads.

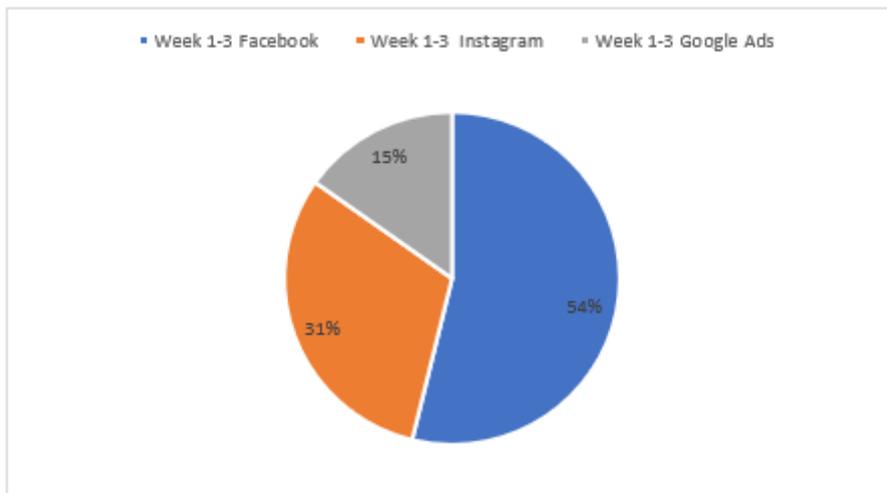
In general, it can be inferred that Facebook performed better than Instagram and Google Ads. In this specific experiment, a direct relationship could be observed with the number of impressions, clicks, and CTR, translating into the number of leads received.

In this present experiment, the campaign's objective is particular since it is expected to generate potential customers. However, it is crucial to consider that Lumiart is a new brand in the country.

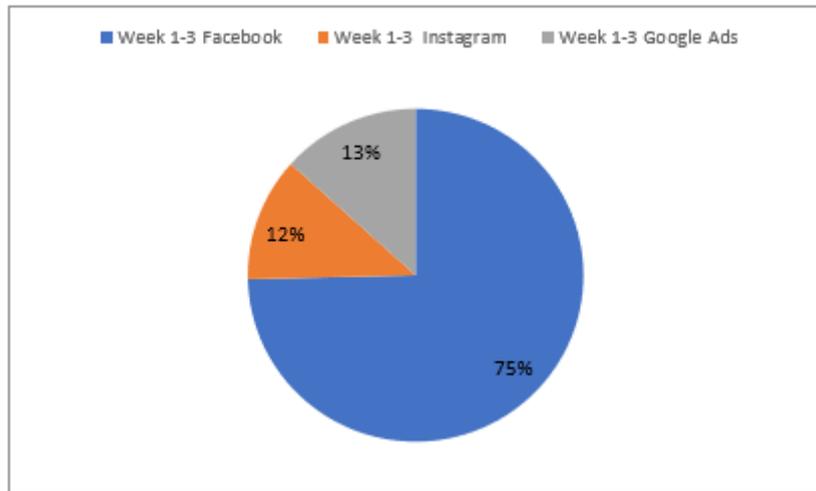
Therefore, the campaigns in Google that currently do not generate any leads create brand awareness that may positively impact the future.



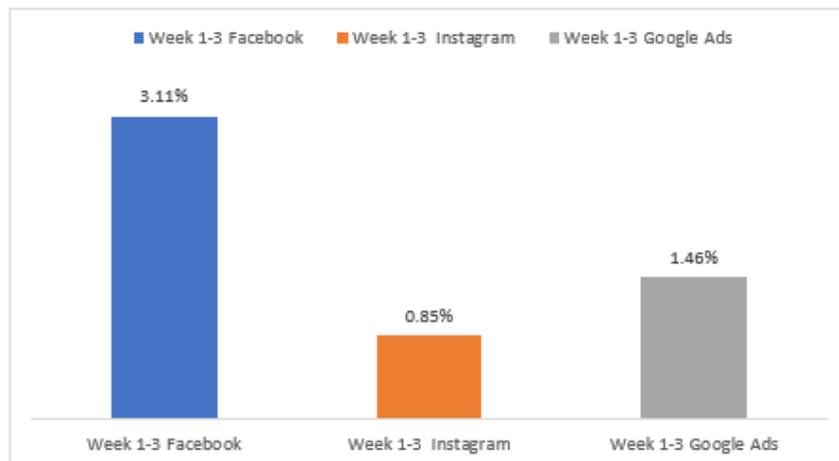
GRAPH 13: LEADS



GRAPH 14: IMPRESSIONS



GRAPH 15: CLICKS



GRAPH 16: CTR

Below is a comparison between week 1, 2 and 3 for each digital platform to determine if the campaigns' configuration changes were useful.

4.4.1 Week 1-3 analysis and changes for week 4

It can be seen in table 12, in the case of Facebook, there was a decrease in the number of impressions and clicks, compared to the previous weeks. However, the relationship between impression and clicks (CTR) was higher, and the number of leads increased.

In this case, it can be inferred that the change from an image carousel to only an image with the product that was asked the most in the first weeks was positive in the campaign, as it increased the CTR.

Regarding the client's data collection change, the client was asked to fill out a small form with their data in the first two weeks. In week 3, they were asked to send a message directly to the store, which caused the number of leads to increase by 6% in the third week.

In the first three weeks, configuration changes were made within the platform, but the campaign message was not modified. For the fourth week, to make a more radical change, it is intended to improve the advertisement's information and offer the customer free shipping throughout the country.

During the three weeks of the campaign, it was observed that there is interest in the products, but the customer needs an incentive to purchase. At the moment, the competition does not offer free shipping to Guatemala's other cities. So, the free shipping will act as an incentive to generate a conversation with customers. The configuration of week 3 will be left unchanged, only adjusting the message of the campaign.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	33137	972	2.93%	62
Week 2	38116	1024	2.68%	64
Week 3	26444	985	3.72%	68
Difference W3 and W2	-11672	-39	1.04%	4

Table 12 Facebook week 1 – 3 comparisons

For Instagram, the opposite was observed. The number of impressions improved remarkably; however, the number of clicks, CTR and leads decreased. It is interesting to note how the same change made for both digital media did not have the same result. The changes on Facebook helped to better segment customers and generated more leads, but for Instagram, the new settings hindered the reach.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	19653	191	0.97%	9
Week 2	15200	125	0.82%	13
Week 3	21364	165	0.77%	10
Difference	6164	40	-0.05%	-3

Table 13 Instagram week 1 – 3 comparisons

By the third week of Google, a radical improvement in impressions and clicks was observed. However, CTR decreased. During this week's experiment, no leads were generated.

DIGITAL MEDIA	IMPRESSIONS	CLICKS	CTR	Leads
Week 1	8290	234	2.82%	0
Week 2	0	0	0	0
Week 3	19286	299	1.55%	0
Difference	10996	65	-1.27%	0

Table 14 Google week 1 – 3 comparisons

For Google it can be observed in Table 15 that the keywords with the best performance were "led light", "led", "led lamp" and "led lights," these words correspond to 80% of the impressions generated by this medium. So, for the following week, only these words will be used to improve the ads' reach. Only the display network will continue to be used to launch the ads, with remarketing and retargeting strategies to improve the chances of having a qualified marketing lead. It should be considered that when using a retargeting strategy, impressions and clicks can be lost, because the ad can be shown to people who are no longer interested in the product or have already bought it.

As in social networks, the text of "free shipping to the whole country" will increase the chances of generating a lead. Additionally, the ad will still have a calling option for the customer.

Key words	Sum of Impr.	% impr. accumulated
Led light	3290	33%
Led	2365	57%
Led lamp	1721	74%
Led lights	969	84%
Grand Total	9913	

Table 15 Google week 1 – 3 key words with the most impressions

4.4.2 Location, gender and age segmentation week 3

To answer RQ2, which audience in digital channels attracts most B2B customers for Lumiart? It will be determined by location since the experiment aims to reveal which cities, other than Guatemala City, are interested in Lumiart products.

Regarding the audience determined by location (on Facebook and Instagram), during the third week of the experiment, it can be observed that the areas where there were more impressions did not change compared to week two. 80% of the impressions and clicks correspond to Guatemala City, Quetzaltenango, San Marcos, Huehuetenango, Izabal and Escuintla (see Appendix 5). During this week, a sale in Izabal was closed, combining the hardware fair products with decorative lamps. The lead corresponded to Facebook advertising. The idea of offering free shipping came from this customer, as sales representatives persuaded the client into a purchase by waving the shipping costs.

For Google, in descending order, we have Guatemala City, Quetzaltenango, Izabal, Escuintla, Huehuetenango, Sacatepéquez and Jutiapa. Regarding the first week, the department of Santa Rosa is no longer in the top 7. However, Sacatepéquez for the second time in a row appears at the top of Google locations (see Appendix 6).

By not knowing our company's audience in other cities in Guatemala, this information from social networks and Google, allows us to know which digital medium is preferred in each department. This helps to define the budget for digital platforms and area.

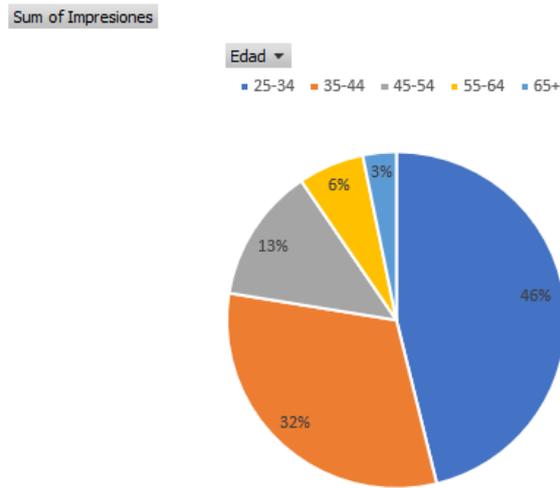
Graph 17 shows the age group for Facebook and Instagram; the segment between 25 and 34 continues to predominate with 46%. The second group between 35 and 44 was 32%. Compared to the previous week, there was no significant change in the age segment.

For Google (Graph 19), the age segment between 18 and 24 years increased from 25% to 27%. The 25-34-year-old segment also rose from 20% to 26%. These two age groups are the most active on Google. The next group from 35 to 44 years had a percentage of 17%.

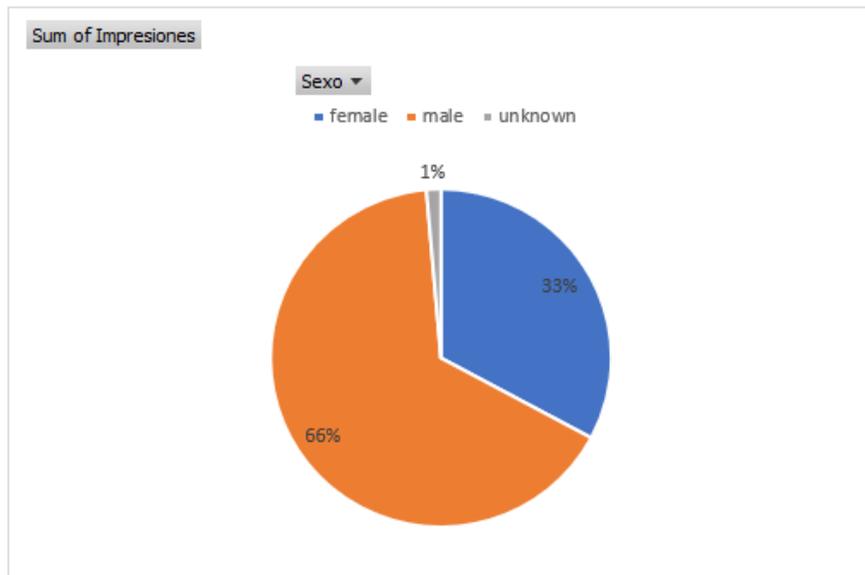
Like the group based on location, it is essential to know which channel a client prefers to contact the company. Therefore, it can be inferred that Google has a greater reach during these three weeks with a younger segment between 18 and 25 years of age, which is valuable information if the company decides to launch a product for this segment. For the present experiment, it helps describe the population with access to our ads.

Graph 18 shows 66% of the audience on Facebook, and Instagram is male, and 33% is female. This result changed drastically compared to week two since there was an 83% reach in the male group and a 17% reach in the female one.

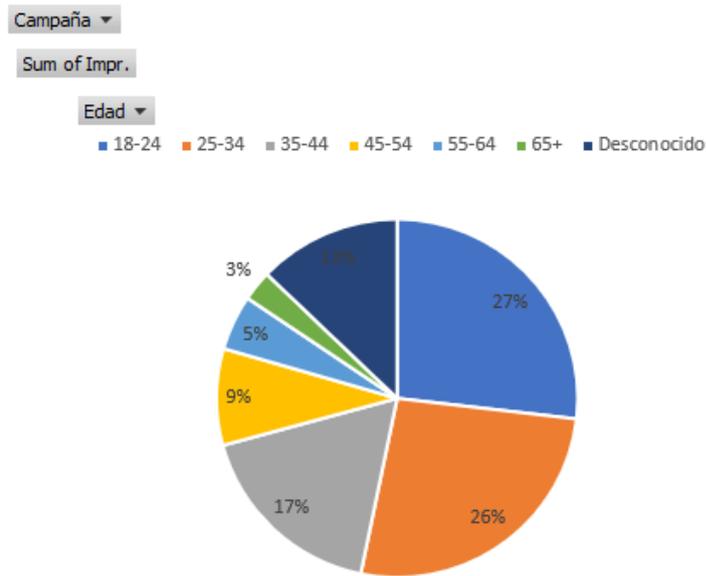
For Google, it can be observed in Graph 19 that 56% of the impressions were male, 37% female and 7% unknown. The female population increased by 3% compared to the previous week.



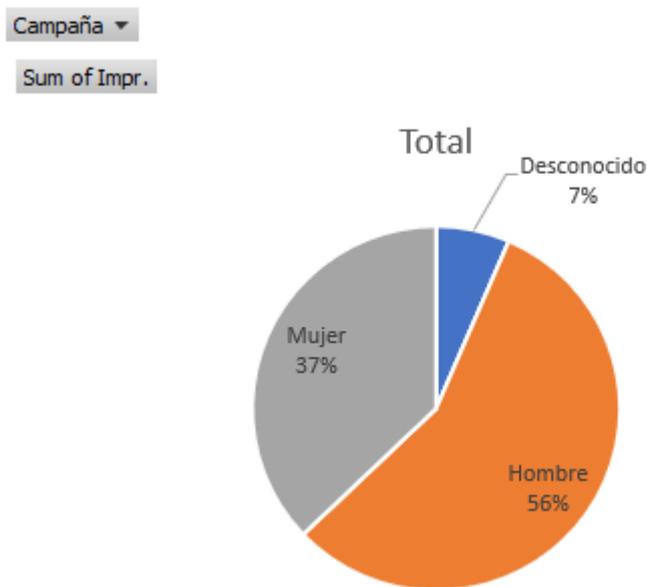
GRAPH 17: DEMOGRAPHIC GROUP BY AGE WEEK 3 FACEBOOK AND INSTAGRAM



GRAPH 18: DEMOGRAPHIC GROUP BY GENDER WEEK 3 FACEBOOK AND INSTAGRAM



GRAPH 19: DEMOGRAPHIC GROUP BY AGE WEEK 3 GOOGLE



GRAPH 20: DEMOGRAPHIC GROUP BY GENDER WEEK 3 GOOGLE

4.4.3 Limitations of the experiment week 3

During the third week of the experiment, the measures to prevent the coronavirus were not changed. The third week of the investigation was carried out one week before the Christmas holidays, which could have harmed the results.

4.5 Week 4 results

Table 16 shows the collected results of week 1 to 4 of this experiment's digital media. The digital medium with the best performance throughout the four weeks was Facebook because it had a more significant number of impressions, clicks, leads and CTR. The second-best performing digital medium in terms of the number of impressions and leads was Instagram. However, the CTR and the number of clicks compared to Google was still lower.

DIGITAL MEDIA	IMPR.	CLICKS	CTR	Leads	CPC	Investment	Sales revenue	ROI
Facebook	119884	3936	3.41%	258	Q 0.05	\$200	\$429	215%
Instagram	76842	650	0.85%	40	Q 0.23	\$200	\$0	0%
Google Ads	41324	1201	2.31%	0	Q 0.24	\$150	\$0	0%

Table 16 Digital media metrics week 1 - 4

Graph 21 shows the results by indicator (impressions, clicks, CTR and leads) and digital platforms. Graph 21 shows that 87% of the leads obtained came from Facebook, and 13% from Instagram. Regarding the percentage of impressions, Graph 22 shows that 51% corresponds to Facebook, 32% to Instagram and 17% to Google. The number of clicks in Graph 23, Facebook prevailed with 68%, 11% to Instagram and 21% to Google.

As mentioned in the first week, an ideal CTR is 1.91%. Instagram received 0.85%, Facebook 3.41% and Google Ads 2.31% of CTR. Instagram is below the general average. Even though Google has a better click-through rate, it didn't generate any leads.

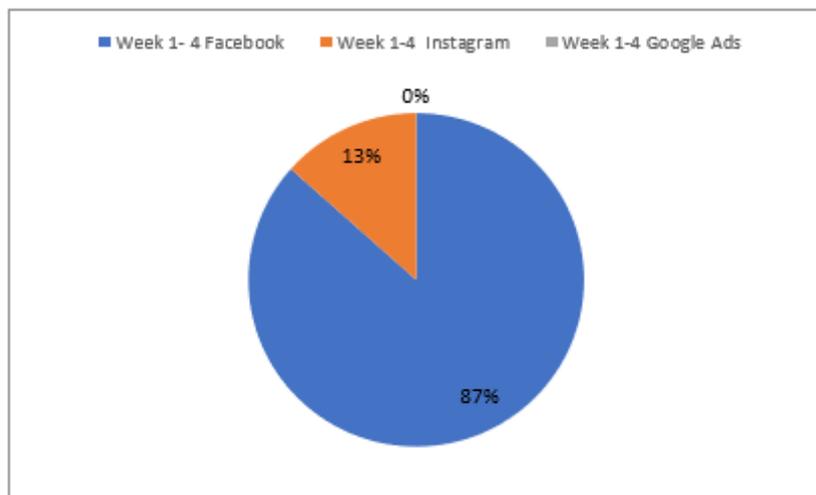
In general, it can be inferred that Facebook performed better than Instagram and Google Ads. In this specific experiment, a direct relationship could be observed with the number of impressions, clicks, and CTR, translating into the number of leads received.

In the case of Google, it was observed that there was a notable improvement in the number of clicks received in the last week. Consequently, its CTR improved. However, no calls were received. It is essential to mention that customers arrive 3 to 6 months after publishing the ad to look for it directly in the store. So the campaign may have a positive impact shortly.

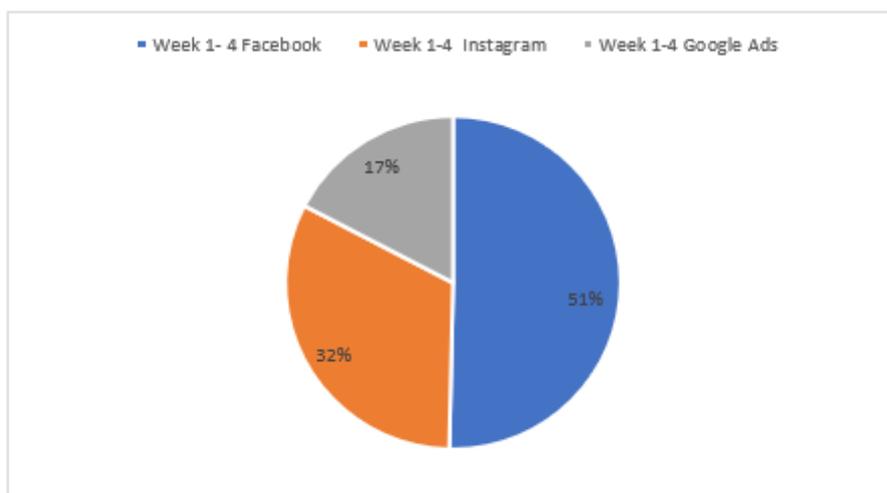
The CPC was added as an essential indicator of the experiment's analysis to be able to compare the financial performance of the means used. In terms of costs it can be noted that the budget is 4.6 times more abundant using Facebook than any other digital media. It is crucial to consider this factor when aligning the company's digital marketing efforts.

Similarly, the ROI of the campaign was calculated by analyzing the sale of the promoted items during the promotion period. Even though these sales were made in-store, the deal came from a Facebook promotion, meaning this was the only digital medium in which the ROI could be calculated. The Facebook campaign's actual ROI was 215%, indicating that it was the only profitable campaign during this period.

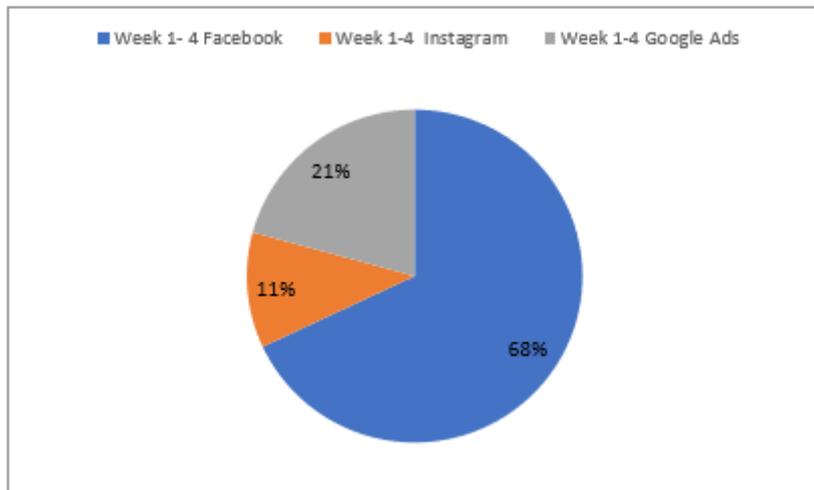
It was possible to know that the sales were generated through Facebook, since at the time of invoicing the products the customer is asked. How did he find out about us? The sales considered were those that the customer find out through the hardware fair campaign on Facebook.



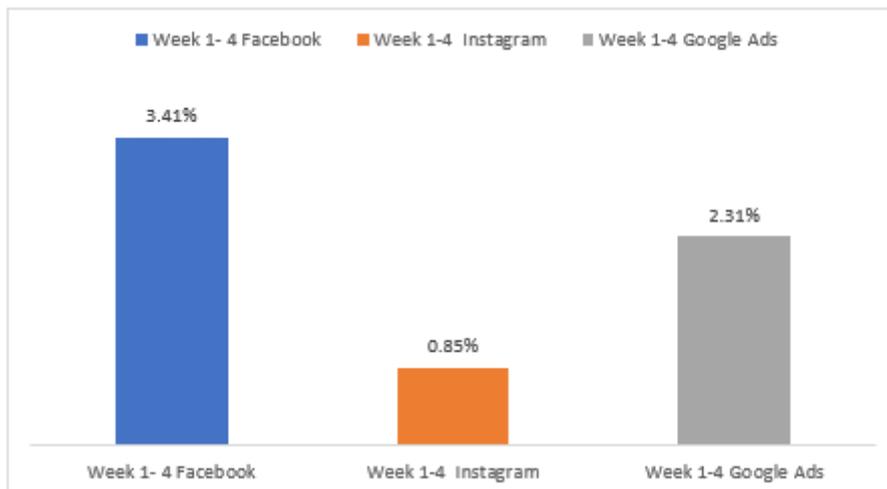
GRAPH 21: LEADS WEEK 1 TO 4



GRAPH 22: IMPRESSIONS WEEK 1 TO 4



GRAPH 23: CLICKS WEEK 1 TO 4



GRAPH 24: CTR WEEK 1 TO 4

Below is a comparison between week 1 to 4 for each digital platform to determine if the campaigns' configurations' changes were effective.

4.5.1 Week 1-4 analysis

Table 17 presents the configuration of the digital media settings used in detailed, just like the weekly implementations. These data will determine what change in the structure of the campaigns had a more significant impact to obtain leads. Below is a week-by-week analysis of the changes observed in impressions, clicks, CTR and leads in each digital medium. To determine which change had the most significant impact on lead generation, the number of leads for Facebook and Instagram will be used, just like the number of clicks to measures Google's performance, as there was no lead generated from this campaign.

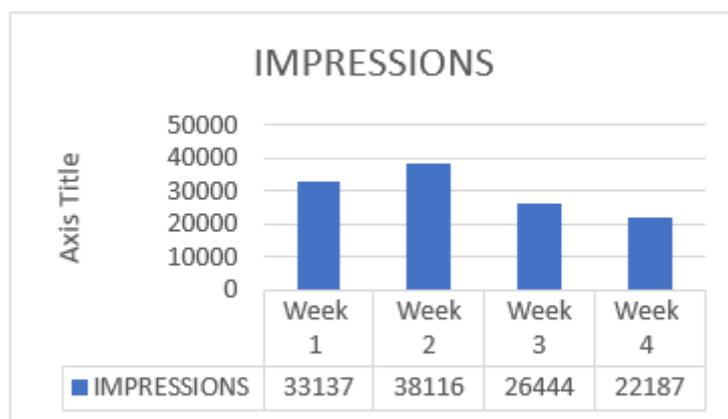
WEEK / DIGITAL MEDIA	FACEBOOK AND INSTAGRAM	GOOGLE
Week 1	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Campaign objective: Fill a form with basic information: name, address, telephone number and email. Display images: 6 images Device platform: Mobile app and desktop. Media location: Facebook search, Facebook Feed, Facebook Marketplace, Facebook Stories, Instagram Feed, Instagram Stories, Instagram Explore Message: Hardware fair prices.</p>	<p>5 Keywords selected: "hardware store", "led", "lamps", "ceiling lamps" and "hardware store articles". Location target: Guatemala Age target: All Gender target: All Google configuration budget: Google Search 95% and Google Display 5% Budget: \$50.00 Campaign objective: Fill a form with basic information: name, address, telephone number and email. Message: Hardware fair prices.</p>
Week 2	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Campaign objective: fill a form with basic information: name, address, telephone number and email. Display images: 6 images Message: Hardware fair prices.</p> <p>CHANGES: Device platform: mobile app Media location: Facebook Feed, Facebook Marketplace, Instagram Feed, Instagram Stories.</p>	<p>Location target: Guatemala Age target: All Gender target: All Campaign objective: Fill a form with basic information: name, address, telephone number and email. Budget: \$50.00 Message: Hardware fair prices.</p> <p>CHANGES: 134 Keywords selected: The prefixes: distributor, supplier, wholesale will be used followed by the words used in the first week such as lamp, led, bulb, lighting, lights. Google configuration budget: Google Search 50% and Google Display 50%</p>
Week 3	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Device platform: Mobile app Media location: Facebook Feed, Facebook Marketplace, Instagram Feed, Instagram Stories. Message: Hardware fair prices.</p> <p>CHANGES: Display images: 1 image Campaign objective: Contact via direct message.</p>	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Message: Hardware fair prices.</p> <p>CHANGES: 23 Keywords selected: Simpler keywords: bulb, led, spotlight, lamp, led, light. Google configuration budget: Google Display 100% Campaign objective: Contact via call button.</p>
Week 4	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Device platform: Mobile app Media location: Facebook Feed, Facebook Marketplace, Instagram Feed, Instagram Stories. Display images: 1 image Campaign objective: Contact via direct message.</p> <p>CHANGES: Message: Free shipping nationwide.</p>	<p>Location target: Guatemala Age target: All Gender target: All Budget: \$50.00 Message: Hardware fair prices Google configuration budget: Google Display 100% Campaign objective: Contact via call button.</p> <p>CHANGES: 11 Keywords selected: Fewer words were selected, which had the best results during the first 3 weeks, such as: led, led lamp, led lights, led spotlights, led store. Message: Free shipping nationwide.</p>

Table 17 Summary of settings change week 1 to 4

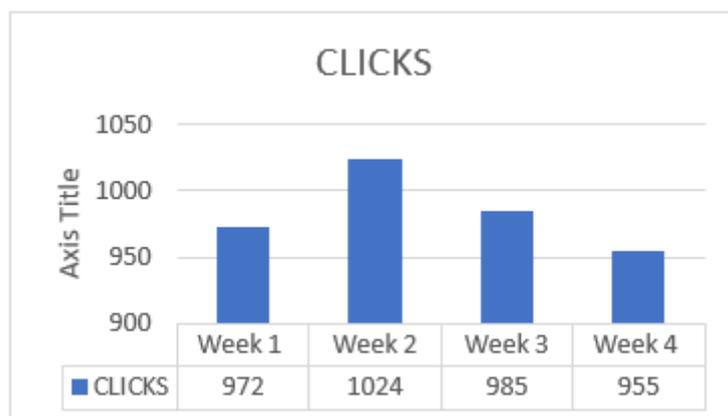
4.5.1.1 Facebook week 1 to 4 analysis

In the following (Graphs 25-28) for the first two weeks for the Facebook digital medium, there was a higher number of impressions and clicks, however, for weeks 3 and 4 these two indicators decreased, and the CTR increased. This indicates that the changes made week after week served to improve the conversion between impressions and clicks. As mentioned previously, you cannot establish a direct relationship with the number of impressions, clicks, CTR and leads. Week 3 was the week where more leads were obtained. However, it was not the week where the best CTR, clicks and impressions were observed.

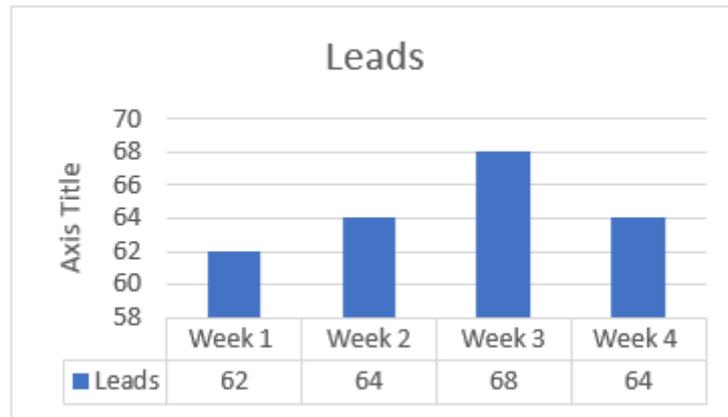
For Facebook, the change in settings that had the most significant impact on generating leads was the change from six images to only one promotional image and communication via direct message instead of filling out a form with personal data.



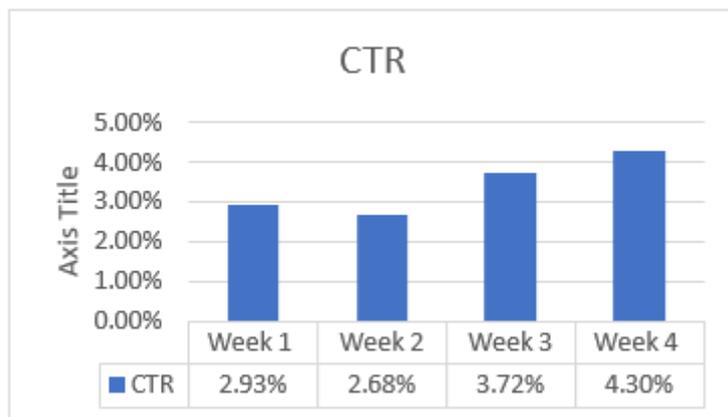
GRAPH 25: FACEBOOK WEEK 1 TO 4 IMPRESSIONS ANALYSIS



GRAPH 26: FACEBOOK WEEK 1 TO 4 CLICKS ANALYSIS



GRAPH 27: FACEBOOK WEEK 1 TO 4 LEADS ANALYSIS



GRAPH 28: FACEBOOK WEEK 1 TO 4 CTR ANALYSIS

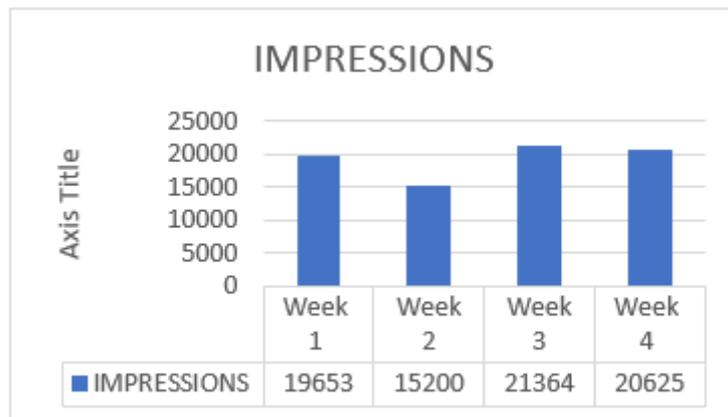
4.5.1.2 Instagram week 1 to 4 analysis

The same phenomenon can be observed on Instagram, where there was no direct relationship with the indicators studied. Graph 29 shows the week with the highest number of impressions (=week 3). The week with the highest number of clicks was the first week as well as CTR. But the week with the most leads was the second week.

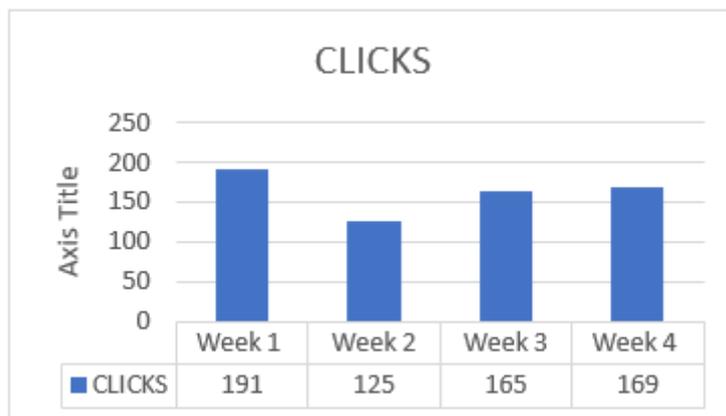
For Instagram, the change in settings that had the most significant impact on lead generation was to reduce the platforms where the ad is displayed. Instead of showing it on desktop and mobile, it was reduced to only showing it on mobile devices. Regarding the media allocation, it was reduced to only using the Instagram Feed and Instagram Stories.

It is interesting to observe how the results were different when making the same changes in both social media platforms. Therefore, it is crucial to study each digital medium individually to obtain the most accurate results.

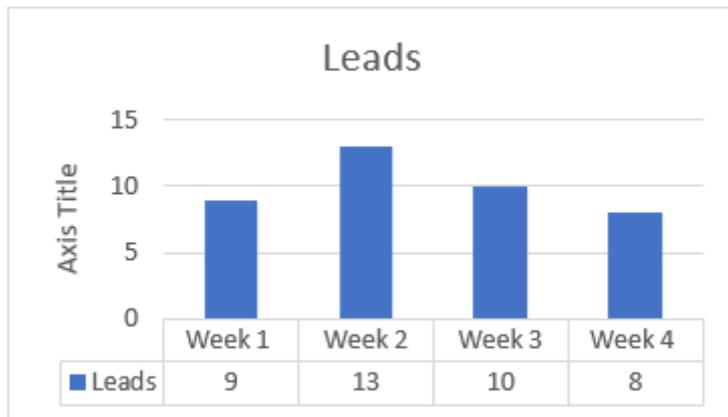
Comparing Facebook with Instagram, it worked better to publish only one image on Facebook, while on Instagram publishing six images had a better impact on the campaigns. Besides, the type of communication was the opposite. On Instagram, more leads were obtained by filling out a contact form, while on Facebook, more leads were obtained by communicating via direct message.



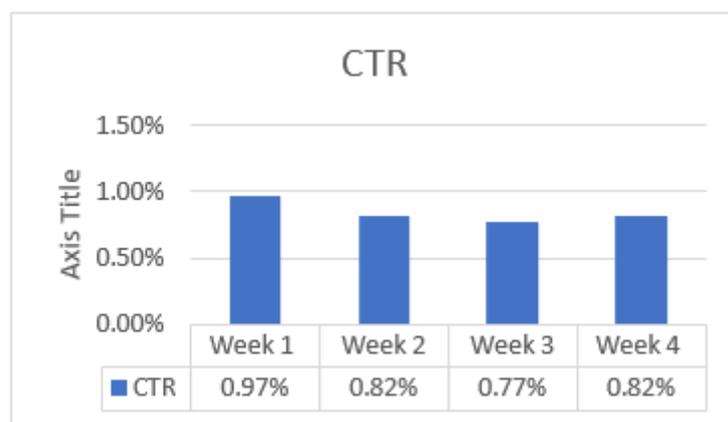
GRAPH 29: INSTAGRAM WEEK 1 TO 4 IMPRESSIONS ANALYSIS



GRAPH 30: INSTAGRAM WEEK 1 TO 4 CLICKS ANALYSIS



GRAPH 31: INSTAGRAM WEEK 1 TO 4 LEADS ANALYSIS



GRAPH 32: INSTAGRAM WEEK 1 TO 4 CTR ANALYSIS

4.5.1.3 Google week 1 to 4 analysis

In the case of Google, the number of leads could not be considered a fundamental indicator for the campaign's performance, because, during the four weeks, no leads were obtained. For the second week, it is observed that the campaign did not run properly, as precise words were used for the B2B segment, which were not in demand during the experimentation period. These words were discarded for the following weeks.

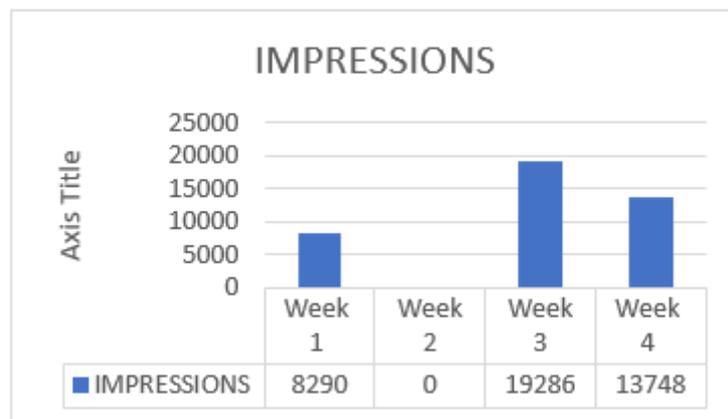
The four weeks of experimentation were the first weeks of the company advertising on Google, so, there was no previous experience. Well-performing keywords were not known; and although Google Keyword Planner was used, as established in the literature review, the results depend highly on the words' demand in that period-specific time.

For the development of the campaign, no information was obtained on research carried out in Central America. This experiment was based on research carried out in North America or South America, where Google is the preferred medium for B2B clients. However, in Guatemala for the Lumiart company, Facebook was the medium that generated the most leads.

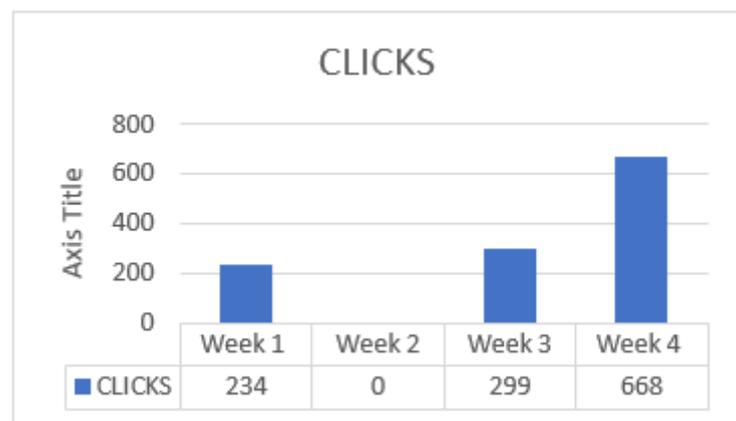
It is deduced from experience in the B2B segment that hardware store owners in the country's interior do not use the Google platform. According to José Polanco, the company's founder, sellers, had to visit hardware stores before the pandemic began to sell products. Now due to the pandemic, customers were forced to place their orders through phone calls. The digital purchase demand is not widespread yet in Guatemala.

Regarding the number of clicks, it can be noted how the weekly changes had positive results in the campaigns. The first week started with 234 clicks, the second week with 299 clicks and the last week with 688 clicks (see Graph 34).

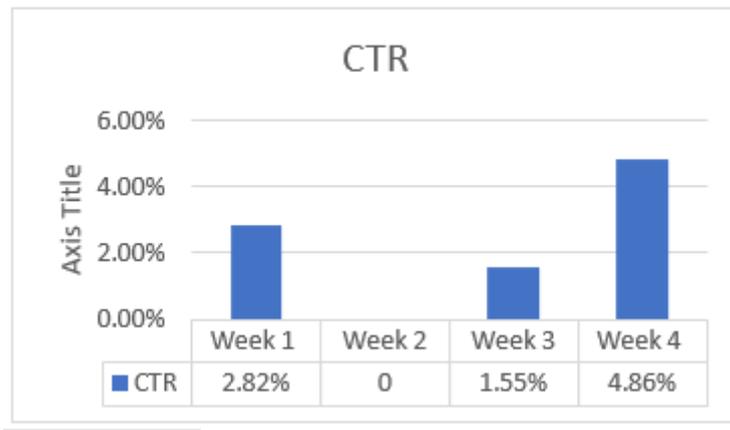
For Google, the change in settings that had the most significant impact. The budget was set only for Google Display since there was no keyword demand in Google Search. Also, no more than 15 keywords were used.



GRAPH 33: GOOGLE WEEK 1 TO 4 IMPRESSIONS ANALYSIS



GRAPH 34: GOOGLE WEEK 1 TO 4 CLICKS ANALYSIS



GRAPH 36: GOOGLE WEEK 1 TO 4 CTR ANALYSIS

4.5.2 Location, gender and age segmentation week 1 to 4

To answer RQ2, which audience in digital channels attracts most B2B customers for Lumiart? The answer will be determined by location since the experiment aims to reveal which areas, other than Guatemala City, are interested in Lumiart products.

Next, the gathered results regarding the group by location on Facebook and Instagram will be presented. 80% of the leads generated from 304 leads correspond from highest to lowest to Guatemala City, Huehuetenango, San Marcos, Petén, Quetzaltenango, Izabal, Totonicapán and Sololá. (see Appendix 7). It can be observed that during the first three weeks, Guatemala City, Quetzaltenango, San Marcos and Huehuetenango remained within the first places. Still, in the last week, Totonicapán and Sololá were included in the largest number of leads, removing Izabal and Escuintla.

For Google, in descending order, we have Guatemala City, Quetzaltenango, Izabal, Chimaltenango and Sacatepéquez (see Appendix 8). It is observed that for both digital media Guatemala City and Quetzaltenango match in the top five. However, there is a difference between other cities. This is an important discovery because ads can be better segmented by locations, identifying which digital medium is most effective in a specific city.

The table below provides a summary of the top five locations. For Facebook and Instagram, the number of leads was used, and for Google, the number of clicks.

Position	Facebook and Instagram	Number of leads	Google	Number of clicks
First	Guatemala City	140	Guatemala City	884
Second	Huehuetenango	22	Quetzaltenango	31
Third	San Marcos	17	Izabal	26
Fourth	Petén	16	Chimaltenango	15
Fifth	Quetzaltenango	14	Sacatepéquez	14

Table 18 Cities where the most leads and clicks were obtained week 1 to 4

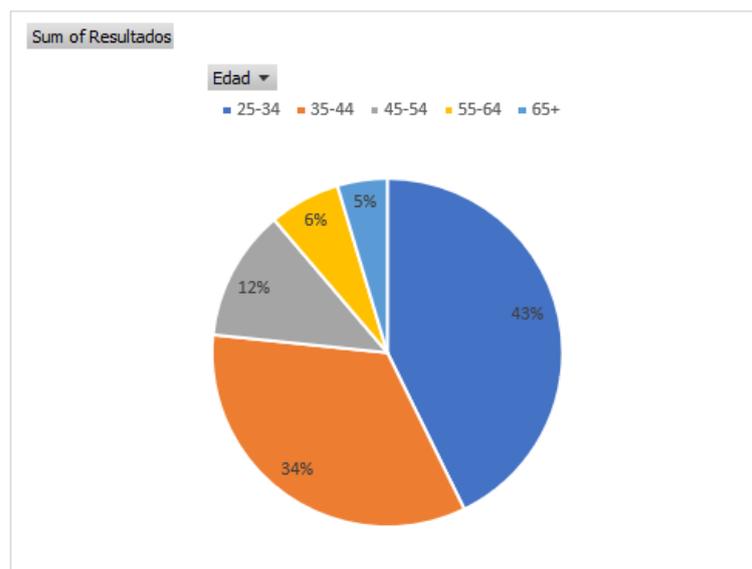
Learning Lumiart's audience from different areas of Guatemala allows the company to know which digital medium is preferred in each city.

Graph 25 shows the audience based on age. Facebook and Instagram's predominant age segment was people between 25 and 34 (43%). Followed by the second group, between 35 and 44 years old, with 34%. There was no change during the four weeks of the experiment. So, it can be inferred that these two age ranges constitute the B2B segment.

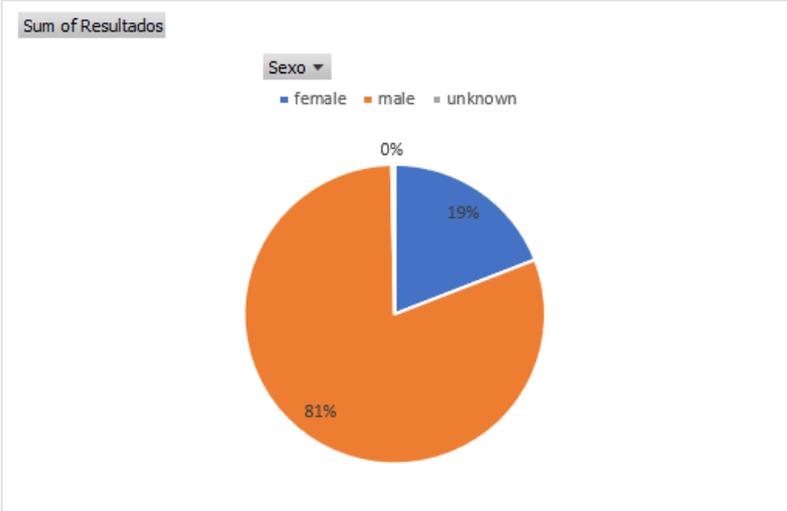
For Google, Graph 27 shows Google's target segment based on age. The result was a group between 18 and 24 with 31%, followed by unknown age with 23%. Therefore, it can be inferred that Google has a greater reach during these three weeks with a younger segment between 18 and 25 years of age, which is valuable information if the company decides to launch a product for this segment.

The last week had the highest number of clicks, while the first three weeks did not have a good performance. This drastic change was due to the budget allocation, as 100% of the fourth week's budget was used for Google display.

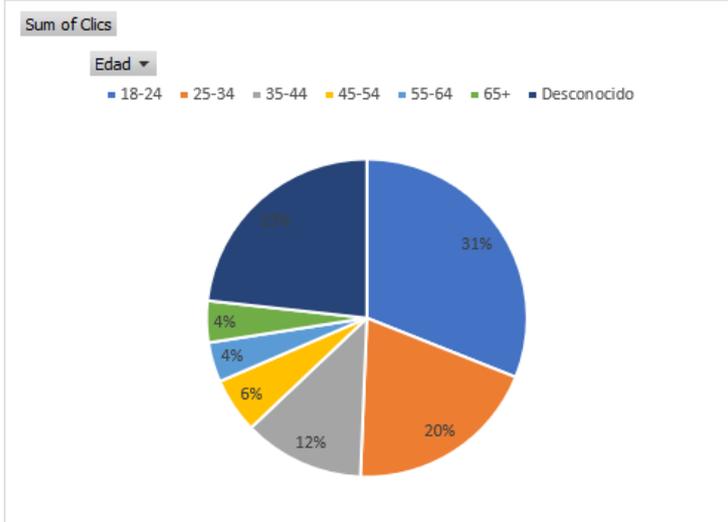
Graph 26 shows the group by gender. Facebook's and Instagram's audience is 81% male and 19% female. For Google, it can be seen in Graph 28 that 57% of the clicks obtained were from male users, 32% female and 11% unknown. In both platforms, the male gender predominated during the four weeks of the experiment.



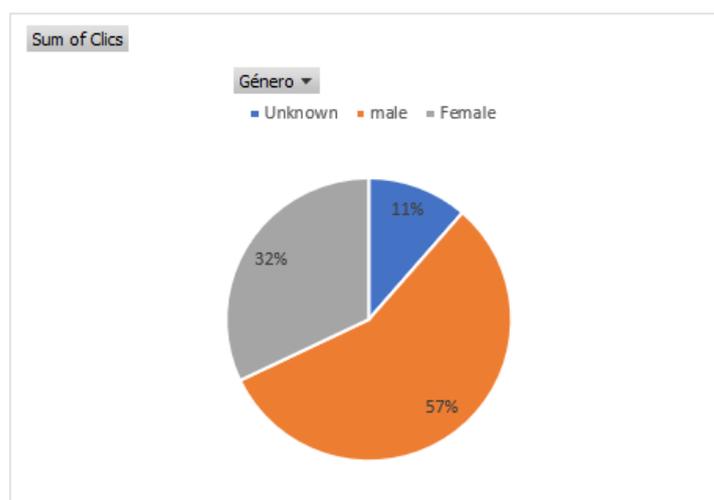
GRAPH 25: DEMOGRAPHIC GROUP BY AGE WEEK 1 to 4 FACEBOOK AND INSTAGRAM



GRAPH 26: DEMOGRAPHIC GROUP BY GENDER WEEK 1 to 4 FACEBOOK AND INSTAGRAM



GRAPH 27: DEMOGRAPHIC GROUP BY AGE WEEK 1 to 4 GOOGLE



GRAPH 28: DEMOGRAPHIC GROUP BY GENDER WEEK 1 to 4 GOOGLE

The segmentation by location, gender and age will help the company direct more effective ads for clients in the B2B field both within Guatemala City and other cities. It should be considered that this is only a first step in the company's segmentation process since they are general variables that must be narrowed down to have a smaller and more effective segment.

4.5.3 Limitations of the experiment week 4

During the fourth week of the experiment, the measures to prevent the coronavirus were not changed. However, this experiment was carried out during a global pandemic where economic, political and social conditions change drastically from month to month, which may have affected the investigation in general. However, the pandemic can also be considered a positive impact. People began to digitize their purchase habits even more during the pandemic.

4.6 Conclusion

In this chapter, the four weeks of the experiment, the weekly changes, and the results obtained for each digital medium were developed and explained.

The number of leads received during the four weeks was taken as a fundamental indicator for (RQ1) Determine which digital marketing channel is the most effective for B2B lead generation for Lumiart.

To determine (RQ2) Which audience in digital channels attracts the most leads for B2B customers for Lumiart? For Facebook and Instagram, the collected leads based on location, age and gender were used. Since Google did not generate leads, the number of clicks was used to determine the audience in this medium.

Finally, to determine (RQ3) Which digital campaign settings change caused the most significant improvements for lead generation in B2B customers for Lumiart? The number of impressions, clicks,

CTR and leads was compared week by week. The answer for RQ3 was concluded based on the highest number of leads obtained per week for Facebook and Instagram, and the highest number of clicks for Google versus the changes made in the campaigns' configuration.

In the next chapter, the RQ answers will be reported.

5 CONCLUSION

This master thesis aims to understand the effectiveness of digital marketing strategies for lead generation designed for the lighting company Lumiart based in Guatemala. The focus is on B2B companies since this type of business generates 80% of sales in the company's headquarters in Honduras. The store in Guatemala is currently selling online to B2C clients, which produces a lower volume of sales. The operation has not become profitable; therefore, finding B2B clients became a crucial step in the company strategic plans.

The company began operations in November 2019, in March 2020, the first case of COVID 19 was reported in the country, so determining the digital media to use in marketing and sales strategies was vital for the company due to mobility distancing restrictions adopted by the government.

5.1 Summary

The first part of the thesis reviewed the company's context, the methodological approach and the literature review. During the last one, the company's history and the marketing strategies used before were described. It could be observed that over time traditional media became very costly for the company, and a switch to digital marketing was necessary. For example, advertisements in magazines and newspapers became unprofitable for the company as they had no way to measure ROI.

The company's strengths were also explained in a general way, such as extensive inventory management, constant training for its customers in the B2B segment, comprehensive product warranties, and personalized attention through sales executives. The company's strengths and the literature research about digital strategies for B2B business served as the basis to carry out a graphic advertisement for the B2B segment of Guatemala.

The headquarters in Honduras has extensive experience in the B2B segment; however, there is no market experience in Guatemala. Due to the pandemic, the digitization of marketing campaigns for this segment had to be accelerated. Since there was no knowledge regarding the B2B segment in digital media, 3 RQs were determined to better understand the market, the target, the digital media to use, and the marketing campaigns' settings. This master thesis's research goal was to determine which digital marketing channel is the most effective for B2B lead generation for Lumiart.

These three research questions were obtained to synthesize the company's context and synthesize the theoretical framework. The most important factors and indicators to consider were determined when launching a campaign in digital media. In the literature research, digital marketing's benefits and the key indicators to assess the campaigns' performance were explained in detail. Among the benefits of using digital media, we can mention low-cost circulation of advertisement, immediate two-way communication, and collecting information for analysis and assessment.

According to the research carried out on digital media use in Guatemala, Facebook and Instagram were chosen, as they were the preferred media for the country. Google was used because, in the West, the majority of B2B buyers prefer this medium. However, no specific literature was found on studies carried out in Central America. During the experiment, it was possible to verify that the theoretical research about digital marketing outcomes from the West is not always applicable to the rest of the world. However, their models can be taken as examples and slowly adapt these strategies to the chosen market.

Below are the indicators which helped to answer the research questions.

The number of leads received during the four weeks was taken as a fundamental indicator for (RQ1) Determine which digital marketing channel is the most effective for B2B lead generation for Lumiart.

To determine (RQ2) Which audience in digital channels attracts the most leads for B2B customers for Lumiart? For Facebook and Instagram, the gathered leads based on location, age and gender were used. In the case of Google, as there were no leads, the number of clicks was used to determine the audience in this medium.

Finally, to determine (RQ3) Which digital campaign settings change caused the most significant improvements for lead generation in B2B customers for Lumiart? The number of impressions, clicks, CTR and leads was compared week by week. It was concluded based on the highest number of leads obtained per week for Facebook and Instagram and the highest number of clicks for Google versus the changes made in the campaigns' configuration.

The key contributions of the experiment are summarized in the following facts:

- 1. For the present experiment; it is determined that the most effective digital medium for B2B lead generation for Lumiart was Facebook.**
- 2. The results showed that the cities most interested in the experiment for Facebook and Instagram were: Guatemala City, Huehuetenango, San Marcos, Petén, Quetzaltenango, Izabal, Totonicapán and Sololá. For Google, in descending order, we have Guatemala City, Quetzaltenango, Izabal, Chimaltenango and Sacatepéquez.**
- 3. The predominant demographic group by age for Facebook and Instagram consisted of people between 25 and 34 years old. For Google, the age segment ranged between 18 and 24.**
- 4. The predominant demographic group by gender for Facebook, Instagram, and Google, was male.**
- 5. Facebook ads works best with a single image and communication via direct message, displaying the ad only on mobile phones, and allocating the budget for only Facebook Feed and Facebook marketplace.**

- 6. Instagram ads works best with 6 images, filling a basic information form for further communication to the client, displaying the ad only on mobile phones, and allocating the budget for only Instagram Feed and Instagram stories.**
- 7. Google ads works best using the budget only for Google display, and using no more than 15 lighting key words.**

5.2 Contribution to knowledge

The present investigation determined that the most effective digital medium for B2B lead generation for Lumiart is Facebook. This platform had a more significant number of impressions, clicks, leads, and CTR. Although the second digital medium that obtained the most leads was Instagram, its CTR is below the general average. Similarly, when comparing the CPC, Facebook has a \$0.05, while Instagram registers \$ 0.23, making it 4.6 times more expensive than Facebook. Yet, no sales were reported from Instagram.

The results showed that 87% of the leads obtained came from Facebook and 13% from Instagram 51% of impressions correspond to Facebook, 32% to Instagram and 17% to Google. Facebook prevailed with 68% in the number of clicks, 11% on Instagram and 21% on Google. Finally, Facebook had 3.41% CTR, Instagram 0.85% and Google 2.31%. The results agree with what was stated by Magnotta (2019, p. 156), which indicates that social media platforms are a great option since they are known to bring profits with little investment, and they promote communication. Probably to generate leads on Google, it is necessary to have a greater investment for a longer period of time, so the author also recommends that each platform should have a unique strategy to generate leads.

Despite the literature highlighting Google's success in B2B marketing,(Albacross, 2019) as a total of 62% of B2B buyers state that a web search was one of the first encounters they used to start their purchase, Facebook obtained the most B2B contacts. Given Guatemala's 7.4 million Facebook users, almost half of the population, it is estimated that advertising on Facebook can reach up to 60% of the inhabitants, compared to Instagram's low 14% (Kemp, 2020). Moreover, even though Google has 6.5 million monthly searches, these are not necessarily focused on lighting products. Therefore, at the user and search level, Facebook has a greater reach. Factors that influenced Facebook to be the network with the best results.

A piece of information that could have positively influenced the study is that all national telephone internet providers offer unlimited internet data for social platforms like Facebook and Instagram. So, if a person runs out of internet data, they cannot search on Google. It is more accessible for a regular

Guatemalan to begin a purchase journey on a social media platform, especially on Facebook Marketplace. This factor also aligns with the data that indicated that more than 90% of the clicks obtained came from mobile phones. It also agrees with the literature review that indicates that in Guatemala there are 21.1 million mobile connections which is higher than the current 17.25 million inhabitants in the country. The amount of mobile users is equivalent to 119% of the total population (Kemp, 2020).

Another factor that could have affected the result is that during the first year of Lumiart's opening, the company focused on creating a social media presence on Facebook and Instagram. Every day something related to the company is published on both platforms. Several clients noticed it and congratulated the company for being active users on Facebook and Instagram. According to Ozuem, (2017) constant publishing built customer trust and increases the likelihood of customers buying. The trust generated to the client paired with the option of immediate contact, facilitated obtaining leads.

The opposite happened with Google. No work has been done to strengthen the website, especially to make it user friendly. The promotions placed on social networks are not available on the home page of the website. Additionally, the page does not have the products' prices or an easy way to contact the company. Also, by viewing the Google analytics data during the experiment period, it was observed that all users who came to the website through paid advertising had a bounce rate of 85% to 100%. This may mean that the customer didn't find what they were looking for, or the sales funnel became too long for the customer, so they lost interest in the promotion. Even though campaigns in Google that currently do not generate any leads, they create brand awareness that may positively impact the future as indicated by Tiago & Veríssimo (2014, p. 705).

Another important difference between social media and Google is that Google works by running its ads based on a bidding system in which advertisers bid on specific search terms and / or keywords related to the product or service they wish to promote campaign (Perricone, 2020). If there is no demand for a certain product or service, the ads do not run, which can be a limiting factor for this digital medium. On the contrary with social networks, which do not need the client to search for certain terms to be able to run the ads. Also high-quality, relevant keywords are to be chosen to ensure a successful campaign, which influences the results. (Keywords: Definition, n.d.). Finding the best keywords for each business can take between 1 to 6 months, the keyword planner is a valuable tool to determine them, however it depends on the demand for the keywords to determine their success or failure.

Based on the author's experience, it can be inferred that the Guatemalan market is still very traditional at the time of shopping. While the pandemic accelerated the use of social networks, as people with purchasing power are forced to buy through this means, the use of Google for purchases has not yet been normalized. And it has been known from experience that customers value the quick and direct contact they can have using 'Facebook Messenger or Instagram DMs'. Which agrees with Sheldrake (2011, p. 74) where he indicates that one of the greatest benefits of digital marketing through social networks is the immediate two-way communication with the client, which facilitates the closing of the sale as well. such as establishing a closer relationship with customers, an important factor when dealing with B2B customers.

To answer RQ2, the result was determined by location, since the experiment aimed to reveal which cities, other than Guatemala City, are interested in Lumiart products, just like the gender and age.

One of the most basic steps towards a successful digital marketing campaign is identifying the segmentation. According to Miller (2012) segmenting an audience goes before creating a strategy. This way the strategy is tailored to attract the ideal clients. The path to determining a segmentation can take many forms based on the level of complexity. The road to selecting a segmentation can be easy if the group is defined by convenient factors such as location and language spoken in the company. Because the segment population to carry out the campaign is not known, this experiment served as a basis to begin to know the B2B segmentation for Lumiart

The results showed that 80% of the leads from Facebook and Instagram correspond from highest to lowest to Guatemala City, Huehuetenango, San Marcos, Petén, Quetzaltenango, Izabal, Totonicapán and Sololá. For Google, in descending order, Guatemala City, Quetzaltenango, Izabal, Chimaltenango and Sacatepéquez.

60% of the services and industries are in Guatemala City, so it is logical to assume this city performed the best during the four weeks of the campaigns. The competitiveness index for each Guatemalan area (FUNDESA, 2015) are as follows: Guatemala City has an index of 73.54%, Huehuetenango 61.19%, San Marcos 61.17%, Izabal 60.76%, Totonicapán 51.79%, Sololá 53.1%, Chimaltenango 56.83%, and Sacatepéquez 67.4%. This is the only information found regarding the departments' competitiveness, six years out of date. Still, it provides a general overview of the country's economic situation.

This study's relevant focus is to learn which cities are most interested in purchasing hardware products, especially lighting. It is impressive to note how some cities with the highest competitiveness values did not show much interest in the products offered. These cities are Zacapa (67.9%), Escuintla (67.06%), El Progreso (66.05%) and Retalhuleu (63.07 %). In sum, it was useful to analyze this factor to allocate better efforts on advertising and visiting customers in the B2B segment

For the demographic group by age for Facebook and Instagram, the age segment between 25 and 34 was the predominant (43%). Followed by the second group between 35 and 44 years old, with 34%. For Google, the dominant age segment was 18 to 24 with 31%, followed by unknown age with 23%.

60% of Guatemala's population (INE, 2018) is between 15 and 60 years. Lumiart's predominant Facebook and Instagram audience was between 25 and 34 years old, people who possibly have a higher purchasing power. Unlike Google, 31% of the clicks obtained were between 18 and 24 years old. Based on the author's knowledge, Guatemala's younger generations are more used to doing Google searches. However, they are not Lumiart's target audience, given their lack of purchasing power. This is yet another reason why Google did not generate the expected results.

The demographic group determined by gender reached Facebook and Instagram, 81% male and 19% female. For Google, 57% of the clicks obtained were male, 32% female and 11% unknown.

The predominance of the male gender can be observed on Facebook, Instagram and Google. Despite the company's previous 60% female audience. However, this campaign was directed at Hardware stores, a segment where usually gender is an essential factor. According to a census (INE, 2018), there is 51.5% female population and 48.5% male. However, according to national statistics, 75.7% of the population providing income to a household is male, which agrees with the results obtained regarding gender segmentation for this specific campaign aimed at B2B clients in the hardware store business. In Guatemala, hardware jobs, just like the main household's income, are usually appointed to male parts.

In this first exercise, demographics were used to understand customer segmentation, however, Hague and Harrison encourage the marketer to choose one based on behavior or needs instead. The elements that lead the segmentation based on behavior are complying to the price the client wants, the delivery, and quality of the products. By acknowledging the client's purchase behavior, the company can adjust to their liking if possible (Hague & Harrison, n.d.).

By knowing the demographic data as a first step of the segmentation, you can make assumptions regarding the segmentation by behavior and by needs and have better results in the next digital ads. The key to pinpointing the needs of another company is maintaining a connection with them, and keeping their contact information up-date. Lastly, to know the client's need, the simplest way to know it is by asking them directly. By fulfilling the clients needs, we will make the purchase of our clients indispensable (Hague & Harrison, n.d.).

Finally, in this experiment we have the digital strategies used to improve the results of the campaigns, taking the tools and configurations of each digital medium and modifying it to obtain better results. The changes executed in each campaign and the results obtained will be described below to describe the lessons learned from Lumiart's B2B digital marketing.

For Facebook, the change in settings that had the most meaningful impact on generating leads was to show one promotional image, instead of six. Another significant change was to offer a direct message instead of filling out a form with personal data.

For Instagram, the change in settings that had the most significant impact on lead generation was to reduce the number of platforms that display the ad. Instead of showing it on desktop and mobile, it was only shown on mobile devices. Regarding the media allocation, it was reduced to only using the Instagram Feed and Instagram Stories.

For Google, the most important change in settings was to allocate the budget only to Google Display, since Google Search did not show a demand in the keywords' search. Also, only 15 keywords related to the business were determined.

The recommendations given by Newberry and LePage (2020) were followed, to carry out the campaigns and modifications of the settings of each digital medium. Newberry and LePage suggest 8 steps to create a successful digital strategy. Special consideration was given to step 1, which indicates that clear campaign objectives must be established. In the three campaigns, the main objective was conversion to obtain leads from the B2B segment. Obtaining leads can be obtained either through form, call, message, etc. Each digital medium proved to have a different way of obtaining leads. The modifications of the settings could be made since the strategy was evaluated weekly and modified according to the setbacks encountered during the process, step 8 granted by Newberry and LePage.

In general, it was determined that each digital medium should be explored and known about the platform, in order to determine in which configuration, the budget to be spent is more effective.

The general limitations of the study will be presented below, which will serve to provide greater validity to the present study.

5.3 Limitations of the study

Among the main limitations of the experiment is the current pandemic situation in the world and Guatemala, which has dramatically affected the economy. However, it has promoted the use of digital media to make purchases. According to the newspaper *La Vanguardia* (2020), the pandemic has affected consumer buying habits. The uncertainty due to the economic situation makes consumers more cautious when purchasing, comparing online prices from different providers. Moreover, it also indicates that there has been an unprecedented increase in online sales during the lockdown. Therefore, having active campaigns on social media and Google could be a competitive advantage during this time of uncertainty.

In Guatemala, measures were established for the prevention of the coronavirus, during 4 weeks of the experiment, the measures to prevent the coronavirus were not changed. However, this experiment was carried out during a global pandemic where economic, political and social conditions change drastically from month to month, which may have affected the investigation in general. However, the pandemic can also be considered a positive impact. People began to digitize their purchase habits even more during the pandemic.

Another limitation of the experiment was the duration of the campaigns, since they lasted one week and then changes had to be made. This could have been affected by the demand for the products, because, during the 20 years of experience in the market it has been seen that the demand for lighting products is seasonal. So, the campaigns developed may have functioned as brand recognition for future sales, which will not be measured in the present experiment.

Another important limitation is the budget, since only \$ 200 could be spent for each digital medium. In the case of Google, because it is the most expensive medium, it may be that the budget has affected the obtaining of leads and a greater investment was needed in the digital medium to obtain the expected results.

Finally, it could be said that another limitation of the experiment is internet penetration in Guatemala, since penetration is 65% in 2020, so some clients still cannot be accessed through this means.

5.4 Lessons learnt from B2B digital marketing

Using limited funds and the tools that digital marketing provides to generate customers from a B2B segment is possible. It can be done in a relatively easy way, with lower costs than traditional marketing. More importantly, it can be done quickly since only a social media account is required. In contrast, traditional media requires a very long chain of people and more money to launch an ad to the general public.

It is essential to mention that although the leads or clicks were obtained using the previously mentioned digital platforms, this is only the first step of the sales funnel. Relationships with customers in the B2B segment require much more work to build trust or a purchase.

The study observed that not all the strategies applied for the campaigns work in the same way for each digital medium. You must know each digital medium's advantages and disadvantages and use the tools that work best for each one.

The results obtained from the change of settings for each digital medium worked well for this specific campaign. It does not mean that the same settings will work for future campaigns, but they provide a basis for calibrating Lumiart's digital strategies. The company has to experiment with the media and undergo trial and error experiments to calibrate the digital tools for more conversions with the same budget. Getting the B2B segment's best conversion rates will take time, hard work, and experience.

Facebook proved to be the best platform to generate leads in the B2B segment of lighting products. However, it is known from experience that the Guatemalan market is gradually adopting global trends regarding digital marketing. Therefore, it is essential to continue using this platform to generate leads at a lower cost without leaving aside the digital trends or other digital media that will innovate in years to come.

5.5 Implications for relevant stakeholders

This study presents preliminary results of which digital media have a better reach for the B2B segment, which will help stakeholders better allocate the marketing and sales budget to generate better results. It should be considered that, as time passes, digital media will change, and so will the preferred medium. This experiment may be obsolete in some years; therefore, it is vital to analyze the monthly campaigns' indicators and look for new digital media to promote.

The top cities in Guatemala that showed interest in the products are also presented, so the stakeholders could focus sales efforts for these areas and improve the management of face-to-face visits to clients. In the same way, the age segment of interested clients and gender were specified. This information is of great importance for future promotions where this established target's needs must be considered to convert leads into sales and sales into re-sales, forming lasting relationships with customers, which according to the theoretical framework is vital for businesses in the B2B segment.

Regarding the changes in the campaigns' settings, it was determined that each digital medium works differently and that changes can be implemented in the campaigns' configuration initially to leverage the budget to the maximum. Knowing what settings best perform on each platform was vital to understand how conversion to leads and future sales can be maximized.

5.6 Future research

For future research, it is proposed that advertising to be segmented to all areas of Guatemala except for Guatemala City to distribute most of the budget in the other cities where there is not much competition. In turn, obtaining more leads in these cities, and more customers for the B2B segment would be easier.

A more interactive type of advertising is also recommended, such as a video or an animated publication. This implementation could improve CTR, and the number of leads received. In the present investigation, images were used. However, digital advertising is migrating to video, so it is crucial to explore this option.

For Google, it is suggested that further promotion is continued. Testing different keywords and images might provide more transparency for the use of this platform. Additionally, each company must find the appropriate strategy for its business role. Google has the potential to generate B2B customers

since, in most of the world, this is the preferred funnel start for this field. It is estimated that to find a suitable configuration for lead generation, the company can take up to 6 months.

It is recommended that, for future research, the stock of the promoted products is measured, versus the sales of this period, to determine if the campaign was effective.

In general terms, it is suggested that Lumiart continues to promote in the before mentioned digital platforms, with different configurations and campaign objectives, to understand better which one works best. Due to the nature of the investigation, the change of configurations had to be limited. However, social networks and Google allow the flexibility to modify many campaign settings.

BIBLIOGRAPHY

- Albacross. (2019, January 29). *A guide to using Google Ads for B2B lead generation*. Albacross. <https://albacross.com/newsroom/google-ads-for-b2b-lead-generation/>
- Anaza, N. A., Kemp, E., Briggs, E., & Borders, A. L. (2020). Tell me a story: The role of narrative transportation and the C-suite in B2B advertising. *Industrial Marketing Management*, 89, 605–618.
- Arens, E. (2020, March 10). *The best times to post on social media in 2020*. Sproutsocial.Com. <https://sproutsocial.com/insights/best-times-to-post-on-social-media/>
- Bakhtieva, E. (2017). B2B digital marketing strategy: a framework for assessing digital touchpoints and increasing customer loyalty based on Austrian companies from heating, ventilation and air conditioning industry. *Oeconomia Copernicana*, 8(3), 463–478–463–478.
- Boateng, H., & Okoe, A. F. (2015). Determinants of consumers' attitude towards social media advertising. *Journal of Creative Communications*, 10(3), 248–258.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61(2), 35–51.
- Ganguly, S. (2015, March 17). *Why social media advertising is set to explode in the next 3 years*. Marketingland.Com. <https://marketingland.com/social-media-advertising-set-explode-next-3-years-121691>
- Hague, P., & Harrison, M. (n.d.). *Market Segmentation in B2B Markets*. B2binternational. Retrieved August 6, 2020, from <https://www.b2binternational.com/publications/b2b-segmentation-research/>
- Iankova, S., Davies, I., Archer-Brown, C., Marder, B., & Yau, A. (2019). A comparison of social media marketing between B2B, B2C and mixed business models. *Industrial Marketing Management*, 81, 169–179.
- Kaufman, I. M., & Horton, C. (2015). *Digital Marketing: Integrating Strategy and Tactics with Values*. Routledge.
- Kemp, S. (2020, February 18). *Digital 2020: Guatemala — DataReportal — Global Digital Insights*. Datareportal.Com; DataReportal — Global Digital Insights. <https://datareportal.com/reports/digital-2020-guatemala>
- Keywords: Definition - Google ads help*. (n.d.). Google.Com. Retrieved August 25, 2020, from <https://support.google.com/google-ads/answer/6323?hl=en>
- Magnotta, E. (2019). The innovative disruption of marketing and communication. In *Digital Disruption in Marketing and Communications* (pp. 144–180). Routledge.

- Manley, B. (2019, June 13). *Google Ads metrics: Top 7 metrics to measure PPC performance*. Engeniusweb.Com. <https://engeniusweb.com/articles/google-ads-metrics/>
- Mialki, S. (2019, September 12). *Firmographics & segmentation: How to use the 8 variables to target your audience*. Instapage.Com. <https://instapage.com/blog/firmographic-segmentation>
- Miller, M. (2012). *B2B digital marketing: Using the Web to Market Directly to Businesses*. Que.
- Newberry, C. (2019, May 6). *Social media advertising 101: How to get the most out of your ad budget*. Hootsuite.Com. <https://blog.hootsuite.com/social-media-advertising/>
- Newberry, C., & LePage, E. (2020, May 27). *How to create a social media strategy in 8 easy steps (free template)*. Hootsuite.Com. <https://blog.hootsuite.com/how-to-create-a-social-media-marketing-plan/>
- Ozuem, W. (2017). Digital marketing. In *Essentials of Marketing Management* (pp. 298–307). Routledge.
- Pandey, N., & Gudipudi, B. (2019). Understanding ‘what is privacy’ for millennials on Facebook in India. *Journal of Data Protection & Privacy*, 2(3), 224–233.
- Pandey, Neeraj, Nayal, P., & Singh, R. A. (2020). Digital marketing for B2B organizations: structured literature review and future research directions. *Journal of Business & Industrial Marketing*, 35(7), 1191–1204.
- Perricone, C. (2020, April). *The ultimate guide to Google Ads for 2020*. Hubspot.Com. <https://blog.hubspot.com/marketing/google-adwords-ppc>
- Polanco, J. (2020). *Personal communication*. Honduras. 08 August.
- Polanco, M.J. (2020). *Personal communication*. Honduras. 10 August.
- Popovici, V., Muhcină, S., & Popovici Alina, L. (2018). Traditional versus Online Marketing for B2B Organizations: Where the Line Blurs. *Ovidius University Annals, XVIII(1)*, 382–387.
- Santiago, A. A. (n.d.). *Is organic social media marketing still effective?* Business2community.Com. Retrieved August 5, 2020, from <https://www.business2community.com/social-media/is-organic-social-media-marketing-still-effective-02263826>
- Sheldrake, P. (2011). *The business of influence: Reframing marketing and PR for the digital age* | Wiley.
- Tiago, M. T. P. M. B., & Veríssimo, J. M. C. (2014). Digital marketing and social media: Why bother? *Business Horizons*, 57(6), 703–708.
- Vanguardia, C. (2020, August). *How is COVID changing consumers*. <https://www.lavanguardia.com/seguros/coches/20200828/483116341045/seguros-compra-digital-ahorro-covid-19.html>

Vieira, V. A., de Almeida, M. I. S., Agnihotri, R., da Silva, N. S. D. A. C., & Arunachalam, S. (2019). In pursuit of an effective B2B digital marketing strategy in an emerging market. *Journal of the Academy of Marketing Science*.

APPENDICES

Appendix 1: Demographic location week 1 in Facebook and Instagram

Appendix 2: Keywords used for week 2

Appendix 3: Keywords used for week 3

Appendix 4: Demographic location week 2 Facebook and Instagram

Appendix 5: Demographic location week 3 in Facebook and Instagram

Appendix 6: Demographic location week 3 Google

Appendix 7: Demographic location week 4 in Facebook and Instagram

Appendix 8: Demographic location week 4 Google

Appendix 1: Demographic location week 1 in Facebook and Instagram

Row Labels	Sum of impressions	Sum of clicks
Grand Total	52790	620
Guatemala Department	23829	306
San Marcos Department	2531	34
Huehuetenango Department	2392	31
Sololá Department	1119	27
Quetzaltenango Department	3276	27
Petén Department	1475	25
Izabal Department	1616	21
Totonicapán Department	962	18
Chiquimula Department	1927	17
Quiché Department	1561	15
Chimaltenango Department	740	13
Escuintla Department	1676	13
Alta Verapaz Department	1691	12
Suchitepéquez Department	1273	12
Sacatepéquez Department	1784	11
El Progreso Department	523	8
Retalhuleu Department	738	8
Jutiapa Department	1482	8
Santa Rosa Department	550	6
Baja Verapaz Department	641	4
Zacapa Department	555	3
Jalapa Department	449	1

Appendix 2: Keywords used for week 2

Distribuidor luces led para lamparas
Distribuidor luz led para lampara
Proveedor lampara led
Proveedor luces led para lamparas
Proveedor lámpara led
Venta Mayorista bombillas led
Venta Mayorista iluminacion led
Venta Mayorista lámpara led
Led
Ferreteria
Lamparas techo
Articulos de ferreteria
Distribuidor lampara led
Distribuidor iluminación led
Distribuidor lámparas de led
Proveedor iluminación led
Proveedor led para iluminacion
Proveedor lámparas de led
Venta Mayorista en guatemala
Venta Mayorista luz led para lampara
Venta Mayoristailuminación led
Distribuidor led para iluminacion
Venta Mayorista led para iluminacion
Lamparas
Distribuidor bombillas led
Distribuidor en guatemala
Distribuidor iluminacion led
Distribuidor lámpara led
Proveedor bombillas led
Proveedor iluminacion led
Proveedor luz led para lampara
Venta Mayorista lampara led
Venta Mayorista luces led para lamparas
Venta Mayorista lámparas de led

Appendix 3: Keywords used for week 3

Palabra clave	Impr.
luz led	3290
led	2365
lampara led	1721
luces leds	969
electrico material	317
lamparas de pared	214
iluminacion	173
foco led	116
material electrico	95
electricidad productos	92
bombillo	81

Appendix 4: Demographic location week 2 Facebook and Instagram

Row Labels	Sum of Impr.	Sum of clicks
All	53316	1149
Alta Verapaz Department	1781	27
Baja Verapaz Department	568	10
Chimaltenango Department	1002	21
Chiquimula Department	1232	17
El Progreso Department	495	10
Escuintla Department	1759	33
Guatemala Department	25518	510
Huehuetenango Department	2753	70
Izabal Department	1649	37
Jalapa Department	641	9
Jutiapa Department	1046	18
Petén Department	1360	43
Quetzaltenango Department	3401	94
Quiché Department	1500	41
Retalhuleu Department	500	8
Sacatepéquez Department	1430	39
San Marcos Department	2801	64
Santa Rosa Department	470	10
Sololá Department	1043	29
Suchitepéquez Department	799	10
Totonicapán Department	809	31
Zacapa Department	759	18
Grand Total	106632	2298

Appendix 5: Demographic location week 3 in Facebook and Instagram

Row Labels	Sum of Impr.	Sum of clicks
Alta Verapaz Department	863	6
Baja Verapaz Department	293	1
Chimaltenango Department	616	3
Chiquimula Department	782	5
El Progreso Department	295	1
Escuintla Department	941	5
Guatemala Department	31036	177
Huehuetenango Department	1575	17
Izabal Department	1025	6
Jalapa Department	450	5
Jutiapa Department	802	8
Petén Department	668	6
Quetzaltenango Department	2280	10
Quiché Department	861	3
Retalhuleu Department	250	0
Sacatepéquez Department	819	4
San Marcos Department	1599	11
Santa Rosa Department	314	2
Sololá Department	666	2
Suchitepéquez Department	639	8
Totonicapán Department	429	5
Zacapa Department	606	4
Grand Total	47809	289

Appendix 6: Demographic location week 3 Google

Row Labels	Sum of Impr.	Sum of Clicks
Alta Verapaz, Guatemala	125	1
Baja Verapaz, Guatemala	29	0
Chimaltenango, Guatemala	170	7
Chiquimula, Guatemala	188	6
El Progreso, Guatemala	36	5
Escuintla, Guatemala	248	0
Guatemala, Guatemala	15934	257
Huehuetenango, Guatemala	229	1
Izabal, Guatemala	497	6
Jalapa, Guatemala	92	0
Jutiapa, Guatemala	207	4
Petén, Guatemala	80	0
Quetzaltenango, Guatemala	503	2
Quiché, Guatemala	151	4
Retalhuleu, Guatemala	62	1
Sacatepéquez, Guatemala	228	1
San Marcos, Guatemala	96	0
Santa Rosa, Guatemala	62	0
Sololá, Guatemala	71	2
Suchitepéquez, Guatemala	78	2
Totonicapán, Guatemala	57	0
Zacapa, Guatemala	60	0
Grand Total	19203	299

Appendix 7: Demographic location week 4 in Facebook and Instagram

Row Labels	Sum of Impres.	Sum of Results
All	42812	72
Alta Verapaz Department	872	2
Baja Verapaz Department	280	0
Chimaltenango Department	763	3
Chiquimula Department	818	1
El Progreso Department	268	0
Escuintla Department	979	1
Guatemala Department	25296	34
Huehuetenango Department	1393	2
Izabal Department	1076	5
Jalapa Department	372	0
Jutiapa Department	813	1
Petén Department	558	3
Quetzaltenango Department	2511	2
Quiché Department	924	1
Retalhuleu Department	383	0
Sacatepéquez Department	927	1
San Marcos Department	1388	3
Santa Rosa Department	420	3
Sololá Department	895	4
Suchitepéquez Department	693	1
Totonicapán Department	608	3
Zacapa Department	575	2
Grand Total	85624	144

Appendix 8: Demographic location week 4 Google

Row Labels	Sum of Impr.	Sum of Clicks
Alta Verapaz, Guatemala	104	6
Baja Verapaz, Guatemala	24	1
Chimaltenango, Guatemala	120	8
Chiquimula, Guatemala	101	3
El Progreso, Guatemala	40	3
Escuintla, Guatemala	198	7
Guatemala, Guatemala	11134	550
Huehuetenango, Guatemala	214	9
Izabal, Guatemala	327	18
Jalapa, Guatemala	147	4
Jutiapa, Guatemala	146	9
Petén, Guatemala	114	4
Quetzaltenango, Guatemala	378	26
Quiché, Guatemala	82	2
Retalhuleu, Guatemala	58	2
Sacatepéquez, Guatemala	173	10
San Marcos, Guatemala	137	8
Santa Rosa, Guatemala	111	7
Sololá, Guatemala	80	3
Suchitepéquez, Guatemala	116	6
Totonicapán, Guatemala	66	7
Zacapa, Guatemala	70	2
Grand Total	13940	695