

Social media posts and user engagement in aGRowork:

A comparative analysis between

image, video and gamified campaigns

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### **Abstract**

This dissertation is written as a latest part of the MSc in E-business and Digital Marketing at the International Hellenic University by Spyropoulou Maria-Nikoleta under the supervision of Dr. Tzafilkou Katerina.

Nowadays, consumers have increased the usage of Digital Media in their daily life. As a result, social media became a phenomenon which has drastically transformed as the communication of individuals around the globe and the consumer expectations and buying behaviours.

In order to survive, more and more companies changed their business plan and adapted digital marketing in their strategy in order to reach their target markets. Many industries seems to be interested, and make use of social media internationally and through communication reach capacity, to mark user's intention to spend a vast amount of money in order to supply products and services by discovering the different ingredients that contribute on the engagement of the user.

Based on user experience (UX) and user engagement are the main aspects that would be important for the successful creation of marketing campaigns. This study tries to examine how user engages with posts and in which type of posts, giving an analytical report of all the components. Those components mainly refer to the 3 type of post, image post, video post and a gamified post. Datasets were exported from questionnaires which users had answered. The main target is to examine and research if engage the user and how it could provide them with a better user experience through gamification on marketing campaigns. The 4 variables which constitute the User Experience are attention, enjoyment, excitement and brand engagement. To test this relationship, in our research model, we developed a study in which the sample that we used is 36 users and try to found any difference or correlation among the campaigns.

This survey is designed as a quantitative and qualitative content analysis that analyzes three different campaign types. Analytical, our research is based on the creation of various prototypes Conducting A / B testing between marketing campaigns and their tests, photo marketing motion, a video marketing motion and a gamified marketing motion. In consequence, we are using quantitative and qualitative research methods for in depth examination and results. The export data are investigated through numerous statistical tests in SPSS like reliability tests, normality distribution tests, descriptive statistics per category, significant differences tests. This research based on the prior literature is going to provide knowledge to the marketers and in general to the decision makers of how and in which ways through organic posts in social media activity, it will be increment of the engagement of users. This thesis is an attempt to correlate the term of gamification with user experience through the combination and test of three different campaign's types and try to correlate if and which way affect the customer behavior.

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### Introduction

For billions of individuals around the world, portable apps, social media, the Web and all other advanced communication innovations have ended up an fundamentally portion of our day by day lives. Agreeing to January 2020 measurements, 4.54 billion are dynamic clients, bookkeeping for nearly 59% of the world's populace (Statista, 2020a). Social Media utilization may be a need figure for the lives of numerous individuals over the world and gives to companies numerous openings, to connected with their clients, increment brand mindfulness, impact buyer demeanors, give criticism, and offer assistance move forward current administrations and items.

The environment in which business operate has significant effected from the advance of digital technologies. Beneath these circumstances, companies can advantage from making social media truly showcasing and fundamental parts through commerce techniques. Mainly, social media concepts are convenient; many business executives such as Facebook, Instagram, YouTube, and Digital Marketing Experts are many priorities. Social media may have been given to take an interest in social intelligent on the Web with modern customers.

On the one hand, the technological revolution and the proliferation of handheld devices have dramatically changed consumer behavior. The up come of social media make millions of users all around the globe to submit their personal data on and on through internet. Characteristic examples of it are post comments, finding friends, like or even share content of others. Mainly generate content and network with other users. In the other hand, businesses from their side also make use of these social channels for marketing purposes such as, marketing advertisements or suggestions of similar products, etc. A good way in order to organizations be able to interact with their online customers is the use of social media, in this way the company also achieves reputation and brand awareness (Gensler et al., 2013). Interactions and user preferences allow business to take advantage of the data generated. The use of companies to handle in a right and clever way the big amount of personal data of the users give to the companies, the opportunity to get know better their users and be able to provide products or services which are more close to their preferences. In that way, companies are succeed to increase their sales, to produce products more attractive or more personalized services to their customers.

As like the traditional marketing finding and clarifying user needs, user perceptions and attitudes from a number of messaging and communication tools (Kang, 2018) that suggest companies are trying to meet the needs of online users is more than important. The community understands and generates specific offers that support these needs and effectively communicates with users to increase the satisfaction of the online community.

Based on references, digital marketing and generally marketing involves in a certain degree motivation, papulation and persuasion in users.

And in this angle, gamification has awesome openings in showcasing (Zichermann & Linder, 2010).

The advancement of social program and online recreations that can be portion of e-business has made a unused marvel that offers to the client encounter and makes energetic interest through "gamification" (Rodrigues, Oliveira & Costa, 2016). In the past few years, a significant interest in industry and academia has raised the term of gamification. Characteristics examples are industries like commerce, education, healthcare and logistics.

In spite of the truth that observational inquire about on the utilize of gamification has been gathered in numerous regions, our conceptual understanding of what gamification is and how it can be characterized. Still has a gap. Although games are being offered as a service to more and more consumers, there are not many published academic papers linking game studies and service or marketing literature. (e.g., Hamari and Jarvinen 2011; Hamari et al 2015; Sigala 2015; Sotamaa 2009).

However, the main question remain, what is the secret recipe in order to survive and thrive in a fast passed environment like this?

This research tries to find and explain behavioural figures in order to be able to understand the way social media users react and what factors influence social media posts the most?

Based on 4 user's experience variables:

- Attention
- Enjoyment
- Excitement,
- Brand engagement

Our aim is to investigate the application and impact of gamification in marketing activities.

In the next chapters of this study, we give a holistic I view of the main concepts of current environment of social media and generally of digital marketing. Also, in our research contain the definition of gamification term and trends, in what way our main users are linked with gamification evolution. The third chapter launch the evolution of our technique and hypotheses based on creation three unique prototypes of marketing campaigns and evaluating them, conducting a/b test between a gamification post, photo post and video post. The designing phase is our next step in which created for the evaluation of the three prototypes. This job is completed via the building of user feedback mechanisms such as questionnaire. In Chapter 4 & 5 of our study, we are describing how the data collection and analysis was perceived. Specifically, in chapter 4, we are analysing the data research, then followed for the examination of the outputs which is done by using qualitative and quantitative research method like statistical analysis. The final chapter, Chapter 5, presents the final conclusions and results of the entire study. In the last chapter, the paper concludes with a summary of the results, discussion of their contribution on the user experience.

Our main goal is to provide useful insights and inspire our reads to be conduct further studies. We hope that the next page will serve our goals and provide guidance to our readers.

### 2 Literature review-Theoretical Review

## 2.1 Digital Marketing Landscape

The quickly advancing advanced economy is testing the pertinence of existing promoting strategies and requires a total update of the showcasing educational modules to meet the modern commerce needs of the 21st century. It's important to mention that there are over 50 million registered companies on the Facebook page, and more than 88% use Twitter for marketing (Lister, 2017). Companies can make a enormous contrast in making social media promoting an fundamentally portion of their by and large trade arrange.

Companies include Snapchat, Instagram, Twitter, Facebook, etc. Platform selection is parallel to consumer segmentation and marketing planning. Social media offers the opportunity to connect with consumers. Raise label awareness, influence consumer attitudes, collect feedback, help improve current products and services, and increase sales. (Algharant et al, 2018, Kapoor). But which form is more relevant or valuable for our service or for our product?

Based on later experiences, we' ve found that intuitively brand on later experiences, we've found that intuitively brand posts gotten more responses than instructive new substance. Twitter was more viable for valuable requests. The comes about that Facebook performed superior for intuitively excitement posts, and Instagram performed way better for intelligently substance that combined valuable amusement boosts. On Facebook and Instagram, intelligently brand posts with blended request were the foremost responsive, but self-referential data with instructive request was the slightest engaging. (Kusumasondajaja, 2018). In order to remain relevant to our consumers a creation of a digital marketing campaign and an overview of recent marketing trends is needed. In the following lines we will see the 5 more powerful types of digital marketing, or strategies as found in the literature.

- 1. SEO (Search Engine Optimization): Allows content to be ranked high in search engines. As a result, users who are specifically looking for a particular product can find a website.
- 2. SMM (Social Media Marketing): make use of social media to promote a brand, product or content
- 3. Content marketing: It plays a imperative part within the victory of showcasing communications. Companies are progressively curious about utilizing consumer-created substance as a important advanced promoting device. Agreeing to one overview, 28% of millennials process blogs and 44% examined blogs (Promoting Breakthroughs Inc., 2008).
- 4. Paid Advertising: Online advertising enables marketers to target only those users who are looking for a particular or related service that a business offers.
- 5. Email Marketing: Via email offer to everyone access to the kind of clever tools and features that let us refine and customize our messages to our customers.

The importance of digital marketing is given by some particular and conceptual features included in seven operational roles, specifically: personality, confidentiality, consumer service, the community, security, sales promotion [4]. Digital marketing has produced and will show the path to changes not only in companies, but as well in consumer behaviour.

Marketers create their own marketing campaigns and use their own marketing channels based on the intent and goals of their campaign.

The most important challenges at this time based on Hubspot investigation are:

- Brand Awareness and Reach
- Sales
- Web traffic and Engagement
- Conversions

### 2.2 Gamification Definition and Landscape

Nowadays, the method of online recreations and social programs as an e-business application is making unused patterns pointed at UX, in this manner making energetic support through "Gamification". (Rodrigues, Oliveira & Costa, 2016).In recent years, gamification has attracted attention among practitioners and game scholars. In any case, the current understanding of gamification is based exclusively on the act of including precise amusement components into benefit.

In this second part of the literature, our main goal is to introduce the meaning of Gamification and see some different dimension of this. In order to be more specific, we will see what gamification is about and what is the status on the research today and specifically in the market field.

In addition, we participate in the definition of the theoretical form of most service marketing Gamification applications focus on marketing goals which leads to the dialog between the conceptions of how consumer is always last value's creator.

The display gamification's definition is the control of diversion creation components on non-game settings. Another term for Gamification is the method of utilizing diversion considering and diversion mechanics to capture the user's attention and fathom issues which will emerge. At the first sight maybe consider these two definitions as the same. However, these definitions are not complete when it comes to what gamification is and how we want to implement it. If we analyse it, we can see that if the reader is inexperienced with the mechanics and elements of the game, they may have difficulty interpreting. Therefore, we will use a more complex definition already mentioned in the same document. The aforesaid definition is widely accepted and describes that gamification borrows external features from games to achieve interaction where games can generate non-game projects. To sum up gamification is a combination of design sections, ingredients and components in order to earn the engagement and fulfil the human emotional demands follow the same pattern as games.

The most esteem if the inquire about is to calculate whether buyers are expecting in partaking to promoting exercises. Through that review, we can note that all marketing professionals examine gamification a valuable introduction to the marketing projects of their customers or their brand because of the expand in engagement via positive interactivity. In order to reach this desired

influence, the gambled segment of a campaign needs to be relevant and good made to engage with the target audience. This is what makes gamification a feature attract users in essence, by capturing her/his attention and enthusiasm to constantly interact with it and for this reason finally the user gets fulfilment and pleasure.

It is important to mention that the idea of gamification and its techniques in a non-gaming environment has become an emerging application in marketing. (Yang, Asaad & Dwivedi, 2017). For a pleasant apply of marketing encouragement, inspiration and manipulation are requisite features and moreover gamification seems to have a significant possibility in marketing (Zichermann & Linder, 2010).

Research have revealed that individuals enjoy competing, taking part on games and, most importantly, winning. In the same way in gamification, our spectators can complete and win prizes as well as revel in watching others compete. People appreciate the process of participating in a competitive activity with rewards despite the fact that the rewards are small, symbolic or virtual. Gamification takes the characteristics of games and applies them to the use of marketing and gamification that can ultimately influence people's behavior and thinking. According to Anderson and Dill (2000), games create influences on the way players behave and think. In parallel, gamification, which has been used in different contexts, is believed to have a positive effect on behavior and attitudes in practice (Dominquez et al. 2013; Rughinis, 2013). Ultimately, games and games are both goal-directed structures with benefits such as points, levels or badges, which can lead to a transfer of trust or an attempt to gain a benefit or bonus, which is illustrated in the theory of the value of expectations (Shepperd, 2001). In summary, customers are likely to change their approach to thinking due to the reward context in gamification.

### 2.3 Gamification Design Features

As Zicheemann and Linder (2010) have pointed out, gamification is seen as the next area in marketing technique, aimed at changing the relationship between man-machine and user experience by suggesting driving incidents and playfulness (Hamari, 2017). This portion of the writing survey builds on giving the gamification plan system to take after, as well as distinguishing the centre highlight and components that control the complete prepare. We needed to test the applications and comes about of gamification showcasing exercises on client involvement, esteem, fulfilment, brand love and craved behavior of buyers in a specific e-commerce setting.

Based on the evaluation of related studies confirms that the five constructs of:

- Entertainment
- Trendiness
- Interaction
- Intimacy
- and novelty

Generally, there are two sorts of human inspiration, natural and outward inspiration. Outward inspiration, on the one hand, incorporates activities based on outward rewards

other substantial merchandise. Inborn inspiration, such as cash, laud, or the other on hand, centers on practices that lead to accomplishment or internal discernments, such as joy or other positive sentiments (Denny, 2014).The rise and notoriety of diversions in promoting exercises, the modern slant of gamification, has as a result to draw in marketers' consideration. It is watched that gamification has gradually being inserted within the contemplations of showcasing administrators, which appears a development of 2.8 billion in 2016 (Meloni & Gruener, 2012) in gamification advertise.

In addition, a 2013 survey found that more than 70% of Forbes Global 2000 companies said plan to use chemistry games for marketing and customer retention purposes (Park & Bae, 2014).

The cause of the purpose of game marketing is to convey product or brand information to the users and thus it is an incentive for the participants to acquire the information and engage in or pursue an action, which on this occasion we are entering the game for its sake, have on them.

The 16 Basic Desire Theory (Reiss, 2000) was created to understand natural human desires as well as the basic principles of cooperative engagement in business. Therefore, it provides utility for analysing and predicting human behaviour which some of these characteristics can be expressed as: Order, Power, Independence, Curiosity, Acceptable, Saving, Idealism, Honor, Social Contact, Family, Status, Vengeance, Romance, Eating, Physical Activity, and Tranquillity. In addition, Self-Determination Theory (SDT) (Deci & Ryan, 1985) framed a motivation model for comprehending what and how human behaviour is initiated and controlled. Finally, it notes the social and environmental conditions that influence individual intentions and participation in activities.

In addition, in studies of games, there is evidence that motivation and emotional involvement during gaming can be enormous. The main idea of the game is to use this challenging ability of the game for purposes other than just the entertainment purposes of the game itself. However, while games are often thought of as an effective incentive, we almost never find research and surveys on the game's compelling motives for marketing purposes. Moreover, according to previous studies on games, researchers have found that social needs and affective factors, especially positive ones, can motivate people to play games.

In a very difficult world and in order to keep us, it is important to maintain consistent knowledge and research about the market. As a result, marketers come up with a variety of marketing strategies and marketing channels using them depending on the goals and targets of their campaigns.

At this stage, we would like to present the nowadays' main challenges. According to Hubspot research these are:

- Brand Awareness and Reach
- Sales
- Web traffic and Engagement
- Conversions

In general, gamification or game consists of all the four aforementioned game ingredients. The applications which haven't the entire of above characteristics are not qualified as game or gamification features.

Common action of all, providing cohesive interactions that create the feel of a game and thus, are important to know for the design of a campaign with gamifications features.

Some of them are:

- Enviroment
- Audio feautures
- Avatars

The implicit game concept makes it clear that the customers themselves determine whether they are attracted to the game experience and, therefore, the perceived value of the service is increased.

Finally, there are three marketing ideas relevant to the gamification landscape:

- 1. Engagement, showing the psychological development of consumers in assessment (ie cognitive engagement), the development of affective relationships between brands and consumers while performing activities (i.e. emotional interactions), and finally consumer participation and participation in consumer markets as well as Consumer attitudes in GMAs ( i.e behavioural engagement) (Fredericks, Blumenfield, & Paris, 2004)
- 2. Brand Loyalty that uses two directions:
- a. attitudinal
- b. and behavioural

Attitudinal brand loyalty is a psychological establish, while behavioural brand loyalty is a substantive establish (Cheng. 2011).

3. Brand awareness is related to beliefs and associations of the consumer for the brand (Keller, 1998). Brand awareness is linked with the consumer's ability to acknowledge a brand whereas, brand image include the perception of the customer and relation for the brand (Keller, 1998).

Finally, the possible combination of gamification and marketing is very important. In our research, we apply gamification to our marketing efforts to increase customer engagement and drive specific behaviors. (Kuo & Chuang, 2016; Seaborn & Fels, 2015; Simoes, Redondo & Vilas, 2013).

### 2.4 Gamification in Data Collection

In the fourth part of our dissertation, we will focus on the association of gamification and data collection. We will answer in the most important questions for instance, what the basic purpose is and what the results of this connection.

The most common problems for collecting data on human behavior are time, expensive and subject to a limited group of participants. A classic way of approach is a various and big participant pool with operating costs is Crowdsourcing. However, Crowdsourcing arises many questions about the low worker pay and the quality of data.

### 2.5 The emerge of Social Media

Social Media have\_created upcoming chances to consumers with the purpose to grab their attention and engage in social interaction on the internet. Consumers use social media, **such as** online groups, **daily** to create content and **connect** with other users.

Specifically, users create and exchange self-made content through social media which is a blanket term for a set of services and applications which based on web.

Kaplan and Haenlein suggest that social media is able to be classified into six groups based on their degree of social appearance and self-presentation.

### The categories in the classification are:

- 1. Blogs (e.g. Twitter, Blogger)
- 2. Collaborative projects (e.g. Wikipedia)
- 3. Social networking sites (e.g. Instagram)
- 4. Content communities (e.g. YouTube)
- 5. Virtual social worlds (e.g. Second Life)
- 6. Virtual game worlds (e.g. World of Warcraft).

Ahlqvist, Bäck, Halonen and Heinonen (2008) provide another clarification for social media. They characterize social media by three key attributes:

- Content
- Communities
- Web 2.0.

Based on Web 2.0 technologies there are a lot of elements in social media which can elaborated through author's opinion. Users can create content of various types, also users who is part of the same communities generally have the same interested of the same topics.

According to Boyd and Elison (2007), a similar definition in relation to social media is "social networking site". Social networking sites as web services the users are authorized to generate at least partially public profiles

- articulate a list of users they share a connection
- and view and traverse the list of connections as well as those made by other users.

Although quite similarly named, the authors note that this definition is not to be confused with "social networking sites", which are just a type of social media as denoted by Kaplan and Haenlein (2010). Despite the correlation between them, it's necessity to emphasize that the phenomenon of relationship initiation relates to "networking" and despite of the popularity on many social network sites, it's not usually the most common practice. For that reason, authors prefer the use of the term "social network site" instead.

In order to understand better the length of Social Media in our today lives, we will take a look in some numbers.

Specific January 2009, the active users who registered were more than 175 million on the online social networking application Facebook.

To consider that number, that's more than twice the population of Germany (80 million) and just slightly less than the citizens of Brazil (190 million). At the same time, every moment matters, 10 hours of content has been shared and posted on the YouTube video sharing platform.

The concept of Social Media is number one priority for many businesses executive today, Decision makers, as well as consults, try to identify ways in which firms can be beneficial from the use of applications such as Facebook, Instagram, Twitter and YouTube.

For the purpose of a clear understanding of the terminology of the term" Social Media", it's more important than ever to take a step back and see some of the most important insights like the beginning of the journey of Social Media and what this journey is about.

The journey began in 1979 when Tom Truscottt and Jim Ellis of Duke University created Usenet, a global chat system that allowed Internet users to post messages in public. However, the concept of social media as we know it today began 20 years ago, when Bruse and Susan Abelson founded "Open Diary," a social networking site that initially brought together editors of online newspapers in a single community. The rapid accessibility of high-speed Internet access made the concept popular, leading to the birth of social networking sites such as MySpace (in 2003) and Facebook (in 2004). This, in turn, coined the term "social network" and contributed to its popularity today. The most recent addition to this prestigious group of is the so-called "virtual world": computer-simulated environments inhabited by three-dimensional avatars. One of the most virtual worlds is Second Life by Linden Lab (Kaplan & Haenlein, 2009c).

Although the foregoing list of applications may tell you what Social media, a more formal definition of the term requires first drawing a line between the two concepts commonly associated with it: Web2.0 and User Generated Content. Web 2.0 is a term first used in 2004 to describe a new way in which software developers and end users started using the World Wide Web; that is, as a platform where

content and applications are no longer created and published by individuals, but are instead continuously modified by all users in a participatory and collaborative manner.

In 2005, social networking was a term that had become widespread. Primarily due to its ability to describe different forms of media content that is publicly available and generated by the end user.

Based on this general definition there are many types of Social Media which needs a further analysis. It's important to mention that part of this large group are Wikipedia, YouTube, Facebook, and Second Life. Also, it must be clear that there is not a systematic way in which different Social Media applications can be categorized

In summary, the higher the social presence, the greater the social influence of the communication partners on each other's behavior. The concept of media is closely related to the idea of a social presence that is more effective than other media in dealing with ambiguity and uncertainty.

Applied to the context of social media, we assume that the first classification can be made according to the richness of the media and the extent of the social media.

### 2.6 Social media features as game-like elements

The majority of the sites that we know incorporate common social media features, including connections to other users, possibility to rate other users' activities and sharing content to others. Although the features have different names from site to site and there are some slight changes on their functionalities, they generally work the same way in all the sites. The connections with other users have various names. For example in Facebook, a connection between two users is when they are becoming "friends", while in Twitter, a connection exists when the users "follow" each other. Following, the connections between users work similarly: after forming a connection, users get updates of the activities of the users that relate to and are allowed to view more detailed information about them. Again, as an example on Facebook, users that are friends with each other can see all the profile information, except the portions that the owner of the user profile want to keep private. Another example is Steam where users who are friends are able to view each other's game collections and get notifications about which game they are currently playing. Another common feature is the rating on users' activities. In more details, the rating functionality comes in two seperate forms: ratings which are positive and ratings which are negative. The former rating system gives the possibility to users only to give positive ratings or to opt out from giving a rating at all while the latter rating system permits both positive and negative ratings. Sites like Facebook, Fitocrary and Printerest are using positive only rating and sites like Reddit, StackOverrflow and YouTube are using positive and-negative rating system. Through the years, the rating system However, changes are made through the years and an example is Facebook where has updated its rating system and provides also positive-and-negative ratings. A no rating activity is also provided by a few of the sites, including Wikipedia, where instead they use a more subjective and rich-text form of feedback if needed and is explicitly constructed by the users. What comes next, is sharing which consist of of the common feature in social media. Similar to rating systems, sharing allows internal, external, or both functions. Internal sharing means that an activity or content can be shared in the same system. An example of this is the sharing in Facebook, where a user can share public posts and people that are connected with this specific user can see them. If there is not any connection between users posts cannot appear in the activity feeds. On the other hand, external sharing means that activities or content can be

shared to external sites. For instance, a blog post in Blogger can be shared also to Facebook in which can be accessed, commented, and rated.

Cross-site sharing is a common feature which again is found in almost all of the sites that were analysed. Due to social pressure and as a rate of popularity, users desire to increase the number of their connections and the number of positive ratings on each of their posts. Without the social aspect, these numbers would probably be only of informative nature. None the less, as other users can usually see these numbers, they may provide external value as well. There is a variety of users' types on Facebook. There are those users that want to befriend with as many users as possible, whether or not they know each other in advance, while there are some others that they want to connect only with people that know in real life.

Not only the formation of connections but also can the ratings and the size of content shared be considered as game characteristics. One of these three social media features is calculated based on scores, for the moment they are usually seen as purposes to succeed. In none of them, there isn't the concept of reward something more than likes in Facebook world or "+1" in Google world. Certainty, these characteristics are explicitly mentioned as game features is questionable; they are not necessarily examined as scores, although they do resemble scores. Finally, as these numerical metrics are reviewed to encourage subscribers to use the service, these characteristics resemble even more the point system which is close in games.

### 2.7 Usage of gamification in Social Media

Not only does the need for engaging and sustaining users arise, but also the need for expansion of social media and the need for alternatives in existing services.

According to researches and especially according to Bist et al. (2012), gamification is one of the most important engaging methods. In online communities, there are involved three challenges which can engaged in combination with gamification:

- 1. Bootstrapping (gathering the initial user base)
- 2. Monitoring (observing user activity)
- 3. Sustainability (engaging users to continue use after initial phase)

As argued by Hamari and Koivisto (2013), in the initial phase of a service, there are many elements which can found in the sites and can be use on gathering and engaging the users. Gamification has a vital role in this phase especially when elements which reward users for certain behavior could be an key role in the bootstrapping phase. Before analysing the entry of games in Social Media, let us take one step back and try to think if the past years there was any similarity, any common use.

In the past years, Facebook served many applications and games which many of them (games) provide the developers with the possibility to target Facebook users through a specific platform for the games. Some of the many capabilities of Facebook are the ability to playing with friends and automatically posting updates of the games. For instance, some games such as Farmville allow players to trade ingame items in Facebook.

Moreover, Facebook is also famous for the use of social features in external games. A characteristic example is World of Warcraft which has employed a Facebook connection feature. Specifically, World of Warcraft player's post updates of their game progress to Facebook when using this feature. A notification comes to player's Facebook friend when an achievement has been unlocked in-game.

To sum up, as highlighted, the idea behind Social Media is far from ground-breaking. In nowadays, everything is about Social Media. Based on digital marketing expert's opinion, if you do not participate in Facebook, Instagram, YouTube and even in TikTok, unfortunately, you cannot be part of cyberspace anymore. Social media allows businesses to engage in a timely and direct way contact the end consumer at a relatively low cost and with a higher level of efficiency than can be achieved with more traditional communication tools. This advantage makes social networks not only attractive to large multinationals, but also to small and medium-sized companies, and even non-profit organizations and government organizations. Using social networks is not an easy task and even requires new ways of thinking, but the benefits are negligible.

## 3 Research methodology and Hypotheses

A classic statistical analysis involves specific stages which are the collection of data, the preparation of data, analysis of data, testing and the rating of the results. More specific in the parts which follows, the writer have expressed the way which need to be followed in order to understand better the user's behaviour in social media. In this section, the methology and the hypothesis used for this research will be presented.

For the clarification and the investigation of all aspects for the method of our research, we are able to declare that the methology separates in 6 parts:

- 1. Compose the hypotheses
- 2. Compose general aims and specifications
- 3. Crete prototypes of marketing campaigns
- 4. Collection of data
- 5. Analysis of data
- 6. Reporting and analysis of the results.

The initial half part of our research will be analysed in this section. The second half part will be discussed in the next chapters, individually.

### 3.1 Hypotheses

In the parts before, more specific on the literature review have been investigated the stage of the digital marketing world in nowadays. Within the perspective of what gamification and UX-designs is and in which way the components of gamification influences the client involve- ment. In this area is time to examine the association between them. In more details, we will try to find correlations between the form of our research model and the framework have been used. Our aim is to collect a certain number of members, find them randomly to interact with one of our created Instagram campaigns and then give to us their opinion via the questionnaire which have created for each campaign. The building of prototypes of a traditional strategy that involves gamification features was from the beginning our aim. Also, based on specific UX designs, the measurement, and the comparison of them, more specific from the side of enjoyment, attention and engagement on the brand, the testing will be conducted with the form of a questionnaire survey. The point is number of members, to accumulate a certain address them arbitrarily to take interest and connected with one of the planned promoting campaigns and after that give us with their supposition through the survey. Based on our strategy we selected Social media as our marketing channel and more specific Instagram & Facebook. As we saw on the writing, the foremost critical reasons are:

- Firstly, in construct to standard campaigns, the cost is significantly less than before and even when there is small budget, there is possibility to enter the auction and find success.
- Secondly, in case which our company tries to find alternative ways to increase engagement, website traffic, app use, or ecommerce sales, you can achieve these and more via the advertisement of social media.

The members of the inquire about will connected with 3 diverse sorts of campaign:

- The video post campaign
- The image post campaign
- The gamified post campaign

The goals of the 3 campaign will be firstly to spread brand awareness and secondly to promote a service. When the candidates will have interacted and experimented with the campaigns, they will be asked to give their feedback for each campaign by answering a specifically questionnaire for each campaign. In order to design our research model and create the questionnaire we had some hypotheses to ensure better our aims and targets of the research. Also, we are testing some of our below hypotheses which suggest that gamified campaigns create cognitive reactions to individuals by increasing their excitement and attention. As indicated by Zichermann and Linder (2010), gamification is believed to be the new era in marketing techniques, with potential to revolutionize humancomputer interaction and via user experience by offering motivation, gameful experiences (Hamari 2017). Marketing points to make unused communication channels in arrange businesses be able to illuminate their clients around their items and administrations and create intrigued in multidimensional handle made offerings (Kim & Ko, 2012). Promoting is seen as а up of different methodologies; Showcasing must be consider as an venture and approves the advancement of client esteem (Kim & Ko, 2012). Gamification can be an including esteem in order to energize and keep within the same levels the cooperation (Feng, Ye,Yu, Yang, & Cui, 2018). In expansion a few thinks about (e.g., Deciding et al., 2011; Huotari & Hamari, 2012) have appeared that gamification can make positive esteem for customers with more spurring and fulfilling encounters advertised by the amusement plan components. Hsu and Chen (2018) moreover uncovered that gamification encounter features a noteworthy and positive impact on the esteem of a item or benefit. A brand's engagement in gamification is taken as a promoting movement to construct a relationship.

*H1.* Perceived brand value will be significantly higher in gamified campaigns than in video campaigns. Characteristically, a study by Sigala (2015) has explored gamifications experiences and perceived customer's value in the moment they were using gamified websites and the impacts of these gamified experiences on online behaviours of customers, for example website use and engagement.

H2. Perceived attention will be significantly higher in gamified campaigns than in video campaigns. Based on the literature observed that applying the gamification ingredients framework and developing game elements and components creates a positive differentiating factor in the UX design. Moreover, an important benefit is that the online environment elements may impact in the emotions and intentions of the consumers and eventually generate brand awareness. As gamification is recognized as more fun and pleasant, it may serve as a solid separating point for the side that it is proposing it. Gamified campaigns includes esteem by enchasing the satisfaction of the shopper encounter when conducting the behavior, in this way raising inborn inspiration ( Jung, Schneider, & Valacich, 2010).

Taking after all the over we reach for our final theory and we may state that:

H3. Perceived excitement and enjoyment will be significantly higher in gamified campaigns than in photo campaigns. We characterize the three primary theories as the establishment of the inquire about which is exceptionally essential in arrange to shape our goals and errands. We seek after by giving the extra points and targets just like the determinations and points of interest of the investigate demonstrate

### 3.2 Formulate General aims and Specifications

Having clarified our fundamental objectives and speculations for the improvement of our investigate demonstrate and the creation of the models we are going continue with our strategy investigation concentrating on defining details and the points, depicting the applications and computer program to be created and utilized for the designing part and execution and inevitably we are going portray the information collection and the examination prepare.

#### 3.2.1 General Aims

The point of this paper, as clarified already and more particular on the portion 2.6 in parallel with the three theories we set, is to analyse how and in which levels motivate, enjoy or create awareness for the brand to the respondent, the addition of gamification features to the Social Media posts.

Subsequently, there we were outlined three diverse models of Social Media posts. The first of which was created as a gamified post which would promote the brand and the service.

For the calculation and the examination of the values said already, for gathering the user's supposition and esteeming the involvement that the interaction had with the built models, we

had to create a study. For the execution of this action, we made three diverse surveys; three online (non-gamified) surveys have been created to compare the responder's intuitive that interrelate with the photo post campaign, with them who interrelate with the video post campaign and with them who had experienced the gamified campaign. In two words, we created one video post, one photo post and one gamified post. On the next paragraphs, we dissect in more profundity the details and way of working for the creation of the overview as well as the devices and the approach with which, the social media posts were made.

#### 3.2.2 Specifications

This paper is both inductive and debuted: It incorporates a deductive approach since the objective is to pick up information and modern bits of knowledge based on the collected data with respect to gamification and from the point that there are existing concepts as displayed in theory and are used to create both the surveys and the campaigns, it incorporates a deductive approach since the objective is to pick up in formation and modern experiences based on the collected data with respect to gamification. The use of respondents and the use of instruments are the two specified section which have been developed specifications.

#### 3.2.2.1 Respondents

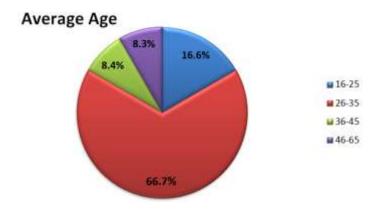
For the aim of this study, we were made three survey studies other than the more specialized portion and the improvement of the models. The export of some important conclusions was the idea behind the questionnaires fulfilment. All of the overviews assessed the conduct and the emotions by and large of the respondents whereas connection with the Instagram posts, having as a foundation the three theories clarified before. The whole study, even the three surveys has been conducted in English.

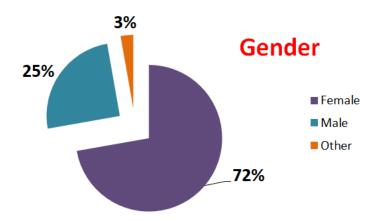
The answer's period gathering for the questionnaire took place from 1 of November until 15<sup>th</sup> of December at 23:59. The total responses which gathered for each questionnaire in the survey were 36, all of them were collected for the traditional surveys. The average age of the respondents was in the 26-35 years zone with 66,7 %, coming second the ages between 16-25 with 16,6% and following next the oldest with 36-45 years old at 8,4%. Finally, ages between 46-65 years old was the group resented at 8,3%. As of the gender, 26 women (72%) and 9 men (25%) have answered this survey, while one of our participants has decided to not specific it (3%). Regarding the education of the respondents, the vast majority (94%) have completed university studies, either only bachelor at 33%, master 58% or doctorate at 3%. For the professional filed of the responders we will mention the ones represented more and which were Finance at 8%, Business at 25%, Science at 14%, Marketing at 8%, Education at 8% and Information Technology at 14%, Health Care at 3%, Hospitality at 3% and Other at 17%. When analysing digital marketing knowledge and experience, we saw that 33% mentioned that they know what it is 28% stated that they are fully confident with the concept and have experience on it, while 8% mentioned that they have heard the terminology but are not aware of what exactly it is. Only 19% responded that are working on digital marketing sector while four of them responded that they don't have a clue (11%). These responses match with the percentages of people who responded that working in marketing or Information Technology sectors. Regarding Social Media Marketing and social media posts awareness, there was only two negative response saying that have heard the term but is not aware with it and only two negative responses that have no idea at all about the concept of Social Media. 89% of the responders mention that they are aware with the concept and are either simply aware by seeing sponsored posts in their feed (58%) or have experience in designing them (31%). Also,

it has to mention that none of the participants answer that is master on this field. Regarding Gamification concept awareness has been found as 53% said yes, 6% said maybe and 42% said no. However, when they were asked how they perceive the concept, the majority of the respondents selected the correct answer, receiving promotions and advertisements designed with game features with 47%. And followed, with:

- a percentage of 31% for receiving promotions or advertisements while playing a game
- 14% of receiving promotions or advertisements of games and in lower percentages
- play games in a computer or mobile device (6%)

and buying or selling games online (3%).





#### 3.2.2.2 Instruments

The design of the questionnaire has been created on Google Forms. The questionnaire is the main instrument for collecting data in survey research. The questionnaire can help us gather valuable insights into our audience. The major challenge in questionnaire design is to make it clear to all respondents. In order to identify and solve the confusing points, we need to pre-test the questionnaire.

Based on Sugar Aryal opinion, the best practises which summarize on a good questionnaire are:

- The creation of a well written list of questions.
- In the creation of the questionnaire must be embed an significant or important topic in order to earn respondent's interest.
- It should seek only that data which cannot be obtained from other sources.
- It is mandatory to be as short as possible but should be comprehensive.
- It should be attractive.
- Directions should be clear and complete.
- The order of the questions must be represented in good psychological order from the generic questions to the specific one.
- Double negatives in questions should be avoided.
- It should be avoided to put two questions in one question. Each question should to obtain only one specific information.
- It should be created to collect information which can be used later as data for analysis.
- Lastly, preview and test the survey.

The survey consists of 3 questionnaires. Only the first questionnaire consists of 29 questions and it was divided in two parts.

First part: The demographic questions are the first part of the survey which consisted from 8 questions. Because, the terms digital marketing, Instagram marketing which consists of photo, video posts and gamification are brand new, it was also emphasized on finding out if respondents know these terms. In case the responders, selected answers indicating they did not understand the terms, the questionnaire was terminated for them.

Second part: In this part, the total number of the questions was 19 were developed the most important for our research. The main reasons of the creation were to provide with important feedback on user experience and engagement after the interaction with the three different prototypes of social media marketing posts. The most know way to measure responder's UX and responder's engagement is the Likert scale questionnaires. For that reason, every question in this part was created using this scale. Therefore, each question in this part was designed using this scale. Responder's option was five.

- Not at all
- No
- Not sure
- Yes

### • Definitely yes

It's mandatory for every single respondent to choose between the previous five options. In the questionnaire there were mixed negative and positive questions. The main intension of this is to gather a better sample of data and reject the answers that were producing bias.

The following table was constructed to give a better clarification of the aim for every single question and the detailed analysis.

Table 1: Survey Questionnaire Constructed

Constructs	tem	Questions	
	1	Did the campaign grabbed your	
		attention	
Attention	5	Did you wish to spend your time	
		differently	
	ā	Did you find the content of	
		he campaign interesting	
	11	Were you thinking of other things	
		during your interaction with the	
		ampaign	
	15	Did you feel like you want to check	
		your mobile	
Excitement	1	pid the campaign make yo feel	
		hallenged to win	
	12	Were you seriously interacted with	
		he campaign	
	16	Are you interested to share your	
		experience with your friends	
	19	Would you say that the campaign	
		was boring	
Enjoyment	2	Did you enjoy the campaign	
	7	Did you think that the interaction	
		with the campaign was fun	
	Ð	Did you feel that time pass quickly	
		during your interaction with the	
	10	ampaign	
	18	Are you expecting for more	
	<u> </u>	ampaigns like that from now on	
Brand Engagement	5	Did you find the campaign different from the usual ones	
	<u> </u>	Are you looking forward for	
	P	urther campaigns from the brand	
	10	Are you looking forward for the	
	10	ewards/promotions/discounts of	
		the brand	
	13	Would you like to receive more	
	LJ	tampaigns like the one you	
		nteract with	
		interact with	

14	Did the campaign help you to	
	ecognize new products of the	
	prand	
17 Does the interaction with		
	ampaign change your opinion for	
	he specific brand	

Regarding the questions structured on the above table we could state that:

- The question items 5,7,9 and 13 were based on the research conducted in citation {15, 17}.
- The questions items 6, 11, 12 and 16 were developed by consulting the research made in citation {29,34}
- For the rest of the questions, the analysis was made through the general research and they were selected to measure the specific metric and category of user interaction and experience.

In case the participants wanted more information about this research there is at the end of the questionnaire survey an appreciation message. Also, provided them with an extra message which giving the email address of the research.

At the conclusion of each portion, members were inquired in the event that they have cleared out a deficient overview; in arrange to total the survey maintaining a strategic distance from inclination due to questions without answers. In arrange to be as straightforward as conceivable, the complete form in English of the overview has been included to Appendix.

For the secure of the research and to avoid having questions without answers, at the end of each part, the participants have been asked if they have left an incomplete survey. For every participant has been mandatory to complete the questionnaire. In order to have transparency, full version in English of the survey has been added to Appendix

On the follow parts of the study, it is mainly analysed the designing process. It is described how the design stages were evolved but also the tools and the applications were used and the details for the development of the prototypes are analysed.

### 3.3 Prototyping of marketing campaigns

We selected the Canvas website for the design of the video and photo posts and Easy Promo Platform for the design of the gamified post campaign. What is critical for the integration of the gamification characteristics on the gamified post campaign the deliberate was that we utilized the API between Instagram and Simple promo in arrange to have a coordinate association between the two interfacing for the creation of post models.

Regarding the market field and the products taken into consideration for the design of the prototypes, we used as guidness the top 7 examples of gamification include Headspace, KFC, Under Armour, M&Ms, Starbucks, Nike & Duolingo. All 7 examples illustrate how gamification can transform loyalty

programs, exercise, learning & marketing into something much greater. For our research, we used aGRowork company examples. The idea for these products was taken into consideration due to existing professional relationship with this company. A secondary reason was to find how effective is for a start-up company to introduce and use gamification post on first steps of company's strategy.

In conclusion for our inquire about, what was overseen was the beginning and classic post Instagram campaign to be outlined in Canvas utilizing essential highlights given by the stage. Whereas for the gamified approach, a model to be outlined in Simple Promos stage through which get to was given to the clients to connected with. Later, to achieve connection and comparative analysis between the photo post, the video post and gamified post create and gathered all of the types of Instagram campaigns in one common page, a WordPress page. This is an application programming interface which provides interaction and interchange of information among different applications. To sum up, this is what makes practical for the gamified marketing campaign to be created and be able to link gamification characterises and campaign structure.

#### 3.1.1 Traditional post campaign (video & photo post)

For the traditional photo and video campaign before, the basic, standard features given in Canvas Free package were used in order to create a prototype to be sent to the users. To design a prototype to be sent to the users and the platform is giving a part of diverse arrangements and originator options.

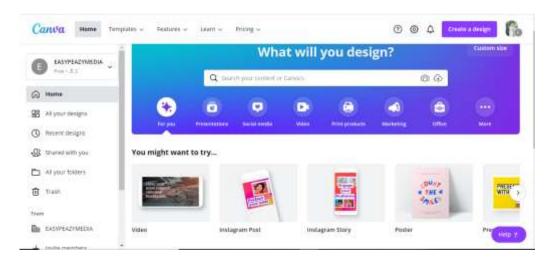


Figure 2: example of Canvas, post designing interface

For the reason of the current research, a basic newsletter structure was created with the purpose to promote the brand awareness, new products and to gather the awareness by giving discounted items.

There was no purpose to form an extraordinary adaptation of a post or to spend too much investigated time with the planning stage. Contradictorily, it was intended to construct an ordinary, normal post to be shared with the users.

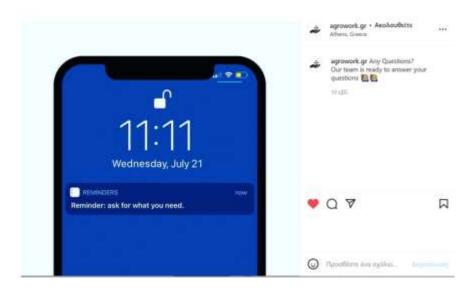


Figure 3: Screenshot of the traditional photo post

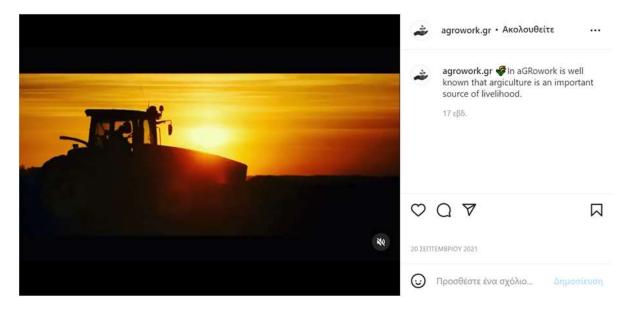


Figure 4: Screenshot of the traditional video post

On the first step, we upload the two posts on the Instagram account of aGrowork.gr. In order to followers interact with our post. After that, we conduct and share a WordPress page through mail in which conclude and thee marketing types. In the moment that user received our e-mail and informed, they had more or less 10 minutes to connect with the campaign and to collect user's belief. As the time was steamed and the process we described was completed, we were passing into the next step that was the answering of the questionnaire.

### 3.1.2 Gamified post campaign

For the gamified post campaign and more specific for the part of the design and the execution we used Easy platform. The main benefit of is that provides a direct API connection between the game and the platform that use for the marketing campaigns.

That gave us the opportunity to have the ability to implement the gamified prototype inside the post and to be able also to evaluate the process. The whole approach of it, is to provide a fun and interesting environment in combination to inform about the new services and products of the brand. The user's purpose is to solve the puzzle as soon as he can and win discounts and prizes in relation to the brand.



Figure 5: example of the welcome page in the gamified campaign

At the start of the interplay, a mandatory step in order the user play the game is to login. Our game provides two ways, either to completing the email address and confirming it either to connect through your social media accounts which are even more quickly and also give the possibility to users to share their scores with friends and even to competing them. Then, they have to find all the matching pairs as quick as possible. The quicker the better, time contributed in the total score.



Figure 6: example of the participation stages and game provided

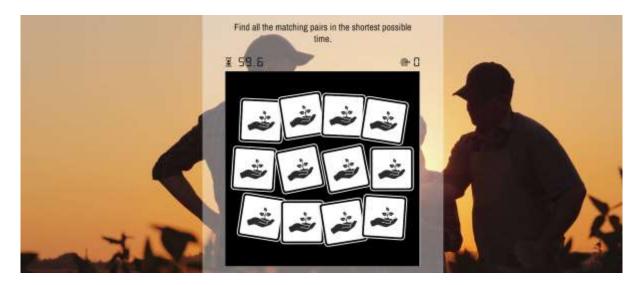


Figure 7: example of the participation stages and game provided

The Easy promo platform gives the opportunity to the brands to choose between many template options in order to find and select the most suitable game for each brand. It's important to mention that all scenarios have created by experienced designers and with the use of advanced graphics. The philosophy behind the game is the users solve the puzzle or the game more quickly than competitors. The whole experience involved personalization, time constraint and scoring experience. Our game is a characteristic example of content and solution-based games. In general, graphic adventures are mainly cases of content and solution based games.

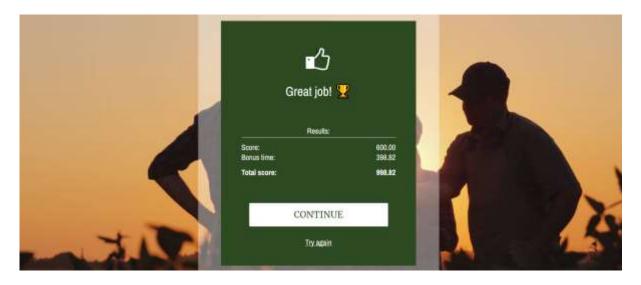


Figure 8: example of the results inside the gamified approach

There were three important attributes, we needed to take into consideration in order the procedure be accurate and successful. It's important to take into consideration the goals and challenges that we set up from the begging.

• It's mandatory the link opens when the user clicks in the gamified prototype. In other words, the need the game runs instantly when the user opens the link.

- In order the link of the gamified campaign open quickly, it's important to use a small number of data and avoid having heavy hardware.
- Based on researches, the user lost the excitement and the enjoyment when the time of page's load or link's load is not small. The users immediately lost their attentions and quit the game because of the fast passed society in which belong.

To sum up, there is correlation between the three above attributes. Practically, that means that the succeeding in one attribute, automatically brings the success and to the others two.



Figure 9: Screenshots of the interface in game

Based on these features are introduce in the creation of the prototypes, the hypotheses we built the entire experimentation would elevate the productivity and the collection of the outcomes would be achievable on a higher level. It is very fascinating to investigate how this is recognized and understanded with the use of the qualitative and quantitative analysis. In the section of Appendix there will be more screenshots and images of the interface. The collection of data examined above specific structures in the main part of the research. The data gathering procedure as well as the analysis of the data forms followed the interpretation and calculation of the research units is additionally evolved and described on the chapter below.

## 4 Data Collection and Analysis

On the sections 2 & 3, we have analysed in depth the definition of the digital background, the gamification background and the social media background. Also, we proceed on the clarification of our research methology, analyse the tools and the prototypes that was used and what was the main reasons to selected them. Lastly, we explained the form of the questionnaires and which was the goal we selected our 3 hypotheses. On this chapter of our study, we will see deeper the data we collect, the form of the data and what kind of analysis we proceed to export useful insights from our research. For the purpose to prove our research hypotheses, we will describe he statistical analysis we execute.

#### 4.1 Data collection

As the establishments of the investigated have been outlined and the campaign's models have been made, the following portion of the method is to accumulate the information. The collection of data is the most important part in any research made and it's a necessity part for the analysis to be correct and the presentation of all the study. It's imperative to say that the collection of information is one of the most sultry things for today's showcasing world and the ceaselessly progressed of innovation gives us with a few valuable devices. It's important to have into our mind that through data, companies are able to know if they are going to keep or proceed to changes for their products and their services.

The biggest portion of the online world is able presently to track and give datasets to the user's directors. For the purpose of the researchers, marketers and many other professions

Technology provides us with data selections and useful analytics platforms in order to use all of them for the initial purpose of the researchers, marketers and many other professions.

It is significant for any marketers that all the channels, the platforms and feedback collections tasks that use, it would give them a big amount of capabilities. The marketing platform is a powerful tool which gives the possibility to the marketing world to see things with a different holistic view. In our research, we select some of the most famous and useful platforms and applications of the market. The biggest portion of the online world is able presently to track and give datasets to the user's directors. Our tools have provided us with the entire picture of our users, the time which spent and all the useful information which is important for the further analysis based on the necessities and needs of each study. The platforms, Instagram, easypromos and google forms which use provide us with all these information and the necessity of the analysis of them.

With the intention of our study, we collect the answers of the users from the excel file which we exported from the google form platform in order to examine and test our hypotheses of our research and explore the points of the study.

In order to have useful insights for the user experience and the user engagement, we proceed in the creation of different campaigns and different questionnaires. In that way, we evaluate and analyse the hypotheses of our study in which applied statistical analysis to illustrate our results. It's important for our research to know how to design our data, in what way we will test it or how we edit our datasets in the necessary form in order to be able to have a statistical analysis. For our research, the statistical analysis is extremely important because through this will be able to support research analysis and further provided results. A necessity part is to categorize our data in groups based on our hypotheses and statistically tested them in order to prove or not, the statements on which this research was based on.

Our two platforms, google forms and designing platforms are providing analytics dashboards and data regarding the interaction of the users in order to be able to proceed in a detailed analysis. A characteristic example is given below, because of our specific research; it's no need to examine more these data or to proceed in any statistical analysis.

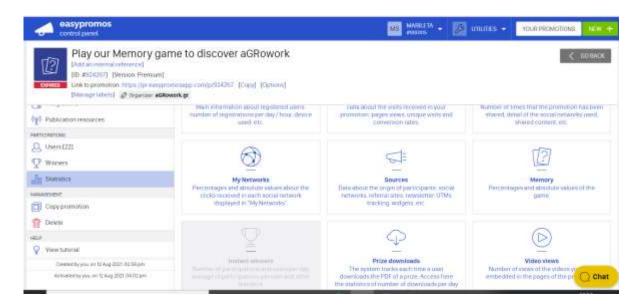


Figure 10: Example of the analytics provided in Easy Promos platforms

### **Data Analysis and Results**

In the following part which is considered and as one of the most important parts of our research is the analysis of the datasets and the classification of the attributes in the right category. The implementation of the logical and statistical analysis in order to examine and rate our data is a crucial point in the most of the researches. In the most researches, the implementation of the logical and statistical analysis to datasets in order to examine and rate is a crucial point in the most of the researches. A necessary part of each study is verifying the integrity of the data by applying an correct and accurate analysis on the research discoveries. The fundamental parts of this process are the gathering of the data, the right selection of the data and the classification in sets that have been analysed in a detail in the chapters before. To sum up in the chapter 4, we will begin on the implementation in our data of the logical and statistical analysis and we will try to to verify the 3 hypothesis of our research.

### 4.3.1 Logical Analysis- Qualitative Data

As we said it in previously chapters, the data we collect for our research came only through questionnaires. As a conclusion our research not to need to examine or test some qualitative data based on the researcher's knowledge.

#### 4.2.2 Statistical Analysis-Quantitative Data

For the information which we gathered through the survey, we continue to factual examination and arithmetic. For the reliability of the results, we need to test our data and to proceed in prior statistic formulas in order to prove the integrity of the outcomes and the unbiased explanation of the data.

Mainly, the two tools which we used were the statistical software IBM SPSS and the Microsoft Excel. The easiest analysis like the demographic characteristics was applied in excel and with the use of IBM SPSS we proceed our data in:

- Reliability test-Cronbach's alpha
- Normality test-Shapiro & Wilks
- Statistical differences between the variables- Anova test

In general, the IBM SPSS is a common statistical tool which provides to the researchers the ability to proceed in statistical analysis and formulas. The questionnaires created and developed with the use of Google forms. It's important to mention that through Google form, we can export the data from all the tasks in excel or in any type of format the researcher want.

In order to import our data in the SPSS, we exported our data in excel file. We proceed in three extractions, one extraction for each campaign, analytically one for gamified post campaign, one for video post campaign and one for photo post campaign. In order to be able to proceed to some conclusions, it was mandatory to have the same format and filters in our sets. With the use IDM SPSS, we also created tables and graphs in order to be easier for the reader to see the results. Also, we have to emphasize that we created graphs separate for each campaign and not in combination between the three campaigns.

Once we prepared our data in the right form and in a common format between them, we start the procedure in order to evaluate them based on the hypotheses. Our sample for each quastionnare was 36 respondents, we examined if our sample was biased in order to rejected by the statistical analysis and outcomes. In our questionnaire there were many questions which had negative aspect on the User experience. With the help of the Likert scale, we converted the negative answers into positive. As higher grade the answer in a negative question, the lowest the grade after the conversion in a positive answer.

Consider that our data sets are now converted in the right form, we are now ready to proceed in a further analysis. In parallel with that our hypothesis has been evolved and presented in section 3 of our study; the next tests were taken place.

First of all, we proceed to a Cronbach Alpha method which is a reliability test. In that way, we checked if there is consistency between items in scale. In our research the items are the answers from the questionnaires. Based on the information which mentioned in chapter 3, we will proceed to the illumination and differentiation of the indepented variables. As detailed, the 19 questions are categorized into 4 distinctive bunches which structure our indepented factors. The 4 different categories of these variables are:

- Attention
- Excitement
- Enjoyment
- Brand engagement

Before to continue into our hypotheses We needed to test for reliability and our 4 variables. For that reason we used SPSS for the metric test and Cronbach Alpha test was conducted. We run the tests for all the data sets because of the 3 different questionnaires. Based on theory, the score which is greater than or equal to 0.60 is reviewed as acceptable and the score which is no less than 0.70 is reviewed a good reliability.

The Reliability test for video post campaign is showed in the table below:

Brand Engagement	njoyment	Excitement	Attention
0.898	0.945	0.808	0.861

#### Cases Valid 100.0 Excluded\* 0 0 Total-36 100.0 a. Listwise deletion based on all variables in the procedure. Reliability Statistics Cronbach's Alpha Based on Cronbach's Standardized Alpha Items N of Items 898 899 6

Scale: ALL VARIABLES

**Case Processing Summary** 

Figure 11: Cronbach Alpha test of variable Brand engagement for Video campaign

#### **Case Processing Summary** N Cases Valid 36 100.0 Excluded<sup>a</sup> 0 0 Total 100.0 a. Listwise deletion based on all variables in the procedure. **Reliability Statistics** Cronbach's Alpha Based on Cronbach's Standardized Alpha Items N of Items 945 945

Figure 12: Cronbach Alpha test of variable Enjoyment for Video campaign

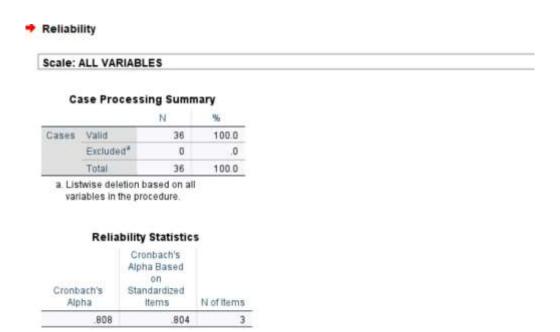


Figure 13: Cronbach Alpha test of variable Excitement for Video campaign

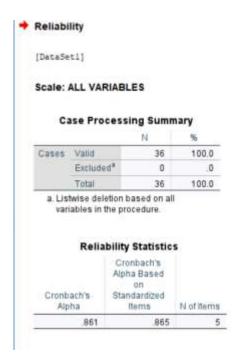


Figure 14: Cronbach Alpha test of variable Attention for Video campaign

We running the reliability test for the 4 variables of the Gamified Post Campaign and the level of the measurement of the Cronbach Alpha for each variable was :

Attention	xcitement	Enjoyment	Brand Engagement
0.692	0.635	0.858	0,883

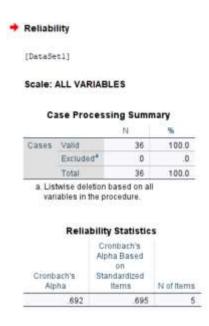


Figure 15: Cronbach Alpha test of variable Attention for Gamified Campaign

Reliability

Scale: ALL VARIABLES

## **Case Processing Summary**

		N	%
Cases	Valid	36	12.7
	Excludeda	248	87.3
	Total	284	100.0

 Listwise deletion based on all variables in the procedure.

### **Reliability Statistics**

.635	.642	4
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items

Figure 16: Cronbach Alpha test of variable Excitement for Gamified Campaign

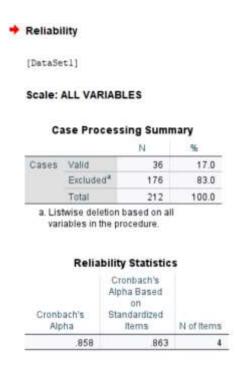


Figure 17: Cronbach Alpha test of variable Enjoyment for Gamified Campaign

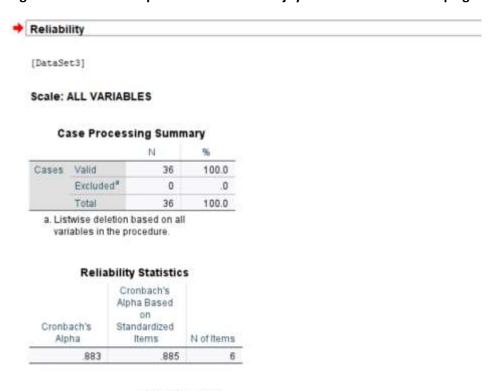


Figure 18: Cronbach Alpha test of variable Brand Engagement for Gamified Campaign

Finally, we are running the reliability test for the 4 variables of the Photo Post Campaign and the level of the measurement of the Cronbach Alpha for each variable was:

Attention	Excitement	Enjoyment	Brand Engagement
0.773	0.739	0.917	0.880

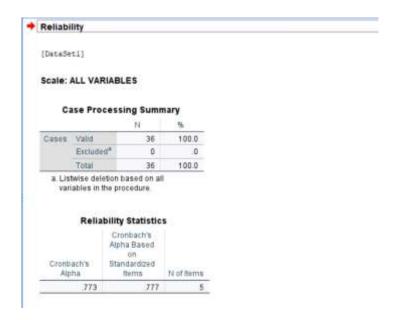


Figure 19: Cronbach Alpha test of variable Attention for Post Campaign

Reliability

[DataSet1]

Scale: ALL VARIABLES

#### **Case Processing Summary**

		N	%
Cases	Valid	36	100.0
	Excludeda	0	.0
	Total	36	100.0

 Listwise deletion based on all variables in the procedure.

# **Reliability Statistics**

Cronbach's Alpha	Standardized Items	N of Items
	Cronbach's Alpha Based on	

Figure 20: Cronbach Alpha test of variable Excitement for Post Campaign

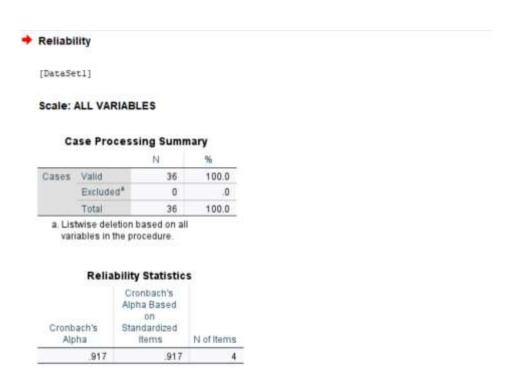


Figure 21: Cronbach Alpha test of variable Enjoyment for Post Campaign

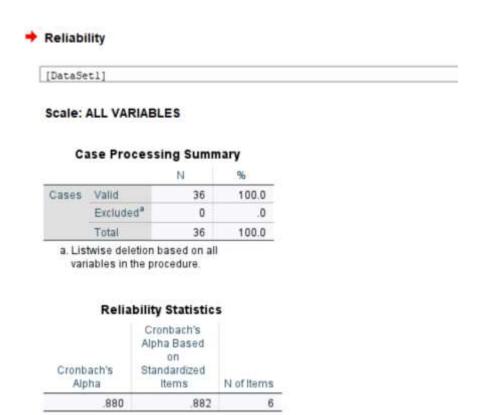


Figure 22: Cronbach Alpha test of variable Brand Engagement for Post Campaign

From the moment, we proved that the questions of the questionnaire are accurate and consistent, we can move on testing our three hypotheses. In order to test our hypothesis, we Anova test and count the descriptive statistics. Mainly, we are testing if between the 4 variables of each campaign there was a significant difference.

Based on the p value, we will discover if the results of the survey are significant. Also, it will help us to decide if must to reject the null hypothesis or accept the alternate hypothesis. In more details, on the following steps needs to calculate the results for each campaign and then run Anova test for our independent variables for the purpose of comparison between the three campaigns.

For the scale means and the descriptive statistics for each campaign have been calculated with the help of Excel tool. In order to do, we required to modify the data so as to be able to be used for statistically analysis and for authentication of the answer that was given to us. As we mentioned before, that means that the values for Likert scale is mandatory to reverse the negative questions of the answers. In order to be able to do that, the excel formula which we used was:

#### <u>: =IF(H2=1,5,IF(H2=2,4,IF(H2=3,3,IF(H2=4,2,IF(H2=5,1)))))</u>

After the transformation of data was made, then for each indented variable it was calculated:

- The n (the total number of the sample)
- The mean value (the average value of the sample for the specific variable)
- The standard deviation (for the accuracy with which the sample represents the population)
- The confidence level (showing that for the 95% it is probable that the values will be between the mean value+-the standard error)
- The confidence Interval (showing as described above the minimum and the maximum of these spaces)

On the table below the values are appearing as calculated for the three campaigns:

			Campai	gn A-Video Post		
					Confidence	e Interval
Scale	Mean	STD	N	Standard	Upper	_ower
				Error	Bound	<b>3ound</b>
Attention	3.40	0.51	36	0.17	3.57	3.23
Excitement	2.91	0.33	36	0.11	3.02	2.80
Enjoyment	3.06	0.29	36	0.10	3.15	2.96
Brand	3.28	0.25	36	0.08	3.12	3.02
Engagement						

Figure 23: Descriptive Statistics for Video post Campaign

	(	Campaign B-	<b>Gamified Post</b>	
				Confidence Interval

Scale	Mean	\$TD	N	Standard	Upper	_ower
				Error	Bound	Bound
Attention	3.56	0.66	36	0.22	5.20	1.77
Excitement	3.94	0.61	36	0.20	4.14	3.74
Enjoyment	3.60	0.25	36	0.08	3.68	3.52
Brand	3.16	0.38	36	0.12	3.28	3.03
Engagement						

Figure 24: Descriptive Statistics for Gamified post Campaign

			Campai	gn C-Photo Post		
					Confidence	e Interval
Scale	Mean	TD	N	Standard	Upper	ower
				Error	Bound	Bound
Attention	1.79	0.26	36	0.08	4.88	<b>1.71</b>
Excitement	3.53	0.25	36	0.08	3.61	3.45
Enjoyment	3.05	0.22	36	0.02	3.07	3.02
Brand	2.94	0.23	36	0.07	3.01	2.87
Engagement						

Figure 25: Descriptive Statistics for Photo post Campaign

It's really important to mention that there are differences between the means of the three campaigns. In order to be clear the difference between the means, we illustrated the means of each campaign in the same table.

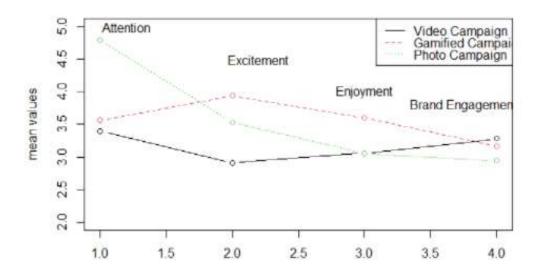


Figure 26: The comparison between the means of the three campaigns

Having calculated and depictured the most important insights for the the three campaigns. On the following step we will look in depth at the Anova test for each variable in arrange to discover if there is significantly differentiation between the three campaigns within the figures. In order to do that, we have to create once more our speculations, this time for measurable investigation purposes. Moreover, there are three assumptions that must be taken into consideration before running the Anova test.

- 1. Indepented observations: This holds in the event that each case speaks to a unique indidual or a factual unit. This appears to hold for our information as we are talking almost different people responding the survey.
  - 2. Normality: the depented variables must have normal distribution in the population. For this purpose we conduct a test of normality, Shapiro &Wilks in order to see if our data is normally distributed.

		Kolmo	gorov-Smirr	10V <sup>a</sup>	SI	napiro-Wilk	
	CAMPAIGN	Statistic	df	Sig.	Statistic	df	Sig.
mean	0	.112	36	200	.973	36	.526
attention	t	.208	36	<.001	.881	36	.001
	2	172	36	.009	.932	36	.028
mean enjoyment	0:	.115	36	200	.950	36	_106
	1:	.116	36	.200	.930	36	.024
	2	.095	36	.200	.964	36	.278
mean_brand engagment	0	.116	36	200	.955	36	.155
	t	.097	36	200	.971	36	.465
	2	.102	36	.200*	.963	36	.273
mean	0	.137	36	.085	.942	36	.058
excitement	1	.112	36	200	.953	36	.130
	2	.103	36	.200	.967	36	.354

Figure 27: Normality Test for the 4 variables of each campaign

Based on the results, the majority of our dependent variables except from one follow a normal distribution in the population.

• Homogeneity: the particular variance of our dependent variable need to be at the same levels and in the three populations. In case which the sizes of our sample are not in the same levels of equality and equity. So again we can take it as given that our sample is in the same levels.

Now moving with the understanding n of the test, for the brand engagement variable, we must to reanalyse the primary hypothesis for the SPSS Anova test so that we would have:

<u>H0</u>: There is no difference between the brand engagement measured in video post campaign ,gamified post campaign and photo post campaign.

H1: Brand engagement measured in video post campaign is different than that was observed in gamification post campaign and photo post campaign.

	Tes	ts of Hor	mogeneit	y of Va	riances			
				Levens		art	dt2	- Sig
mean_brand engagme	m Based or	Mean		52	466	2	105	<.001
	Based on	Median		13	2.904	2	105	< 001
	Based on adjusted	Modium an	d with	12	904	2	79.246	< 001
	Based on	trimmed o	hean	13	465	2	105	< 001
mean_brand engagme	nt Sum of Iquares	ANOVA	Mean Squ	vane	F	Sig.		
mean_brand engagme	Sum of		Mean Squ	are 370	F 30.090	<.001		
	Sum of Iquares	ar	Maan Squ 58.		cultural record			

Figure 28: Anova test in SPSS for Brand Engagement

We observe now that the sig. figure we have a value 0.001. In case which the p value is less than 0.05 stated than there is difference between the two populations and our not equal. The sig, figure of our first hypothesis is less than 0.05 that means that the null hypothesis is rejected and confirmed the alternative. As a conclusion, Brand engagement measured in video campaign is significantly different than that was observed in gamification campaign and video campaign. In the table below, we can see which variable's mean is the largest and which variable's mean is the lowest. The video Campaign has the largest mean and the Photo Campaign the lowest mean.

	DESCRIPTIV	E STATISTICS OF V	- ANIMOLE UNA	AD ENGAGNERY	Confider	ce Interval
CAMPAIGN'S TYPE	N	Mean	STD	Standard Error	Upper Bound	Lower
Campaign A-Video Campaign	36	3.28	0.25	0.08	3.57	3.23
Campaign B- Gamified Campaign	36	3.16	0.38	0.12	3.28	3.52
Campaign C-Photo Campaign	36	2.94	0.23	0.07	3.01	2.87

Figure 29: Descriptive statistics of Brand Engagement Variable

This validates our hypothesis and it helps us conclude in the following statement.

Brand engagement calculated in video campaign is different than the one calculated in gamification campaign and the one calculated in post campaign.

For the attention variable, the revaluation of the hypotheses would be:

H0: There is no difference in attention level measured between video campaign, gamified campaign and photo campaign.

H2: Attention level measured in gamified campaign is different than that was observed in video campaign and post campaign.

The results of the Anova test were the following:

				rene rtstic	on.		dt2	Sig
mean	trased o	n Mean		13.951	- 8	2	105	<.00
attention	Basedo	n Median		7.837		2	105	<.00
	Based of adjusted	n Median and with df		7.837		2	54,103	.00
	Basedo	n frommed mean		13.006		2	105	< 90
			ANOVA					
		Sum of		III.	rare.			in.
attention	Groups	Squares	af	Mean Squ		Ŧ		043
mean attention Between Within Go				Mean Squ 2	1879 160 665	_	S 246	.043

Figure 30: Anova test in SPSS for Attention.

Once more, the Sig value is 0.043, when p is less than 0.05 meaning that the null hypothesis is rejected. And the alternative hypothesis confirmed. So, there are significant differences between the Attention value measured in the gamified approach, in the video approach and the post approach.

In the table below, we can see which campaign has the largest attention based on the mean and which campaign has the lowest attention based on the mean. We can see which campaign was the most important for the users. The Gamified Campaign has the largest mean and the Photo Campaign the lowest mean.

		F-1	1		Confiden	ce Interval
CAMPAIGN'S TYPE	N	Mean	STD	Standard Error	Upper Bound	Lower
Campaign A-Video Campaign	36	3.4	0.51	0.17	3.57	3.23
Campaign B- Gamified Campaign	36	3.56	0.66	0.22	5.2	4.77
Campaign C-Photo Campaign	36	2.94	0.23	0.07	3.01	2.87

Figure 31: Descriptive statistics of Attention Variable

For the last variables of our metrics, the enjoyment variable and excitement variable, we would redefine the hypothesis as following.

H0: There is no difference between the enjoyment measured between video campaign, post campaign and gamified campaign.

H3: Enjoyment level measured in post campaign is different than that was observed in gamified campaign and video campaign.

Running the Anova test in SPSS we will get the following results.

#### Tests of Homogeneity of Variances mean enjoyment. Based on Mean 1 513 105 225 Based on Median 105 1.257 Based on Median and with 1.257 2 94.784 289 Based on trimmed mean 1.494 105 229 ANOVA mean enjoyment Mean Square 7.133 3.567 Between Groups 2.768 067 Within Groups 135,276 105 1.288 Total 142,409 107

Figure 32: Anova test in SPSS for enjoyment

The Sig. value is 0.067 that means that the p value is > 0.05 so the null hypothesis is confirmed. So, we come to the result that the levels of enjoyment between the three campaigns are not statistically significant and our hypothesis not confirmed.

H0: There is no difference between the excitement measured between video campaign, post campaign and gamified campaign.

H4: Excitement level measured in post campaign is different than that was observed in gamified campaign and video campaign.

Running the Anova test in SPSS we will get the following results.

				evene statistic	df1	df2	Sig.
mean	Based	on Mean		.405	2	105	.668
excitement	Based	on Median		404	2	105	.669
	Based adjuste	on Median and wi	th.	.404	2	103.608	.669
	Based	on trimmed mean	())	408	2	105	.666
			ANOVA				
mean		Sum of	ANOVA			Sig	
excitement		Squares	df	Mean Square	-	Sig	34
mean excitement Between Gr	-	Squares 2.190	df 2	Mean Square	2.5		84
mean excitement Between Grou	-	Squares	df	Mean Square	2.5	-	84

Figure 33: Anova test in SPSS for excitement

Same as previously, the Sig. value is 0.084 that means that the p value is > 0.05 so the null hypothesis is confirmed. So, we come to the result that the levels of excitement between the three campaigns are not statistically significant and our hypothesis not confirmed.

# 5 Interpretation of results

This study has successfully accomplished to gather data and apply a few of the most important measurable tests to uncover the potential of social media marketing and how internet users manage to deal with this enormous amount of daily generated information.

More specific, we have seen on these sections before of this study, what the current t situation in the world of digital marketing world, the way in which gamification more and more gain space, and which could be the consequence in the general background. We highlighted our main ideas, in which way we developed them and create our hypotheses. In the last, we describe the designing phase and the creation of prototypes for the three different marketing campaigns. For the last, we analysed how the campaign's experience valued from the perspective of the consumer, how we collected all the data based on consumer's feedback and eventually how we tested and proved or not proved our hypothesis with statistical analysis. In the next pages, we will present the most important results and interpretations based from all the previously-mentioned work. After that, we will make an assessment for the future of the field.

Based on the investigation and investigation given on this paper, we have come to the conclusion that the improvement of Gamification within the points of advanced showcasing undoubtedly produces positive impacts and benefits in user's encounter and user's engagement. Mainly, that was the thesis's objective, and we are proud to be able to prove some of our hypotheses and to be able to present and summarize the following results coming from the questionnaire's results analysis.

#### **5.1 Research Limitations**

Following a demanding but very interesting research attempt it is essential to pinpoint that this work despite the interest findings has faced certain limitations which hopefully will we be surpassed in the future. To start with, authors' have focused on specific social media platform, Instagram. Further research could try to broaden the number of platforms interfered and manage to distinguish differences and any discrepancies which may occur. Following, this work focused on organic results without including any paid results. Last but not least, the missing of the reward n the gamified post. Also, the study took place examine a specific type of post specifically for agriculture environment. This leaves a gap in the paid posts behavior and thus it must be included in the future. Also, the study took place examining a specific pool of users who are classmates, friends, and colleagues. It could include more data from more diverse pool data. Further research should be created in the near future in order to have the potential to look in more depth the behavior of the users, in more vague aspect.

#### **5.2 Future research**

Any continuation of this study could potentially include a more extensive dataset, from more than one social media platforms, from more than on industry divisions and nations. It might possibly be able to

examine paid posts along with the organic posts. Also, to supply the user with a prize after the finish of gamified post.

#### **5.3 Questionnaire Results**

For the outcomes from the questionnaire, we have seen from one side the expansion of the hypotheses and from the other the analysis of the data gathered in chapter 3. By calculating three important user experiences attributes and the brand awareness of the users. Based on that, we have collected significant knowledge and developed numerous statements which be our final statement via this research.

To start with, the interpretation of the statistical analysis followed the feedback which collected via the questionnaire; we discover some statistically significant differences between the data which gathered by gamified campaign, video campaign and post campaign. Based in our previous research and studies on which mainly based our methodology and models did present in the same level differences. Our methology and our models are based on previous researches and works which they did present differences at the same levels.

According to the results, video and gamification could be the solution for maximizing the results for any brand by improving the user's experience and producing a totally unique environment for interaction which will gain consumer's attention to interact with product but also with the brand. If we take a deeper look in the performance of the indepented variables via the statistically analysis we could recognize how our explication of the outcomes is proven mathematically as well. The brand engagement of the user which is our first metric and hypothesis show to us that there is significant difference between the 3 different campaigns. From the measurement of user experience, the brand engagement is one of the most important results and victories that every marketer chases. As always, the most important factor is the content to be interesting and nice. It's really important to highlight that interesting content by its own cannot create experience strengthening or to stimulate cognitive outcomes. It is necessary to activate other user's attention, either to arouse their excitement to be part of the enjoyment of the audience. Based on that, video could add engagement and brand awareness through the better user experience which give to the audience. The understanding of the huge impact that it has is a vital role for the marketers.

For the enjoyment variable and for the excitement variable of our research, for one more time statistical analysis in light us. And show to us that there is not any difference between the type of the posts in relation to excitement and enjoyment. Gamification doesn't provide our users with cognitive reactions and doesn't affect their state and results creating higher excitement levels than the image and video approach. Our theory contradicts our results of our research.

To sum up, in one hand there is a social media environment which become more and more attractive day by day for the user and the companies and on the other hand the information and the content which provided through Instagram is so large which is difficult for the user to follow. We need to create unique content which it will differentiate our brand from the usual content in the consumer's eye.

There is a need for deeper research and investigation on this topic. The significance of data gathering and data analysis will always improve the way marketers know and do things. It's a necessity to apply the term gamification in more than one channel in order to have more reliable conclusions. Gamification is a promising subject for the era of digital marketing.

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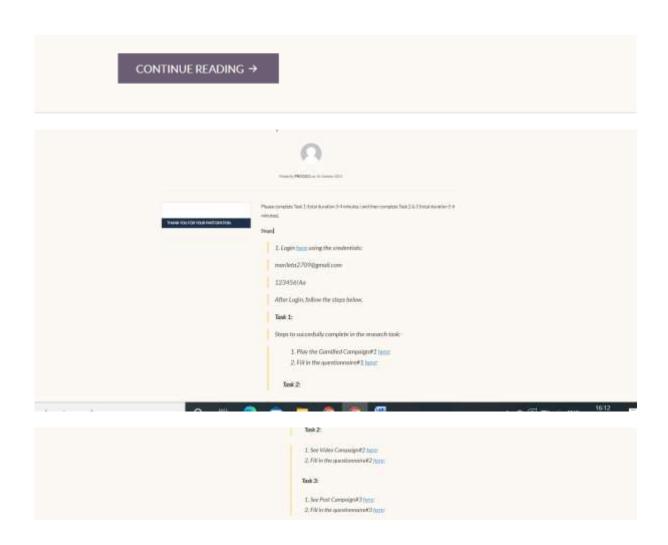
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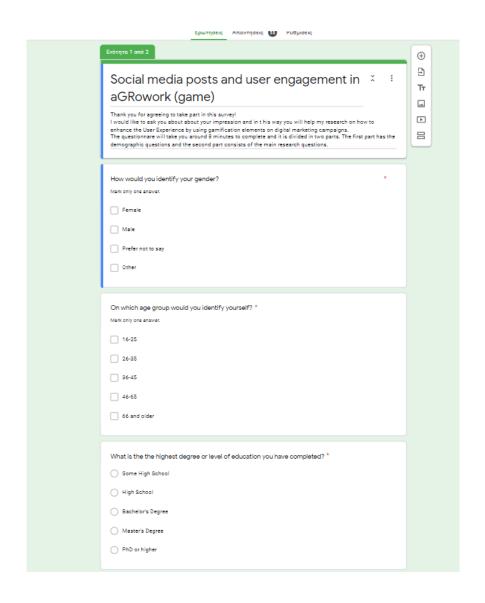
### **Appendix**

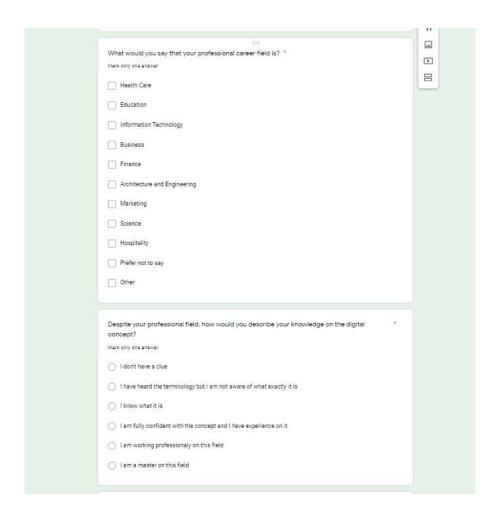




# **Appendix**

A1: Questionnaire presented on Google Forms





ow aware are you with Social Media Marketing and social media posts? *	
ark only one anawer	
I have no idea	
I have heard of the terms but I don't know what they are	
I know what they are, i am seeing sponsored posts in my feed	
I know what they are and I have experience in designing them	
l am a master of creation social media posts	
ave you ever heard about the term gamification in digital marketing? *	
Yes	
No No	
Maybe	
ow do you perceive the concept of gamification in digital marketing?	
ark only one answer.	
Play games in a computer or mobile device	
Buying or selling games online	
Receiving promotions or advertisments of games	
Receiving promotions or advertisements while playing a game	
Receiving promotions or advertisements designed with game features	

Main rese	arch o	questi	ons			ž į
Below we have design image, video and gam please answer the foll	ified campai	gns we have				e user perceived the from the posts you seen
Did the campaign g Mark only one answer.	grabbed you	ur attention	? *			
	1	2	3	4	5	
Not at AIIII	0	0	0	0	0	Definitely yes!!!
Did you enjoy the c	ampaign? '	0				
	1	2	3	4	5	
Not at Allfi!	0	0	0	0	0	Definitely yes!!!
Did you find the car Mark only one answer.	mpaign diff	erent from	the usual or	nes? *		
	1	2	3	4	5	
Not at All!!!	0	0	0	0	0	Definitely yes!!!
Did you feel challen	iged by the	campaign?	*			
			2	4	5	
	1	2				

Mark only one answer.						
	1	2	3	4	5	
Not at All!!					0	Definitely yes!!
1106 04-7/10						Definitely yes.
Did you find the co	ntent of the	campaign	interesting	*		
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Did you think that t	he interacti	on with the	campaign	was fun? *		
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Are you looking for Mark only one answer.	ward for ful	ther campa	igns from ti	ne brand?		
	1	2	3	4	5	
Not at AIII)	0	0	0	0	0	Definitely yes!!
Did you feel that tir Mark only one answer.	ne pass qui	cly during y	our interac	tion with the	e campaigní	
	1	2	3	4	5	
						Definitely yes!

Mark only one enswer.						
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Are you looking for	rward for th	e reward/pr	omotions/ o	liscounts of	f the brand?	*
Mark only one answer.						
	1	2	3	4	5	
Not at All!	0	0	0	0	0	Definitely yes!!
Were you thinking	of other this	ngs during	our interac	tion with th	e campaign	2 *
Mark only one enswer.						
		2				
Not at AIIII	0	0	0	0	0	Definitely yes!!
Were you seriously Mark only one answer.	interacted	with the ca	mpaign? *			
	1	2	3	4	5	
Not at All!!		0		0	0	Definitely yes!!
Would you like to n	eceive more	e campaign	s like the on	e you intera	acted with?	
Merk only one enswer.						
	1	2	3	4	5	
Not at AIII	0	0	0	0	0	Definitely yes!!
Did the campaign I Mark only one enswer.	help you to :	recognize r	ew product	s of the bra	and? *	
		2		4		
	-1	14		4	- D	

flark only one enswer.						
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Are you interested	to share yo	ur experien	ce with you	r friends? *		
fark only one enswer.						
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Does th <mark>e i</mark> nteractio	on with the o	campaign cl	hange your	opinion for	the specific	brand? *
fark only one answer.						
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Are you expecting	for more ca	mpaigns lik	e that from	now on? *		
fark only one answer.						
	1	2	3	4	5	
Not at All!!	0	0	0	0	0	Definitely yes!!
Would you say that	t the campa	ign was bor	ing? *			
fark only one answer.						
	1	2	3	4	5	