SCHOOL OF SCIENCE AND TECHNOLOGY



A THESIS SUBMITTED FOR THE DEGREE OF

MASTER OF SCIENCE (MSC) IN ICT SYSTEMS

GROUP BUYING WEBSITES BUSINESS: MODEL ANALYSIS AND EVALUATION OF GREEK CASES

RETZEPI NIKOLETA

SID: 3301100010

OCTOBER 2011 THESSALONIKI – GREECE

SCHOOL OF SCIENCE AND TECHNOLOGY



A THESIS SUBMITTED FOR THE DEGREE OF

MASTER OF SCIENCE (MSC) IN ICT SYSTEMS

GROUP BUYING WEBSITES BUSINESS: MODEL ANALYSIS AND EVALUATION OF GREEK CASES

RETZEPI NIKOLETA

SID: 12345678

Supervisor: Prof. George Doukidis

OCTOBER 2011 THESSALONIKI – GREECE

DISCLAIMER

This dissertation is submitted in part candidacy for the degree of Master of Science in ICT Systems, from the School of Science and Technology of the International Hellenic University, Thessaloniki, Greece. The views expressed in the dissertation are those of the author entirely and no endorsement of these views is implied by the said University or its staff.

This work has not been submitted either in whole or in part, for any other degree at this or any other university.

igned:
Vame:
Oate:

ABSTRACT

Social –Group or even deal of the day- buying websites represent a rapidly emerging e-business model that is really important to be analyzed, especially nowadays when the European financial crisis is a reality. Such a website acts as an online intermediary, aiming to attract customers for mass purchasing of products or services in order to achieve large discounts. As a result, these group deal sites have become immensely popular and successful for all parties involved, all over the world.

Groupon is one of the first websites to be launched and the most successful, localized in more than 18 countries. Noteworthy, Groupon rejected a \$6 billion dollar acquisition offer by Google, who is now planning to launch their own daily deals site in 2011 called 'Google Offers'.

Greek social buying websites firstly appeared in spring 2010. Some of the most indicative Greek social buying websites are goldendeals.gr, winwindeals.gr, tsoonami.gr and groupon.gr.

This project aims at analyzing the group buying web sites' phenomenon in Greece and worldwide. More specifically it aims at recording the online group buying market in Greece. In order to achieve this goal, all the active Greek social buying sites have been investigated, concerning significant aspects of their way of operation. This process will lead to the extraction of certain conclusions and statistic results that will enlighten us on the relatively new area of Group Buying in the Greek market and will encourage discovering further trends and opportunities.

The project includes: Literature review and description of the Group Buying websites, documentation of the Greek Group Buying websites, analysis of the Greek market for Social Buying websites, comparison of Greek to international Group Buying websites, case studies for successful Social/Group Buying websites, and last opportunities and challenges for Greek business.

The results of this survey have important implications. The main findings of this project are:

- ✓ Greek social buying market is rapidly evolving
- ✓ Greek group buying sites have followed the foreign sites' lead
- ✓ Greek sites operate mainly in big cities of the country
- ✓ The main percentage of the sites include offers about beauty care, spas, travelling and food
- ✓ For Greek businesses group buying is a way of becoming prosperous despite the financial crisis
- ✓ For Greek customers, group buying business model enables them to continue shopping, despite the fact that their buying power has been reduced to the minimum by the crisis.
- ✓ The population and the future success of each group buying site are at a great rate based on the size of the discount of the products offered.

Retzepi Nikoleta

21/10/2011

ACKNOWLEDGEMENTS

I would never have managed to finish my dissertation without the guidance of my professors, help from friends, and support from my family and especially my mother.

I would like to show my deepest gratitude to my supervisor, Prof. G. Doukidi, for his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing research.

Additionally I would like to gratefully thank my advisor Dr. L. Kioses, who helped me develop my background patiently, corrected my writing and providing me with his help whenever he was asked.

What is more I owe my deepest gratitude to Mr. J. Vlachava and his wife, Mrs. Chrisoula Eikosidiou for their caring and support.

Finally and most importantly I would like to thank my parents my grandmother and my elder brother. They were always supporting me in every possible way and encouraging me with their best wishes.

21/10/2011

Retzepi Nikoleta



TABLE OF CONTENTS

Abstract	VII
ACKNOWLEDGEMENTS	ıx
Table Of Contents	11
Table Of Figures	
CHAPTER 1: INTRODUCTION	15
1. Introduction	
1.1. The History of Online Group Buying	
1.1.1. Tuángòu, the ancestor of all deal sites	20
1.2. The Evolution of Group Buying	22
CHAPTER 2: LITERATURE REVIEW: THE FUNDAMENTALS OF C	GROUP BUYING BUSINESS
MARKET	25
2.1. What Group Buying Websites are?	30
2.2. Top Group Buying Websites	31
2.2.1. Groupon	32
2.2.2. Buy With Me	
2.2.3. Living Social	
2.2.4. Gilt Groupe	
2.2.5. Tippr	
2.2.6. SocialBuy	
2.2.7. CrowdSavings	
2.2.8. PriceBunch	
2.3. How and why Group Buying Operates	
2.4. How to Market with Group Buying Websites	37
2.5. Groupon, the Pioneer of daily deal sites	
2.5.1. Groupon Pros and Cons	39
2.6. Future Prospects	41
2.6.1. Google Offers	42
2.6.2. Facebook Deals	43
2.6.3. Business to Business deals	44
2.6.4. Mobile solutions	
2.6.5. Groupon's Business Pages	
2.6.6. Group-buying, A Successful Transaction	
2.7. Recent Trends In Greek Market	48
2.8. The Greek Group Buying Sites	49
2.8.1. Big impact	49
2.8.2. E-Sales	
2.8.3. Cons of e-shopping	51
CHAPTER 3: RESEARCH APPROACH	53
3.1. Project's Definition	55
3.2. The Main Stages and Objectives of the	56
Research	56

CHAPTER 4: CONTRIBUTIONS: ANALYSIS OF GROUP BUYING SITES	S IN GREECE 65
4.1. Top 10 Greek Group Buying Sites	68
4.1.1. Greek Deal Aggregators	71
4.2. Analysis of the Functionality of the 100	73
Sites	73
4.2.1. The Service/ Offers they provide	74
4.2.2. Area of operation	77
4.2.3. Payment methods	78
4.2.4. Discounts they offer	79
4.3. Identify Hidden Relationships	81
4.3.1. Correlation between Maximum Discount and	83
Alexa Greek Rank	83
4.3.2. Correlation between Minimum Discount and	86
Alexa Greek Rank	86
4.3.3. Correlation between Maximum Price and	89
Alexa Greek Rank	89
4.3.4 Correlation between Minimum Price and	92
Alexa Greek Rank	92
4.3.5. Correlation between Price and Number of Sales	
4.3.6 Correlation between Discount and	
Number of Sales	98
CHAPTER 5: CONCLUSIONS	103
5.1. Establishing the Greek Market	105
5.2. The Findings of this Research	106
5.3. Changes to come	109
5.4. Limitations and Future Research	110
APPENDIX I: REFERENSES	111
References	113

TABLE OF FIGURES

fig. 1: The Tuangou logo	21
fig. 3: Top's group buying websites logos	31
fig. 4: The way Groupon operates	36
fig. 2 :B2B Group buying sites	44
fig. 5 : Hotels, food and spas	74
fig. 6: Weight loss, hair and care	74
fig. 7: Hobby, sports and cars	75
fig. 8: Education, health care and shows	76
fig. 9: Products	76
fig. 10: Gift certificate for inviting friends	77
fig. 11: Area of operation	78
fig. 12: Payment methods	78
fig. 13: Maximum discount of each site	79
fig. 14: Minimum discount of each site	80
fig. 15: Maximum price of each site	80
fig. 16: Minimum price of each site	81

CHAPTER 1: INTRODUCTION

1. Introduction

In the beginning there was the personal computer. Not long after, people started connecting together on networks in the World Wide Web browser, which launched *the* first great era of the Web. Then the search engine came, which launched the second great era of the Web, the era of Google.

Now comes the third; the era of social networks. The web has had a social dimension almost from the very beginning. Today the Web is going through another reinvention, morphing into a place where our social interactions are ever more important. Socializing is something that people used to do on the Web; gradually it is becoming the Web itself.

In the area of business, first there was commerce, which can be traced back in the Prehistoric times. That was *the first era of the commerce*, which involved exchanging goods and services. Later people started to exchange goods and services with currency.

From the early 1980s e-commerce appeared which enabled business companies to offer their products and services through the World Wide Web. This launched the second great era of commerce, the e-commerce era. E-commerce gave to business the ability of purchasing or selling various goods through the Internet using secure protocols and electronic payment services. Even in Greece it is estimated that in 2011 almost 1,2 million internet users will buy online products and services worth about € 1,8-2 billion [Prof. G. Doukidis presentation].

Using and expanding the power of the Social Web, e-commerce became social, as well. In the meantime, the need of both the consumers and business companies to purchase goods and /or services at large discount prices generated the first deal-of-the-day websites. *The era of Social / Group Buying Websites had started*.

Social or Group Buying Websites represent an enormous emerging e-business model. Such websites act as an online intermediary mechanism, attracting customers for mass purchasing of products or services in order to achieve and offer large discounts. The offer will not be activated unless the required number of customers is accumulated. Only in this case, the buyer is charged and the purchase can be completed.

Greek social buying websites firstly appeared in spring 2010. Some indicative Greek social buying websites are goldendeals.gr, winwindeals.gr, tsoonami.gr and groupon.gr.

In this project we will try mainly to analyze and to record the current status of the Greek social / group buying sites market. The project will include: Literature review and description of the Group Buying websites in Greece and Worldwide, documentation of the Greek Social/Group Buying websites, analysis of the Greek market for Social/Group Buying websites, case studies for successful Social/Group Buying websites, opportunities and challenges for Greek business.

The importance of this project lies mainly in fact that an examination of the Greek social buying phenomenon is provided. This phenomenon which tends to dominate the Greek market is expanded at a great extend. Subsequently, the findings of this research could compromise a potential, useful tool for both Greek business and consumers.

Having in mind the main findings of the research, businesses can spread and employ new activities in the Greek group buying market which could probably lead them to profit while avoiding the risk of losing money. According to the findings, more small Greek businesses should be encouraged to invest on the group buying scheme and expand their activities in other Greek cities apart from the big ones. Additionally, Greek businesses should understand that the traditional way of marketing needs to be changed and that they should get accustomed to the consumers' current needs, so that both parts, businesses and shoppers, are completely satisfied and content.

On the other hand, Greek consumers may find in this research useful guidance about the Greek group buying market. This information would probably encourage more purchasers to use the collective buying power in their online transactions. For Greek shoppers the group buying scheme, which is to be analyzed later on, can offer

them the potential opportunity to employ this method of shopping. This project offers them all the required information about the web sites that are active in Greece and the offers of these sites. Thus, this fact could be an incitement to Greek buyers to enjoy this kind of shopping and save enough money - a fact which at the moment is very important-.

The immense increase of the Greek social buying sites is indicative of the consumers' need to find and purchase cheaper product and services. This is very important in the debt burdened Greece because businesses need to find new prosperous ways to promote their products and consumers need to purchase at low cost.

1.1. THE HISTORY OF ONLINE GROUP BUYING

As the Internet develops, it is becoming an increasingly prosperous network for many types of commerce. A particularly effective form of electronic commerce is nowadays social buying. It is a buying model in which multiple buyers accumulate and buy a good or service at lower than normal prices. In this business model buyers cooperate with each other, and sellers reduce the price of a good or a service. Social buying has made rapid progress in recent years, and a lot of research has been carried out in this area [1]. In this section the history of group buying websites will be discussed, while later on their progress and future development will be presented.

In 2000, with financial backing from one of the most significant co-founders of Microsoft, an e-commerce start-up website called Mercata appeared in the market with a business plan which was named "We Commerce". The website offered electronic deals and negotiations to the online buyers who were interested in those transactions. Individual Web buyers could sign up all together to buy the same product, and the price of the product would fall as more people signed up in order to purchase it. "We Commerce" was formally the first group buying attempt. Nevertheless, the website was

shut down in 2001 since it could not compete with other bigger and most well known websites like amazon.com that gradually started to dominate this area of business.

Recently, group buying has been met online in numerous forms. Most of the modern day online Group buys are a variation of the tuangou buying website model that occurs in China. Tuangou was based on the idea that an item has to be bought in a minimum quantity in order for the seller to allow the purchase. In other words the seller offers products and services at significantly reduced prices on the condition that a minimum number of buyers would make the purchase. Because of the fact that individuals typically do not need multiples of one item or do not have the resources to buy products in large quantities, group buying mechanisms allow people to invite others to purchase all together. These transactions often result in better prices for the individual buyers, or ensure that a wanted item is available for sale. Group buys were, in the past, often organized by online shoppers who were thinking in a similar way, through Internet forums. Now, group buying sites are again much in request because small businesses look for ways to promote their products and financial cautious consumers try to buy products at large discounts in a weak global /economy [2].

1.1.1. TUÁNGÒU, THE ANCESTOR OF ALL DEAL SITES

Tuángòu -which loosely translates as team buying or group buying- is a recently developed shopping scheme, having its origins in the People's Republic of China. In this country, people had developed over the years a new type of e-commerce; several people - sometimes friends, but possibly strangers connected over the internet - agreed to approach a vendor of a specific product, so as to purchase as a group in order to get immense discounts. The entire group agreed to purchase the same item. The shoppers and people benefitted by paying less, and the business benefitted by selling multiple items or large amounts of products at once.



fig. 1: The Tuangou logo

The Tuangou phenomenon has been most successful in mainland China, where buyers -either shoppers or consumers- have leveraged the power of group buying. The success of this type of commerce in China has led to English language media, such as msn.com, following the tuangou buying process. The popularity of that kind of strategy in China is often attributed to the Chinese tradition of bargaining for the purchase of goods of all types. Tuangou buying or selling also enhances and improves a Chinese traditional sense of distrust of goods purchased from unknown sellers. This fact happens because individual members of the buying group can vouch for the quality of a particular seller's product to the rest members of the group.

In China, group buying transactions usually happened when dealing with industrial items, such as single-board computers at first. However, recently group buying is spreading widely to the consumer space as well. There are many companies like MeiTuan and Fantong which are quickly gaining great acceptance. China had over 1,215 group-buying sites by the end of August 2010, compared with only 100 in March of the same year. English-language group-buying platforms are also gradually becoming popular in China. Online group buying model also gained distinctive favor in other Asian countries during 2010. Websites have shown up in Taipei, Singapore, Hongkong, Thailand and Malaysia. As the number of these websites grows, companies such as All Deals Asia & Dealshelve are beginning to put the deals from several Asian group-buying websites into a single site to allow buyers to pick the best deals around which meet their needs best.

All China's group buying websites operate in a relatively similar way. The group buying websites start their work by negotiating deals with retailers and other businesses. They agree to deliver a large number of customers and in exchange get big discounts on products. They make money by taking a portion of the revenue generated by the deals and also through some advertising. This fact makes group buying web sites a very profitable enterprise.

Every group buying website regularly updates the latest bargains by showing the listed bellow facts clearly marked: *the original price, group buy price, money saved and discount rate*. Every day, new products are launched with a "buy" button shown on the home page. The current and original prices of products are both shown, usually with huge price differences between them. Discount rates and price differentials are also given.

When group buyers choose the goods, they should only hit the "buy" button and then they have to pay the required amounts. Once the number of buyers meets the lowest limit set for group buying, it means that a buying group of people or businesses has been successfully formed and the supplier will ship the orders in a unified manner. Users can also sign up to get notices through e-mail, Twitter, Facebook, or an iPhone app. Buyers typically print out vouchers or coupons on the site and take them to the retailer to receive their discount [2,3,4].

1.2. THE EVOLUTION OF GROUP BUYING

An enormous increase of phenomena similar to group buying type of e-commerce has been observed in the whole world due to recent developments in this area. Most of the group buying businesses in Europe and North America is done only through online intermediaries, while in China the original strategy for group buying was at first self-organized and executed. In North America and Europe buyers who are interested in the products offered, are usually asked for credit card details which will be charged only when a required number of buyers register. Vendors are, almost without a single exception, charged by intermediaries with a percentage fee in the range of up to 50% of the whole deal's total value. Group buying remains limited to the sector of physical services, due to such a business model and it does not gain growth as the original strategy in the People's Republic of China expected. Nevertheless, especially across the United Kingdom and Germany intermediaries are appearing continually with almost identical business models.

All those intermediaries share a most notable characteristic, which is the selected deals orientation towards local markets and is bound up with cities and towns. Groupon and their United Kingdom's correspondent, MyCityDeal, LivingSocial, Plum district, and BuyWithMe, are included with hundreds of imitators in different languages. Other deal sites may be launched by some big Internet enterprises such as eBay, sometime during 2011. Business model of Groupon and other group buying sites' is working with local retail stores and restaurants with location-oriented coupons. Nevertheless, national chains are currently penetrating in the social buying market. During summer of 2010 Gap participated in a Groupon promotion that has led to profits in sales over \$10 million in one day. And recently Groupon has been also joined by Nordstrom.

South America is an emerging market place where new purchasing models such as group buying are about to develop. Recently intermediaries appeared first in Brazil proposing business models which were slightly different from those proposed in Europe. In Brazilian market place the big discount is achieved in a very different way from that in Europe. Instead of an instant discount, a post-purchase refund of money is given to the buyers. This fact allows for an immediate purchase on behalf of the buyer. Such a business model is subject to major criticism because of the lack of aggregation and vast differentiation among buyers. There are those buyers willing to purchase immediately at any price and those that wish to sacrifice time for gaining large discounts. Examples of this type are Peixe Urbano, ClickOn, and Kactoos.

Yahoo7 (a subsidiary of Yahoo Inc.) bought a local group buying company named Spreets, on January 20, 2010. Yahoo7 bought 100% share of the group discount company Spreets for \$40million. On January 2011, Spreets has already more than 500,000 members and has also sold over 274,000 vouchers in less than 2 years, that is to say its whole lifetime. According to this plan of action, Yahoo has joined a big number of corporate investors such as PBL Media, Microsoft, Ten Network, and the original Facebook investor Klaus Hommels who are trying to obtain growth in this new business model.

Finally, a local group buying site, Treat Me has been launched by a popular local auction site called Trade Me, on March 22, 2011 [2].

CHAPTER 2: LITERATURE REVIEW: THE FUNDAMENTALS OF GROUP BUYING BUSINESS MARKET

At this point of the project, it is essential to quote some basic definitions related to the theme of group buying websites for the best understanding of the way they operate. Firstly and most importantly, the term Electronic commerce must be well defined. Secondly, the way e-commerce's extensions operate should be described and finally the term group buying as well as its categories should be introduced.

Electronic commerce is commonly known as **e-commerce** and involves the transactions of buying and selling products and services through electronic systems such as the Internet and other similar computer networks. It is much more than just purchasing and selling products online, though. It also includes the entire online process of marketing, selling, developing, servicing and paying for products and services. With the widespread Internet usage, the amount of trade completed electronically has grown vastly.

Most electronic commerce involves the transportation of physical items while a large amount of it, is conducted entirely electronically for virtual items. Electronic commerce consists of the exchange of data to facilitate the financing and payment aspects of the business transactions [6].

Social commerce is an important subset of electronic commerce that involves the use of social media and online media which support social interactions and user contributions, so as to assist in the online buying and selling of products and services. More specifically, social commerce is the use of social networks. Yahoo introduced the term social commerce in November 2005 in an attempt to describe a set of online collaborative tools such as shared pick lists, user ratings and other user-generated content-sharing of online product information and advice.

Today, the area of social commerce has been expanded to include the range of social media tools and content used in the context of e-commerce. Examples of social commerce include user recommendations and referrals, forums and communities, customer ratings and reviews, social shopping tools (sharing the act of shopping online), social applications, social media optimization and social advertising [7].



What is more, Social Shopping is a method of e-commerce where shoppers' friends become involved in the shopping experience. Social shopping, using technology, attempts to mimic the social interactions found in physical malls and stores.

Social shopping has been given a wide range of definitions but can be divided into five big categories: Shopping communities, Shopping Marketplaces, Recommendation engines, Shared Shopping and Group buying sites.

Group buying sites include companies like Groupon, BuyWithMe, Half Off Depot, LivingSocial, Kactoos and Plum district from abroad. But there are such companies in Greece, as well.



Shopping communities aim at bringing people who think in the same way, together to discuss, share, and buy. Purchasers communicate and share information about deals, products and prices, using the wisdom of the crowds. Users are allowed by

many websites to create shopping lists and share them with their friends. Fashion communities have largely dominated this area, today. Yet, shopping communities are not limited exclusively to fashion. This category of social shopping also includes business like activity – based clubs. Such businesses are mainly travel or adventure sports clubs and are very popular [8].

Recommendation engines allow buyers to give advice to other buyers. The instore analogy for this category of social shopping is asking a fellow shopper for advice. Many consumers have been helped by traditional online product review companies such as Amazon. Nevertheless, currently such companies emphasize on obtaining and giving advice to strangers. Non – traditional recommendation engines such as ShopSocially, Blippy, Yeay.me and Swipely now encourage conversations about purchases with a user's friends or acquaintances [8].



Social Shopping Marketplaces bring sellers and buyers together to connect and transact. The offline example for this kind of business is a bazaar. The marketplace brings many independent sellers together and then creates a forum for them to display and sell their products to purchasers. It also provides buyers and sellers with methods to connect and communicate with each other, whilst acts as an e-commerce facilitator for sellers and discovery engine for buyers [8].

Shared Shopping mechanisms operate in catalog-based e-commerce sites and allow shoppers to form collaborative shopping groups. In those groups one can receive an online shopping experience for one or more people who use real-time communication both with each other and with the retailer [8].

To end up we cannot ignore the term **aggregator**, a web site that gathers Web content and applications from different online sources for reuse or resale. More specifically, group buying sites' **aggregators** collect offers from deal sites and present them daily into main categories. There are two kinds of content aggregators, those who simply gather material from various sources for their Web sites and those who gather and distribute content to suit their customers' needs. It is important to mention that aggregators have currently gained popularity among with deal sites because of their large scale of offers. In many cases aggregators can completely replace group buying sites in e-commerce market [23].

2.1. WHAT GROUP BUYING WEBSITES ARE?

Group buying websites on the one hand provide attractive local deals that offer extraordinary savings for buyers and on the other hand promise significant number of sales to participating merchants. Examples of such group buying websites are **Groupon**, **BuyWithMe** and **SocialBuy** and they all leverage the power of collective bargaining to gain a lot of traction as they offer short term, daily deals that discount luxury items and everyday products all the way up to 50% off. They offer products and services which tend to sell out within hours and in this way they become a very attractive and affordable marketing solution for local business.

The product or service of a business is promoted on the group buying site having marked down its cost by 50%, sometimes more and sometimes less. It is necessary that a minimum number of buyers must sign in for the offer to be activated. Consumers secure their position and interest in the deal by providing their credit card number. Once the deal attracts the minimum number of consumers required, the credit card is charged.

Businesses pay nothing to the site for just advertising their products and if the deal does not gather the minimum requirement of sign ups, then businesses pay nothing at all. Once the minimum number of participants is met and the deal is valid, the group

buying site charges the consumer's credit card. The group buying site keeps a percentage of the sales. Their commission cuts a check to the business that advertised their product and sends a voucher to each buyer [9].

2.2. TOP GROUP BUYING WEBSITES

For the best understanding of the nature of the social buying phenomenon, it is provided below a shortlist of some of the internationally top **group buying websites**. This list has been formed according to alexa.com, a subsidiary company of Amazon.com that is known for its rank toolbar and website. Since this toolbar is installed, it collects data about browsing behavior. The data is then transmitted to the website where it is stored and analyzed and constitutes the basis for the web traffic reporting of the company [22].



fig. 2: Top's group buying websites logos

2.2.1. **GROUPON**



This is the original group buying and coupon website that surpasses all the other. Groupon offers the most local deals in the most cities across the United States, due to its fantastic funding. Another advantage of Groupon is that someone can buy products and services for their friends.

2.2.2. **BUY WITH ME**



This site promotes its daily deals through the social web and this fact makes it unique, although it has only had a limited presence in the US. The service of BuyWithMe cancels any deals, if the business which promotes the deal does not obtain the sells volume or numbers it requires. This is an additional advantage to local merchants.

2.2.3. LIVING SOCIAL



LivingSocial is the social commerce leader behind LivingSocial Deals, a group buying program which invites people and their friends to save up to 90% each day at their favorite local attractions, such as hotels, restaurants, sporting events and spas in many big cities. On January 19th, Group buying site LivingSocial which sells vouchers for restaurants, spas, retail stores, teeth whitening and other services, usually at 50 to 90 percent off — released a deal for a \$20 gift card to Amazon.com which cost \$10.

2.2.4. GILT GROUPE



Gilt Groupe provides invitation-only access to highly desirable products and experiences at really low prices. Each day, Gilt offers its members a variable selection of merchandise, including clothing, accessories and lifestyle items addressed to people, regardless of their age and gender. In addition, they provide the best decoration for the house and entertaining essentials, as well as luxury travel packages and fantastic offers on local services and experiences. Most sales start at noon and last only 36 hours, making Gilt.com an exclusive shopping destination for luxury at up to 70% off.

2.2.5. **TIPPR**



Tippr.com uses collective buying power to satisfy consumers' daily desires for the guaranteed best deals on merchandise, services, and events, while supporting local businesses and communities. Tippr.com is, as their founders claim, the only collective buying site to offer patented accelerating deals, which means the deal gets better as more buyers are interested.

2.2.6. SOCIALBUY



SocialBuy promotes special deals on local products and services from food to health products, although it relies more on email marketing to promote their daily deals. This website offers a \$10 credit for every friend referred to the service as a nice added bonus to the buyer.

2.2.7. CROWDSAVINGS



Crowdsavings works in a very similar to Groupon way. It gathers large online groups of people to use the collective bargaining power in order to obtain unbeatable deals and discounts on local products and services.

2.2.8. PRICEBUNCH



Pricebunch offers some amazing deals, much alike the other group buying websites'. It offers some very useful reviews for each daily deal so that buyers can make a purchasing decision based on extra information about the product.

There are also many other group buying websites and even more are appearing every day, but the aforementioned are the most simple, effective and attractive to both

retailers and consumers. But in the continually changing world of internet based businesses one must seek and find the best collaborative buying websites for their local area and ask how they can get their business involved [10,11].

2.3. HOW AND WHY GROUP BUYING OPERATES

There are three stages in the process of the group buying for the consumer to have in mind [12].

1. Get it

One can start by checking their e-mail, Facebook or Twitter for daily deals on their local businesses.

2. Share it

Deals have more fun when shared with one's friend. So, one can pass deals by e-mail or broadcast them to social networks.

3. Enjoy it

The last step is to print the voucher or bring it up on one's mobile device. Then one must present it at the business to get the deal.



fig. 3: The way Groupon operates

The Group buying concept is simple and effective. It is based on collective buying power, which means that group buying sites can negotiate deals with local merchants and promise to get them many customers in exchange for large discounts.

The group of users/customers receives great discounts on products and services that they really want, while the merchant gets a large amount of profit.

<u>Groupon</u> is, without doubt the leader of group buying. The company works with over 150 markets in the US, and over 100 locations throughout Europe. There are other sites which work most like the tuangou concept and connect customers either individually or collectively with merchants. There is, for instance, <u>Ask for a Deal</u> in the US, – a business which acts as an intermediary between buyers and merchants. Buyers can ask the intermediary for a discount. As with the more common group buying sites, the site isn't actively negotiating the deal. They can, though, secure discounts for their users because they are promising to merchants large quantities of purchases [12].

2.4. How to Market with Group Buying Websites

Group buying / social shopping business model is of a simplistic nature. Thanks to it the answer to the question "How To Market" can be explained in three easy steps:

STEP 1: Definition of the Offer

Businesses must first of all make clear what they are offering down to its most important details. So, before the businesses spend anytime contacting group- buying sites they have to clearly define their offer. Many times businesses put out offers that may seem like a fantastic deal to consumers since the cost is being deeply reduced. When consumers are interested in it, to their great surprise they may find out that the offer implicates many possibly unpleasant details which weren't being clearly explained at first.

So, businesses have just to make sure that their offer is desirable, transparent and attractive. Since they have combined those three characteristics in to an offer under promotion, then they will successfully leverage any group buying website.

STEP 2: Finding the Best Group Buying Website in one's Area

After having chosen the type of promotion the next step for a business to take is to find their promotion portal / site. It is extremely important that a business finds the best website in their local area for promoting their products.

STEP 3: Contacting the Group Buying Website of one's Choice

The next step a business must take is to find the "Business Owners" link of the website and enter the necessary information.

Some sites will simply require the completion of a form right from their website. Other sites may require a phone call first to make sure that the businesses are good enough for their audience. Both the business and site are making profit in this way [9].

2.5. GROUPON, THE PIONEER OF DAILY DEAL SITES

Groupon is undoubtedly the pioneer of all group buying sites. It is the original group buying and coupon website that surpasses all the other. It has a vast expansion to many countries, offers the most local deals in the most cities across the United States and its revenues are immense. So, it is really important to dedicate a separate section to it.

Some people claim that the name comes from the two words Group and Coupon. Others believe that it comes from a city in Switzerland called Groupon. The reason for this choice of name is because in Groupon, Switzerland, Goodyear's tires are sold with a heavy level of discount.

Groupon was launched in November 2008 in Chicago U.S and now is widespread at over 150 markets in Boston, New York and Toronto. It is a deal – of – the – day website but its offers will only be available, if a predetermined number of people sign up for it. If the number of consumers is not reached, the offer is invalid. As soon as the required number is met, the offer becomes available for everyone. This kind of offering has a very important influence on the business which makes the offer.

- 1) It reduces the risk of loss for retailers and business who offer the discounts.
- 2) It is used as a very effective sale's promotional tool for the retailers / businesses.

There are, however, a lot of services that Groupon will not promote, such as strip clubs, abortion clinics, shooting ranges and plastic surgery.

The founder of Groupon is Andrew Manson. A former employer of Andrew Manson, named Eric Leftofsky invested \$1 million in the project of Groupon. Groupon has also bought out several international sites of similar operation basis. These include the European based MyCityDeal, and the Japanese services QPod.jp and Darberry.ru which have now been re-branded under the Groupon name.

On the site's main page consumers can see what the offer of the day is and how much it will cost and then they decide if they wish to purchase it.

If the deal which consumers are looking at, has not yet met the required number of signs up, buyers should not worry, because their credit card will not be charged until the offer becomes active. If it isn't able to reach the required number of sign ups their credit card will not be charged. Purchasers can also buy any Groupon offer for a friend or relative as a gift. Once the deal is active and the credit card has been charged, an email is sent to the buyer with a link, where they can print out the coupon. The link will also contain all the necessary information about how to exchange the coupon for the wanted product or service. The above characteristics have altogether made Groupon an extremely successful industry [13].

2.5.1. GROUPON PROS AND CONS

Daily deal services give shoppers the beneficial opportunities to participate in huge sales. On group buying sites like Groupon, businesses offer up to 65% discount on one's favorite restaurant, or half priced massages at one's spa town. Other sites, apply to online stores selling popular items, such as iPods or laptops. Other websites may work in a different way, but all of them offer unbeatable savings to active members.

We can pretty clearly see how these deal sites can benefit the customer, but it is more difficult to see how businesses benefit from cutting prices down so much. Retailers benefit mainly from the bulk sales. In a 24 hour period businesses don't normally get the opportunity of selling huge amounts of products. When, though, sellers use a daily deals service and offer discounts they can be reasonably sure that many users who receive their coupon will redeem it. So, business gains profit.

Another benefit to shoppers is that some sites allow retailers to set a minimum buyers requirement, where the coupon is only valid once a certain number of buyers sign up. This characteristic gives sellers the advantage to decide when a certain coupon would be profitable for them to offer. In this way, they avoid the risk of a few sales, as they set the target of how many buyers they want for their offer.

A U.S University, Rice University performed a study that surveyed many businesses which were being promoted by Groupon. The survey showed a great profitability of the businesses' promotions. An interesting and very positive finding of this survey was also that a 50% of the customers who bought the online coupon ended up buying more than just the corresponding to coupon product. The survey revealed also that about 31% of the customers who took the coupon came back later to buy again at full price. These findings prove that promotion of businesses through group buying sites is very profitable.

When the average shopper gets an email that advertises unbelievable sales is greatly motivated to purchase. The shopper may not need e. g. a new MP3 player, but if they can get one for 75% off, they can't resist buying. They might think that their holidays and birthdays are coming and that they can offer the items as presents to friends. This kind of psychological pressure ends up in a very positive result for retailers.

There are, of course, customers who have strong enough will to resist purchasing. But these customers are not alone as long as they belong to a social site. When an attractive coupon is for sale, family and friends put pressure on the customer to take the offer, so that everyone benefits according to mass psychology.

A negative result of using daily deal websites is that refunds are not common. These websites are generally not concerned about quality customer service. On the contrary, they focus their activities and resources on how to attract more merchants and shoppers. Without refund policies shoppers are at risk of being taken advantage of by unscrupulous retailers.

Another negative result for the businesses which promote their products through daily deal websites is that merchants are forced by the sites to offer as possible as bigger discounts for their products and services. On the one hand social group buying websites offer a great benefit to merchants because of the bulk sales, but on the other hand most of them have strict rules for admittance. Websites survive due to the financial strength of the deals. If websites cannot offer bigger discounts to users than other buying sites do, they have nothing special to offer. In order to dominate the market of social buying

the sites force merchants to offer bigger discounts. This fact is a problem to many retailers, as some cannot reduce their prizes that match and still make profit.

The Rice University's survey, which is mentioned above, revealed surprising facts about the real profitability of a Groupon advertising campaign. A significant percentage of 32% of those campaigns were found actually not profitable. The biggest problem for these businesses was that only the 25% of the coupon buyers actually purchased the product advertised, and even fewer (less than 15%) ever made a second full priced purchase. The survey also found that only 8% of those businesses who did not have a profitable first experience were ever willing to run one again. It seemed that the one bad experience was enough to dissatisfy them with the group buying websites' entire process, though businesses could have just restructured and reorganized their promotions and try again. On the whole, it is generally admitted that the process is really worth trying and beneficial both to consumers and businesses [14].

2.6. FUTURE PROSPECTS

Social buying mainly owes its existence mostly to the marketing strength of Groupon and the introduction of Facebook Deals. Gradually buyers become more accustomed to the idea of social commerce and group deals. A lot of changes are expected in the whole business with new considerations both for the retailers and the consumers.

Social sites have at a wide range totally changed the concept of commerce and this is a fact that cannot be underestimated. Social sites have introduced new business practices with an aim to emerge, capture and utilize the socialized customer. But where could this phenomenon go next and what might we expect to see from companies in their attempt for further expansion [5]?

Right now social shopping is just a trend but in the near future it may be the main way in which consumers want the retailers to sell their products and services. It is an effective, cheap and extremely vital way of shopping, so it is worth trying out for now. For businesses it may return to them much higher profit than their traditional standardized marketing, or even their search engine marketing efforts. Social shopping is undoubtedly, extremely prosperous for retailers, businesses and consumers [12].

2.6.1. GOOGLE OFFERS

Google has made a \$6 billion acquisition offer to Groupon which was rejected. As a result Google is planning to launch out their own daily deals site in 2011 named "Google Offers".

Google Offers will work in very similar way to Groupon and its competitor LivingSocial. Buyers will receive daily emails with local deals. Those deals will carry some preset time limit. All the users will receive the deal once it reaches the minimum preset number of buyers. Generally, the business model will remain almost the same. In January 2011, Facebook's "facebook deals" application was launched out in five European countries. This application operates on a similar to Google offers' group buying model [5].



2.6.2. FACEBOOK DEALS

Following the current trend of social buying, Facebook will use the collective buying power of its members to promote universal business deals involving mass participation. With this move, it is obvious that the largest social networking site threatens the domination of Groupon in this area.

The first trials of the service will involve companies that want to offer immense discounts on great services in Dallas, Austin, Atlanta, San Francisco and San Diego in the United States. Yet, Facebook will work with eight companies that collect offers of social buying to show them all on a dedicated page, including sites such as Gilt City and Tippr.



The advantage of Facebook is obvious. Each offer which will be chosen by any potential buyer can be spread out to the circle of friends. In addition, all the offers of local businesses will appear in the right column of each member's personal page. Yet, it is unknown whether Facebook intends to require the use of its "online virtual currency", Facebook Credits for the purchase of items. The Facebook Credits are the currency with which members of Facebook can rent movies from their website.

In early 2010, Facebook launched its service "Places", which enables members to share location information found on their mobiles' Facebook application. So, they can see which friends are nearby.

The Places Deals is a service which gives the opportunity to all members of Facebook, who share location information, to check what offers exist in the nearby shops or restaurants and share this information with friends [21].

2.6.3. BUSINESS TO BUSINESS DEALS

Small business owners whose profits are threatened by bigger ones' are offered a great opportunity to succeed by developing a business to business group buying strategy.

Business to Business group buying sites provide small business owners with high discounts on desirable products or services. Businessmen are always looking for unique services and products to help them grow their business, increase profit, reduce costs, save time and, generally speaking, operate more efficiently.

Business to Business social buying websites are a result of the collective buying trend which has its origins to the business model of Groupon or LivingSocial. These smaller social business to business buying sites use the group buying business model to satisfy the needs of companies and their employees. On the one hand Groupon and LivingSocial continue to focus mainly on the B2C daily deal market and expanding internationally, on the other hand, B2B group buying site markets remain without international expansion.



fig. 4:B2B Group buying sites

New deal of the day sites are currently emerging to present B2B group buying opportunities and offer excellent discounts, deals, and trial offers for local small business owners. They also offer valuable business guides and tools to help the business

owners make smart buying and selling decisions. In this way small businesses can benefit the most from this type of B2B deals [17].

Some examples of B2B group buying sites and their logos are presented by fig.2.

2.6.4. MOBILE SOLUTIONS

As it concerns mobile solutions, there is an excellent opportunity for group buying further development, on the condition that mobile commerce and group buying incorporate with each other. Implementing real-time group buying through a mobile solution means a great opportunity for both. It is only a matter of time before mobile commerce and group buying meet and change the world of retail, as they both continue to grow at a large extend.



Deals between them are very much restricted to what is going on the site itself for the time being. People are now beginning to look at how local search can enhance group buying, but it is expected to become a real mobile, socialized product. Buyers at the moment can both check into Places or redeem an offer through Facebook Deals, but the two businesses are not really well incorporating with each other. It is a great convenience for people to visit a shop through their mobile and see a real-time offer, such as a special discount which is based on the number of people that have checked in, or share a purchase with a friend through Facebook. Customers are in this way motivated to share their location and thus create additional brand awareness. That fact

has a beneficial result to both customer and retailers. Vendors, increase their sales and buyers get what they always wanted anyway – offers from brands [5].

2.6.5. GROUPON'S BUSINESS PAGES

Groupon's site needs to develop and evolve to both deal with the current buyer's demand and also continue to meet and satisfy businesses' needs. Currently Groupon is pretty much social by default, because people share its offers so it is more likely that they will get to redeem it. In this way Groupon gains profit. Groupon's site begins to operate almost like a mini social network of its own because the company's leaders realized that there is a great advantage and opportunity for them to develop their own Facebook Page product for businesses. In this way group buying will certainly get bigger and businesses will run more offers. The offers can be presented within a small business page on the site, where the brand begins the structure of a real community and starts offering their own social tools to encourage and increase sharing among buyers. A well organized business product page on Facebook has had with no doubt a positive impact to the consumers. As a result, such a business page could be a huge victory for Groupon. Thus, Groupon could carry on controlling the group buying market [5].

2.6.6. GROUP-BUYING, A SUCCESSFUL TRANSACTION

Group buying can certainly evolve and it is relatively easy to see how this will happen. There are without any doubt entire businesses based on this model, which solely implement the mass-buying concept on every single product they promote. People become more and more used to doing transactions with businesses in this way as it best satisfies the consumers' needs.

There is a question at this point; if the customer would be ready for 100% group buying from a business. This matter can be implemented in such a way, so that the user

can be continually encouraged to visit the site again and again. Purchasers can either buy the product as they would have done normally, or share it with their friends as they could get a further couple of percent off of the discount rate offered. At the point of presale the decision of either buying on their own, or sharing the product with their friends is left to the customers' own choice. But both the transaction processes become enormously socialized and successful [5].



Generally speaking, the future of the group buying scheme appears bright and prosperous. All the parts involved in this kind of business, i.e. the merchants, the buyers and the intermediaries could obtain a big profit which is really important, especially in the middle of the severe financial crisis that hits Greece and the whole world. The recent trends and future prospects in the group buying market that have been mentioned above are extremely successful for the future expansion and development of this kind of selling and buying model.

Up until now, the greatest worldwide sites have been presented as well as the impact they have on both the consumers and the businesses involved. Additionally the future prospects of this kind of business have been mentioned. The research that has already been made is a motivation to investigate corresponding phenomena in the Greek market. The investigation will among others include the way Group Buying business model has penetrated in the Greek market and the kind of influence that it has had on Greek consumers.

2.7. RECENT TRENDS IN GREEK MARKET

According to a research carried out by ELTRUN (The E-Business Research Center of the Athens University of Economics and Business which was founded in 1991 by professor G. Doukidis), which involves collecting data using the free tools Google Insights and Google Trends, there are many Greeks who choose internet to find the best products they want at large discounts.

The survey results show that on top preference of e-consumers are the clothing and technology products and that most frequent searches involve the terms "discounts", "deals", "cheap", "market opportunities" and "price comparison". What is more, the terms "clothes" and the brands selling technology products are placed on the top of searches throughout the year.



Apart from the traditional online shopping sites through which you may look for offers of products you are interested in, you can now get discounts all day on your computer and make your purchases simply with a click. Electrical appliances, food, clothing and footwear products, fuels, and even services, are all exhibited on your computer and you can check prices and compare their characteristics with only the touch of a button, saving time and money. And because technology is of main importance in the era we live, it is also important for the Greek consumer to get adjusted to the use of such tools in order to obtain the products they want at a very low price.

2.8. THE GREEK GROUP BUYING SITES

Recently the first group buying sites appeared in the Greek market, such as Groupon, Tsoonami, GoldenDeals, LiveMyCity, Delicious, Prolaveto, Pro4s.gr, Couponi, etc. These sites present on the web attractive offers from stores with discounts ranging from 40% to 90% - which are activated on the condition that a minimum number of customers will be ensured. More specifically, each one of these sites displays the 'offer of the day', a service or product at extremely reduced prices.

In order for the offer to be valid, a minimum number of buyers must be gathered usually within 24 hours. So if anyone is interested, should sign up and the corresponding amount of money is engaged by their credit card. So if the minimum number of buyers is accumulated, the offer is being activated. Otherwise, the agreement is canceled without any charge to the potential customers.

According to Mr. Elias Hatzis, founder of tsoonami, "The idea is based on the potential of the collective purchasing power of consumers and social networking on the Internet is the ideal instrument for this purpose, since in practice each offer spreads from user to user via mail, Facebook or blogs". Moreover, the logic of "group purchasing" came from abroad where such sites are used successfully for several months. For example, the U.S. Groupon, a pioneer in «group buying», already operates in many U.S. and European countries (and also in Greece with groupon.gr) [18].

2.8.1. BIG IMPACT

Although the Greek internet group buying platforms count only few months of existence the influence on consumers in our country is greatly encouraging. The founder of tsoonami claims that besides the fact that they offer significant discounts, collective markets are also an opportunity for Greek people to increase their options for

entertainment and personal grooming, and try services that they probably thought they were most luxurious for them.

Though the shopkeepers in Greece offer a low price, so as to cover only their operating costs, these platforms provide them with a new excellent way of targeted advertising, because its user has to spread the offer or share it with friends. The user also shares with others the positive impression they had about the product and the business that offered it.

"Such applications partly owe their popularity to the fact that more and more Greeks see the internet as a tool that can give them significant savings", said Mr. Elias Hatzis, founder of the site tsoonami.

In recent years in our country, search engines that identify the most advantageous prices are gaining popularity. For example, if people are looking for gadgets and appliances, office supplies or clothes, they must explore Skroutz.gr, BestPrice.gr, Tzampaman.gr, ePrice.gr, etc and find what stores are available online.

There are also sites like lostinmarket.gr, eMallers.com, etc. which offer products or services such as car rentals or "packages" of mobile telephony. The fans of travel must do a research for the cheapest hotels on sites like Trivago.gr, Booking.com, Hotels.com, Hotels4U.gr etc. On the other hand, one can find tickets and the best prices on SkyScanner.net that has access to databases of more than 600 airlines. AirTickets.gr and PameDiakopes.gr can also help anyone to find cheap accommodation or cheap package tours [18].

As a result of the above, Greek people should not be depressed because of the deep financial crisis. They are now able to visit and enjoy the world of deal of the day sites and get the products and services they need at the most advantageous prices.

2.8.2. E-SALES

During sales periods social buying sites offer further reductions in prices that reach even the 90% which aim to attract even more customers. The discounts in online stores are as high as in the traditional ones.

Apart from the traditional discount, online stores also use a series of strategies to lure customers. For example, every Sunday the price of selected products declines further in some of them. Some others offer additional discounts for a specific hour of a day. Additionally, many enterprises choose to sell specific products only from digital stores as in this way they gain higher profit [18].

2.8.3. Cons of E-shopping

In the digital world the process of purchasing products does not begin and end at cashier's desk. Before each market we have to register, read the terms of use and to enter personal information such as name, address and full contact details. All these lead to a dislike of online purchases and some customers use it only when they are looking to find some great opportunity. According to a survey by a British polling firm, YouGov, half the people who shop online are willing to abandon their purchase once they reach the payment page.

The high proportion of stakeholders who don't complete their transactions should be a warning to dealers via the Internet that their customers may dislike their stores. Moreover, the fear for the safety of the data of credit cards annoys potential buyers a lot. The owners of online stores have not solved the key issues yet; to make the buying experience over the Internet easier and guarantee the security of information.

However, e-shoppers are constantly growing and online stores are rapidly flourishing. The reason for this tumultuous development is the simple way and the convenience of the transaction. It is simply easier and quicker for an entire category of purchases to buy online, and prices are often lower. The comparison of prices, the discovery of items at discount and the fact that we do not have to travel to buy a particular product are just some of the reasons why consumers prefer group buying markets [16].

CHAPTER 3: RESEARCH APPROACH

3.1. PROJECT'S DEFINITION

This dissertation's aim is to analyze the group buying web sites' phenomenon in Greece and worldwide. More specifically it aims at recording the online group buying market in Greece. As for this goal to be achieved, the history of group buying has been thoroughly investigated starting from the era of tuangou, the ancestor of all deal sites and ending up to the brand new daily deal sites' development of "google offers" and "facebook deals".

However, in order to totally understand this immense evolution in the group buying market, all the required fundamental definitions have been fully quoted. Terms such as electronic commerce, social commerce, and social shopping have been defined. What is more, the meaning of shopping communities, recommendation engines, social shopping marketplaces, shared shopping mechanisms and group buying sites have been explained, as well.

Additionally, the top global social buying sites are sited including Groupon, Buy With Me, Living Social, Tippr, Social Buy etc. An analysis of the working mechanisms of those sites is also presented. The most well-known of these sites, Groupon, is also thoroughly investigated, while its pros and cons are mentioned.

Eventually, online group buying in Greece is analyzed, despite the fact that the phenomenon in the Greek market is relatively new. Moreover, the recent trends in this area have been examined and the consumers' response to this kind of shopping has been discussed. The effects of the sites on both businesses and buyers have been mentioned and the top ten group buying sites have been quoted, as well.

Finally, all the sites that were active on June 2011 have been recorded with detailed information about them that will be used to future progress of the whole project. These details include characteristics of each site such as kinds of offers, area of operation, payment methods, Alexa.com rating etc.

3.2. THE MAIN STAGES AND OBJECTIVES OF THE RESEARCH

One main aspect of this project is to extract certain statistical information about Greek social buying sites. Such information includes:

- ✓ The proportion of sites that sell a certain product
- ✓ The percentage of sites that operate in certain cities
- ✓ The percentage of the sites that use a certain payment method
- ✓ The proportion of sites that offer a gift to their members for inviting new friends
- ✓ The maximum and minimum discount that each site have ever offered
- ✓ The maximum and minimum price that each site have ever offered
- ✓ The alexa Greek and global rank for those sites

This kind of information is presented in the chapter 4.4: Statistical Analysis.

Moreover, it is essential to find out if there is any correlation among various factors of group buying sites' way of operation. More specifically the following questions will be answered:

- ✓ Is there any correlation between the discounts that each site offers with the population of each site, shown by Alexa rank?
- ✓ Is there any correlation between the prices that each site offers with the population of each site, shown by Alexa rank?

The population of each site is a very important factor that indicates the rate of the site's success.

- ✓ Is there any relation between the number of sales of a certain product with the discount?
- ✓ Is there any relation between the number of sales of a certain product with the price at which this product is offered?

Such information is recorded in the chapter 4.4.2: Regression Analysis.

The answer to the above queries is a very important factor because it may provide valuable information to group buying sites owners on what aspects of operation they should focus on. This information will also benefit entrepreneurs by indicating the products on bigger demand and the buyers' general preferences.

In order to succeed in analyzing the above aspects, this project has been developed into three main stages. First of all, the thorough examination of some Greek group buying deal aggregators was of immense importance, with an aim to record as many deal of the day sites as possible. The main aggregators that have been surveyed in order of precedence are Soby.gr and Oladeals.gr. Among them Dealissimo.gr, Bonusdeals.gr, Dealpage.gr and kerdizo.gr have been regularly investigated, so as to achieve the best possible result, i.e. to gather as many information as possible.

In spite of the continuous observation, since the first stage of this work has been completed, many new sites have been emerged up until now. Thus, it was really difficult to achieve a complete recording. In fact, the 100 sites that have been recorded are presented at the table below.

#	Aggregator	Site name	Kind of offer
1	soby.gr :	3days.gr	Travell offers
2		Alepoudaki.gr	Services and products
3		Arpakseto.gr	Services and products
4		Bargainville.gr	Services and products

5	Beautyndeals.com	Beauty
6	Bestofferz.gr	Services and products
7	Blvd-deals.gr	Travell offers
8	Bookoffers.gr	Books
9	Buydeals.gr	Services and products
10	Cheapis.gr	Services and products
11	Cleverdeal.gr	Services and products
12	Couponi.gr	Services
13	Couponorama.gr	Services and products
14	Coupons4all.gr	Services and products
15	Crazydeals.gr	Services and products
16	Deal848.com	Services
17	Dealicious.gr	Services and products
18	Dealmania.gr	Services and products
19	Dealmyday.gr	Services and products
20	Deals2day.gr	Services and products
21	Deals365.gr	Services and products
22	Deals4all.gr	Services and products
23	Dealsbay.gr	Services and products
24	Dealsmart.gr	Services and products
25	Diamondeals.gr	Beauty
26	Doitnow.gr	Services and products
27	Dreals.gr	Services and products
28	Dreamdeals.gr	Services and products
29	Edealer.gr	Services and products
30	Ekdromi.gr	Travell offers
31	Elapare.gr	Services and products
32	Enterprice.gr	Services and products
33	Genie4u.gr	Services and products

34	Gocity.gr	Services and products
35	Goldendeals.gr	Services and products
36	Grandsales.gr	Services and products
37	Groupon.gr	Services and products
38	Hopping.gr	Services and products
39	Hotelcoupons.gr	Travell offers
40	Idealdeal.gr	Services and products
41	Itsadeal.gr	Services and products
42	Joyfulldeals.gr	Services
43	Kingdeals.gr	Services and products
44	Letsdeal.gr	Services and products
45	Livedeal.gr	Services and products
46	Livemycity.gr	Services and products
47	Luckyday.gr	Services and products
48	LuckyMe.gr	Services and products
49	Magikesagores.gr	Services and products
50	Musthave.gr	Services and products
51	Mykonosdeals.net	Services and products
52	Offerland.gr	Services and products
53	Pardalokatsiki.gr	Services and products
54	Parkareto.gr	Services and products
55	Platinumdeals.gr	Services and products
56	Prettyoffers.com	Beauty services and products
57	Price4all.gr	Services and products
58	Prolaveto.com	Services and products
59	Pros4s.gr	Services and products
60	Rodosdeals.gr	Services and products
61	Save2day.gr	Services and products
62	Shopa.gr	Services and products

63		Skroutzdeals.gr	Services and products
64		Specialdeal.gr	Services and products
65		Stardeals.gr	Services and products
66		Start2deal.gr	Services and products
67		Supercoupon.gr	Services and products
68		Supergold.gr	Services and products
69		Deals.touristorama.com	Travell offers
70		Tsoonami.gr	Services and products
71		Petdeals.webpet.gr	Pet services and products
72		Winwindeals.gr	Services and products
73		Xenodoxeio.gr	Resort offers
74		Xpresshop.gr	Services and products
75		Xtipiseto.gr	Services and products
76		YourBestFriend.gr	Services and products
77	oladeals.gr :	Bigmama.gr	Services and products
78		CouponLife.gr	Services and products
79		Fastdeal.gr	Services and products
80		Fixprice.gr	Services and products
81		Free4deals.gr	Services and products
82		MakeYourDeal.gr	Services and products
83		MinToXaseis.gr	Services and products
84		NotiaDeals.gr	Services and products
85		SaleTime.gr	Services and products
86		ToPsalidi.gr	Services and products
87	dealissimo.gr	BackPack.gr	Services and products
88	kerdizo.gr/Deals	ClickDelivery.gr	Food
89	bonusdeals.gr	DealDay.gr	Services and products
90	dealpage.gr	Dealirio.gr	Services and products
91		Dealoramix.gr	Services and products
92		DealsBook.gr	Services and products

93	GoSales.gr	Services and products
94	GrandeSconto.gr	Services and products
95	Kamthing.com	Services and products
96	Kopsoxronia.gr	Services and products
97	SpreadTheOffer.gr	Services and products
98	StrikeDeal.gr	Services and products
99	SuperDooper.gr	Services and products
100	TastyDeals.gr	Food
101	Tzamato.gr	Services and products

Table 1: Greek Group Buying sites

The assignment's second stage includes careful examination of certain aspects of each and every one of those sites separately. In order to proceed with this step the creation of a database file -using MS excel- has been considered necessary, so as to facilitate the entry, observation and detailed study of each site's useful operative details.

Each registration (line) of the excel sheet comprises important information about a particular social buying site. Such information are the kind of offers that the site comprehends (hotels, food, spas, weight loss, car, education, hobby, sports, health care etc.), the area in which every group buying site operates, the alternative payment methods that each one employs (Paypal, credit card and/or bank deposit), the maximum and minimum discount and price that every site has recorded to the history of its offers.

Additionally, there has been some information retrieved from Alexa.com. Alexa is an accomplished site that computes traffic ranks by analyzing the Web usage of millions of Alexa Toolbar users. This information includes the Alexa global and Greek rank, the number of linking sites for every social buying site and some basic information about every site's user's age and social status.

In a separate file, some additional details have been recorded according to each site's offers on a specific date (Monday, 5/9/2011). Such informative records are the sites' name and the kind of each site's offers, the price, the discount and the number of sales of every deal. This kind of information has been recorded in order to investigate if

there is any correlation among the number of sales of a particular product on the one hand and the price and discount of that product on the other hand.

At the third stage of this work all the above results which were presented on the excel sheets have been inserted to the statistic program SPSS 19, in order to proceed with the statistical analysis and answer the aforementioned research questions. SPSS is a computer program that is used for survey authoring and deployment, data mining, text analytics and statistical analysis. The insertion of those data aims at the extraction of useful assumptions such as graphs and histograms that describe some statistical facts of the way in which those sites operate. What is more, SPSS enables the implementation of linear regression which is an approach to modeling the relationship between a dependent variable y and one or more independent variables X.

Linear regression has many practical uses. Most applications of linear regression fall into one of the following two main categories:

- If the aim is forecasting or prediction, linear regression can be used to fit a predictive model to an observed data set of y and X values. After developing such a model, if an additional value of X is then given without its accompanying value of y, the fitted model can be used to make a prediction of the value of y.
- Given a variable y and a number of variables X1, ..., Xp that may be related to y, linear regression analysis can be applied to quantify the strength of the relationship between y and the Xj, to assess which Xj may have no relationship with y at all, and to identify which subsets of the Xj contain redundant information about y.

Detailed results extracted from the SPSS's statistical methods implementation are presented analytically in the following chapter.

To sum up, the method of observation that has been implemented includes the following steps:

- ✓ Greek Group Buying sites recording
- ✓ Thorough observation of Greek Group Buying sites

- ✓ Recording of certain particulars about them
- ✓ Statistical analysis of the Greek Group Buying sites' recorded data
- ✓ Implementation of Regression Analysis to identify hidden relationships
- ✓ Detailed discussion about the results of the Regression Analysis
- ✓ Extraction of conclusions for future development of the Greek Group Buying market.

CHAPTER 4: CONTRIBUTIONS: ANALYSIS OF GROUP BUYING SITES IN GREECE

For Greek people up until now, connecting with each other involved only social media like Facebook or Twitter. Then, when Groupon firstly appeared in Chicago, appeared also a service that can increase one's buying power called "Groupon deals" and it was the next big issue in the world of technology. Of course the origins of group buying can be traced to China, but it is mainly its US based version that vastly increased interest in this new trend internationally and in Greece, as well.

Following the example of group – buying businesses like Groupon or Living Social (Groupon's main competitor), other similar businesses started flourishing all over the world. Especially in Greece, there are now more than 100 group buying sites which appeared suddenly and following the Groupon model, there are now offering all kinds of deals from luxury hotels, to food or nail polishers. Throughout the world such companies are Groupon, LivingSocial, Plumdistrict, or BuyWithMe in different languages and different countries with hundreds of different versions.

The big Internet companies would not have stayed outside the game. In fact, big companies such as eBay are now building their own deal sites. A few months ago, Google made a \$6 billion acquisition offer to Groupon which was rejected. After the rejection Google announced that it would start its own daily deals site called "Google Offers" which is already active. Facebook also started its application "Facebook deals", in some European countries in early 2011.

Tipaizei.gr is the first group-buying social network in Greece. Their policy is the creation of a community like Facebook in which members instead of liking pictures will like and seek for deals. Most group buying websites rely on the usual top – bottom approach, but unlike them, tipaizei.gr applies a bottom – top approach. The platform allows customers, visitors, fans or simple members to create their own deal while other sites suggest offers to customers. Anyone on the platform of tipaizei.gr can upload their deal idea. Then all the members of the community vote on the idea. At the end of the week, the founders of tipaizei.gr create deals based on the ideas with the most votes and place an open offer with the new, cheaper price on their own website ready for their members to buy.

At the moment tipaizei.gr is only available in debt-burdened Greece. But in the Greek market are already rumors that it will expand to other Balkan countries. A mobile

app is expected to make its appearance and also "tipaizei it" is a web 2.0 button which is on its way to multiple sites on the Greek web, from travel agents to online retail shops. With a simple click on the "tipaizei it" web 2.0 button, automatically the description of the service or product will be uploaded on the site's platform ready for members to review and vote for.

In this way the site creates a digital form of personalized shared intelligence which can lead normally different consumption preferences toward one specific target, based on individual likes or dislikes. The regular group buying representatives who try to find deals and negotiate with vendors are actually the website's members or visitors themselves, so they greatly succeed in cutting down the costs of products. This model also allows for excellent scalability and growth and perhaps a good way to increase Greeks' spending power [15].

4.1. TOP 10 GREEK GROUP BUYING SITES

The group buying sites in Greece are already more than a hundred! But some of them stand out as they already possess the most powerful offers and gather more purchases by consumers. Below we can see the ten most well known Greek deal of the day sites (according to alexa.com). What exactly is alexa.com and the importance of it has been mentioned before in chapter 2 and 3.

Groupon:

Groupon provides customer with exciting every day offers for restaurants, beauty salons, entertainment and sports up to 50% cheaper. Customers' experience with Groupon becomes reality when a minimum number of people buy the offer. Groupon is more than just a site. It is a city guide which takes customer to discover the best offer of the city they live in, at unbeatable prices.

Golden Deals:

Goldendeals.gr is a new platform which is changing the way we consume products and services. In other words, is a new and interesting way to discover, to experience and share with friends the most attractive services in our city while saving money. Often consumers are looking for something different, something unique and fun and that is exactly what Goldendeals offers.

Tsoonami:

Tsoonami started in May 2010 and it provides offerings for restaurants, entertainment and other pleasurable experiences. It is important for buyers to look daily for the best deals which will allow them to continue enjoying life despite the financial crisis.

Skroutz Deals:

Skroutz Deals is a new communication tool which offers products and services ranging from 40% to 90%. Its aim is to propose daily a different offer to city life.

Dealicious:

The site's primary goal is to bring the general public products and services of high standards and quality at extremely low prices. In this way, the buyer is not daunted by the financial crisis and its offers (that exceed 50% and often touch 90%) are a strong incentive for consumption

Deal My Day:

DealMyDay is a new internet platform for group buying services/products. It aims ot providing the customer with offers of different discount coupons, with unbeatable

discounts from 50% to 90% for restaurants, spa, beauty products, lifestyle, leisure etc. and generally everything that at the regular price buyers are not willing to pay for.

Deals 365:

Deals365.gr sends out exceptional daily deals on an ongoing basis with discounts of up to 90% for local restaurants, bars, spas, concerts, electronics, cosmetics and more in Athens

Grand Sales:

Its idea is very simple. All it does is emphasizing on the power of the group purchasing. Using the power of many consumers/buyers they negotiate with businessmen at the best price products and services so that both sides come out winners. The consumer receives offers and discounts from 40% to 90% off the original value and the business gets new customers

Pros4s:

The site finds incredible daily deals with immense discounts of up to 90%. It makes proposals to fashionable people who seek fun and quality of life at a low cost.

Win Win Deals:

Winwindeals.gr offers all the best deals in the customer's city allowing them to enjoy life. Aiming at the mass market the site displays the ability to negotiate with its suppliers for the customers' best interest. The site and the customers together possess the power to enjoy cheaper [19].

4.1.1. Greek Deal Aggregators

In the Greek market we are currently counting more than 100 daily deal sites. Through this market a very important «affiliate success story» has been developed, the so-called deal aggregators, i.e. web pages that collect and present the daily offerings from all the deal sites. Not long after the appearance of the first sites such as Soby.gr, Oladeals.gr, Dealisimo.gr, Kerdizo.gr etc, many other similar efforts appeared. In affiliate network Linkwise there are now dozens of relevant pages, which generate profits for their owners through affiliate marketing.

But what are the characteristics that made this market, the first successful affiliate case study;

Of course, the success of affiliate market would not exist without the success of deal sites.

The economic crisis and the limited financial means, definitely turn consumers in search of opportunistic trade and offer.

Even more important factor in the spread of deal sites is the very clever way the offers are presented. The minimum required number of purchases ensures that users will share the offer with others, while the limited duration of the offer presses the user by emphasizing the sense of "urgency" and leads the user to purchase without a second thought in order not to lose, as they believe, the big opportunity.

The main reasons for the so-called deal aggregators being successful affiliate sites are:

Provision of Services

With the plethora of deal sites, the problem of objective monitoring of all offers that change daily is a reality. It is impossible for a person either to visit 100 sites a day looking for the opportunity, or to receive 100 emails about offers per day. The deal

aggregators offer a really useful service in this area, by gathering all the offers in one place. The main success factor is therefore the simplest: the deal aggregators have a real reason to exist. They offer a service and solve an objective problem.

Timing

Creators of the deal aggregators realized the trend that came from abroad. They saw the opportunity and acted at the right time. They invested on time and cash to create something at the right timing and satisfy the growing interest of buyers towards deal sites.

Online Purchases

An important factor for any affiliate project is the online transaction, which in Greek e-shops is not as widespread as abroad. Phone orders, physical stores and general mistrust of users keep the online conversion at low levels. Social buying sites however, managed to overcome this obstacle and to force the user to make transactions online, particularly through credit card and Paypal. So the affiliate site can see the sales and be rewarded respectively.

These basic characteristics are essential for any successful affiliate project. Having a tangible example of the Greek market, affiliate sites should be more alert and ready to realize the next trend, the next gap in the market. The affiliate market in Greece has a long way to go, and certainly in the coming years will see many intelligent projects, useful tools and ambitious business plans, all based on affiliate marketing [20]!

4.2. Analysis of the Functionality of the 100 Sites

In this chapter we will deal with the study, the organization and the analysis of the data that have been collected in previous stages of this work. In fact, pies, charts, histograms and graphs, that have been extracted from excel and SPSS programs and describe important statistical facts about group buying sites, will be thoroughly examined in part 4.4.1., so as to achieve certain conclusions.

What is more, we will attempt to provide tools for prediction and forecasting, using data and statistical models such as linear regression. More specifically, in part 4.4.2., we are going to model the relationship between pairs of certain variables such as the rank of each site and its minimum prices or its maximum discounts in order to identify whether those variables are relatively connected with each other.

At this part of the survey certain facts referring to the Greek social buying sites, which have been enumerated in chapter 3, will be presented. Such information are firstly the kind of offers that each site provides, and are divided into the above categories: Hotels, food, spas, weight loss, hair, care, hobby, sports, car, education, health care, shows and products in general.

Secondly, we will provide information extracted from the statistical analysis involving the area in which every group buying site operates. More specifically, the rate of them that operate in Athens, in Thessaloniki, or in any other city of Greece will be recorded.

Finally, the alternative payment methods that each site employs (Paypal, credit card and/or bank deposit) the maximum and minimum discount and the maximum and minimum price that has been recorded to the history of every site's offers, will be introduced.

4.2.1. The Service/ Offers they provide

As shown on the fig.5, 63% of the under examination deal of the day sites provide among others hotel offers, 70% of them include deals of food such as meals at restaurants and 74% include offers relevant to spas.

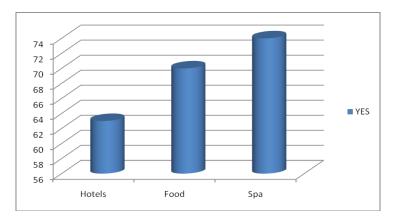


fig. 5: Hotels, food and spas

Additionally to that, deals about losing weight are provided by the 70% of the social buying sites while hair salon deals, such as haircut, coiffure and hair dyeing are provided by the 69% of them and beauty care offers like manicure, make-up, pilling or depilation are offered by the 79% of social buying sites (fig.6).

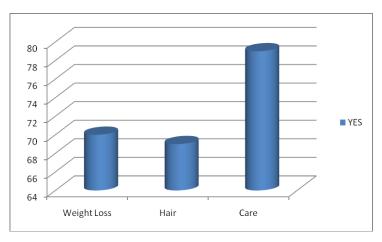


fig. 6: Weight loss, hair and care

In addition to the above, as shown in fig.7, 52% of daily deal sites include offers about hobbies, such as horse riding or tickets for music concerts, 46% about sports, such as discounts at gyms and 45% about cars, such as car washing or car service.

As it seems from the above, Greek consumers are more interested in services about beauty care, spas, travelling and food. According to this kind of preferences enterprises should focus on offering more deals about the above services in the future. Subsequently, both the enterprises will become more profitable and their customers will be definitely satisfied by the offer they require the most.

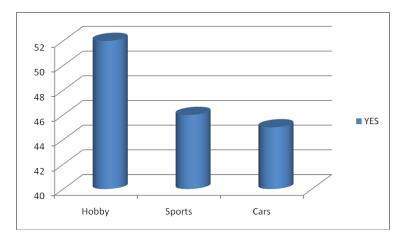


fig. 7: Hobby, sports and cars

As displayed on the fig.8, only a low rate of 35% of the sites sells products or services relevant to education, such as specialized books and seminars. This fact shows that Greeks are not much interested in the field of education. What is more important is the much lower percentage (26%) of deal sites that offer tickets for theatrical performances, which indicates the low rate of preference of the Greeks about cultural events. Finally, the rate of those that provide deals relative to health or medical care such as medical checkups is only 45%. This indicates that either most Greeks are not concerned at a great extend about their health, although they should, or that those services may be really unaffordable for the average Greek citizen, who would prefer public hospitals when seeking for such services.

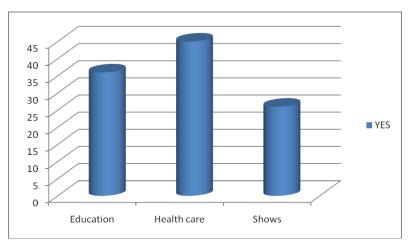


fig. 8: Education, health care and shows

Finally, it is essential to mention that approximately 13% of the sites which have been investigated do not include offers about products at all, while they only provide offers of services like seminars, resorts or health care checkups (fig.9).

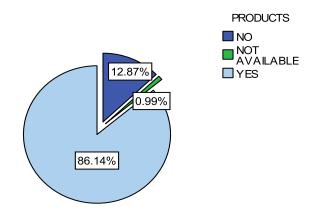


fig. 9: Products

Introducing a new member to a site is a very important factor for the site's prosperity. It is the main way for a Group Buying site to acquire new members and become well known and successful. It is also a significant part of each site's functionality. Thus, the most well known Greek group buying sites employ this method as a motivation to attract potential buyers. Among them, for example, groupon.gr rewards its members with the amount of 6€ for each friend to which they recommend the site, while tsoonami.gr offers in a similar situation the amount of 1€. Despite this fact, the rate of the Greek group buying sites that offers a gift to their members who

manage to invite a friend to become a member of the site is only 19%. This is displayed by the pie below (fig.10).

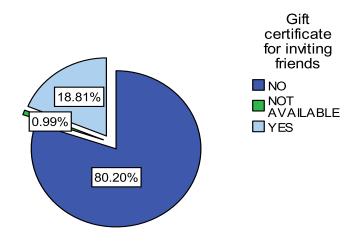


fig. 10: Gift certificate for inviting friends

4.2.2. AREA OF OPERATION

As it results from the survey carried out and shown on fig.11, from all Greek social buying sites only a small rate of 4% does not provide deals in the city of Athens, while it does in other cities. A really increased percentage of 72% of the sites operates among others in the city of Thessaloniki, while another 58% of those sites operate in other cities as well, such as Patra, Larisa, Irakleio etc. Those two relatively big rates reflect the huge impact that group buying sites have in the whole area of Greece and not only in Athens, the capital of the country. In this way, Group Buying model assists in the expansion of e-commerce in the provincial cities.

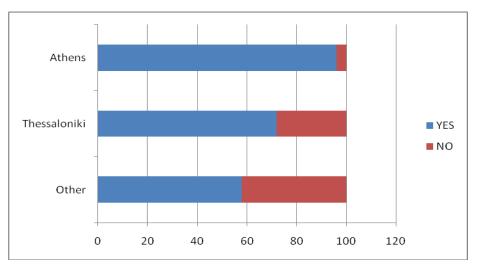


fig. 11: Area of operation

4.2.3. PAYMENT METHODS

Concerning the payment methods, fig.12 displays the results of the survey we conducted. Paypal method is used from 42% of the group buying sites while credit card from 98% and bank deposit from 68%. There are many sites which in their effort to be established in this area are using all the above methods in order to facilitate their users. Such sites are 3days.gr, cheapis.gr, deals2day.gr, ekdromi.gr, livedeal.gr etc. So, approximately all Greek social buying sites promote the usage of credit card and therefore they gradually help Greek customers to become accustomed to e-sales.

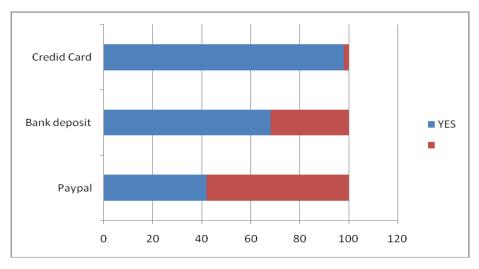


fig. 12: Payment methods

4.2.4. DISCOUNTS THEY OFFER

In the bar diagrams below, we can see a visual representation of the maximum discount (fig.13) and the minimum discount (fig.14) that each of the sites have ever offered, as well as the maximum (fig.15) and minimum prices (fig.16) that have ever been recorded to the history of the deals of each site.

As it is displayed below, approximately 8 sites have committed discount of 99%, while 15 of them have offered products at 90% off.

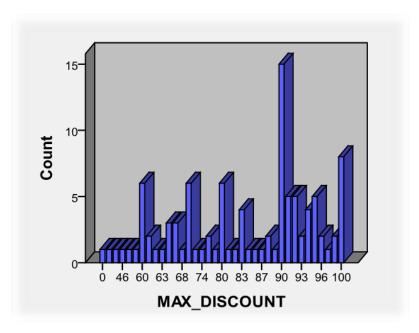


fig. 13: Maximum discount of each site

According to fig.14, the lowest discount that have ever been mentioned is 12% to the site hotelcoupons.gr, while the site's diamondsdeals.gr lowest discount have been 78% (and 95% its highest discount).

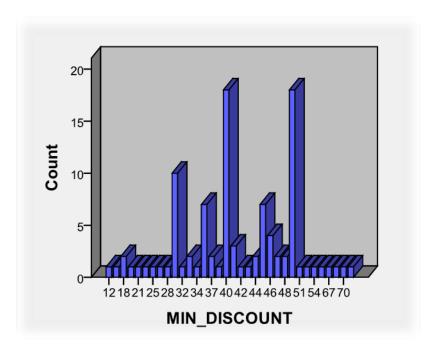


fig. 14: Minimum discount of each site

Additionally, the highest price that has ever been observed is 980 € to the site bigmama.gr, while site's clickdelivery.gr lowest price is 2,99 € (fig.15).

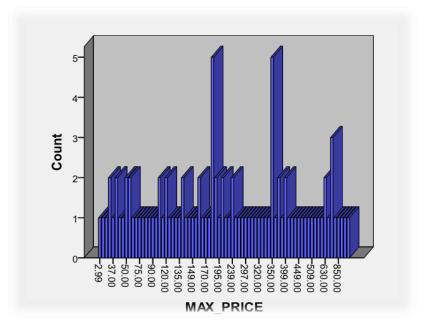


fig. 15: Maximum price of each site

Finally, on fig.16 we can see that the lowest price that has ever been observed is 0 Euros and it refers to gifts like discount coupons or trial sessions, that are periodically presented from many sites with main purpose, to attract people.

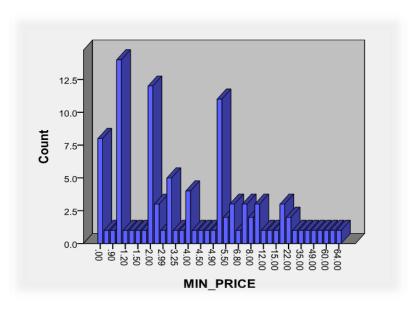


fig. 16: Minimum price of each site

4.3. IDENTIFY HIDDEN RELATIONSHIPS

As mentioned before, linear regression is a way of modeling the relationship between pairs of certain variables (usually between a dependent and one or more independent) in order to identify whether those variables are relatively connected with each other.

In the examples that follow, we have applied linear regression for six pairs of variables. The results that come out are presented in five different tables.

The table "Variables Entered/Removed" displays the independent and the dependent variables, as well as the method in which the independent variable has been inserted to our model.

From the table "Model Summary" we can find out how well the model fits the data. This table displays R, R squared, adjusted R squared, and the standard error. R is

the correlation between the observed and predicted values of the dependent variable. The values of R range from -1 to 1. The sign of R indicates the direction of the relationship (positive or negative). The absolute value of R indicates the strength, with larger absolute values indicating stronger relationships.

R squared is the proportion of variation in the dependent variable explained by the regression model. The values of R squared range from 0 to 1. Small values indicate that the model does not fit the data well. The sample R squared tends to optimistically estimate how well the model fits the population. Adjusted R squared tries to correct R squared to reflect better the fitness of the model in the population. The usage of R Squared helps to determine which model is best. A model with a high value of R squared that does not contain too many variables is more preferable. Models with too many variables are often over fit and hard to interpret.

Except from R-squared, we can use "ANOVA" (Analysis of variance) to investigate how well the model fits the data. The F statistic is the regression mean square divided by the residual mean square. If the significance value of the F statistic is small (supposing smaller than 0.05), then the independent variables do a good job explaining the variation in the dependent variable. If the significance value of F is larger than supposedly 0.05 then the independent variables do not explain the variation in the dependent variable, and the null hypothesis that all the population values for the regression coefficients are 0 is accepted.

The table "Coefficients" tells us how strongly the independent variable is associated with the dependent one. After checking for the model fit, we might want to know the relative importance of each independent variable in predicting dependent variable. The unstandardized coefficients are the coefficients of the estimated regression model. The T statistics can help to determine the relative importance of each variable in the model. Values well below -2 or above +2 are considered to be useful predictors.

Finally, the table "Residuals statistics" displays some additional information relevant to our dependent variable such as Minimum, Maximum and Mean value as well as Standard Deviation.

One of the conditions that have to be fulfilled by the data of a survey in order to apply parametric statistical criteria is that they form a normal distribution. The problem is that there are several different processes, but the criteria are not that clear.

The design of the histogram of the variables is one of those processes but it does not provide safe criteria for the degree of the histogram's deviation of the normal curve.

P-P Plots on the other hand, is a diagram where the observed cumulative relative frequency is designed against the expected cumulative relative frequency as they would both appear if the distribution was normal. If the variable is normally distributed, all points should lie on the diagonal. However, there are not commonly accepted criteria that determine the appropriate distance of the points from the diagonal so as for the distribution to be considered as normal [27].

4.3.1. CORRELATION BETWEEN MAXIMUM DISCOUNT AND ALEXA GREEK RANK

In the example below, linear regression has been applied in order to investigate whether the variable maximum discount is relatively connected with Alexa Greek rank. In other words, we are attempting to predict the population of each site, according to the maximum discount that has ever been offered by it.

Variables Entered/Removed^b

Model		Variables Removed	Method
1	MAX_DISCO UNT		Enter

a. All requested variables entered

b. Dependent Variable: ALEXA_GREEK_RANK

Model Summary^b

			Adjusted R	Std. Error of
Odel	R	R Square	Square	the Estimate
1	.413 ^a	.171	.162	7131.549

a. Predictors: (Constant), MAX_DISCOUNT

b. Dependent Variable: ALEXA_GREEK_RANK

$\textbf{ANOVA}^{\textbf{b}}$

		Sum of		Mean		
Model		Squares	Df	Square	F	Sig.
1	Regression	1.036E9	1	1.036E9	20.378	.000 ^a
	Residual	5.035E9	99	50858988.5		
				35		
	Total	6.071E9	100			

a. Predictors: (Constant), MAX_DISCOUNT

b. Dependent Variable: ALEXA_GREEK_RANK

Coefficients^a

				Standardized Coefficients		
Model		В	Std. Error	Beta	Т	Sig.
1	(Constant)	22984.551	3416.725		6.727	.000
	MAX_DISCOU NT	-187.504	41.536	413	-4.514	.000

a. Dependent Variable: ALEXA_GREEK_RANK

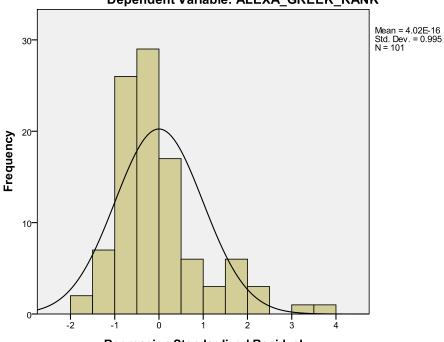
Residuals Statistics^a

				Std.	
	Minimum	Maximum	Mean	Deviation	N
Predicted Value	4234.19	22984.55	7897.01	3219.340	101
Residual	-13557.890	28365.715	.000	7095.801	101
Std. Predicted	-1.138	4.687	.000	1.000	101
Value					
Std. Residual	-1.901	3.977	.000	.995	101

a. Dependent Variable: ALEXA_GREEK_RANK

Histogram

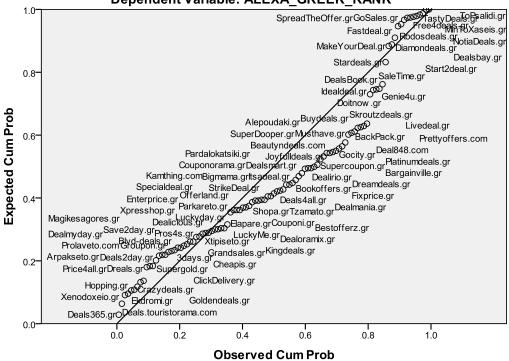
Dependent Variable: ALEXA_GREEK_RANK



Regression Standardized Residual

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: ALEXA_GREEK_RANK



On the table "Model Summary" the absolute value of R which is 0,413, indicates the strength of the relationship we examine, while the value of R squared which is equal to 0,171 indicates that the model does not fit the data really well.

On the other hand, the table "ANOVA" indicates that since the significant value of F statistic is smaller than 0,05, the independent variables do a good job explaining the variation in the dependent variable.

Finally, the table Coefficients shows that since T statistics are below -2 or above +2, we can say that our independent variable is relatively important in predicting the dependent one. What is more, from the results shown by the histogram and the P-P Plot, we could consider the distribution as normal.

So, there is a relation between the alexa rank and the maximum discount. The higher the maximum discount, the more popular is the site. This sound reasonable since people are attracted by low prices and advantageous offers.

4.3.2. CORRELATION BETWEEN MINIMUM DISCOUNT AND ALEXA GREEK RANK

In the following example we have applied linear regression between minimum discount and Alexa Greek rank in order to predict whether the population of each site is related with the minimum discount that has ever been offered by it.

Variables Entered/Removed^b

	Variables	Variables	
Model	Entered	Removed	Method
1	MIN_DISCOU		Enter
	NT		

a. All requested variables entered

b. Dependent Variable: ALEXA_GREEK_RANK

Model Summary^b

			Adjusted	R	Std.	Error	of
Model	R	R Square	Square		the E	the Estimate	
1	.170 ^a	.029	.019		7270.	.234	

a. Predictors: (Constant), MIN_DISCOUNT

b. Dependent Variable: ALEXA_GREEK_RANK

ANOVA^b

_		Sum of				
Model		Squares	Df	Mean Square	F	Sig.
1	Regression	1.536E8	1	1.536E8	2.905	.091 ^a
	Residual	5.180E9	98	52856302.889		
	Total	5.333E9	99			

a. Predictors: (Constant), MIN_DISCOUNT

b. Dependent Variable: ALEXA_GREEK_RANK

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	3430.833	2566.819		1.337	.184
	MIN_DISCOUNT	101.081	59.304	.170	1.704	.091

a. Dependent Variable: ALEXA_GREEK_RANK

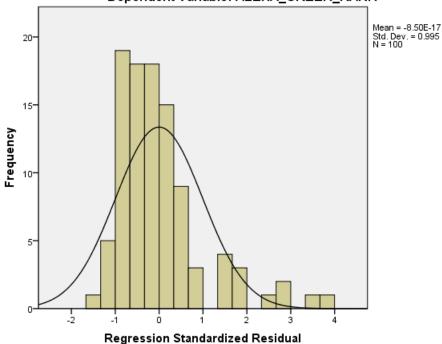
Residuals Statistics^a

		Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value		4643.80	12730.27	7626.70	1245.421	100
Residual		-11741.272	27069.588	.000	7233.422	100
Std.	Predicted	-2.395	4.098	.000	1.000	100
Value						
Std. Resid	lual	-1.615	3.723	.000	.995	100

a. Dependent Variable: ALEXA_GREEK_RANK

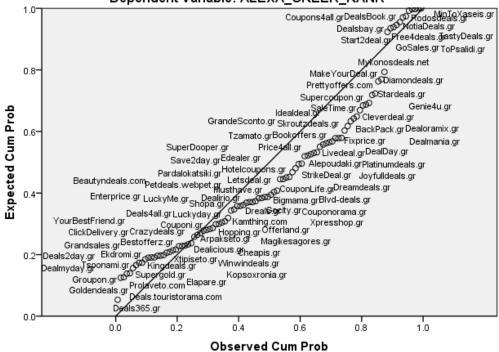
Histogram





Normal P-P Plot of Regression Standardized Residual

Dependent Variable: ALEXA_GREEK_RANK



On the table "Model Summary" the absolute value of R which is 0,170, indicates that the relationship we examine is not that strong, while the value of R squared which is equal to 0,190 indicates that the model does not fit the data really well.

Additionally to that, the table "ANOVA" shows that the independent variables does not explain the variation in the dependent variable well since the significant value of F statistic is 0,091 which is bigger than 0,05.

What is more, as shown on the table Coefficients, T statistics are 1,337 and 1,704, i.e. not below -2 or above +2. So, the independent variable (minimum discount) is not relative important in predicting the dependent one (Alexa Greek rank).

At last, the distribution of the data is far from being considered normal as shown on the histogram and the P-P Plot. All the above means that there is no significant correlation between the minimum discount and the Alexa Greek rank and that the variable minimum discount is inadequate for predicting the population of each site. Thus, a web site may offer small discounts, but it still may have a big rate of population. This fact means that customers, when deciding about purchasing a product, may have in mind other factors different than minimum discount.

4.3.3. CORRELATION BETWEEN MAXIMUM PRICE AND ALEXA GREEK RANK

Bellow, the tables and graphs that result from the implementation of linear regression between the maximum price that has ever been observed in each site and Alexa Greek rank follow.

Variables Entered/Removed^b

	Variables	Variables	
Model	Entered	Removed	Method
1	MAX_PRICE ^a		Enter

- a. All requested variables entered
- b. Dependent Variable: ALEXA_GREEK_RANK

Model Summary^b

		D 0	,	Std. Erro	
Model	R	R Square	Square	the Estima	ate
	.172 ^a	.030	.020	7266.650	
1					

- a. Predictors: (Constant), MAX_PRICE
- b. Dependent Variable: ALEXA_GREEK_RANK

ANOVA^b

		Sum of				
Model		Squares	Df	Mean Square	F	Sig.
1	Regression	1.587E8	1	1.587E8	3.005	.086 ^a
	Residual	5.175E9	98	52804207.900		
	Total	5.333E9	99			

- a. Predictors: (Constant), MAX_PRICE
- b. Dependent Variable: ALEXA_GREEK_RANK

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	Т	Sig.
1	(Constant)	8591.797	915.437		9.385	.000
	MAX_PRICE	-3.032	1.749	172	-1.733	.086

a. Dependent Variable: ALEXA_GREEK_RANK

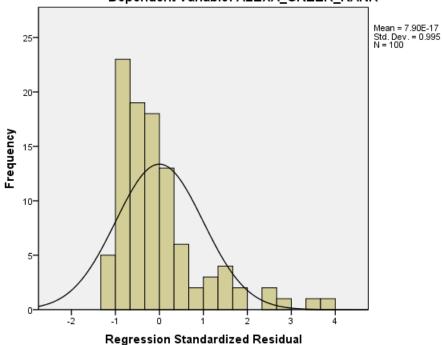
Residuals Statistics^a

		Minimum	Maximum	Mean	Std. Deviation	N
Predicted	Value	-1595.68	8582.73	7626.70	1265.955	100
Residual		-8128.630	29022.676	.000	7229.857	100
Std.	Predicted	-7.285	.755	.000	1.000	100
Value						
Std. Resid	dual	-1.119	3.994	.000	.995	100

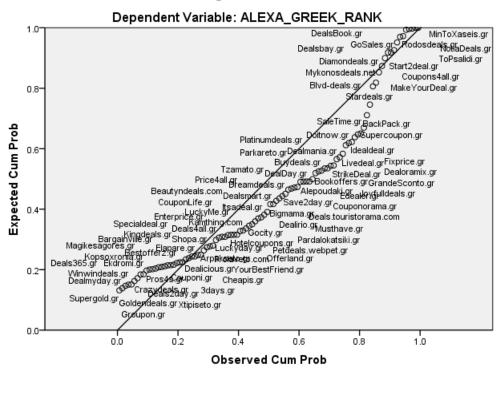
a. Dependent Variable: ALEXA_GREEK_RANK

Histogram





Normal P-P Plot of Regression Standardized Residual



On the table "Model Summary" we can see that the absolute value of R is 0,172, while the value of R squared is equal to 0,030. Those values indicate that the relationship between maximum price and Alexa Greek rank is not strong enough, and that the model does not fit the data really well.

On the other hand, from the table "ANOVA" we can see that the significant value of F statistic is 0,086 which is bigger than 0,05. That means that the independent variables do not explain the variation in the dependent variable well.

Finally, from the table Coefficients, since T statistic is -1.733 which is not below -2, we can say that our independent variable is not relative important in predicting the dependent one. Subsequently, there is no significant correlation between the maximum price and the Alexa Greek rank and the variable maximum price is inadequate for predicting the population of each site.

This fact means that customers may have in mind other factors than price such as the quality of the products they buy, the brands etc.

4.3.4 CORRELATION BETWEEN MINIMUM PRICE AND ALEXA GREEK RANK

In the following example we applied linear regression between minimum price and Alexa Greek rank in order to predict whether the population of each site is related with the minimum price that has ever been offered by it.

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	MIN_PRICE ^a		Enter

a. All requested variables entered

b. Dependent Variable: ALEXA_GREEK_RANK

Model Summary^b

			Adjusted R	Std. Error of
Model	R	R Square	Square	the Estimate
1	.150 ^a	.022	.012	7293.955

a. Predictors: (Constant), MIN_PRICE

b. Dependent Variable: ALEXA_GREEK_RANK

ANOVA^b

		Sum of				
Mode)	Squares	Df	Mean Square	F	Sig.
1	Regression	1.197E8	1	1.197E8	2.250	.137 ^a
	Residual	5.214E9	98	53201772.989		
	Total	5.333E9	99			

a. Predictors: (Constant), MIN_PRICE

b. Dependent Variable: ALEXA_GREEK_RANK

Coefficients^a

		Unstandardize	ed Coefficients	Standardized Coefficients		
Model		В	Std. Error	Beta	Т	Sig.
1	(Constant)	6970.485	850.535		8.195	.000
	MIN_PRICE	82.235	54.824	.150	1.500	.137

a. Dependent Variable: ALEXA_GREEK_RANK

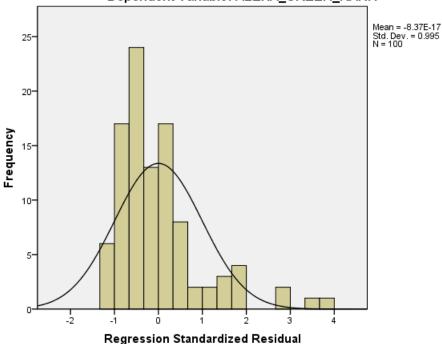
Residuals Statistics^a

		Minimum	Maximum	Mean	Std. Deviation	N
Predicted	l Value	6970.48	12233.50	7626.70	1099.588	100
Residual		-8903.694	28695.355	.000	7257.023	100
Std.	Predicted	597	4.190	.000	1.000	100
Value						
Std. Resi	dual	-1.221	3.934	.000	.995	100

a. Dependent Variable: ALEXA_GREEK_RANK

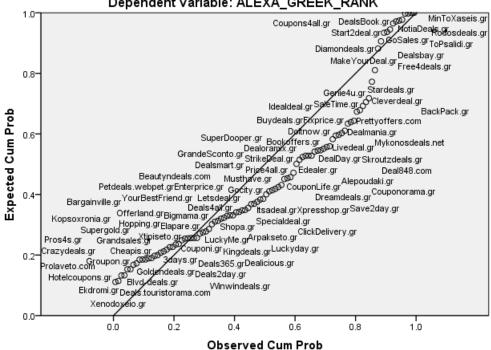
Histogram

Dependent Variable: ALEXA_GREEK_RANK



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: ALEXA_GREEK_RANK



The table "Model Summary" displays the absolute value of R, which is 0,22. This fact indicates the weakness of the relationship between the minimum price and the Alexa Greek rank. The value of R squared which is equal to 0,12 indicates that the model does not fit the data really well.

Additionally, from the table "ANOVA" we can see that the significant value of F statistic is 0,137, which is bigger than the accepted value. That means that the independent variables do not explain the variation in the dependent variable in a good way.

Finally, from the table Coefficients, since T statistics is 1,5 (below +2), we can say that our independent variable is not relative important in predicting the dependent one. Once again, there is no significant correlation between the minimum price and the Alexa Greek rank and minimum price cannot be used in predicting the population of a site. Although someone should expect that there should be a relation between those two variables. This may occur probably because the applied data was not enough to extract accurate predictions.

4.3.5. CORRELATION BETWEEN PRICE AND NUMBER OF SALES

In the example that follows linear regression has been applied, between the price of a certain product and the number of the sales of this particular product to see the rate of their relationship.

Variables Entered/Removed^b

	Variables	Variables	
Model	Entered	Removed	Method
1	PRICE ^a		Enter

a. All requested variables entered.

b. Dependent Variable: SALES

Model Summary^b

			Adjusted	R	Std.	Error	of
Model	R	R Square	Square		the E	stimate	:
1	.104 ^a	.011	.006		108.5	53	

a. Predictors: (Constant), PRICEb. Dependent Variable: SALES

ANOVA^b

		Sum of				
Model		Squares	Df	Mean Square	F	Sig.
1	Regression	27833.347	1	27833.347	2.362	.126 ^a
	Residual	2568861.762	218	11783.770		
	Total	2596695.109	219			

a. Predictors: (Constant), PRICEb. Dependent Variable: SALES

Coefficients^a

		Unstandardized Coefficients (Standardized Coefficients		
Model		В	Std. Error	Beta	Т	Sig.
1	(Constant)	54.080	7.943		6.809	.000
	PRICE	066	.043	104	-1.537	.126

a. Dependent Variable: SALES

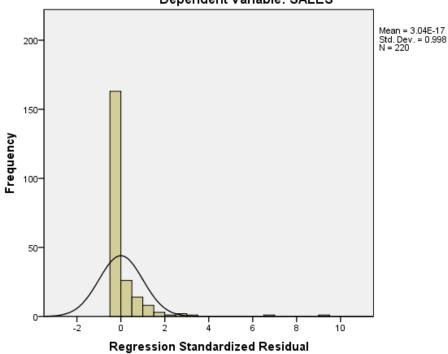
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-86.05	54.01	49.34	11.274	220
Residual	-53.682	993.779	.000	108.305	220
Std. Predicted Value	-12.009	.415	.000	1.000	220
Std. Residual	495	9.155	.000	.998	220

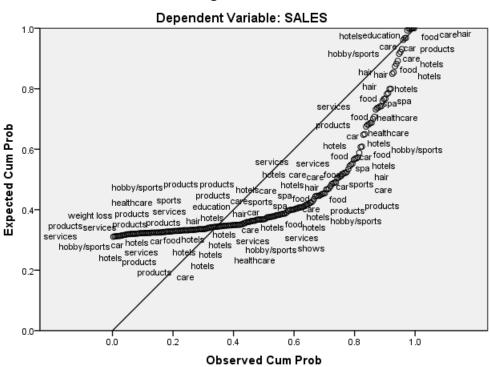
a. Dependent Variable: SALES

Histogram

Dependent Variable: SALES



Normal P-P Plot of Regression Standardized Residual



On the table "Model Summary" we can see that the absolute value of R is 0,104 and the value of R squared is 0,011. This fact indicates that the relationship between the price and the sales is rather weak and the model does not fit the data really well.

On the table "ANOVA" we can see that the significant value of F statistic is 0,126. This value is bigger than 0,05, so the independent variable (price) does not explain the variation in the dependent variable (sales).

Finally, from the table Coefficients, since T statistics is -1.537 (not below -2), we can say that our independent variable is not relative important in predicting the dependent one.

Moreover, as shown on the histogram and the P-P Plot, we could not consider the distribution as normal. Consequently, in our research we have discovered that there is no significant correlation between the price of a certain product and its sales. As it has been aforementioned the number of sales of a certain product does not solely depend on its price. There are many other factors that could lead consumers to the purchase of a product. Consumers' purchasing decisions may also be based on their personal preferences, on the quality of the product, on the brand etc.

4.3.6 CORRELATION BETWEEN DISCOUNT AND NUMBER OF SALES

In the following example we applied linear regression between the discount of a certain product and its sales in order to see if there is any correlation between those two variables.

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	DISCOUNTa	-	Enter

a. All requested variables entered.

b. Dependent Variable: SALES

Model Summary^b

			Adjusted	R	Std.	Error	of
Model	R	R Square	Square		the Estimate		;
1	.123 ^a	.015	.011		108.3	312	

a. Predictors: (Constant), DISCOUNT

b. Dependent Variable: SALES

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	39230.620	1	39230.620	3.344	.069 ^a
	Residual	2557464.489	218	11731.488		
	Total	2596695.109	219			

a. Predictors: (Constant), DISCOUNT

b. Dependent Variable: SALES

Coefficients^a

				Standardized Coefficients		
Model		В	Std. Error	Beta	T	Sig.
1	(Constant)	10.012	22.710		.441	.660
	DISCOUNT	.664	.363	.123	1.829	.069

a. Dependent Variable: SALES

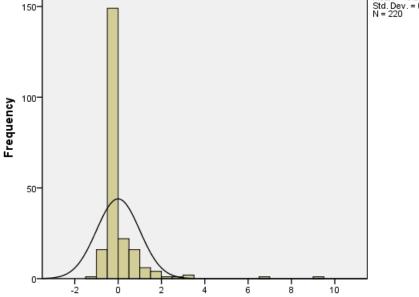
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.01	155.50	49.34	13.384	220
Residual	-155.498	992.142	.000	108.064	220
Std. Predicted Value	-2.938	7.932	.000	1.000	220
Std. Residual	-1.436	9.160	.000	.998	220

a. Dependent Variable: SALES

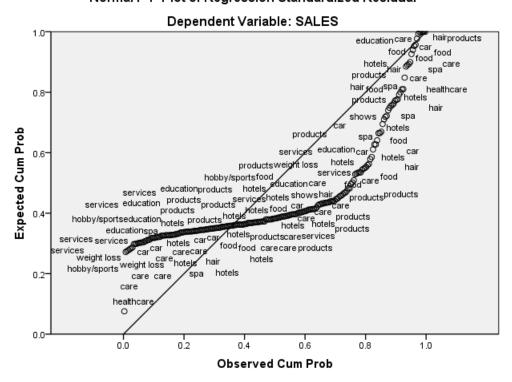
Histogram





Regression Standardized Residual

Normal P-P Plot of Regression Standardized Residual



On the table "Model Summary" we can see the absolute value of R which is 0,123, and indicates the strength of the relationship we examine is not that important.

We can also see that the value of R squared is 0,015. This means that the model does not fit the data.

The table "ANOVA" displays the significant value of F statistic which is equal to 0,069 and bigger than 0,05. So the independent variables do not explain the variation in the dependent variable well.

Finally, from the table Coefficients, since T statistics are 0,441 and 1,829 which are not below -2 or above +2, we can say that our independent variable is not important in predicting the dependent one. Consequently, in our research we have discovered that there is no significant correlation between the discount of a certain product and its sales. The price may still remain a factor that affects the number of sales, although it seems that it is not the only one. The number of sales of a certain product may also be determined by factors such as the aforementioned that is to say the customers' preferences, the preferences of the customers friends, or the quality of the product. These factors all together play a significant role on how big/small the number of sales of a certain product is.

CHAPTER 5: CONCLUSIONS

5.1. ESTABLISHING THE GREEK MARKET

As the Internet develops it is becoming an increasingly prosperous network for many types of commerce. Group buying, has become a particularly effective form of electronic commerce and has made rapid progress in recent years. Furthermore, group buying has become a promising field in which new technologies can be applied.

Despite the undeniable advantages of Internet use in e-shopping and social buying, we have to mention a series of technical limitations such as lack of security and reliability, the inadequate range of telecommunication networks as well as problems of compatibility of existing applications, software and databases with the Internet. Other non-technical constraints are the lack of trust from the side of consumer towards the impersonal vendor, the way in which electronic payments are carried out, the lack of legislation concerning e-consumer's protection, restriction of human communication and the fact that there is non-universal access to Internet.

The evolution concerning electronic commerce in Greece is really delayed as delayed is the response of the country in any innovative activity or technology. The style of this business strategy, the culture of the Greeks and their inability to understand the benefits of the business are some of the key reasons for falling behind in adopting new technologies in Greek business plans [24].

Despite this fact, according to the annual survey conducted by the E-Business Research Center of the Economic University of Athens, the total value of online purchases made in 2010 increased into 75%. It is therefore obvious that the e-shops are now starting to being established in the minds of many Greeks as a valuable option. Year after year more and more Greeks become familiar with online shopping. However, there is also no doubt that the percentage of online buyers is still very low compared with that in other countries. Nevertheless, there are certain things that need to change in order to achieve further establishment of the e-commerce sites in the Greek market.

Dimitris Tritaris, General Manager of Ricardo.gr, declares that "the Greeks continue to choose cash on delivery as a payment method, even after an online

purchase." He believes, therefore, that "in order to become familiar with online shopping and group buying, Greek people should get used to using other online services that are available to facilitate their daily lives." [25].

Nonetheless, the E-Commerce as well as the Group Buying in Greece has evolved and the percentage of electronic transactions has increased in proportion with transactions of the traditional commerce.

Factors that would encourage a further development of social buying are definitely the spread of broadband, the adoption of e-business structures from the public sector (e.g. e-procurement, e-government, CRM, government), the simplification of procedures for establishing enterprises and education.

On the whole, social buying has definitely huge potential and in the years to come it will be of great importance due to the growing number of users. However, we cannot ignore the fact that traditional way of commerce is here to stay for some more time [24].

Although Greece and Greek people of today suffer from the unbearable economical crisis, social buying can comprise a kind of solution to their financial problems. Group buying can partially contribute into soothing economical problems for both businesses facing the danger of bankruptcy, and Greek customers whose buying power has been fairly undermined because of the crisis.

5.2. THE FINDINGS OF THIS RESEARCH

In this project about a hundred of Greek Group buying sites, that were active on June 2011, have been observed. The results of this observation referred to the statistical analysis are the following.

First of all, as for the kind of offers, remarkable is the fact that the main percentage of the sites include offers about beauty care, spas, travelling and food, while a much fewer percentage of them offers deals about education or cultural events. These findings express either the customer's preferences or the site's promoting strategy according to priority. Somebody would expect more offers about education as it is undeniably an important factor for Greek culture and idiosyncrasy. At this point, Greek social buying market should be more orientated towards offers about culture and education.

According to the project's findings, only a small percentage of the sites reward their customers for inviting friends to become members and the reward they offer is only either a small gift or a small amount of money. Using this method as a marketing strategy, sites are expected to express much more generosity concerning the rewards they offer in such cases. In this way customers are incited either to complete more purchases or to invite more friends. In both cases the site will become more popular and its marketing policy more successful.

About the area of operation the research indicates that most of the sites provide deals in the city of Athens, fewer in the city of Thessaloniki and almost 50% in other cities than the two mentioned before. Greek social buying sites should aim at expanding their popularity to the Greek province both to raise their sales and to satisfy much more clients.

As for the payment methods it seems that the most of the Greek social buying sites allow their clients to use credit cards at their transactions. Few of them allow using bank deposit while only about 40% of the sites accept the usage of Paypal. So, approximately all Greek social buying sites promote the usage of credit card and therefore they gradually help Greek customers to become accustomed to e-sales.

What is more, linear regression has been implemented to identify hidden relationship between certain pairs of variables, such as: The maximum and minimum discount that has ever been observed in each site with the rank of alexa.com, the maximum and minimum price with alexa rank, the price of certain products with the number of sales of them and the discount of a certain product with the number of its sales.

Using regression analysis, it has been identified that:

- Maximum discount and Alexa Greek rank are associated with each other
 at a great extend and there is a significant correlation between them. That
 means that the variable maximum discount is relatively important in
 predicting the population of each site. Consequently, the population and
 the future success of each site are at a great rate based on the size of the
 discount.
- 2. The analysis of the remaining pairs of variables by using linear regression,
 - ✓ Minimum discount and Alexa Greek rank
 - ✓ Maximum price and Alexa Greek
 - ✓ Minimum price and Alexa Greek
 - ✓ Discount and number of sales
 - ✓ Price and number of sales,

does not indicate any significant relationship between them, although according to common sense, there should be a certain correlation.

This is well explained by the fact that the social buying phenomenon is rather much new in Greece and the existing data and information about it is not enough to exclude statistically significant results. Further observation is expected to extract more valid statistical conclusions that will certainly lead to the future development of this kind of business in Greece.

5.3. CHANGES TO COME

In the near future, the group buying market will certainly turn into becoming more divided into many subcategories. New business will attempt to permeate in the market and they will try to compete with the leader companies which dominate in the area. As a result an approach of consumers will be attempted according to their demographics and personal preferences. That means that many specialized in consumers' specific interests group buying companies will pop up.

Additionally, it is expected that there will be greater emphasis on location-based group buying deals. While new competitors are entering the market, location-based group buying deals will become a lot more popular. Consumers will be able to find and purchase deals according to their current location. What is more, they will have the opportunity to compare deals and select the ones that appeal to them the most within their local area.

Moreover, consumers will expect more spontaneous, real-time offers arising in the future, linking up with the location-based group buying trend. Deals will be presented in response to buyer's needs and demands immediately. Devices such as mobiles will gain popularity in order to have access to these real-time offers.

Of course, growth and development of social buying industry is accompanied by many challenges. As a matter of fact, many of them will surface almost unexpectedly. But, as the number of group buying sites that enter the market increases, profit margins will become tighter and tighter for the businesses involved. As a result, businesses need to offer even more attractive deals in order to maintain their share in the market. However, if location-based group buying sites gain popularity this may not be the case for all sites involved. Though, having in mind the dynamic and innovative nature of web-based commerce many other competitors may appear. Either way though, in the future consumers can expect and look forward to much better offers than before to their best interest [26].

5.4. LIMITATIONS AND FUTURE RESEARCH

The progress of the project has met many restrictions. Firstly and most importantly, there is the lack of relative to the theme bibliography, which has set certain limits to the development of the whole dissertation. The inadequate bibliography has made the full expansion of the project almost impossible, especially in the field of the comparison of the Greek situation with the corresponding worldwide.

Secondly, social buying is an extremely newly appeared scheme in Greece. Thus, the relative to the project data are fairly few and do not allow for the extraction of certain conclusions. The conclusions that have been extracted until now are inadequate for covering the whole phenomenon which undoubtedly needs to be further observed. Linear regression analysis would certainly produce more objective results whether more data were inserted in the statistical program SPSS.

Another factor which has set limitations to the research is the constant popping up of new deal of the day sites in the Greek market. So, it has been almost impossible for all of them to be observed until now.

Certainly future research will give more satisfactory answers to the aforementioned topics. Future research should examine the newly appearing sites and extract more information especially in the area of the comparison of the Greek to the global market, which is not included in this project, mainly due to lack of relative bibliography.

An interesting factor that should be investigated in any future attempt is whether the group buying market in Greece is strong enough to survive the debt crisis. Given the fact that many traditional businesses have gone bankrupt, it is of main interest to observe if this kind of business will stay and thrive.

Another research area that should be included in any relevant future project is the response of the Greek consumers to this phenomenon. Future research should enlighten all the above queries. Time will tell!

APPENDIX I: REFERENSES

REFERENCES

- [1] Tokuro MATSUO and Takayuki ITO, "A Decision Support System for Group Buying",
 Center for Knowledge Science, 2002
 [2] http://en.wikipedia.org/wiki/Group_buying
- [3] Xu Fang and Jason Cheung, "Tuangou- Revitalizing the service sector and simulating domestic demand", 2011
- [4] Hao Li, Ping Zhao, Yan Wang, Gao Wang, "A Qualitative Research of Tuangou: Modes, Characteristics and Roles of the New E-Business Model", International Symposium on Information Engineering and Electronic Commerce, China, 2009
- [5] http://www.simplyzesty.com/brands/whats-next-for-the-group-buying phenomenon/
- [6] en.wikipedia.org/.../Electronic_commerce
- [7] en.wikipedia.org/wiki/Social_commerce
- [8] en.wikipedia.org/wiki/Social_shopping
- [9] http://www.businessmarketingblog.org/online-marketing-with-group-buyingwebsites/
- [10] Amarendra Bhushan, "Top 10 Best online Group deal-of-the-day websites- Daily discount sites like Groupon", 2011

- [11] http://web.appstorm.net/roundups/shopping/20-very-best-coupon-daily-deal-and-social-buying-sites/
- [12] http://thedealer.com.au/deals-blog/industry/how-does-group-buying-work/
- [13] http://www.helium.com/items/1937028-groupon---how-it-works
- [14] http://www.sitejabber.com/blog/2010/10/06/the-pros-and-cons-of-daily-deals further-explained/
- [15] http://europe2020.blogactiv.eu/2011/06/20/group-buying/
- [16] Konstantinos Deligiannis, "They have began to operate in Greece the first Group Buying Sites", electronic newspaper kathimerini.gr, 04/07/2010
- [17] http://tomuse.com/group-buying-sites-business-to-business/
- [18] Panagiota Papavasileiou, "Poverty treats technology", newspaper eleutheros tipos, 09/01/2011
- [19] http://www.dailydealgame.com/index.php/daily-deal-directory/daily-deals-europe/tag/country/greece/criteria:1
- [20] http://www.linkwise.gr/blog/deal-aggregators-an-affiliate-success-story/
- [21] http://oem.gr/main/index.php/epikairotita/3445-to-facebook-tha-axiopoiisei-tin-syllogiki-agorastiki-dynami-ton-melon-tou
- [22] http://en.wikipedia.org/wiki/Alexa_Internet
- [23] http://searchsoa.techtarget.com/definition/content-aggregator
- [24] http://www.creativelook.gr/e-businness.htm

- [25] http://webstrategysolutions.wordpress.com
- [26] http://www.digitalfire.co.za/blog/the-future-of-group-buying/
- [27] Peter Roussos and George Efstathiou, "SPSS Quick Guide 16.0", Psychology Program, Athens 2008