Social network analysis and social capital in marketing: theory and practical implementation

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Abstract: The application of social network analysis in marketing can provide marketers with valuable insights for developing communication and branding strategies by building up social capital in social networking sites (SNSs) as Facebook. In this paper, the main characteristics and definitions of social capital and social network analysis (SNA) are reviewed and discussed, including the importance of social capital for marketing and branding in SNSs. SNA is used to analyse the network structure of a famous Greek brand page, and the activity (comments) of its members during a period of two months in 2013. The interactions between consumers, the content generated by the firm and the posts commenting on this content are presented and analysed in terms of SNA and marketing, highlighting the importance of content creation in attracting users to like and comment increasing engagement. The implications and applications of the use of SNA results and of social capital as a way of building brand loyalty in marketing decisions and planning are discussed, and suggestions for further research are offered.

Keywords: social network analysis; branding; social media marketing; social capital; case study; Greece.

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1 Introduction

Social networking and consumers' interactions related to products' customer experience and use, have always been in the epicentre of attention for marketing a product or a brand. During the last ten years marketers have witnessed an explosive spread of social networking sites (SNS) such as Facebook, Twitter, YouTube, Pinterest, etc., by consumers, in order not only to interact and communicate with other individuals, but also to seek information about products and services. This development has reinvigorated the importance of research in social networking and word of mouth for marketing. In contrast with traditional marketing channels of communications, social media and SNS provide a more efficient and effective channel of communication and promotion of a brand to consumers and markets (Edelman, 2010), with higher levels of ROI. These new marketing tools seem to influence significantly consumers' behaviour, attitudes, and emotional bonding towards brands, as well as their shopping process and the information seeking process. Traditional relationships between consumers and brands have been examined thoroughly by marketing literature (Fournier, 1998; Kotler and Keller, 2012; Loureiro, 2012). Consumers and brands are presented as partners in a relationship focused on satisfying a variety of functions by providing consumers with resources and means for making decisions, solving problems, meeting their needs, changing their lifestyle, and motivating them towards specific brand choices (Turri et al., 2013). Given however the new technological environment and the spread of internet usage and SNS, marketing professionals and academics had to focus on the ways consumers use products and how they connect with them, through social media, in order to build and sustain a social profile and identity.

Firms are increasingly investing in social media to communicate and create bridges between their brands and their consumers, creating pages, accounts and channels in SNSs (Nielsen, 2012). Creating ties with consumers and actively interacting and communicating with them and with the networks they may be creating (Serdaris, 2014) has significant advantages, as the build-up of relationships and social capital for a brand creates trust and therefore promotes brand loyalty. This process also poses significant new challenges. Consumers are now able to create information and content concerning a brand, and share them rapidly in more effective brand communities, through e-WoM (Chu and Kim, 2011), without being controlled by the firms.

Despite those issues of control, the use of SNSs as a part of an integrated marketing communication strategy of the marketing mix of a firm, has gained ground among marketers as it provides new channels of interactive communication with consumers. The big number of unique users in Greece and the high rates of penetration of social networking sites in the online population (ELTRUN, 2014), makes them increasingly a valuable part in the marketing mix strategy of every brand and firm (Peters et al., 2013), with Facebook standing as the dominant social media site that people use for exchanging of ideas, opinions and information. Brands that were traditionally focused to older

consumers, have now the opportunity to communicate and sell their products to younger audiences. Building a network of relations with customers through SNSs, and creating at the same time social capital for the brand, will have to be central to this strategy.

The aim of this paper is to demonstrate the importance of social network analysis and the role of social capital as an instrument for decision making in social media marketing, through a case study. In this context the network structure and the application of network analysis in the Facebook page of a Greek brand is analysed and discussed. The remainder of this paper is organised as follows. Section 2 outlines the importance of social capital for branding, and marketing. Section 3 reviews the main issues of social media and social network analysis and their relationship with marketing. In section 4, the metrics and graphs derived from the SNA analysis conducted for a Greek traditional brand Facebook page are presented and analysed. The last section concludes the paper with implications of the case study for marketers and researchers, its limitations and directions for future research.

2 The importance of social capital for marketing and branding

Social capital is a relatively modern term and theory, introduced by Pierre Bourdieu in 1985 (Glenane-Antoniadis et al., 2003) that can provide a useful additional framework, supplementing traditional concepts of marketing, improving the effectiveness of social media marketing. Its popularity has quickly grown over time and it has been applied in various disciplines, including economics, political science and organisational theory. Notwithstanding its importance, especially with the rise of SNSs and social media, there is still no consensus in defining or operationalising social capital (Ellison et al., 2007). As Adler and Kwon (2002) pointed out, social capital can be applied in a number of different fields, is a flexible term with a wide range of definitions. Coleman (1988) defined social capital as the resources accumulated through the relationships among people. A generally accepted definition for social capital is "the goodwill (trust and reciprocity) that is engendered by the fabric of social relations and that can be mobilised to facilitate action" (Adler and Kwon, 2002). The most important aspect of social capital is the role trust plays in gluing the network together, as high levels of societal social capital are closely aligned with the ability of business to 'trust' (Batt, 2008). Trust in a brand is positively related to brand loyalty (Lau and Lee, 1999; Laroche et al., 2013) and therefore building the social capital of a brand in a network is an investment to brand loyalty.

Internet and SNSs has substantially facilitated the development and the accumulation of Social Capital. Both

Quann-Haase and Wellman (2004) and Ellison et al. (2011) while reviewing prior studies of internet use and social capital, concluded that there are three distinct types of findings found in the literature:

a internet use promotes social capital formation

b internet use can diminish social capital

c internet use reinforces offline interactions and can supplement social capital development.

Especially for the latter internet, social media and SNSs, can provide firms and marketers with an immense range of opportunities for extending and preserving relations they have with customers in the real world in online communities using various technologies and marketing tools cost efficiently and effectively. Therefore it is crucial to integrate online interactions with consumers in the marketing communication mix, as they actively influence offline interactions and consumer behaviour (Wellman et al., 2001).

Social capital and social contagion (Aral and Walker, 2011; Harrigan et al., 2012) are important issues for social media marketing strategies as it is crucial for the word of mouth marketing of a company. The benefits derived by accumulating social capital for a brand and its consumers are the following

a higher level of information and other resources for the firm

b improved communication and control of information and resources creating content and value

c a higher level of trust resulting to brand loyalty, which enhances the creation of value for both consumers and the firm (van de Bulte and Wuyts, 2007).

Social capital therefore can be viewed by firms as an intangible asset for their brands, that is created via social relations and that can be employed to facilitate action and achieve above-normal rents for the 'owner' (Adler and Kwon, 2002) that in this case is the brand or the product. Consumers have the capability of connecting with a bigger number of brands, as new technologies in social media and SNSs, giving them the opportunity and the abilities to handle with a bigger number of relationships (ties) compared to the past (Kaplan and Haenlin, 2010), many times without the knowledge or control of manufacturers or retailers.

Even after the purchase of a product or service, consumers remain actively engaged, as they have the opportunity to give positive reviews based on their experience with a brand and promoting it, or by criticising a brand they have bought, and failed their expectations. By actively creating content for the brand and being able to communicate this content across their social networks, consumers may contribute actively in the brand development, and help formulate future marketing strategies. These interactions create value for both firms and consumers and could be used as a measure of social capital created by the formation of active social networking between consumers and brands.

Despite the importance and novelty of social capital in building relations with consumers, only few studies highlight the importance of social capital in marketing and the increase of brand loyalty, by building a coherent and dense social network between consumers and brands. Park et al. (2009) conducted a factor analysis in order to reveal the main motivations of individuals for participating in groups within Facebook and identified the following: socialising, entertainment, self status seeking, and information that are relevant with the formation of social capital within a network. Ellison et al. (2007, 2011) has examined the relationship between the usage of Facebook, and the formation and maintenance of social capital in college students. The results indicated that social information-seeking behaviours contribute to perceptions of social capital, highlighting the importance of the identity of the members of a group working as a 'lubricant' facilitating information seeking and transfer.

Reports published by World Bank (2001) and OECD (2001) designated the focus of economic literature in the meaning and importance of social capital, but also the difficulties arising in measuring the accumulation of social capital. Steinfield et al. (2012) also emphasised on the significance of measuring social capital. Putnam (2001) has outlined the difficulties involved in measuring social capital by reviewing a number of social phenomena in the USA, concluding that there is a big distance to be covered in order to have a reliable measure of social capital comparable to other forms of capital as human capital for example. As social capital grants more advantages to the active actors of a social network than others, existing measures of bridging and bonding social capital can be extended to measure actual benefits received better with the use of social network analysis and metrics such as density, betweenness, closeness, path distance, etc. (Borgatti et al., 1998), measuring the different conceptions and forms of social capital. Wasko and Faraj (2005) for example used centrality in order to assess the accumulation of social capital in a closed legal community. Frequency of contact and level of engagement are commonly used measures to reveal people's level of involvement in a community (Quan-Haase and Wellman, 2004), can be proxy measures for social capital. The more central the position of a consumer or brand is in a network, the bigger the advantages derived from the participation in this network are (Burt, 2000), such as resources, emotional support, exposure to diverse ideas, and access to non-redundant information (Ellison et al., 2011). The analysis of the structure of a network can provide with useful proxies and metrics to measure social capital, as it will be discussed in the next section.

3 Social network analysis and marketing management decisions

Social media and SNSs are increasingly becoming an important and crucial part for the majority of firm's media and marketing mix, with organisations managing them like traditional offline and online media (e.g., Albuquerque et al., 2012). However, these new media require a distinct and non-traditional approach in regards of measurement, analysis, and subsequently management as a part of the marketing mix of a firm (Kaplan and Haenlein, 2010; Kay et al., 2013).

Boyd and Ellison (2007) defined broadly social network sites (SNSs), while Kaplan and Haenlein (2010) gave definition of social media focusing on the relationships between individuals-users in sites using Web 2.0. Analysing these relationships became a central issue during the last years providing marketers with the right metrics to support marketing decision process (Peters et al., 2013). Social media are valuable platforms for building brand relationships with consumers and creating brand value, as marketers can interact regularly with consumers, with a big variety of multimedia content. That kind of everyday communications can become informal to such a degree that friendships and personal relationships can be formed (Lewis et al., 2008) that are essential for marketing and provide firms with a competitive advantage, especially in attracting new customers (Michaelidou et al., 2011).

Social network analysis (SNA) is the most important tool that can be used in order to analyse the structure of a network. Having its roots in modern sociology (Hanneman and Riddle, 2005), it gained popularity as a popular research field, as a result of the importance that social media and SNSs gained during the last ten years. Freeman (2004) defined SNA by summarising the four main characteristics of the method:

a is a method based on ties linking actors (nodes)

b uses systematic empirical data

c draws heavily on graphic imagery

d relies on the use of mathematical and/or computational models.

Brands can also be considered as nodes in such a social network as consumers tend to humanise them, beyond the plain utilitarian nature they possess (Loureiro, 2012). These networks are often depicted in a social network diagram, where nodes are represented as points and ties are represented as lines. In the context of SNSs ties can take the from of like to a post or page, commenting on posts, following an account, tagging an individual to post or an image, etc.

SNA can be applied on numerous fields of social and economic research and practice (Hanneman and Riddle, 2005) and her importance has been outlined in a number of studies. There are some important metrics and variables that describe the importance of a node or the strength of ties within a network. A very significant metric is the centrality of a node that measures its relative importance within a graph and shows how influential a node (a person, brand or a post) is within a social network. The main measures of centrality that are widely used in network analysis are degree centrality, betweenness, and eigenvector centrality (Wasserman and Faust, 1997; Opsahl et al., 2010). The degree of a node consists of the number of edges incident to the vertex, and the highest degree of a graph is the node with the highest degree of the graph and most of the times the most popular as well. Betweenness centrality is a measure of a node's centrality in a network that is equal to the number of shortest paths from all vertices to all others that pass through that node. Eigenvector centrality is a measure of the influence of a node in a network, assigning relative scores to all nodes in the network based on the concept that connections to high-scoring nodes contribute more to the score of the node in question than equal connections to low-scoring nodes.

The shape of a social network helps determine a network's usefulness to its individuals. Smaller, tighter networks can be less useful to their members than networks with lots of loose connections (weak ties) to individuals outside the main network. Network density and the lack of structural holes is often treated as an indicator of the extent to which individuals identify with those around them the notion of network closure as an important source of social capital (Lewis et al., 2008), as denser network structures, which are governed by norms, are more easily monitored and, thus, foster trust. On the other hand, more open networks, with many weak ties and social connections, are more likely to introduce new ideas and opportunities to their members than closed networks with many redundant ties. Such sparse networks result in structural holes that provide the members of a network with the opportunity to enjoy increased flow and diffusion of information within the network, and control the projects that bring together people from opposite sides of the hole (Burt, 2000). Social capital is build in these sparse networks formed by weakly ties between individuals (acquaintances) that work as a bridging function (Granovetter, 1973).

The importance of social network analysis (related to network theory) is emerging as a key technique for marketing (Webster and Morrison, 2004), in the years of social media reign. Networking theories and SNA can have wide applications for decision making in business and marketing (Bonchi et al., 2011). Some of the applications of this analysis in

marketing are e-word of mouth (eWoM), relationship marketing, information acquisition, the adoption-contagion measurement of new products or services and trend measuring, but also in personalised customer service, product design loyalty programs, advertising, reputation monitoring, social media marketing, social CRM and viral marketing (Hung and Li, 2007; Aral and Walker, 2011; Bonchi et al., 2011; Chu and Kim, 2011; Zhu, 2013). Another important benefit stemming by the usage of social media and SNA by firms and organisations, as part of their marketing management process, is the data and content supplied from the users of SNSs. Social Network Analysis can also help in detecting opinions leaders and consumers' trends that can affect other consumers, as well as engaged users who can serve as brand 'ambassadors' (Burt, 2000; Zhu, 2013).

Notwithstanding the importance of social networking and social media marketing most firms, and especially SMEs, fail to adopt and use specific metrics in order to assess the effectiveness of SNSs usage (Michaelidou et al., 2011). It has been only until recently networking theory and social networking analysis (SNA) are being used to identify and describe the structural relationships developed within a network for marketing analysis purposes. This is mainly because there is a wide range of other tools easier to be used but as interesting as the network theory which can analyse social media data. The usage of traditional statistical methods however has not been able to identify social capital importance. Valenzuela et al. (2009) used OLS in order to trace associations of Facebook usage and social capital, and they found only a weak relationship. Hung and Li (2007) used SEM in order to assess the effect of social capital in e-WoM and consumer behaviour but have not provided a clear measure of social capital. While network theory is frequently drawn upon in marketing, few researchers apply the formal network analytical techniques developed (Webster and Morisson, 2004). In the following section a discussion of such an analysis is discussed for the Facebook page of a traditional Greek brand.

4 An application of SNA in a brand page in Facebook

Online relationships in modern SNSs can be supported by new multimedia technologies like photos, videos, comments, tagging other users, games, and contests, new forms of social capital and relationship building occurs, increasing the weak ties a user could form and maintain (Ellison et al., 2007). That can be of outmost importance for branding as keeping ties with the customers is an important marketing strategy that can be implemented efficiently by a firm.

Information distributed through online communities may be perceived as highly credible due to the trustworthiness and expertise of community members (Brown et al., 2007). Most users of online communities are 'content consumers' or 'lurkers' and simply passively observe what is on the site. In contrast, 'content creators' add value to social communities by posting comments and sharing social content. Content creators show higher levels of engagement in the exchange process in social communities than lurkers. Such active participation can help encourage greater loyalty and the build-up of social capital.

In this paper we explore the way we can identify the influencers of a social network not according to the Insights that Facebook gives us the opportunity to do so, but using SNA and the NodeXL software. The Facebook page analysed belongs to Greek traditional product brand page that recently changed its marketing strategy to attract

younger consumers. The period that it is examined is 01/08/2013 to 09/10/2013. The page has 169,651 likes and the number of users that had an interchange with the fan page was high enough but also reasonable in order to be analysed.

Data were collected through the social network importer of NodeXL. The analysis has been done in three levels:

a between posts

b between users

c between posts and users.

Specific measures of centrality and density are calculated, and communities of members are identified using the Clauset-Newman-Moore algorithm and are presented in the following tables.

At Table 1 the figures of the post-post network and user to user network are depicted. As seen, the network is undirected and it consists of 64 nodes and 332 edges. Each node represents a post made by the page itself and the users as well; whereas edges show the relation between two posts according to the users that have commented to the same post. The graph is divided in 12 connected components and the average path length is 1.936, meaning that each post is away from one other post by 1.936 resulting in the easy distribution of the information between posts. Three forms of centrality can also be seen in the table and we can clearly evaluate that the eigenvector centrality is the biggest in the post-post network compared to the other two networks showing that there are more influential posts in the network that the posts are connected to. It can also be seen that the density of the graph is significantly high showing the big interaction between the posts, and a fair marketing efficiency as far as the posts are concerned.

Table 1 Metrics for the post and user network

	Post to post network	*User to user network*
Graph:	Undirected	Undirected
Nodes:	64	788
Edges:	332	29,635
Connected components:	12	5
Average path length:	1.93592	2.267
Biggest betweenness centrality:	137.462	62,523.293
Biggest closeness centrality:	0.014	1.000
Biggest eigenvector centrality:	0.044	0.006
Number of groups:	4	7
Density of the graph:	0.16468254	0.097

In the second column of Table 1 the user to user network metrics are given, where each node now represents a user that interacts with the page and each edge connects two users based on their interaction on the same post. It is clearly seen that the connected components at the graph are 5, meaning that the graph is highly connected. The average path length of this graph is bigger compared to the one of post-post network, meaning it

takes 2.2 users for each user to connect to another user making the graph more loose, which is depicted at the density as well. Density of the graph is relatively low, showing that the speed of information between posts takes more time to reach the appropriate post, implying lower levels of social capital and contagion across the network, and low efficiency in the usage of the SNS page as a marketing tool, as far as users' interaction is concerned.

At Table 2, we can see the bipartite graph of users and posts where nodes are both users and posts. Users are connected to the posts they have interacted with and posts are connected to each other according to the users that have interacted on both posts. The biggest betweenness centrality reaches 279,040 meaning that this node has a large influence on the transfer of items through the network since it is in the path of connecting two users/posts. It is logical after all the density of the graph to be even looser compared to the other two networks analysed before, since the nodes consist of two different types and the complexity of the network is higher. This can also be seen by the average path length since every node is away from the other by 4.5 nodes showing that the efficiency of information is not as high as in the other networks.

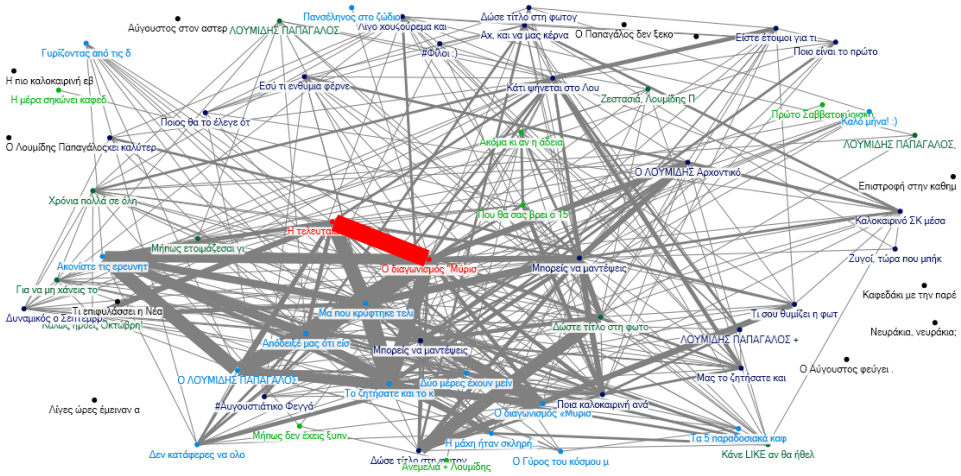
Table 2 Metrics of the bipartite network users-posts

Graph:	Undirected
Nodes:	856
(Users)	792
(Posts)	64
Edges:	1048
Connected components:	12
Average path length:	4,520659
Biggest betweenness centrality:	279040,029
Biggest closeness centrality:	1,000
Biggest eigenvector centrality:	0,008
Number of groups:	20
Density of the graph:	0,002863857

After presenting the metrics of the network the graph analysis of the network follows. Contests and games activities proved to be the most popular types of posts, since they are really widespread and there is much interaction with the fans. Most of the posts of the fan page are accompanied by a photograph, even if they provide a link with it.

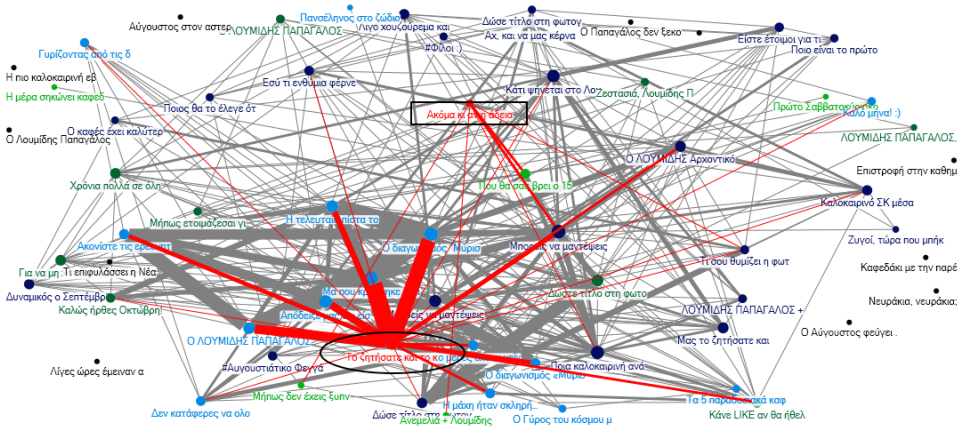
Nodes represent posts and they are connected according to the users they have commented on both posts. The thickness of the edge that connects two nodes, known as edge weight, varies depending on the number of people that have commented on both posts showing the frequency of interaction between two posts. In Figure 1 is shown that the strongest connection was between the posts entitled 'the contest 'smell the mystery' continues' and 'the last level of 'smell the mystery' is a fact', where 11 users have commented on both posts. It is concluded from this strong interaction between the two posts, that there is a community and correlation. It can also be assumed from the fact that both posts are about the game 'smell the mystery', that game-related posts are more probable to attract more users to comment.

Figure 1 Analysis of posts' interaction (see online version for colours)



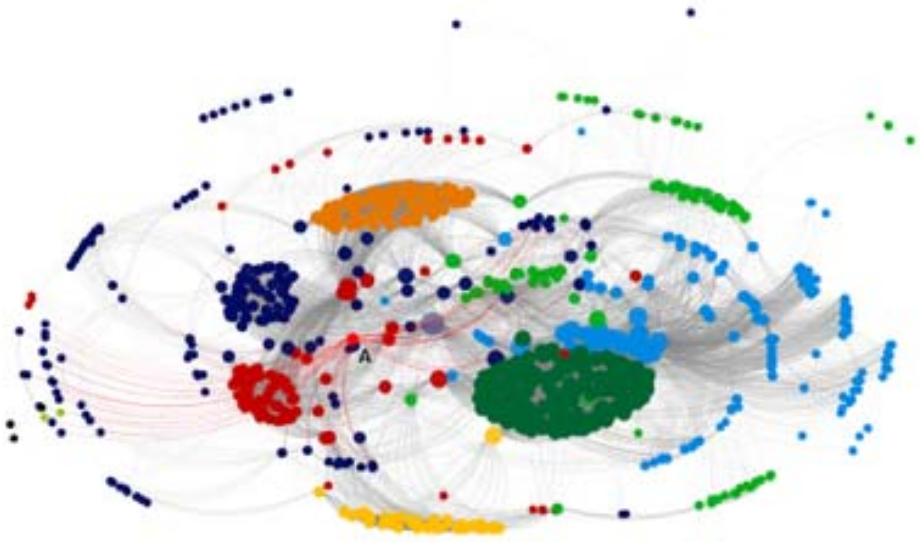
In Figure 2, the differences between the metric betweenness and degree centrality can be viewed. The post in the square entitled (in Greek) 'Even if your annual leave is over...' has bigger betweenness centrality compared to the post in a circle entitled 'You asked us and we did it'. We can see that node in the square is connected to very few nodes in comparison with the node in circle. Although its degree centrality is less, its betweenness centrality is higher compared to the other one, (54.624 compared to 31.259) since it is in the path of nodes that are not connected to each other, whereas the circled one has many connections, but everyone else is connected with one another. The post with the title: 'You asked for it and we did it' is the post with the highest degree centrality as the number of users that have commented on this post has commented also to other posts. The high interaction of this post with users is due to the fact it refers to three new levels regarding the game.

Figure 2 Interaction between posts (see online version for colours)



The second form of analysis conducted, is the analysis between users, where users are represented as nodes connected with ties according to the comments they have made to the same post. In Figure 3 the network is formed in different communities being depicted by different colours whereas the diameter/size of each node is proportionate to its degree centrality. As seen in Figure 3 the node A has a small diameter, for it is not connected to many nodes, and was not commenting frequently. However, its position in the network is crucial, since its betweenness centrality is 11,479. This results from the fact that the number of shortest paths from all nodes to others pass through that particular node, connecting users that have commented in different posts, enabling the information diffusion from one user to another that would not connect otherwise.

Figure 3 Interactions between users and posts for node A (see online version for colours)



In the same analysis, in Figure 4 we can see that node B is active, commenting on many posts of the page, and being connected with many users resulting in his high degree centrality and consequently his popularity in the network as well as his high probability to be informed by other users regarding a theme or subject. His position though in the information diffusion of the network is not as crucial as node's A in Figure 3. This happens because it does not connect independent users but it is in the centre of a dense network where there are ties between the users he is connected to. Therefore, this betweenness centrality is lower resulting in 11,125.

In Figure 5 we can clearly see the communities that have been formed according to the Clauset-Newman-Moore algorithm. Dependent on the size of the post and the users that have commented on it, each post may form its own community or not. In this figure the density of the four communities in red colour will be analysed and specifically the community 1, 9, 17 and 19. The biggest community is not necessarily the denser one, as there are many paths that connect the nodes. Therefore, the denser community is the community G19 which has only one tie to connect two nodes. Subsequently the next denser is the G17 with nine nodes and the density falls to 0.222, next G9 with more nodes falling to 0.044 and lastly the loosest network is the G1 with 0.014. Although dense

networks can build relationships based on trust, it is loose networks with structural holes that form social capital and enable the information or product diffusion. As a result, the community G1 (Group1) has high potentials for exchange of information between the users compared to the G9 community where the network is more dense.

Figure 4 Interactions between users and posts for node b (see online version for colours)

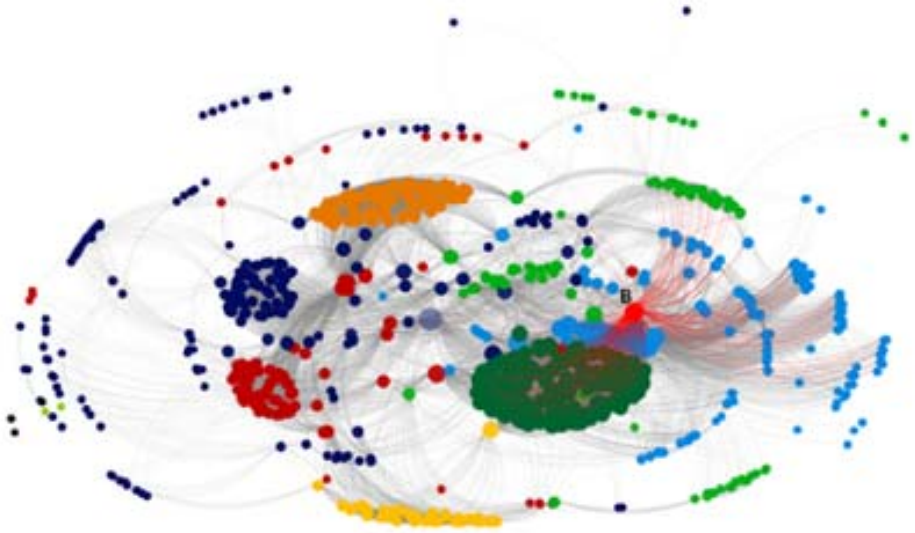
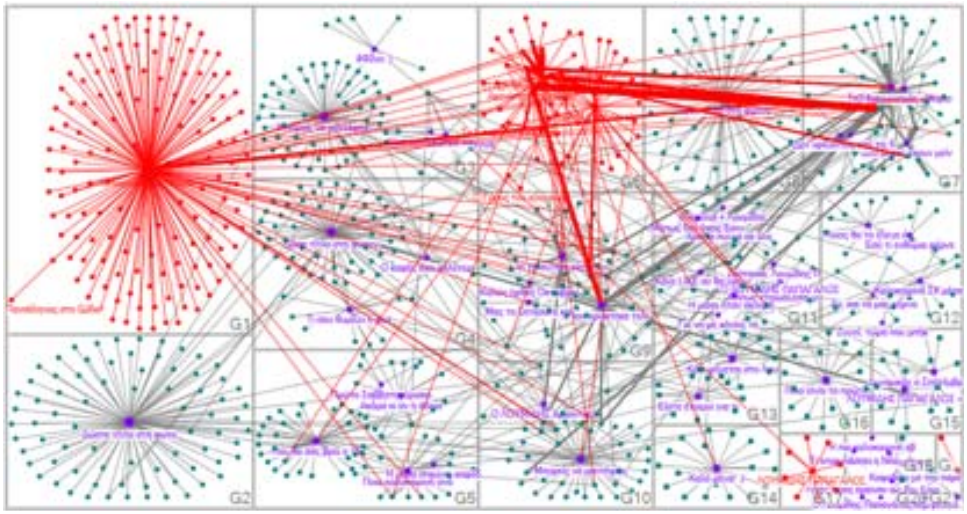


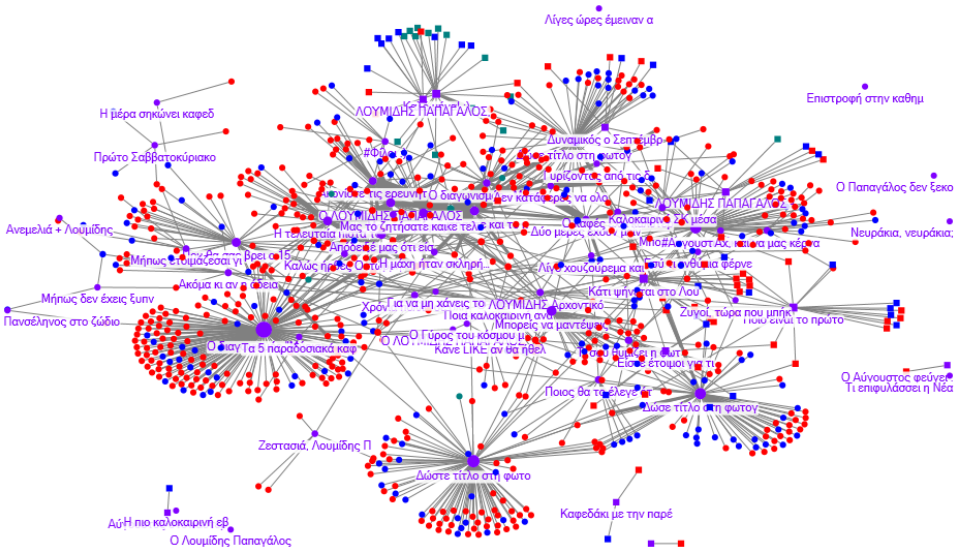
Figure 5 Communities' density of bipartite graph (see online version for colours)



Moreover, another analysis can be conducted for user-posts analysis. In Figure 6, blue nodes are for male consumers, and red nodes are for female, while purple nodes indicate posts. Interestingly enough, women (557) seem to be more active and engaged users than men (214). This result offers a better insight into the audience of our Facebook page and helps us determine the target group of each post, by evaluating at the same time if our

posts should be more feminine-based to track more engagement from the users and therefore enhance the social capital and brand loyalty.

Figure 6 Analysis of users and posts (see online version for colours)



5 Conclusions

Social media marketing through SNS have became an indispensable part of the marketing mix of every brand, firm and organisation. An essential part of successful social media marketing and the development of networks and relationships with customers is the understanding of the structures of social network structures and the ways social capital is created within them. Analysing and understanding these mechanisms with the use of SNA can provide useful insights and data both for practitioners and academics in order to guide decisions concerning marketing management, social media and content marketing.

The case study presented in this paper demonstrated the use of social network analysis in analysing the structure of a network realised by a firm in a social media site as Facebook, evaluating users' activity and the potential for accumulation of social capital. After the analysis of the three types of network there are several conclusions that can be drawn. Firstly, that the weight of a tie can indicate if users commenting on posts that have something in common such as common theme or words. Analysing the network of users can offer valuable insight to the audience that comments to the posts of the page. This analysis can also lead to the detection of the opinion leader that can enhance the information diffusion by building trust relationships with other users. Lastly, the user-post analysis can help us identify the structural holes that exist in the page and use them in the favour of the business for the contagion of a product. Our findings also concur with relevant literature findings that new multimedia technologies used in marketing, such as videos, images, games and SNS contests, that provide users with content requiring their input, increases activity and the connectivity of users, thus

increasing social capital (Ellison et al., 2007, 2011). Providing therefore content and interacting actively with consumers seems to pay off.

Our suggestions for further research are twofold. One direction of expanding the present research could focus on microlevel data collection with the use of questionnaires to the members of the group (page), concerning their demographics and psychographic characteristics. Such a research could provide more thorough perspective both on their commenting and content creation behaviour on the page and in the ways social capital is formed on an individual level. The second direction of research should concentrate on measuring social capital with the use of SNA metrics and network structure and the degree of their engagement in a network, and the way consumers are affected by their exposure to a brand's page in social media.

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