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MEASURING INFLUENCE OF THE GREEK POLITICAL BLOGOSPHERE

KOSTAS ZAFIROPOULOS*,
VASILIKI VRANA** and DIMITRIOS VAGIANOS***

ABSTRACT

The paper uses relative literature to measure four indexes of influence and an overall influence score for the Greek political blogs. It records Greek blogs discussing the Greek parliamentary parties, and studies their centrality through the study of normalized betweenness, which represents the bloggers' community network characteristics. It also studies web traffic score, blogosphere authority score and number of comments for a specific time interval. These represent users' community characteristics. Analysis includes the calculation of the ranks of the proposed indexes for the blogs, and the study of skewness of the indexes using correlation coefficients and scater plots of ranks vs. actual values. Findings reveal that Media blogs are placed in the top places of the list. Normalized betweenness scores are the least correlated with the other indexes. This leads to the conclusion that bloggers' recommendations as recorded using incoming links through blogrolls are not similar to users' traffic and navigation practices. Skewness, which is a property of many Web2.0 application indexes, is higher for the number of comments of the blogs. Community activity score presents the highest skewness, which represents the case that few blogs have even thousands of comments during a week interval, while the majority of blogs have only a few comments. Traffic score, centrality within the blogs, network as well as authority index have smaller skewness.

Keywords: Influence; Blogosphere; Greek Political Blogs; Centrality; Traffic; Authority; Comments; Community Activity; Skewness.

1. INTRODUCTION

The informational value of blogs is great, taking into consideration the openness of the network, the mass audiences and the voluntary production of huge amounts of user generated content (Min and Lee, 2011). Blogs have changed the way people engage in politics (Vatrapu et al., 2008) create, structure and influence political discourse (Lawrence and Dion, 2010) and impact the media and public agenda (Drezner and Farrell, 2004, 2008).

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The blogosphere is a microcosm of the Internet in the sense that it consists of a community of users that interact forming communities, sub-communities and cliques (McGlohon et al., 2007). The structure of communication that has been developed in the blogosphere results from a combination of the unique technological capabilities and enhanced blogging tools for between-blog features interactivity (Woodly, 2008). Political blogs form political discourse through hypertext links, blogrolls, posts and opinionated commentary, calls to political action, and requests for feedback (Lawrence and Dion, 2010; McKenna and Pole, 2004; McKenna and Pole, 2008; Wallsten, 2008).

There are millions of individual blogs, but within any community there may be some particularly prominent members who start major conversations and there may be others who are more active in gathering content from many conversations, and only a few that attract a large readership (McGlohon et al., 2007; Wagner and Bolloju, 2005).

Social influence which "describes the phenomenon by which the behaviour of an individual can directly or indirectly affect the thoughts, feelings and actions of others in a population" (Cialdini, 2001; Song et al., 2007). In this vein, social influence is found within the blogosphere social network community (Tan et al., 2011). Blog features, in-links and out-links (Adar and Adamic, 2005; Agarwal and Liu, 2008), content analysis (Matsumura et al., 2008; Song et al., 2007), community identity (Adar and Adamic, 2005; Ghosh and Lerman, 2008), PageRank and HITS algorithms (Java et al., 2006), network centrality, link density, site traffic, community activity (Karpf , 2008) and sentiment and agreement analysis along with quantitative blog features (Tan, 2011) have been used from previous studies in order to detect influence.

Taking into consideration the popularity of blogs, the facts that blogs can be connected in virtual communities of similar interests (Agarwal and Huan 2008), the affect of activities happened in the blogosphere on the external world (Agarwal et al., 2008) and the importance of understanding the influential bloggers, the paper aims at constructing for the first time in the Greek blogosphere, the overall influence index of political blogs. Following the approach of Karpf (2008), four measures of influence are used: the Network Centrality Score, the Hyperlink Authority Score, the Site Traffic Score and the Community Activity Score.

2. THE INFLUENCE OF POLITICAL BLOGS

The number of people engaging in explicitly political blogging has increased in recent years following the overall explosion of blogging activity (Wallsten, 2008). Political bloggers use their blogs to engage in a variety of political activities, the most popular is providing readers with links to reports and articles found elsewhere. The growth of the independent political blogger's has led to the loss of the traditional media's monopoly on news creation and dissemination (Meraz, 2009). The majority of

political bloggers provide information not found in traditional media outlets, including party platforms, dates of political rallies or events, upcoming votes, and the release of data (McKenna and Pole, 2008). They also inform their readers about errors or omissions in the mainstream media (Pole, 2006). There are many situations in which blogs have exercised an important influence over how politics is practiced and how policy is developed and supplanted, surpassed and scooped bymainstream media (Jackson, 2006; Lankshear and Knobel, 2003; Scott, 2005; Sroca, 2006). These include: The protest against Trent Lott who supported Strom Thurmond's segregationist stance in the 1948 presidential election at the 100th birthday of Senator Strom Thurmond (Bloom, 2003), the suspicion that President Bush was using a listening device for assistance during the presidential debate and worries over the validity of voting machines (Su et al., 2005), the picture used for the claim of the social marketing campaign in Germany had already been used by some Nazis in 1935 (http://www.spreeblick.com/2006/01/27/you-are Deutschlandtoo-just-kidding), Paul Bremer's Iraqi farewell speech (Scott, 2005), the Iraqi prison abuse scandal (Scott, 2005), and the altered Reuters photograph of the airstrike damage in Beirut, which was published by The New York Times (www.littlegreenfootballs.com, Farhi, 2006, McKenna and Pole, 2008).

Nowadays, traditional newsrooms have embraced blogs in an effort to survive, as an alternative vehicle for news delivery (Meraz, 2008). This phenomenon was first recorded in the United States during the 2004 Democratic and Republican national conventions when traditional media bloggers hawed up to ''live-blog'' these events with top independent political bloggers who were given press passes (Meraz, 2005).

Political bloggers also express their political beliefs (Wallsten, 2008), spread their ideological orientations, amplify views from the party that reflects their own political predispositions, and defend their political proposals and objectives (Wallsten, 2005). Tibbals (2009) found that a strong association exists between comment types and the blog's political perspective. According to this study comments on liberal blogs tend to treat the comment section as an open forum where they share ideas and often directly engage the blogger while comments on conservative sites tend to be angrier especially towards opposing viewpoints.

A growing amount of political leaders and political parties are managing their own blogs. They diffuse information to internal audiences, build up a volunteer base, mobilize support from their constituency, shape their political agenda and generate resources (Bloom and Kerbel, 2005; Trammell et al., 2006). Blogs have been used as a campaigning instrument in: the 2004 presidential election (Adamic and Glance, 2005; Bloom and Kerbel, 2005), the 2005 U.K. general election (Coleman and Ward, 2005; Jackson, 2006), the 2005 Danish parliamentary election (Klastrup and Pedersen, 2007), the 2005 New Zealand general election (Hopkins and Matheson, 2005), the 2005 German Bundestag election (Albrecht et al., 2007), the 2007 French election

(Arnold, 2007), the 2007 Australian Federal Election (Macnamara, 2008), the 2008 presidential elections in the USA (Edelman, 2009).

Bloggers can also be described as political activists, who push their own causes, organize candidates' events, publish campaign literature and raise money for candidates in elections (McKenna and Pole, 2008). Ahmed (2006) highlighted that blogs, are becoming increasingly popular for energizing the voting population to take an active interest in elections and policy issues. Howard Dean's blog mobilizes supporters and funding (Kerbel and Bloom, 2005). In Ohio, Paul Hackett, even though lost in elections to the Republican Jean Schmidt, his contestants had been far more competitive than expected (Glover, 2006). In South Dakota politics, Thune's campaign was paid by bloggers (Glover, 2006). Daily Kos, raised more than $750,000 for the Democratic Party from 6,500 readers of his blog (Justice, 2004). In the 2008 presidential elections in the USA, MyBO Web site and blog was used as a hub for raising the money (Edelman, 2009).

Political bloggers also encourage donations to philanthropic causes (Pole, 2006). Bloggers have raised money for the victims of the 2004 Tsunami and collected donations for relief organizations in the aftermath of Hurricane Katrina (McKenna and Pole, 2008).

3. THE GREEK BLOGOSPHERE

In the light of 2009, 39374 blogs exist written in Greek while, 32 blogs are being created every day. The number of Greek blogs doubles every year and the same happens with the number of posts. A total of 2.479.098 posts have been recorded in Greek blogs. The average number of posts per month in 2008 was 110.354 and 65.550 in 2007 (Sync.gr, 2008).

The average Greek blogger is between 26 and 35 years old with college education. One third is self employment and only 15% are public servants. Three out of four bloggers are male. 74% of the bloggers live in Athens (58%) and Thessaloniki (16%). Ten percent is residents of abroad (Sync.gr, 2008). Motives for blogging are keeping a diary, experimenting, taking action while being anonymous, creation of a community. Personal interests, art and culture, and entertainment are the main subjects throughout Greek blogs. News and politics blogs are rarer. Thirty eight percent of the bloggers consider blogging as a form of journalism, while 51% does not (Karampasis, 2007).

Blogs emerged in Greece after the events of 2007. People used blogs in order to express their political awareness and their feelings about major events that happened that year. First, was communication to the public of Amalia's Kalyvinou story. Amalia Kalyvinou was a 30 years old woman who passed away after a 5 year fight with the cancerous disease and amputation, but also with a corrupt Greek National Health System: it ignores (by choice) the ongoing patient-to-doctor bribery and insists

on time-consuming bureaucratic methods and practices. Besides her therapy, Amalia had to face the financial exploitation by doctors that stood opposite to rather than by her side. On top of her pain, she had to endure the greediness of private clinics and the exhaustingly long waiting queues of the health insurance system, in order to get legal approval for some ridiculously low financial compensation. Before dying, she managed to document her experience and share it with us in her blog http://fakellaki.blogspot.com/

In 2007, Greek blogs revealed that foreigners had been beaten in the police department of Omonia square in the centre of Athens. Bloggers also raised concern about the environment, after the deforestation caused by fires in Peloponnese, created a protest and organized a big demonstration in the Syntagma Square in Athens.

In 2008, blogs began to exercise influence on Greek politics. A growing amount of political leaders created their own blogs and started a dialogue with bloggers. Panagiotis Bryonis was the first blogger who was invited by the Hellenic Socialist Movement (PASOK) to advice them about the utilization of the social media, and Dora Bakoyianni, minister of foreign affairs, created a team of bloggers in order that investigate how Social Media could have a positive influence on national affairs.

4. MEASURING INFLUENCE

Blogs are already influencing politics. A question that arises is how do we measure influence? Previous studies have taken different approaches in order to identify influential bloggers. The first approach takes into consideration incoming links. The vast majority of blogs are probably only read by family and friends, there are only a few elite blogs which are read by comparably large numbers (Jackson 2006, p.295). The authors of the most well-known and read blogs manage to create a persona, making themselves a "celebrity" among the community of bloggers. These blogs are regularly the most linked by others (Trammell and Keshelashvili, 2005; Ali-Hasan and Adamic, 2007). The overall distribution of inbound links between blogs is highly unequal (Drezner and Farrell, 2004; Drezner and Farrell, 2008; McGlohon et al., 2007; Zafiropoulos and Vrana, 2009; Zafiropoulos and Vrana, 2010). In this vein the median blogger has almost no political influence. Drezner and Farrell (2008) highlighted: "This is because the distribution of weblinks and traffic is heavily skewed, with a few bloggers commanding most of the attention. This distribution parallels the one observed for political websites in general. Because of this distribution, a few "elite" blogs can operate as an information aggregator and as a "summary statistic for the blogosphere".

At another approach Agarwal et al. (2008) and Agarwal (2008) claimed that identifying the influential bloggers at a blog site requires the integrated use of the information specific to a blog site that is outlinks (other blog posts it refers to), inlinks (other blog posts that are citing this blog post) and comments. They proposed a

preliminary model using a set of four properties: (1) Recognition - An influential blog post is recognized by many. (2) Activity Generation - A blog post's capability of generating activity can be indirectly measured by the comments it receives and the amount of discussion it initiates. (3) Novelty - Novel ideas exert more influence. Hence, the number of out links is an indicator of a post's novelty. (4) Eloquence - An influential can often be eloquent. A long post often suggests some necessity of doing so. Therefore, they used the length of a post as a heuristic measure for checking if a post is influential or not.

Java et al. (2006) studied the performance of various algorithms such as PageRank, HITS and in-degree, on modeling influence of blogs. Their experiments have shown that PageRank based heuristics could be used to select an influential set of bloggers. Commenting on Page Rank (Page, 1998) and HITS (Kleinberg, 1998) algorithms Kritikopoulos at al. (2006) mentioned that they are not suitable to rank blog sites as blog sites in the blogosphere are very sparsely linked. Agarwal (2008) claimed that the Random Surfer model of web-page ranking algorithms (Page, 1998) does not work well for sparsely linked structures. The temporal aspect is most significant in blog domain. While a webpage may acquire authority over time, a blog post or a blogger's influence diminishes over time due to the fact that thousands of new sparsely-linked blog posts appear every day.

Adar and Adamic (2005) and Ghosh and Lerman (2008) studied community identity in relation to influence. Both studies are based on the assumption that blogs within the same community tend to influence each other much as close affiliates would. Ghosh and Lerman (2008) defined influence as the number of paths, of any length, that exist between two nodes. They used the influence metric to partition a network into groups or communities by looking for regions of the network where nodes have more influence over each other than over nodes outside the community. Influence based ranking scores enabled the writers to identify the most influential nodes, but has also shown that as the weight of indirect links grows, the rank of the nodes that act as bridges between communities increases.

A different approach that has been used to detect influence is content analysis (Matsumura et al., 2008; Song et al., 2007). This method measures document similarity between linked blog posts. Matsumura et al. (2008), proposed the influence diffusion model (IDM). IDM was originally an algorithm for measuring values of influence of messages, senders, and terms from online bulletin boards (Matsumura 2003). Later on, the algorithm was expanded to measure values of influence to identify human influence networks (Matsumura, 2005; Matsumura et al., 2007; Matsumura and Sasaki, 2007). IDM calculates the spread of a term in the blogosphere recursively, and evaluates the influence of terms, blog entries, and bloggers (Matsumura et al., 2008). The influencers of IDM were examined and compared with other quantitative aspects of nodes in the network structure. The results suggest that when identifying marketing-relevant influencers, IDM is more effective than

frequently used network related indices such as number of links and trackbacks. Song et al. (2007) proposed the Influence Rank algorithm to identify opinion leaders in the blogosphere. The algorithm ranks blogs according to not only how important they are, as compared to other blogs, but also how novel is the information they can contribute to the network. The Experimental results indicate that the proposed algorithm is effective in identifying influential opinion leaders.

Tan et al. (2011) unlike previous content analysis approaches that measure document similarity between linked blog posts, applied sentiment and agreement analysis along with quantitative blog features analysis and community identification to detect influence in the blogosphere. The blog features evaluated both at the post and blog levels are the blogs' authority rank, number of copied sentences, length of posting and time difference between the linked postings. For content analysis, sentiment and agreement analysis are applied manually. Sentiment analysis has been used to determine the influential people within a community (Kale et al., 2007). For community identity, data blogs were categorised into their respective communities to determine the relationships between communities and influence. The results showed that previous methods which only used the number of links or text similarity between blog posts may not be accurate in detecting influence. Sentiment and agreement analysis on the whole blog content provided a more accurate method of detecting influence as the context of the posting was considered. Community identity was also found to correlate closely with influence.

Karpf (2008) illustrated four distinct areas of influence: network centrality, link density, site traffic, and community activity. He used the Blogosphere Authority Index that combines data from four measures of online influence into a single ranking system. The four measures used are: (1) The Network Centrality Score. It is an applied sociometric variable that is culled from blogrolls, which are self-reports of recommended or approved blogs. (2) The Hyperlink Authority Score that was derived directly from Technorati.com's authority tracking system. (3) The Site Traffic Score. He used Sitemeter.com that directly measures the number of unique visitors a website receives every day. (4) The Community Activity Score. Nearly all of the blogs include a mechanism for readers to write comments in response to the author's post. Total Comments/Week was used to serve as a site's Community Activity Score.

5. METHODOLOGY

The paper records Greek political blogs discussing the five Greek parliamentary parties. Blogs were recorded during November 2010, using Technorati.com and Google blog search, using the names of the parties as key words. Further, blogs were visited and content analyzed to see if they actually discuss politics regarding the political parties. The five parliamentary Greek parties are: New Democracy (ND), Pan-Hellenic Socialist Movement (PASOK), the Communist Party of Greece (KKE),

Coalition of the Left and Progress (SYRIZA) and People's and the Orthodox's Rally (LAOS).

In total 127 blogs were recorded. Incoming links between blogs through their blogrolls were also recorded. The paper uses the social network of the blogs and analyses the associated adjacency matrix. An adjacency matrix is a square non-symmetric binary data matrix where unity is placed in cell ij if blog i links blog j through the blogroll, or else zero is placed in the cell.

The paper studies the blogs' influence. Following the approach of Karpf (2008), four measures of influence are used: the Network Centrality Score, the Hyperlink Authority Score, the Site Traffic Score and the Community Activity Score. Network centrality index is calculated as the normalized betweenness of each blog regarded as a node within the blogs social network. Blogs are the nodes whereas incoming links are the connections in the network. Loosely, betweenness equals the number of geodesic paths that pass through a node or the number of "times" that any node needs a given node to reach any node by the shortest path. Normalized betweenness divides simple betweenness by its maximum value. Normalized betweenness is calculated using UCINET for Windows. Hyperlink Authority Index is usually measured using Technorati.com authority index. However, since recently Technorati.com does not provide such indexes for non-English language blogs, we used Sync.gr popularity index instead. Sync.gr was founded in January 2007 and is the biggest blog aggregator in Greece. On February 3rd 2011, sync was identified through Alexa.com as having an Alexa Traffic Rank 27698, Traffic Rank in Greece 180 and 656 Sites are linking to it. "Sync.gr introduces itself as "a meeting point for anything written in Greek blogosphere". Thought Sync.gr users can register their blogs, upload podcasts, videos and photos, use advanced features for showing updates from other social networks and connect with friends and track their notifications. Site Traffic Score is recorded using Alexa.com index, and finally Community Activity Score is recorded for each blog in the analysis using content analysis. It measures the number of comments to the posts of the blogs during one week frame (24 January to 30 January 2011). The measurements of the four indexes for each blog are transformed to ranks. Following Karpf (2008), the Blogosphere Authority Index is the sum of the ranks of the four measures minus the worst rank of them. As Karpf (2008) notes, this is to avoid unfairly biasing the study against sites whose architecture does not allow for reader comments, and to minimize outlier effects that come from flaws within any of the four measures employed. The final ranking equation is RankFinal = Rank1 + Rank2 + Rank3 + Rank4 – WorstRank (Karpf, 2008). The best possible score is 3, indicating that a blog was first-ranked in three categories. The worst possible score is three times 127 = 381, indicating that a blog was last-ranked in all categories.

In the present study values of this final index are also ranked, in order to be easy to comprehend. As a general comment it should be noted that a smaller rank means better placement in the list of any index used in the study. For example, rank 1 is

assigned to the blog which is first in the list for a particular index. Ranks of the indexes are reported for every blog. Comments and conclusions are reported.

6. FINDINGS

The calculation of the indexes for the Greek political blogs produces some interesting results regarding both the scoring and placement of the blogs as well as the indexes themselves. Figure 1 presents the social network of the blogs and it is constructed using UCINET for Windows. The use of the social network is necessary to build the adjacency matrix and further to calculate betweenness. For the rest of the proposed indexes the analysis involves visiting Alexa.com and Sync.gr and counting the comments for a certain period of time.

Table 1 presents the Top30 Greek blogs, which discuss Greek political parties. It is interesting to observe that more than fifty percent of them, being placed mainly at the top places of the list, are merely mainstream media blogs. The second observation concerns the indexes themselves. Observing the columns of Table 1 one can see that the proposed indexes' distributions do not fit each other. Different indexes contribute differently to the overall score. It is interesting to see that normalized betweenness is the most diverse index of all. One could consider the top blogs in Table 1 and see that top blogs have top ranks regarding the three indexes and the overall score index, but not the normalized betweenness index. This is a point that needs further clarification. Normalized betweenness rank partly describes bloggers' community and the bloggers' social network, while the other three indexes describe users' participation. Normalized betweenness shows how central a blog is within the blogs' network. The network is constructed using incoming links among blogs. It can then be argued that the way that bloggers regard each other and their community, is different from the way users navigate in the blogosphere.

To verify this finding the correlation matrix of the indexes is formed, using Spearman's correlations, since the indexes are only ranks and not actual numbers (Table 2). From Table 2 it is obvious that the rank of normalized betweenness is the least correlated index both with the total score and the other three indexes as well. Regarding all the other indexes the correlations are high and significant. All the three indexes, Rank of Alexa.com traffic rank, Rank of Sync.gr rank, and Rank of comments are equally correlated with the total score, while the correlation between Sync.gr rank and Alexa.com rank is the highest. These two indexes measure related issues of how users search and visit particular blogs.

7. AN EXPLORATION OF THE FOUR INFLUENCE INDEXES

This section examines the distributions of the four proposed indexes in order to discover how they apply to the particular set of blogs. The analysis involves the

construction of scaterplots of the actual values of the indexes versus their ranks, and the calculations of Spearman's correlation coefficients between these two variables. The latest serves to explore whether there is a linear association between actual values of the indexes and their ranks, or not. In general, when studding several Web2.0 applications, the property of skewnness holds. It means that few items have the highest ranks (or the lowest ranks depending on the ranking system and method), while the majority only have low ranks (or the opposite depending on the rank system). This is a property that needs to be considered and explored in this section.

FIGURE 1: THE GREEK POLITICAL BLOGS SOCIAL NETWORK

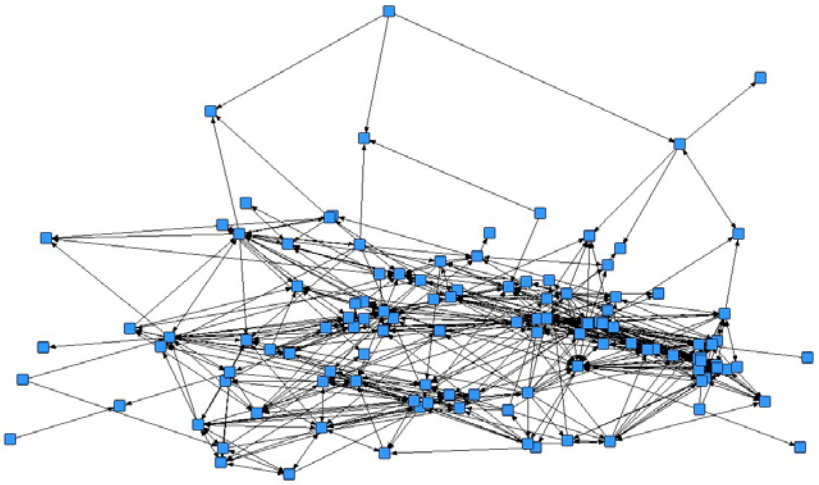


TABLE 1: TOP 30 BLOGS ACCORDING TO THE TOTAL SCORE RANK

Blogs	**Rank of normalized betweenness**	**Rank of Alexa.com traffic rank**	**Rank of Sync. Gr. authority**	**Rank of number of comments**
antinews.gr	15	5	2	2
olympia.gr	48	6	4	1
taxalia.blogspot.com	26	4	3	7
eglimatikotita.blogspot.com	54.5	8	5	4
tsak-giorgis.blogspot.com	39	1	10	16
papaioannou.wordpress.com	17	14	11	3
parapolitiki.com	102.5	9	15	5
piazzadelpopolo.blogspot.com	2	17	12	21

anti-ntp.blogspot.com	102.5	12	9	12
dexiextrem.blogspot.com	6	11	109	18
hassapis-peter.blogspot.com	40	2	7	27
tro-ma-ktiko.blogspot.com	34	3	1	n/a
paspartoy.blogspot.com	1	23	16	35.5
peripatris.blogspot.com	9	19	n/a	19
gatzoli.blogspot.com	66	22	27	6
naftilos.blogspot.com	8	29	32	24.5
jungle-report.blogspot.com	41	26	19	17
politikosafari.blogspot.com	18	28	18	54.5
mediablog.gr	102.5	13	26	28
defrejus.blogspot.com	20	33	73	15
enosy.blogspot.com	31	27	41	13
greekrider.blogspot.com	102.5	25	24	23
panosz.wordpress.com	102.5	24	37	11
skeftomasteellhnika.blogspot.c	46	18	n/a	9
pentanostimi.blogspot.com	3	58	40	32.5
evriteros.blogspot.com	28	34	45	14
emprosdrama.blogspot.com	24	40	13	46.5
blog.antibaro.gr	51	15	70	20
faros.wordpress.com	25	93	52	10
ygro-pyr.blogspot.com	102.5	43	23	22

TABLE 2: SPEARMAN'S CORRELATION COEFFICIENTS BETWEEN INFLUENCE INDEXES

	Rank of normalized betweenness	**Rank of Alexa.com traffic rank**	**Rank of Sync.gr rank**	**Rank of comments**
Rank of Alexa.com traffic rank	0.107			
Rank of Sync.gr rank	0.077	0.768**		
Rank of comments	0.191*	0.623**	0.569**	
Rank of Total Score	0.390**	0.773**	0.788**	0.735**

*: $p < 0.05$, **: $p < 0.01$

Figure 2 presents the scaterplot of ranks of comments vs. the actual number of comments. The skewness is obvious. This is further verified by the Spearman's correlation coefficient, which is equal to -0.375. While the scaterplot is far from being linear, it shows that top ranked blogs according to comments (small numbers shows better placement in the list), have up to 5000 comments (for the one week time period under study). These are only a few blogs, while the majority has from a few hundred comments to just a few comments. Figure 3 presents that scaterplot of Alexa.com traffic ranks vs. the rank of blogs according to this index. The correlation coefficient is 0.758 and represents that skewnness is small and linearity can be hypothesized. Figure 4 presents relative findings for the normalized betweenness (correlation coefficient equals -0.803) and produces similar findings, while Figure 5 presents the case of Sync.gr (correlation coefficient equals 0.899). The case of Sync.gr is trivial since it presents the property of linearity, not skewnness. This finding is probably attributed to the construction of Sync.gr index, and the fact that Sync.gr records and ranks only Greek blogs. Thus, the association with the blogs of the present study is straightforward (almost one to one).

8. CONCLUSIONS

This is the first time that an overall influence index is constructed for the Greek blogosphere, using the relative literature. This effort produced some interesting results regarding both the Greek political blogosphere and the indexes of influence themselves.

Among others, Media blogs are placed in the top places of the list. Blog Network centrality tells a different story from the other three influence indexes. If a blog is considered influential according to users' search options and navigation, for example regarding traffic rank, this means that this blog gets many incoming links as well. In this sense, we can conclude that within a loose inter-bloggers recommendation system, which operates through blogrolls and incoming links, this particular blog may not be recommended.

Among the four influence indexes the one with the skewed distribution is the number of comments. This means that this community involvement index takes extremely diverse values through the blogosphere for different blogs. Some blogs have thousands of comments, while the majority gets only a few.

Limitations of the study include the recording of blogs using another method, not only using Tags to parties, different influence indexes and another Authority index that will make use of a search engine which records international as well as Greek blogs.

FIGURE 2: SCATTERPLOT OF RANKS OF COMMENTS VS THEIR ACTUAL VALUES

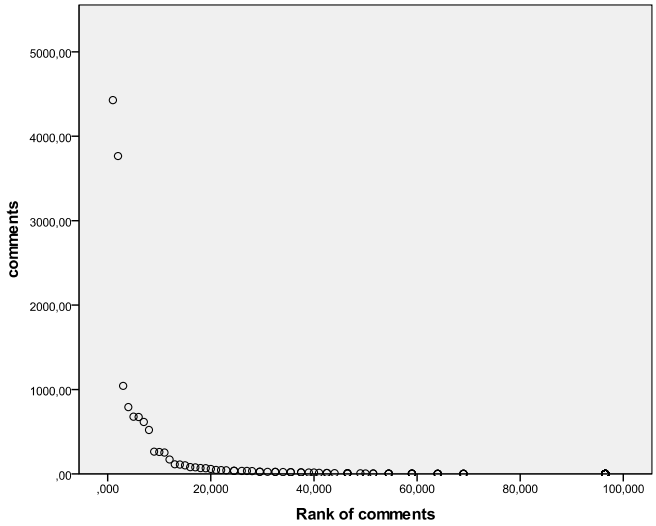


FIGURE 3: SCATTERPLOTS OF RANKS OF ALEXA.COM TRAFFIC RANK VS THEIR ACTUAL VALUES

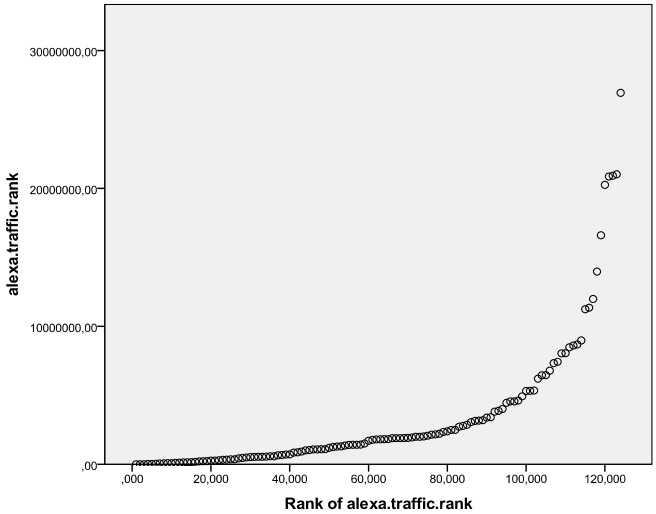


FIGURE 4: SCATTERPLOTS OF RANKS OF NORMALIZED BETWEENNESS VS THEIR ACTUAL VALUES

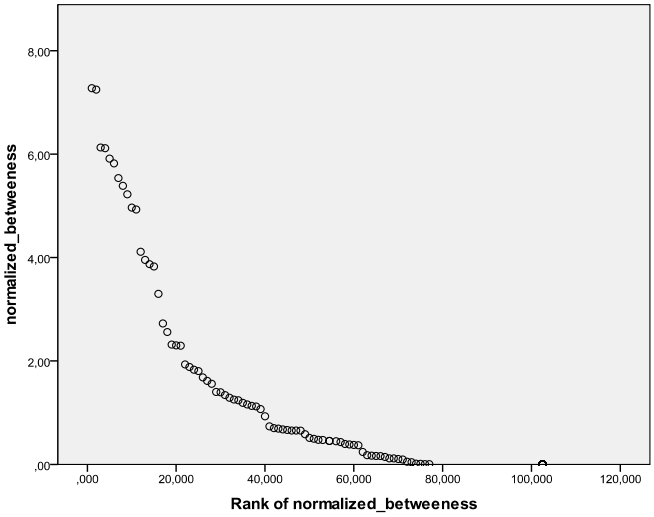
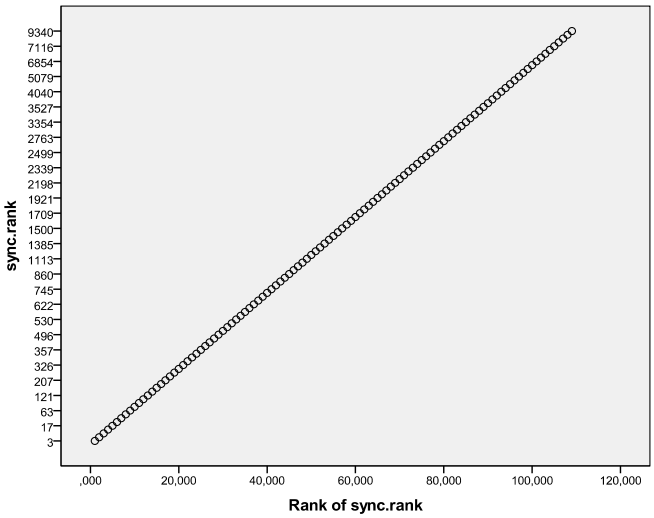


FIGURE 5: SCATTERPLOTS OF RANKS OF SYNC.GR AUTHORITY INDEX VS THEIR ACTUAL VALUES



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THE IMPACTS OF EXTERNAL FOCUS OF ATTENTION ON ELEMENTARY SCHOOL CHILDREN DURING PHYSICAL EDUCATION CLASSES

NERANTZOULA KOUFOU[*],
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ABSTRACT

According to evidence originating from numerous studies, it is concluded that the attentional focus promoted by instructions, has a decisive effect in motor skill learning. The purpose of the present study was to investigate the effect of three instructional conditions on learning of the forward tuck roll in a real school setting. Thirty novice children were divided in two experimental groups which received internal and external attentional focus instructions respectively, during practice and one control group which received no attentional focus instructions. It was demonstrated that external focus instructions enhanced the performance and learning of the forward tuck roll.

Keywords: Instructions; Motor Learning; Gymnastics; Novice.

1. INTRODUCTION

Physical education teachers and sport skill trainers provide verbal instructions trying to communicate to learners the way of movement execution. The wording of instructions may either direct the learners' attention to their body movements or to the intended effects of their actions. A focus on information related to the body movements while producing the action is defined as internal attentional focus. On the other hand, a focus on information that is the outcome of the action being produced is defined as external attentional focus (Schmidt and Wrisberg, 2008).

According to evidence originating from numerous studies, it is concluded that the attentional focus promoted by instructions, has a decisive effect in motor skill learning (Wulf, 2007a). Specifically, the examination of the effectiveness of internal and external attentional focus demonstrated results supporting the superiority of the external attentional focus compared to the internal (Wulf, 2007b).

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The external focus beneficial effects on the performance and learning of various balance tasks were demonstrated in a number of laboratory studies (McNevin and Wulf, 2002; McNevin, Shea and Wulf, 2003; Totsika and Wulf, 2003; Wulf, Höß and Prinz, 1998; Wulf and McNevin, 2003; Wulf, Shea and Park, 2001; Wulf, Weigelt, Poulter and McNevin, 2003). Studies examining the effect of the internal and external attentional focus in sport skill acquisition indicated a significant performance improvement in basketball free throw shot and dart throwing accuracy (Al-abood, Bennett, Hernandez, Ashford and Davids, 2002; Zachry, Wulf, Mercer and Bezodis, 2005; Marchant, Clough and Crawshaw, 2007), in discus throwing (Zarghami, Saemi and Fathi, 2012) and in golf pitch shot accuracy (Perkins-Ceccato, Passmore and Lee, 2003) under the external attentional focus instructional condition. The beneficial effects of an external attentional focus on learning, were demonstrated in golf pitch shot (Wulf, Lauterbach and Toole, 1999; Wulf and Su, 2007), in soccer instep kick shot (Wulf, Wächter and Wortmann, 2003) and in tennis backhand shot (Maddox, Wulf and Wright, 1999). Additionally, focusing externally produced faster swim times (Stoate and Wulf, 2011), faster movement times in an agility task (Porter, Nolan, Ostrowski and Wulf, 2010) and improved standing long jump performance (Porter, Ostrowski, Nolan and Wu, 2010).

In the above mentioned studies, performance and learning were determined by assessing the movement outcome by means of accuracy, speed and distance. The effects of different attentional foci on sport skills movement form were examined in a few studies, in which no important differences in internal and external focus conditions were detected in the tennis backhand (Maddox et. al., 1999) the soccer chip (Uehara, Button and Davids, 2008) and a gymnastics routine (Lawrence, Gottwald, Hardy and Khan, 2011).

Studies examining the attentional focus effect on skill learning have mainly used young adults as participants. Healthy older adults as well as older adults with Parkinson's disease and after a stroke, were also involved in a few studies (Chiviacowsky, Wulf and Wally, 2010; Landers, Wulf, Wallmann and Guadagnoli 2005; Wulf, Landers, Lewthwaite and Töllner, 2009; Wulf, Landers and Töllner, 2008), in which the advantageous effects of external attentional focus instructions on learning balance tasks were determined. Few studies were conducted with children as participants. Their results indicated enhanced performance and learning of a dynamic balance task in 9-12 year old children (Thorn, 2006), improved postural stability in learners between 4-11years old (Olivier, Palluel and Nougier, and faster movement times in a soccer dribbling task under a stressful condition, for novice children (8-9, 10-11 years old) and adolescences (13-14 years old), (Abdollahipour, Bahram, Shafizadeh and Khalaji, 2008) when learners focused externally. Additionally, a better throwing accuracy was demonstrated under the external condition in children with mild intellectual deficiency, aged 12.2 years (Chiviacowsky, Wulf and Ávila, 2012). On the contrary, the precision of a dart throwing task was improved under the internal

attentional focus condition for children between 8.4 to 9.8 years old (Emanuel, Jarus and Bart, 2008), as well as the accuracy of a dart throwing task in boys 8.6 to 10.1 years of age (Mohamadi, Kordi and Ghotbi, 2012).

Taking into consideration all the above mentioned, research characteristics and results, the current study included certain features which differed from previous studies such as the age of the learners, the evaluation of movement quality and the study accomplishment in a real school setting. The aim of this study was to examine the effects of three instructional conditions on performance and learning of the forward tuck roll for elementary school children with no prior experience at the specific motor skill. The hypothesis tested was that the external focus instructional condition could be more beneficial to performance and learning than the internal and the no instructional condition.

2. METHODOLOGY

2.1. Participants

A convenience sample was used for the study objectives. The 30 participants, 17 boys and 13 girls, aged 7.05-8.07 yrs old, were students of the second grade of the elementary school. The children had no prior experience at the forward tuck roll and were unaware of the study purposes. Participants were randomly divided into three equally sized groups (n =10), two experimental and one control group. Permission from the school board was acquired along with a consent form from the children guardians.

2.2. Procedure

The skill practiced was the forward tuck roll. The research lasted five weeks and took place during the physical education classes in the school gym. A pretest followed by an introductory lesson was conducted at the first week. The implementation of the introductory lesson facilitated the students' familiarization with class management, organization and safety matters. The practice phase, consisting of two 45 minute sessions per week, took place during the second and the third week and was succeeded by the posttest which was carried out directly after the completion of the fourth practice session. The retention test was conducted one week after the completion of the practice phase. The practice sessions were implemented by the school's physical education teacher, who was educated and trained prior to the study commencement. Lesson plans and attentional instruction statements were designed and provided by the researchers who, in addition, supervised and assisted the implementation of the three testing phases.

2.3. Attentional focus instructions

The content of the internal attentional focus instructions referred to the sensory information emanating from the body movements during the skill execution and aimed to direct the learners' attentional focus to their body. Directing the learners' attention into proprioceptive stimuli, aims to a greater understanding of a specific movement pattern (Rose, 1997). Specifically, for the formulation of the internal attentional focus instructions, the statements used were relative to what the learners should feel during the skill execution. The external attentional focus instructions were augmented by the use of analogies aiming to take away the learners' attention from their body while offering a mental image of the movement goal (Wulf et. al., 1999).

The attentional focus instructions were determined and formed according to the consistent parts of the skill. The content of the internal and external instructions was similar for the two experimental groups (tables 1 and 2). The order of the presentation of the instructions given was aligned with the order of appearance of the skill's consistent parts during the execution.

TABLE 1: INTERNAL ATTENTIONAL FOCUS INSTRUCTIONS

1.	Start in a squat position, holding your arms out in front of you.
2.	Place your hands on the floor, in front of knees. Feel your body weight on your hands.
3.	Lift your hips.
4.	Feel your chin on your chest.
5.	Push off with your feet to roll over.
6.	Roll slowly, feeling the floor onto the back of your shoulders.
7.	During the roll, keep your body tucked with knees bent.
8.	Reach forward with your arms at the end of the roll.
9.	At the end of the roll feel the floor under your feet.
10.	Stand up without pushing off with your hands.

TABLE 2: EXTERNAL ATTENTIONAL FOCUS INSTRUCTIONS

1.	Start in a squat position, as if you are sitting in a low chair, holding your arms out in front of you.
2.	Place your hands on the floor, in front of knees. Bring your body weight on your hands.
3.	Lift your hips up to the sky.
4.	Bring your chin to the chest.
5.	Push the floor with your feet to roll over.
6.	Roll slowly onto the back of your shoulders.
7.	During the roll, keep your body tucked like a ball with knees bent.
8.	Reach forward with your arms at the end of the roll as if you are trying to catch something that is situated away in front of you.
9.	At the end of the roll land on two feet.
10.	Stand up without pushing off the floor with your hands.

2.4. Lesson structure

At the beginning and at the end of each practice session, all three groups received the same basic description of the skill. Subsequently, the instructor demonstrated the skill once. During the practice session, the two experimental groups received internal and external attentional focus instructions respectively. Each one of the ten instructions was provided every five trials of the drill executed, and was referring to one specific element of the skill movement pattern. Each instruction was given twice in each practice session and eight times during the practise phase. The control group received no attentional focus instructions but information on the description of the drill executed, for example *in tuck position rock forward and back.* All groups performed the same lead-up drills and the same number of repetitions in every practice session.

2.5. Measurements

The measurements were implemented in three different time points including a pre-test prior to the first practice session, a post-test after the two week intervention program and a retention test a week later. A video camera was used to record the participants' performance. The forward tucked roll movement quality was evaluated according to seven criteria by two independent raters. The inter-rater and the intra-rater Pearson correlation coefficient was found to be $r = .958$, $p = .000$ and $r = .978$, $p = .000$ respectively. The participants performed two trials. Both trials were evaluated and the best score was recorded (Goshi, Demura, Kasuga, Sato and Minami, 1999). One point was awarded for the achievement of each criterion and zero point on its absence, thereby leading to an evaluation climax ranging from a 0 lowest score to a 7 points highest score.

The seven criteria used for assessing the forward roll movement quality were determined by the relative literature (Graham, Holt/Hale and Parker, 1993; Mitchell, Davis and Lopez, 2002; Ryan, 1981) and were the following: the hands are placed shoulder-width apart in front of the knees on the floor, the chin is tucked into the chest, the hips are lifted, the rolling action starts from the back of the head or the top part of the shoulders, the body maintains tuck position throughout the roll, rolling up onto the feet, standing up without pushing off the floor with the hands.

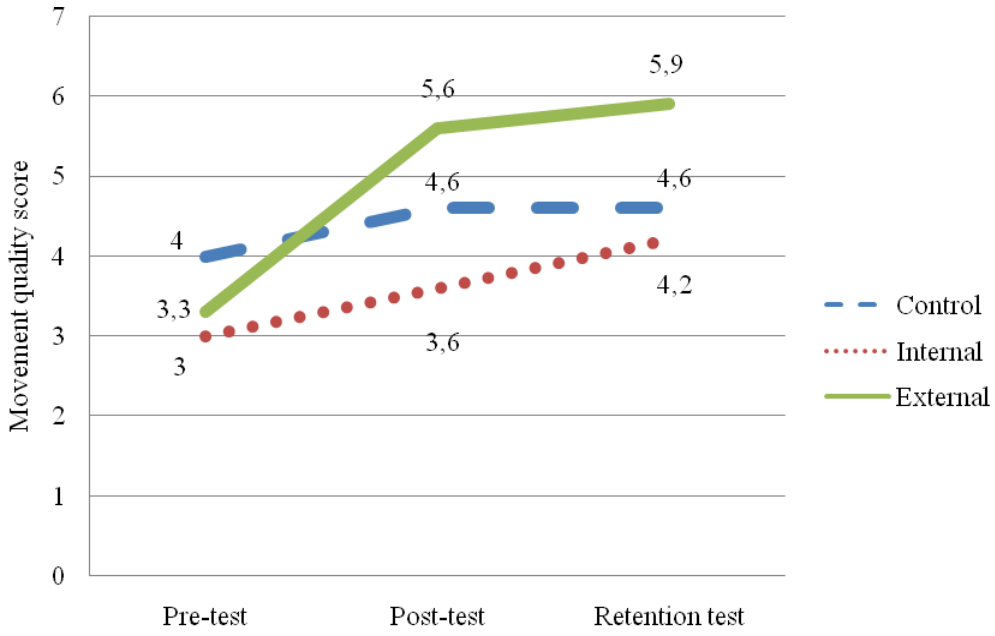
2.6. Statistical Analysis

SPSS version 20 for Windows (SPSS Inc., Chicago, IL) was used to analyze the data. One way analysis of variance was used for examining possible differences in pretest movement quality scores between instructional groups. The movement quality scores were analyzed with a two way analysis of variance (ANOVA) with repeated measures on the last factor (3 x 3), (attentional focus instructions: internal x external x control) x 3 (measurement sessions: pre x post x retention). Where ANOVA revealed statistically significant effects, a Sidak post hoc test was performed to detect the differences among the levels of the independent variables. The level of significance was set at $p < .05$.The assumptions for performing the repeated measures ANOVA, normality of distributions, homogeneity of variances and sphericity were tested by using Kolmogorov-Smirnov test, Levene's test and Mauchly's test of sphericity respectively. All the above mentioned assumptions were met.

3. RESULTS

One way analysis of variance indicated no significant statistical differences, $F(2,27) = 1.41$, $p > .05$, in pretest movement quality scores among the three instructional groups. The repeated measures ANOVA determined a statistically significant interaction between the three instructional groups and the three measurement sessions, $F(4,54) = 2.935$, $p = .029$, (figure 1). The main effect of group was not statistically significant, $F(2,27) = 1.865$, $p > .05$. Mean movement quality scores showed significant differences throughout the measurement sessions, $F(2,54) = 15.056$, $p = .00$). Post hoc Sidak test revealed a statistically significant improvement from the pre-training to post-training ($p = .00$) and retention ($p = .00$) scores for the external attentional focus instruction group. The slight improvement noticed from post to retention test for the external group was not statistically significant ($p > .05$). The improvement between the three time points for the control and internal group was not significant ($p > .05$). Mean performance scores and standard deviation for each group are presented in Table 3.

FIGURE 1: MEAN PERFORMANCE SCORES OF THE THREE INSTRUCTIONAL GROUPS ACROSS THE THREE MEASUREMENT SESSIONS FOR THE FORWARD TUCK ROLL MOVEMENT FORM



4. DISCUSSION

The purpose of the present study was to examine the effectiveness of three instructional methods on performance and learning of the forward tuck roll in a real school setting. Two different types of attentional focus instructions –internal and external- were provided to learners during practice. Additionally a control condition with no attentional focus instructions given was used. According to the results, it was demonstrated that the external attentional focus instructions enhanced significantly the performance and learning of the skill practiced while the performance improvement observed for the internal and control groups was not significant.

TABLE 3: MEAN PERFORMANCE SCORES AND STANDARD DEVIATION OF THE THREE INSTRUCTIONAL GROUPS ACROSS THE THREE MEASUREMENT SESSIONS FOR THE FORWARD TUCK ROLL MOVEMENT FORM

		Pre-test	**Post-test**	**Retention-test**
Groups	*N*	*M (SD)*	*M (SD)*	*M (SD)*
Control	10	4.00 (0.94)	4.60 (2.17)	4.60 (1.26)
Internal instructions	10	3.00 (1.88)	3.60 (2.59)	4.20 (2.57)
External instructions	10	3.30 (1.05)	5.60 (1.35)	5.90 (1.37)
Total	**30**	**3.43 (1.38)**	**4.60 (2.19)**	**4.90 (1.91)**

The current findings are in line with those of previous studies, which determined the beneficial effect of external attentional focus on performance outcome measures of closed sport skills performed in a stable and predictable environment (Al-abood et.al., 2002; Marchant et al., 2007; Moghaddam, Vaez-Mousavi and Namazizadeh, 2008; Wulf et al., 1999; Zachry et al., 2005). Furthermore, the findings of the present study replicated the advantageous external attentional focus effects on motor performance using children as participants when the movement outcome was assessed (Abdollahipour et al., 2008; Olivier et al., 2008; Thorn, 2006). Extending the aforementioned results, it is demonstrated that external attentional focus instructions can significantly enhance the movement form acquisition of closed skills which do not require an object manipulation and include body movement through space and around its own axis, such as forward roll.

The external focus instructions used in studies employing motor skills with object manipulation, referred to the ball trajectory relative to basket (Al-abood et al., 2002), to the target (Marchant et al., 2007; Zachry et al., 2005) and to the movement of the object used (Wulf et al., 1999). The skill practiced in the present study does not require an object manipulation and does not have an obvious effect on environment. The challenge for the authors was to formulate distinctive instructions promoting an internal or an external attentional focus. Therefore, the internal and external attentional statements incorporated sensory information and analogies respectively. According to the results, the specific external attentional focus statements seemed to be more beneficial for novice children to perform and retain the correct movement form of the forward tuck roll in relation to the internal.

These findings differ from those of the experiments evaluating movement form in open sport skills, such as the tennis backhand stroke (Maddox et al., 1999) and the soccer chip skill with the non-dominant foot (Uehara et al., 2008) where no differences in performance and learning were found between internal and external

instructional conditions. It is possible that the learning advantage of an external focus of attention depends on the type of the task practiced, namely a self-paced skill executed in a stable and predictable environment.

Considering the small sample size of the current study, the generalization of the beneficial effects of an external attentional focus on learning motor skills to the respective population should be treated with caution. Future studies carried out with children as participants should examine which type of attentional focus is optimal for learning different skill types.

5. CONCLUSIONS AND APPLICATIONS IN SPORT

The findings of the present study demonstrated advantageous external attentional focus effects on motor performance using children as participants. Providing external focus instructions during practice had a beneficial effect on the performance and learning of the forward tuck roll movement form in novice children between 7 to 8 years old in a school setting.

A common practice strategy used by physical education teachers and coaches is to give instructions that induce an internal attentional focus aiming to communicate to learners the accurate movement technique. In view of the aforementioned findings suggesting the superiority of the external attentional focus instructions compared to the internal, it seems that this strategy is rather counterproductive for learning. Movement practitioners can formulate their instructions so as to direct the learners' attention externally, thus promoting learning of skills in which the main interest lies on producing the correct movement form.

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RESEARCH PHILOSOPHY, METHODOLOGY, QUANTITATIVE AND QUALITATIVE METHODS

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ABSTRACT

Carrying out a research paper is concerned to be a simple task. However, in practice it is far more complicated. The most important factor is for the researcher to know the main principles of the research process. It is vital to identify the research methods progression, the meaning and purpose of the research to be carried out, by the formulation of hypothesis, aims and questions, the use of methodology-both quantitative and qualitative-their characteristics and suitability when utilized, and the need of sampling and ethical considerations. By the use of theoretical framework, the current research paper firstly discusses and analyses the principles of bringing about a research paper, and most importantly it emphasizes the advantages and disadvantages of research methodology.

Keywords: Research Methods; Methodology; Quantitative Methods; Qualitative Methods.

1. INTRODUCTION

The study of research methods is wide and complex, as it consists of various important issues for the completion of a research paper. Researchers firstly need to look at a wide range of philosophies, concepts and issues in terms of establishing a high-quality piece of research, as well as to take into great consideration the characteristics of both quantitative and qualitative research approaches, and their strengths and limitations, before these are applied in practice.

All these aspects will then allow the researcher to decide whether it is appropriate for the research under study to use either the quantitative or the qualitative research method or even a combination of both.

The current research report aims to give an overview on the preceding aspects when carrying out a research, it discusses the concept of research methods and the need for establishing research hypothesis, aims and questions in the creation of a valid and reliable piece of work.

Moreover, the research paper analyses research methodology in terms of their advantages, disadvantages, validity, reliability and sampling. Finally, the research report refers to ethics, an important element regarding the completion of an ethically accepted research paper.

The purpose of the current research is to help mostly students in terms of fulfilling their academic requirements in completing a research paper. Students will then

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become aware of the most important elements of research methods progression. Most significantly, they will be able to decide the appropriate research methodology for the topic under study for completing a validated research paper.

2. METHODOLOGY

Referring to the methodology used, the research compares theoretical frameworks to indicate relevant theories associated to research methods, hypothesis, aims and questions and research methodology, mostly in terms of quantitative and qualitative methods.

The primary aim and objective of the report is to negotiate with the philosophy of conducting a research and exemplify the importance of setting hypothesis, aims and questions. Most significantly, the report analyzes the use of methodology, giving the greatest of attention to quantitative and qualitative methods, their characteristics and concepts, strengths and weaknesses. It addition to these, the report discusses the concept of sampling, validity of methods, reliability of data and ethics.

3. RESEARCH METHODS

In order to understand better the concept and usage of research methods, it is essential to discuss theoretical frameworks and viewpoints. Firstly, Saunders et al. (2003, p.3) claim, "research, is something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge". Once carrying out a research it is important to consider that, it is a multi-stage process. There is certainly no precise number and formation of such stages; however, Saunders et. al. (2003) suggest a typical process. To indicate this process in brief, it involves the formulation and clarification of a topic, literature review, methodological approach, collection and analysis of data and finally the writing up (Saunders et al., 2003, p. 7).

Bell (2005) comes to have the same perception. In an attempt to give evidence to the importance of the research process, he supports that, when followed, the researcher's accurate planning is essential. Such a planning facilitates the researcher to concentrate on the most important issues of the research, as well as to avoid wasting time on associating with irrelevant aspects, a factor that leads to a limited research paper. As Bell (2005. p 1) strongly asserts, "A great deal of time can be wasted and goodwill dissipated by inadequate presentation".

In addition to the above, Drew (1980, quoted in Bell 2005, p. 2) assumes that a research is "conducted to solve problems", as well as he agrees that it is useful "to expand knowledge". It is obvious that a research paper is about solving problems and gaining knowledge on issues that, most probably, had not been investigated before.

Furthermore, Howard and Sharp (1983, quoted in Bell 2005, p. 2) support that a research is a series of processes that are used to provide knowledge not only to the

researcher but also to people or businesses that are closely related to the researched topic. Indeed a research can be a helpful tool for organizations, which are associated to the topic in terms of collecting information that will contribute to their further strategic decisions, developments and improvements.

Finally, a research paper needs to clarify the effects of the results obtained, as well as to enlighten limitations associated with the results (Saunders et al., 2003).

4. RESEARCH HYPOTHESIS, AIMS AND QUESTIONS

The starting point when doing a research project is primarily to state a hypothesis, which is defined by Verma and Beard (1981, quoted in Bell 2005, p. 32) as "an uncertain proposition which is about to be verified through subsequent investigation". They also assert that a hypothesis works as a guide for the researcher in order to decide which methods are needed for investigating the research problem. Bell (2005) also agrees that when setting-up a hypothesis, one attempts to find out whether this is true. As a conclusion, the results of the research will either support the hypothesis or not (Bell, 2005).

Therefore, hypotheses, in relation to the research process, are guesses and perceptions, which eventually assist the overall accomplishment of the research paper. All in all hypotheses give the motives for examining the subject under investigation in more depth and solidly, aiming to be made certain or not at the conclusion point.

Further to the completion of a research paper is the formulation of research aims and questions. Firstly, the identification of research aims is necessary since it primarily acts as a retrospective effect (Gillham, 2000). This effect clearly demonstrates the research structure as well as it indicates the direction that has to be kept in sight, whatever discretion may arise (Gillham, 2000). Holloway (1997) adds that the research is the researcher's intention to find out something about a phenomenon in a particular way in order to answer the research question. Thus, research aims are useful for the later development of hypotheses and theories.

Secondly, the development of research questions responds to "the increasingly clear grasp" of the issues under study and is often seen as "the sub-plots" of the researcher's narrative, the answers to which will probably allow achieving the overall aim" (Gillham, 2000, p. 96). Denzin and Lincoln (1998) agree that research questions represent aspects of an empirical area that the researcher wants to explore and help setting priorities to avoid focus on a range of irrelevant aspects within the research. Yin (1994, p. 20) comes to add that the formation of research questions provide an important clue regarding the most relevant research strategy to be used. Finally, once they get right, research questions suggest the methods for carrying out the research and the kind of analysis which is required (Blaxter et al., 2006, p. 34).

One suggested way for developing research questions is to review the literature of the topic under investigation. Some researchers recommend that the literature review

should be seen as the means for determining the answers about what is known on a topic, whereas others find it more useful and effective to review previous research to develop sharper and more insightful questions about the topic (Cooper, 1984, quoted in Yin, 1994, p. 9).

5. RESEARCH METHODOLOGY

An important issue when conducting a research is to consider the methodology needed to carry out the research paper. The task of presenting the research methodology is the stage after deciding on the topic and setting the aims. A research methodology emphasizes on the required methods for the collection of information and evidence (Bell, 2005). The methods of investigation are essential as they provide the required data for the production of a complete research.

As Bell (2005) suggests, it is important to find those methods that are most appropriate for a particular purpose and then to decide the instruments which will be used for the data collection.

Research methods are usually distinguished between two different types, pure and applied; pure leads to theoretical development and applied leads to the solution of specific problems (Kumar, 1996, quoted in Finn et al., 2000, p. 3).

Furthermore, some texts also refer to primary and secondary research. In more details, primary research normally refers to the collection of original data by using a research methodology. By way of contrast, secondary research also refers to the collection of data but through existing resources rather than through personal investigations. The difference between the two is the fact that through secondary research there is not any possibility for the researcher to collect any new, original data (Clark et al., 1998). However, Flowerdew and Martin (2003) support that secondary research is necessary within a research work, as it proves that the researcher is well aware of the topic he or she has decided to investigate. Besides, a good knowledge of existing literature helps in designing the research and making specific points for investigation.

All of the entire, a research methodology is part of the research process where the researcher explains and justifies the necessary methods to meet the main aims and objectives of the research, and also what information is required to be collected. Finally, through the methodology one takes the chance to illustrate possible research limitation and problems. However, the current research work concentrates on presenting qualitative and quantitative methods as the most important instruments for the research methodology.

6. QUANTITATIVE METHODS

6.1. Introduction

The concept of the methodology, as previously discussed, is to challenge the researcher to reflect on what the research paper is concerned with and therefore how it is going to be accomplished. After identifying the scope of the research paper, it is then essential to think about the appropriate methods, which will be used in order to meet its aims and objectives (Dewhurst, 2002). In relation to the above, there is reference on two commonly used methods of conducting a research: quantitative and qualitative.

Scientists first used quantitative methods as a way to observe experiments (Dewhurst, 2002). Similarly, an academic research work is associated with observations, which are then being described and analyzed in the attempt to provide information and draw conclusions to specific topics. Techniques for a quantitative research method are mainly used for measuring quantities and therefore collecting numerical information. Quantitative methods use mainly questionnaires in order to generate required information and it mainly includes numerical results, analyses and measured quantities within data.

6.2. Advantages and disadvantages

Quantitative methods can be efficient when used, however they also have some limitations. On one hand, they are objective, lab based and as a consequence, easy to be obtained and analyzed. Most commonly, when using qualitative methods, the collected data are analyzed through computer programs, which sum the total answers and can be illustrated through charts; a factor that makes the analysis, discussion and the need of comparing issues easier and relatable.

However, the limitation of using quantitative methods lies to the fact that, results may be too generalized, and most likely to be limited to the aims and objectives of the research paper; this is the case where the researcher may not use the appropriate tools of quantitative methods and may not focus on a representative sample of the total population. Finally, there is not any indication that quantitative methods justify the results, as opposed to qualitative methods, through which the researcher is able to collect more data.

6.3. Sampling

Part of a research methodology is to consider the impracticality of collecting all the available data, as there are restrictions of time, money or either access. This is the point where sampling techniques provide a range of methods that enable the

researchers to reduce the amount of data by focusing only to the most essential (Saunders et al., 2003).

To continue, it is recommended that the sample is taken by a full set of cases called 'population' (Saunders et al., 2003). However, population in this case is not used in its normal use, but it refers to the total number of people, objects or events that are relevant to the research subject being studied. Similarly, Clark et al. (1998) support that a sample covers only part of that population.

However, there are no set rules referring to the size of questionnaires that are required to be distributed, but the challenge is to focus on obtaining a representative sample of responses from the whole, a factor that will enable the provision of sufficient and relevant responses to key questions and hence the fulfillment of the research's objectives (Bell, 2005).

7. QUALITATIVE METHODS

7.1. Introduction

To continue with, qualitative research, also known as "ethnography", attempts to explore people's behavior, perspectives and experiences, where the basis lies in interpreting the social reality (Holloway, 1997). Qualitative researchers attempt to understand how people see their own world, and in general to give reasons towards human behaviors and the social experience in all its complexity (Finn et al., 2000).

The key determinant in qualitative research is the perspective and interpretation of the people who are being researched (Finn et al., 2000), as well as their interaction for the researched topic (Silverman, 2005). Consequently, qualitative research uses a non-positivist approach and as Finn et al. (2000) come to agree qualitative research is used within the tradition of phenomenology, where it represents philosophies rather than science. This is what makes qualitative research different from quantitative, which in contrast is objective, scientific, experimental and statistical.

7.2. Advantages and disadvantages

Among others, Finn et al. (2000) outline the main characteristics of qualitative research approach; primarily it is a humanistic approach towards investigation, as the researcher is required to share the participants' life and feelings. Likewise, Henderson (1990, quoted in Finn et al., 2000, p. 8) asserts that a qualitative research approach, investigates the human behavior and it is characterized to be natural, interactive and personal.

Adding to the advantages of conducting qualitative methods, the results are being analyzed in the form of words (Clark et al., 1998), thus it is rational for the theoretical framework to be directly derived from the data collected rather than being predetermined (Holloway, 1997). In consequence, it is lucid for the approach to be

seen as a "discovery-oriented and exploratory paradigm" (Blaxter et al., 2006, p. 65). Being that, qualitative research can add extremely new dimensions to, and address a broader range of the investigation issues (Bryman, 1988, quoted in Finn et al., 2000, p. 9).

Finally, Mason (2002) states that qualitative research is systematic and rigorous structured. Since the investigation focuses on individuals' perspectives, the results generated will be different from person to person and so, the collection and analysis of the data are interacted and progressed together (Holloway, 1997). This is something that initially makes it necessary for qualitative research to employ more flexible tools of investigation (Finn et al., 2000) and it is expected from the researcher to continually refine and reorganize the research in light of the emerging results (Dawson, 2006).

Additionally, qualitative research can be combined and mixed with quantitative methods (Blaxter et al., 2006), where together they can maximize the strengths and minimize the weaknesses of each one, as well as to improve the validity of the research (Finn et al., 2000). Hence, this combination will make the analysis of the results an easier task, more understandable and meaningful.

Further, qualitative research allows descriptions, explanations and an in-depth analysis of results, thus it is rational to be considered the most facilitating part (Clark et al. 1998, p. 100) within a research paper. Being descriptive and inferential in character (Gillham, 2000), qualitative methods give value to significant statistical results (quantitative research) and at the same time the research setting is not predetermined by the researcher (Finn et al., 2000).

However, Taylor and Edgar (1996, quoted in Clark et al., 2002, p. 101) assume that this research method is not taken sufficiently in consideration by academics, as it also encompasses weaknesses. In reference to these, qualitative research is believed to be short of representativeness and unable to replicate the study (Finn et al., 2000). This is because in a qualitative research it is difficult and sometimes impossible for the researcher to have access to all the available data, as well as it is likely that not all potential participants will be interested in getting involved to the research investigation.

In addition, sometimes researchers are apprehensive whether their findings are reliable. As participants bring their own preferences and experiences to the investigation, it is likely that two different people may come up with very different perspectives on the same issue as they share different backgrounds and experiences. Even if in some cases this is a strong characteristic of qualitative methods, still it can cause complication to the analysis of the results.

Finally, the personal involvement and interpretation increases "the possibility of human error and bias" (Clark et al., 1998, p. 101). Since the research calls for researchers to share the participants' life, and while qualitative research investigates human experiences and culture, it becomes more difficult and more demanding for them to contact a qualitative research. These are issues that make the completion of a

qualitative research difficult and complex and for this reason some researchers criticize qualitative methods as "unscientific" and "unreliable" (Dawson, 2006).

As far as this is concerned, there is criticism against qualitative research that lacks of validity and reliability. In giving more details, in qualitative research validity is the extent to which the findings accurately reflect the purpose of the study and represent reality (Holloway, 1997). However, Burns (2000) believes that often, qualitative research is short of validity, seeing that regardless of the wide range of tools and techniques available for gathering information; still it is likely that the researchers will not use the appropriate instruments, in the correct way and in the right investigation. Thus, the completion of a high-quality research becomes a more complicated task. What theories recommend is for researchers to ensure that qualitative research is suggested in a setting that will fit the aim and content of the research topic (Oakley, 1999, quoted in Blaxter et al., 2006, p. 65). In addition, Burns (2000) finds the solution in the course of triangulation. However, there are arguments regarding its use; if different methods of assessment or investigation produce the same results, then the data are likely to be valid.

In terms of reliability, which shows that the data collection procedures can be repeated with the same results (Yin, 1994), it is also said to be an intricate task to be achieved in qualitative research (Holloway, 1997). In the same way, Burns (2000) assumes that reliability is low in qualitative research. In order to give a reason to this, since observers rely more exclusively on the participants' perceptions, they are more susceptible to bias from their subjective interpretations of situations (Denzin, and Lincoln, 1998).

7.3. Sampling

In addition to the above and in terms of qualitative methods, sampling is the process through which researchers choose a group or a number of individuals, who are members of a culture or a community and in whom researchers have an interest, aiming to make generalizations from the entire population (Holloway, 1997).

The procedure of sampling allows researchers to check the degree of, and feel confident about, the representativeness of the chosen sample (Silverman, 2005).

In addition, sampling choices determine the data that will be considered and used in the research's analysis, thus researchers must characteristically think purposively and conceptually about the sampling issues (Denzin and Lincoln, 1998).

On the contrary, Becker, (1998, quoted in Silverman, 2005, p. 136) supports that sampling is not a simple matter, as there is often the assumption that it is unavailable in qualitative research. The reason to this is that the data often derive from one or more cases and it is likely that these cases are selected on a random basis simply because there access is allowed (Mason, 1996, quoted in Silverman, 2005, p. 127).

However, in qualitative research, researchers generally use purposive sampling, through which they choose their sample size throughout certain criteria (Holloway, 1997).

8. ETHICS

So far, the study analyzed several issues and concerns related to the research process. Furthermore, an additional important issue for a research investigation is the extent to which a research is ethically accepted.

As Bell (2005) supports, there are protocols, which require from researchers to ensure that participants are fully aware of the investigation's purpose and that they understand their rights.

In more details, Blaxter et al. (2001, quoted in Bell, 2005, pp. 45-46) discusses that "research ethics is about being clear of the nature of the agreement you have entered into with your research subjects or contacts". In other words, ethics represent a clear statement, prepared by the research that presents all the ethical considerations of conducting a research paper. This statement either includes research subjects – like for instance using appropriate referencing systems for a literature review and not copying – or contacts. In this case, the research needs to get the permission of the participants who are going to be involved in the primary research, interviewed, questioned, or observed, as well as to clarify the purpose of the research to them and how the data collected are going to be used.

Another issue related to ethics has to do with confidentiality and anonymity. Sapsford and Abbott (1996, quoted in Bell, 2005, p. 48) view confidentiality as "a promise that individuals will not be identified or presented in identifiable form" and anonymity as "a promise that even the researcher will not be able to tell which responses came from which respondent". In terms of confidentiality and anonymity, the researcher should keep participants assured that they are not going to be identified in any ways.

In relation to the academic research process, it is a regulation for students to sign a declaration form, which states that the study takes into consideration the ethical dimensions of the whole research. The major risk of an unethical research paper is the extent to which the participants will be harmed; however, the challenge is for the students to do positive good in terms of aiding and not harming any participant.

9. CONCLUSION

Several points emerge from the preceding analysis and discussion. Conducting a research is a systematic process of finding out things and thus its concept is mostly to provide knowledge to people involved in the investigation. Then, the formation of hypothesis gives the motives for exploring more deeply and solidly the subject under investigation. In the same way, aims and questions clearly demonstrate the research

structure and indicate the direction that has to be kept in sight, as well as they are useful for the presently development of the research. Methodology as part of the research process, presents the methods that are going to be used for generating relevant information and thus accomplishing the research. Among others, quantitative and qualitative methods are used for the collection of necessary data. However, they can be limited if used inappropriately. At this point, the most significant issue is to consider both their benefits and constrains in order to choose the most appropriate methodology in a setting that will fit the purpose of the subject under investigation. Besides, the accurate use of research methodology is the key determinant for the production of a valid, reliable and high-quality piece of work. Finally, a researcher should bear in mind all the ethical considerations of doing a research, as those reflect to both the subject and the participants. A research by any way, should not be harmful, instead it should be helpful, supportive and have an effect.

All in all, this paper refers to students in terms of assisting them in fulfilling their academic requirements for completing a research paper. The contribution of the current research is to give awareness of the most important elements regarding a research methods progression, support the decision of an appropriate research methodology for the topic under study and finally to contribute to the completion of a validated research paper.

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A DESCRIPTIVE ANALYSIS OF THE DEVELOPMENT AND THE LEGISLATIVE HISTORY OF THE ADA LAW

ANDREAS PETASIS*

ABSTRACT

Following the passage of the Civil Rights Act of 1964, four cases served as landmark rulings that defined the original law (Griggs v. Duke Power Company, 401 U.S. 424 (1971), Meritor Savings Bank v. Vinson, 819 F. 2d 630 (1987), Steelworkers v. Weber, 443 U.S. 193 (1979), County of Washington v. Gunther, 452 U.S. 161 (1981)). Today as laws are written, it is often court cases that provide clarity and direction for the original law. The Americans with the Disabilities Act of 1990 (ADA) is no different. This paper presents an analysis of the development and the legislative history of the ADA, including the analysis of two court cases that have further defined the original law, the rulings now serving as guidance for human resource executives. The analysis also considers the issues human resources professionals have faced interpreting and complying with ADA.

Keywords: ADA; Civil Rights Act; Reasonable Accommodation; Equal Employment Opportunity.

1. INTRODUCTION

Prior to 1990, there was only one major federal law providing protection to those with disabilities. It is entitled the Rehabilitation Act of 1973, and only covers Federal Government employees and employees of federally funded programs. The ADA intends to reach a much larger group suffering discrimination because of their handicap (Brooks and Kleiner, 2003). Since the Rehabilitation Act was limited to federal employees, the ADA was expanded to include: employers with 15 or more employees, public facilities such as state and government agencies and offices, and all organizations, agencies, and businesses that provide services to the general public (Brooks and Kleiner, 2003).

The ADA is the most significant federal civil rights legislation that has affected and will continue to affect private employers since the passage of Title VII of the Civil Rights Act of 1964. For employers with 25 or more employees, the ADA went into effect July 26, 1992l and for employers with 15-24 employees; it went into effect on July 26, 1994. Companies with less than 15 employees are exempt from the job-bias rules (Hingorani and Kleiner, 1995). The mandates of the ADA have a major effect on employment decisions because of the costs they can impose. Section 101 (9) is a significant element of ADA's employment provisions because providing reasonable accommodations can be costly for employers (Deleire, 2000).

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2. THE HISTORY OF THE AMERICANS WITH DISABILITIES ACT

Since War World II, the US Congress has recognized, via limited and sporadic enactments, the need to extend equal rights to people with disabilities. One of the first, in 1948, was designed to assist disabled veterans by prohibiting employment discrimination in the US Civil Service based on physical handicaps (Shawrieh, 2000). Two decades later came the Architectural Barriers Act of 1968, which requires buildings constructed, altered or financed by the federal government to be accessible to and usable by people with disabilities. Then came the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities in any program or activity receiving federal financial aid (Shawrieh, 2000).

While the 1973 act was a step forward, the nation lacked a comprehensive law requiring equal opportunity for individuals with disabilities, with broad coverage and seeing clear, consistent, and enforceable standards prohibiting discrimination on the basis of handicap; The Americans with Disabilities Act of 1990 has that purpose. Its objective is to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities, and to provide clear, strong, consistent, enforceable standards addressing discrimination against individuals with disabilities (Shawrieh, 2000). From the 1970s to the 1990s, activism among the disabled became increasingly visible. In 1986, Congress passed the Air Carriers Act, which addressed the rights of the disabled when using air transportation. Later in 1988, the Civil Rights Restoration Act was passed along with the Fair Housing Amendments Act (Bangerter and Kleiner, 2005). The ADA of 1990 prohibits discrimination in employment, housing, public accommodations, education, transportation, and communications to an estimated 45 million Americans with physical and/or mental disabilities (Mello, 2001). Because many Americans with disabilities have traditionally been discriminated against employment or denied employment, the ADA has had a significant impact on the relationship between employers and both applicants and employees with disabilities (Mello, 2001).

The scope of the ADA is far more extensive than the law upon which it was modeled, the Rehabilitation Act of 1973. Although the ADA adopted a number of concepts and definitions from the Rehabilitation Act, the ADA provides far broader coverage. Rehabilitation Act coverage is limited to three groups of employers; the federal government, federal contractors and subcontractors, and recipients of federal grants and funds (Mello, 2001). The ADA, on the other hand, applies to the majority of private employers in the US, and specifically it covers ‘any employer, employment agency, labor organization or joint labor-management committee with 15 or more employees’ and prohibits discrimination against ‘any qualified individual with a disability because of such disability in regard to job application procedures, hiring or discharge of employees, employee compensation, advancement, job training and other terms, conditions, and practices of employment’ (Mello, 2001). In sum, the ADA has

provided fertile ground for a tremendous amount of legal activity since its passage. Some of this can be attributed to the fact that irrational employment discrimination against those with disabilities persists despite the ADA mandate (Locke, 1999; US National Council on Disability, 1996). However, greater blame can be placed with the ambiguity of the statute, which has confused not only the courts but also the agencies responsible for its oversight (Mello, 2001). This has consequently not only served to undermine the ADA's power, (Lanctot, 1997) but also created tremendous uncertainly for employers who seek to implement employment practices that are fair and lawful.

Many different organizations helped to create the ADA. Regulations, guidelines and technical assistance materials have been developed by the Department of Justice (DOZ), the Equal Employment Opportunity Commission (EEOC), the Department of Transportation (DT), the Federal Communications Commission (FCC), and the Architectural and Transportation Barriers Compliance Board (the Access Board). Also, the Internal Revenue Service (IRS) has developed regulations on the tax relief available for certain costs of complying with the ADA (Ashworth and Kleiner, 2000).

However, studies of the consequences of the employment provisions of ADA show that the Act has led to less employment of disabled workers. The main reason for this is the added cost of employing disabled workers thus to comply with the accommodation mandate of ADA, which has made those workers relatively unattractive to firms (Deleire, 2000). Moreover, the threats of prosecution by the Equal Employment Opportunity Commission and litigation by disabled workers, both of which were to have deterred firms from shedding their disabled workforce, have in fact led firms to avoid hiring some disabled workers in the first place (Deleire, 2000).

Employers can avoid problems related to job qualifications by performing detailed job analyses that are updated regularly. While the ADA does not explicitly require employers to create a formal job analysis document for each vacant position, it does require employers to include in the description of the vacant position the essential activities of the job before the position is advertised or posted (Knapp and Faley, 2006). As noted by (Brannick, Brannick, and Levine, 1992), providing detailed information about the essential functions of a job is clearly in an organization's best interest both economically and legally.

Just as some selection systems require modification, some traditional training programs will require modification(s) to make them accessible to the disabled. For example, Klimoski and Donahue (1997) note there is a number of training programs that require process-related modifications before disabled employees can fully participate. Among others, these include employees with mental impairments who require additional time and/or mentoring and deaf employees who require sign language interpreters to fully participate in and successfully complete more traditional training programs (Knapp and Faley, 2006).

The passage of the ADA is parallel to those that have been passed by the government in the past for woman, racial, ethnic, and religious minorities (Bangerter

and Kleiner, 2005). To ensure the disabled were given equal access everywhere, the ADA is comprised of five titles; these titles ensure equal opportunity in employment, state and local government services, and business that are accessible to the public. The ADA opened the doors and now gives equal access to those with disabilities to all services previously enjoyed by the non-disabled (Bangerter and Kleiner, 2005).

3. THE TITLES OF THE AMERICANS WITH DISABILITIES ACT

The Equal Employment Opportunity Commission is responsible for regulations under Title I and the Department of Justice for regulations under Titles II and III. While the ADA does not explicitly delegate to the EEOC or the DOJ the authority to interpret disability, it implicitly authorizes these agencies to interpret the statutory definition of disability in their discrimination of who qualifies for federal protection (Shawrieh, 2000). Title I of the ADA prohibits discrimination in employment against otherwise qualified individuals with a disability. Title II prohibits discrimination in public services and title III prohibits discrimination in public administration (Shawrieh, 2000).

Title I (Employment) covers such things as the working environment that includes proper placement of desks, any special needs items to facilitate work, and sensitivity training for other employees. Job application, employee related services and hire and firing practices are also covered under Title I (Zimbrich, 1998). Under Title II (State and Local Government Services and Public Transportation) all state and local government programs, services and activities must be made available to those with disabilities; these programs would include public education and social programs, state legislatures and courts, town meeting, police and fire departments, motor vehicle licensing, etc (Bangerter and Kleiner, 2005). When new facilities are designed for the state or government, the buildings must be designed in accordance with the ADA Standards for Accessible Design, whereas older buildings must undertake reasonable modifications to allow access to the disabled (ADA, 2002; Introduction, 2003). If a modification is deemed not reasonable, then alternate assistance should be provided. Title III of the ADA prohibits discrimination against disabled individuals in public places and commercial facilities including millions of restaurants, hotels, theatres, convention centers, doctors' offices, retail stores, museums, libraries, private schools, etc., and it is enforced by the US Department of Justice (ADA, 2002). Under Title IV of the ADA, telephone companies that provide services to the general public must provide relay services to people with hearing and/or speech impairments (Zimbrich, 1998). Lastly, Title V of the ADA provides for the use of alternate means to resolve disputes, including mediation and arbitration. In addition, Title V prohibits retaliation and coercion against any individual who has filed a complain under the ADA (Bangerter and Kleiner, 2005). This Title also addresses issues such as smoking,

insurance, design guidelines, technical assistance, wilderness areas and other miscellaneous items (Introduction, 2003).

4. DISABILITY AND REASONABLE ACCOMMODATION

Disability is the functional limitation within the individual that is caused by physical, mental, or sensory impairments; handicap is the loss or limitation of opportunities to take part in the normal life of the community on an equal level with others due to physical and social barriers (McNeil, 1992). Employers are prohibited from asking about an applicant's disability unless the applicant clearly identifies the existence, type of, and severity of his/her disability. However, employers can ask applicants whether they can perform specific tasks without accommodation or what accommodations would be needed (Hingorani and Kleiner, 1995).

Employers must now provide reasonable accommodation to disabled employees and applicants as long as this does not inflict undue hardship on the business. Three major barriers currently exist for working-aged disabled people: discrimination, lack of employment opportunities, and places with reasonable accommodation for the disabled (Hingorani and Kleiner, 1995).

Developed in the Rehabilitation Act of 1973, reasonable accommodation includes a number of possible modifications in the worksite. Some of these modifications may include making existing facilities used by employees readily accessible to and usable by the disabled (e.g., widening areas, providing ramps and handrails), restructuring or modifying jobs or work schedules (e.g., eliminating nonessential job functions), acquiring or modifying equipment for the disabled (e.g., telephone headset amplifiers, talking calculators) and providing qualified readers or interpreters (Hingorani and Kleiner, 1995). If necessary, all reasonable accommodations are made when they are not an undue hardship on the employers and only when the employer is aware of the impairment; the responsibility to request a reasonable accommodation rests upon the employee/applicant (Hingorani and Kleiner, 1995). The Job Accommodation Network published the following cost date based on their suggestions to employers who asked for assistance (Martinez, 1990):

- 31% of accommodations are at no cost.
- 19% of accommodations cost between $1 and $50.
- 19% of accommodations cost between $50 and $500.
- 19% of accommodations cost between $500 and $1000.
- 11% of accommodations cost between $1000 and $5000.
- less than 1% of accommodations cost more than $5000.

There is a common misconception that organizations and businesses must make changes overnight to suit the needs of the disabled. The truth is businesses are responsible for making changes that are readily achievable (Brooks and Kleiner, 2003). The basic concept behind reasonable accommodation is to make existing

facilities used by employees accessible to individuals with disabilities, and there are three categories of reasonable accommodation: (a) an adjustment to a job application process that enables a qualified applicant with a disability to be considered for a position they desire, b) a modification to the work environment that enables a qualified individual with a disability to perform the essential functions of that job, and (c) adjustments must be made so that an employee with a disability is able to enjoy benefits and privileges that are received by employees without disabilities (Brooks and Kleiner, 2003).

5. SIGNIFICANT CASES AFFECTING THE ORIGINAL LAW

5.1. Griggs V. Duke Power Co., 401 U.S. 424 (1971)

Griggs V. Duke Power Co. was a court case argued before the US Supreme Court concerning employment discrimination, relative to the Civil Rights Act of 1964. Prior to the Act, the company had a policy allowing African Americans to work only in its Labour department, which constituted the lowest-paying positions in the company. After the passage of the Civil Rights Act the company changed its policies, adding additional education qualifications and test for positions other than the Labour department, consequently eliminating African Americans for applying for other positions. The Court found that the company violated the Act, since Title VII prohibits employment tests that are not a reasonable measure of job performance, and in addition, by adding diploma requirements, the African Americans were immediately eliminated since they were less likely to hold such a degree (Griggs V. Duke Power Co., 1971). Title VII does not guarantee a job to every person regardless of qualifications; instead it aims in removing artificial, arbitrary, and unnecessary barriers to employment when such barriers operate invidiously to discriminate on the basis of racial or other impermissible classification (Griggs V. Duke Power Co., 1971).

5.2. Meritor Savings Bank V. Vinson, 477 U.S. 57 (1986)

This case was whether a hostile working environment is a form of unlawful discrimination under the Civil Rights Act of 1964, and marked the US Supreme Court's recognition of certain forms of sexual harassment as a violation of Title VII of the Civil Rights Act of 1964; the case addressed the issue of sexual harassment for the very first time (Egan, 2010). Although the particular case was very complicated and brought out a variety of critiques, the Supreme Court addressed the issue of sexual harassment and employment based on the guidelines of EEOC, finding that EEOC specified that sexual harassment leading to non-economic injuries was a form of sex discrimination prohibited by Title VII (Egan, 2010).

6. CONCLUSIONS

The ADA does not guarantee a disabled person a job. One of the main results of the ADA is that people with disabilities will now be given the opportunity to become full participants in the American economy, as employees, consumers and taxpayers. They will continue to be included as full members of American society even more than before (Hingorani and Kleiner, 1995). A working knowledge of the ADA is essential for employers who want to understand the ADA's impact on the management of human resources as well as avoiding costly ADA-related litigation (Stone and Colella, 1996). A better understanding of the courts' interpretation of the provisions of the ADA also increases the likelihood that employers will design and implement policies, procedures, and practices more consistent with the case law (Knapp and Faley, 2006).

Employers should have a formal, written document that clearly describes both the company policy for accommodating disabled workers and the specific procedures for requesting an accommodation. Among its more important provisions, this policy document should include a detailed description of the interactive process the company will use to evaluate the reasonableness of a requested accommodation (Knapp and Faley, 2006). As Brannick, Brannick, and Levine (1992) point out, ''a clear policy on determining essential functions and reasonable accommodations should go a long way to avoid millions of dollars in attorney's fees and settlements''.

Employers must examine their selection systems to ensure they do not create unfair barriers for disabled applicants and employees. To better accomplish this, Stone and Williams (1997) recommend the use of outcomes-oriented tests (e.g. work samples) that provide greater opportunities for both disabled and non-disabled applicants to demonstrate that they can perform the essential functions of a job. Moreover, the process of administering some tests may require modification in order to more accurately measure a disabled applicant's knowledge, skills, and abilities (Fischer, 1994).

During the 30 years preceding the 1990 signing of the ADA, the United States had experienced much positive change regarding discrimination of all types. When then President Bush signed the ADA into law, he opened the door for large groups of disabled individuals to experience the world in a new way (Bangerter and Kleiner, 2005). The ADA changed the communities' thinking, as it required planners to incorporate designes that facilitate the interaction of the disabled (Bangerter and Kleiner, 2005). The disabled now have access to better employment, services that were once denied to them, transportation, and better communication.

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TRAINING FOR EFFECTIVE DELIVERY OF INTERNATIONAL CONSTRUCTION PROJECTS

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ABSTRACT

This paper aims at answering the strategic question, "In which way does training affect the effective delivery of international construction project management"? The construction projects are characterized by a continuously changing environment and multiple employees. The current research was based on the process of the questionnaires and semi–structured interviews and was applied in Greek construction companies engaged in projects. The findings and the data analysis are presented here-below. Having discussed the findings of this research, suggestion for improvement was given. The limitations of the research were also acknowledged as well as recommendations for further research.

Keywords: Project Management; Training; Projects.

1. INTRODUCTION

The objective of this paper is to present a topic on international project management and how through training it can have a positive affect on the operation of the employees of the project management international setting. The research objective is to attempt to identify the way in which training affects the effective delivery of construction project. Kaka and Brown (2003) state that the construction industry is under achieving and has a poor rate of performance while investing little in research and development.

The present is important initially for the company understudy, itself, as well as other companies operating in the same industry, in order to increase peoples' effectiveness and improve performance. Secondly, the research is important for the academic community and for practitioners who may use the results of this research.

The most important research question that will be answered in this study is, how does training contribute to achieve the effective delivery of projects?

Following this introductory paragraph is the literature review which aims at defining the problem and the background of the study. This will include a bibliographical research, through books and up to date journals. In this paragraph

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definitions related to training and project management will be included as well as the relevant theories. The third paragraph covers the research design and the methodology which describes the steps that will be undertaken in order to address the research questions, the research approach, and the research techniques. In the fourth paragraph the findings are presented. Finally the paper concludes and gives some suggestions for further research.

2. LITERATURE REVIEW

In the time of internationalization, international human resource management is a very crucial concept for human resource managers in multinational corporations, thus a worldwide vision is needed. International human resource management assists the company to successfully compete in the worldwide market environment. Gomez-Mejia, Balkin and Cardy (2004) say that there are also failing companies. In the new economic environment that has emerged as an impact of the recent 'crisis', the complexity of each industry forms a demanding context that affects consistently both the internal and external environment of organizations. As a result, the firms need to maintain their competitive advantage. However, a firm has to constantly increase the value of their products offered to clients in order to sustain their competitive advantage as well as being profitable in order to exist (Egan, 1998). The industries can be described as a set of external and internal environment, so every firm is affected by external environment such as the market, client, etc and the internal environment including the employees of the firm, contractors, sub-contractors, suppliers etc.

2.1. Training

International companies think of the significance of international experience in their human capital. Expatriates wanted their human resource departments to eliminate unnecessary uncertainty and ambiguity (Gomez-Mejia, Balkin and Cardy, 2004). Training before embarking on the overseas assignment is one of the most effective ways to accomplish this. Training should include aspects of local culture, values and attitudes, local mentoring, and cross-cultural training for spouses, and training the expatriate for repatriation should not be forgotten (Caliguiri and Cascio, 2002).

Training and development is to assure the criterion among the workforce, and it involves analyzing the training needs, organizing training courses, assessing staff and identifying their potential and career planning. The following three areas of training and development activities are distinguished according to the extent of the employee's involvement in international operations:

a) The training and development of employees who work at national level, but for an international operating organization.

b) Training and development of employees with minor international exchange, who are either sent for short assignments abroad or have close working relationship with colleagues in other countries and international work teams.

c) Training and development of graduates, potential managers, specialists as well as expatriates for future international assignments.

In an international company, employees work with others from other countries and cultures so, they need to be open to different cultures in order to construct a working environment that allows cross-cultural cooperation and understanding. Therefore, international personnel development activities have to picture wide international training and development activities in order to encourage information transfer between the departments. There are four different categories of cross-cultural training that can be distinguished:

- Intercultural (verbal and non-verbal) communication or behavior training (intercultural competence).
- Awareness of own culture in order to understand own cultural beliefs, norms and values as a basis for understanding other cultural systems (empathy).
- Language and general information about the foreign country.
- Sensitivity training, field experience or specific culture-related case studies.

Cross-cultural training should prepare the employee for the foreign assignment in order to perform well.

2.2. Training programs

Training concerns the ability to understand and adjust (Black and Mendenhall, 1990). Shen and Darby (2004) argue international training should take into consideration the host country factors, including political, legal, economic and socio-cultural aspects, which influence the international training programs and methods. Mendenhall and Oddou (1985) argue that there are three subjects of employees' preparation, the culture, language and orientation. Dowling et al. (1999) suggest that training should be done on ethical issues as bribery, human rights, justice and the common good. The constitution of the training subjects should take into account the country, job, duration and the time available (Dowling et al., 1999.) Dowling et al. (1999) argue that host country personnel are the most effective to train because they know the environment. Lanier (1979) says that most of the companies provide only brief environmental summaries and some culture and language preparation. Tung (1982) found the types of cross-cultural training used which include: environmental briefings, cultural orientation, language training, and field experience. Brewster (1988) found that Europeans valued more on language training than American. Dowling et al. (1999) argued that the content, mode of delivery and training strictness are important factors of success. The training approaches include area briefing, indoor lecture, preliminary/orientation visit, probation, and interview with repatriates or

expatriates (Black and Mendenhall, 1989). Dowling et al. (1999) argue that practical aid training makes a successful adaptation to the country.

Black and Mendenhall (1989) say that low- strictness training methods includes lectures, films, area briefings and books while high-rigor include language training and sophisticated simulations. Anderson (1990) says that some companies give a period between notification of and relocation. Some emphasize the importance of involving spouse in pre-departure training to adapt to a different physical or cultural environment, an important reason for assignments failure (Osman-Gani, 2000). Mendenhall et al. (1987), argue that in 80 percent of the training, the spouse is not included. Welch (1994) stated that companies less prioritize training for the spouses.

2.3. Project management

According to Kougoulos (2009), the factors affecting construction productivity, categorized into two main groups: technological and administrative factors. Moreover, stated that the construction productivity was affected by labor characteristics factors, project work condition factors and non-productive activities. In addition, factors affecting construction productivity cannot be constant and vary from country to country and from project to project. In conclusion, factors' categorization in external and internal factors is affecting construction productivity (Enshassi, 2007).

3. METHODOLOGY

This study is an exploratory, qualitative research project. An interpretative approach will be assumed "combining the facts creatively in order to stimulate explanatory suggestions to the issue" (Remednyi, Williams, Money and Swartz, 1998). This approach seems particularly appropriate to the topic of the research since according to Fisher (2000) an interpretative approach can be used in order to determine the link between understanding and action, which is seen as indirect, mediated through people's thinking, values and relationships with each other".

Semi-structured interviews, was the technique used for the present research. A small number of actors were chosen because the "bases of organizational processes can often be understood in terms of small group dynamics" (Kamsaris and Kougkoulos, 2011) which are analogous to interactions among larger components such as departments (Kamsaris and Trochana, 2011).

4. FINDINGS

Even though the precision and reliability of such sample might be statistically questioned, affecting the whole study as well, we consider the collected data significantly enough for further analysis by taking into consideration the quality of the

sample. The characteristics of the population of the sample prove that the data obtained from the respondents will be extremely helpful when the research questions are answered.

The majority (90%) of the employees undertook relevant studies that finally assisted them to enter the organization.

Furthermore, almost all employees (97 %) believe that their company provides the necessary training team building mentality to become interactive. So, they know that the team building is very essential for the operations of the organization abroad.

There are differences, concerning the forms of communication between the employees, which is in accordance to Festinger's (1950) view, that one of the basic feature of most organizations is that actors influence one another through interaction, for example through face-to-face contact, as informal communication.

When employees were asked what the external environment is for them, 32% answered that it is clients, 16% stated that it is society, 34% stated that it is competition and 18% stated that it is all these together.

Furthermore, 82% of the employees stated that external environment affects their work while on the other hand 18% stated that external environment does not affect their work.

42% of the employees stated that external environment makes their work difficult, 22% stated that it is confusing, 4% stated that it helps, while 32% answered all of the above depending on the circumstances.

When the employees were asked if external environment affects the operation of the company, 86% answered it affects it, 6% answered no, it does not while 8, 0% said that they do not know.

Although over half (64%) of the employees stated that clients do actively participate in the project's progress, 28% stated that they do not actively participate and 8% that they do not know.

48% of the employees stated that changes in the company that come from external environment, lead to the hiring or firing of employees, 8% stated that it stops the company's existence, while 44% stated that it changes its turnover, while none of the employees stated that changing the company's subject comes from the external environment .

Over half (58%) of the employees stated that these changes make their work difficult, 14% stated that it makes it confusing, 4% stated that it helps their work, while 24% stated all of the above, depending on the circumstances.

In addition, the 38% of the employees believe that in order to avoid letting changes affect them, they should take them into account, 4% believe that they should ignore them, 56% believe that they should try to understand them, and 2% believe that change should be effectively managed.

The most effective way for coping with changes as 30% of the employees believe, is to manage people, 18 % believe in coping with changes is an effective way to obtain

knowledge, 8% believe that action-learning is the most effective. Also an equal effective way is by educational programmes, while 36% believe that all the above are important in order to cope with changes.

The most effective way for helping people in a company cope with changes, is through communication as 60% of the employees' stated. Just 2% stated that negotiation is the most effective way, and 6% stated that it is through safety regulations, while 32% stated it is all of the above.

The majority (72%) of the employees undertook a training programme when they were hired, while the 28% did not.

Of the 72% of the employees that undertook a training programme, 36, the 10% stated that training helped them understand the importance of making changes, 11, the 10% stated that training helped them see changes as a challenge for creating new ideas, while 30, the 60% stated both, and 22, the 20% stated that training did not help them at all.

24% of employees believe that a right collaboration is to achieve common goals with others, 18% believe that it is to resolve problems, 6% believe that is to increase the efficiency of people, while a large percentage about 52% believe that achieving common goals with others, resolving problems and increasing the efficiency of people are equal in a right collaboration.

The majority (78%) of the employees strongly agree that a right collaboration among people is an efficient way for facing changes, 22% just agree that it is an efficient way in order to face changes, while none of the employees disagree that a right collaboration is an efficient way for changes.

There are non-significant differences, concerning the effectiveness of their projects. Confusion and misunderstanding result during the cooperation among different sub-teams of the same project, as each sub-team has a different approach as a part of their cohesion (Bovee and Thill, 1992). The development of sub-teams, allows diluting effects to appear in the project team that may cause the effective delivery of the project. The difference prioritization issue is important (Macdonald, 1995) so, developing one project team is important. There are non-significant differences (35% versus 37%) concerning the cases that team cohesion results to conflict resolution whereas, low cohesion results to conflict.

Foucault (1992) states, "planning could be associated with the dominator power of systematic reason pursued through bureaucracies". In bureaucratic organizations learning is based on institutionalized experience and the organization expects to more efficiently continue the same behavior that worked in the past. One possible interpretation is that the organization has located that the existing conflicts, could be resolved through team building activities, resulting to team cohesion.

Analyzing the data from this perspective we can see that the respondents have a vast experience in residential construction projects. Around 80% of the people that filled in the questionnaire have more than 2 years of experience in managerial

positions, while 61% have experience of 5 years or more. Therefore responses and other data obtained from a sample like this can be characterized as "informed" and will be used for further analysis. The high quality of the sample precision when answering the research questions can also be supported by the fact that the vast majority of the respondents were involved in the residential building industry in their last project.

The questions to the respondents were related to a company's know – how and its importance to project success, to the terms in which a project can be considered as a success and to the factors that can lead to project failure. From the responses that we have accumulated we conclude that a project must be considered successful if it is delivered on time and without exceeding the budgeted cost. This view is shared among over than 80% of the participants.

It becomes obvious that there are three groups of success factors recognized as a majority. Therefore, factors related to project management (38%), project characteristics (21%) and human aspect (20%) dominate residential projects in Greece. It is mentioned that in this question each one of the groups has a weight and the total sum is added up to 100%.

The average ranks of success factors on the table are demonstrated in a descending order from the most significant factor to the less important one. As can be seen from the table above, the majority of factors leading the project to a successful outcome, are characterized as "important". Some of them received equal or similar ranks and therefore it seems complex to define differences between such factors and explain them. Therefore minimum and maximum values on a rank scale offer more interest for discussion. There are some factors which are located in the "neutral" zone and there are the least important ones for the success of residential construction projects.

There is always the risk of allocating factors to a certain group, while it is possible due to human perception of classification, that they should be placed elsewhere. For example, clear objectives might refer to the project characteristics' group of factors because they involve the process of transferring aims to plans and specifications. However, it could be also linked to the human factor group as project goals and their clarity are originated by the client. The fact of the incorrect perception of several factors was identified during the interview process.

Project managers' knowledge and experience is the most valuable variable. However, one of the possible reasons that this happens might be the fact that most of the respondents occupy managerial positions in their companies and grading factors connected to project management are considered as a self-assessment and therefore the responses might have been overrated. Adding to this, the qualification and the teamwork of the project team, personnel's competence, authority and leadership are also highly ranked, probably for the same reasons. Apart from these conclusions, the actual importance of managerial experience could not be disregarded. Moreover, it is interesting that factors related to clients' attributes and relations remain at the bottom

of the list of factors' significance towards success. The distance between project managers' attributes and sponsors relations, show that human factors addressed to project managers and their teams, are rather more important than the ones of suppliers, clients and users.

5. CONCLUSION

Moreover the significance of classification of success factors into groups, was extensively investigated only this time from the perspective of project success. Data analysis indicated the classification of the success factors into two main groups as following:

Primary project success area (higher significance for project success)

- project management,
- human factors
- project characteristics

Supporting project success area (lower significance for project success)

- procurement
- environment
- project organization

The majority of factors leading the project to a successful outcome are characterized as "important". Project managers' knowledge and experience is the most valuable variable. Factors related to human characteristics were highly ranked mostly due to a large number of factors being involved. Furthermore the project clarified scope, is also of major importance, followed by the project's type and size. It is remarkable that none of the factors included in the environmental group are characterized as "non-important".

National cultures influence employees' behavior and the HRM practices. There are many differences in the way organizations around the globe make decisions, allocate resources, manage and motivate employees, train and develop employees. There is evidence that the USA and Western Europe have been given more attention (Triandis, 1994) by researchers. Thus, while organizations increasingly operate in a global work environment, their management practices are still primarily Western.

While progress has been made in the field of HRM, this paper illustrates that much remains to be done to make culture a global discipline. In this spirit the paper offers unexplored questions and presents a new framework and approaches in order to make HRM practices more inclusive of cultures around the globe. It is hoped that this paper will stimulate new dialogues and new debates making cross-cultural issues more of the norm, and less of the exception in the field of HRM. There is also the need for further research on the moderating influence of culture on relationships between HRM practices, motivation and organizational performance.

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SCALE OF MEASURE AND MODEL OF AN EMOTIONAL SERVICE RECOVERY ACTION: COMPLICITY BETWEEN CUSTOMERS

DOMINIQUE ANTONINI *

ABSTRACT

The purpose of this article is to present a scale of measure and a model of the concept of 'complicity' relationships between customers, as a means of compensating for service failures. The paper mobilizes quantitative methods to validate the hypotheses and model. Complicity could be a source of value, for both the firm and the customer. The recovery action is carried out by the customer himself, although normally this should be within the firm's responsibility. That means costs savings for the company and a positive impact on consumer satisfaction and loyalty. Complicity could be a new managerial tool. Due to the fact that services are vulnerable activities, companies should utilize the services cape to foster relationships of complicity between customers, and reward customers who exhibit relationships of complicity.

Keywords: Complicity; Service Recovery; C To C Relationship; Consumer Satisfaction; Correction of Servuction.

1. INTRODUCTION

Relationship Marketing has been a widespread concept for many years. Within this scope one word regularly occurs: 'complicity'. Companies talk about complicity with the brand, or of complicity between customer and sales personnel. In other respects customers have become expert consumers (Desjeux, 2006), capable of grouping together in a variety of ways, sometimes forming a "counter-power" against the enterprise. In the field of services, when confronted with service failures, customers form alliances and introduce corrective practices, thus providing a "service recovery" action. Aubert-Gamet (1997) names these actions as responses to normative incoherences. They have also been called 'relationships of complicity between customers'.

After giving the definition of complicity, causal hypotheses are formulated and the model is posited. Next, the methodology applied is presented. In the penultimate part the empirical aspects of the research are presented. Finally on the managerial level the last part concludes with the results, contributions and limits of the research together with the thoughts inspired by this behavioural-complicity approach.

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2. THEORETICAL BACKGROUND

It would appear that to date management does not deal with complicity. A first attempt of understanding complicity, its nature and importance in service encounters, was undertaken in 2006, (Antonini, 2006). Following a vast literature review and an exploratory research the first conceptual definition of complicity in the fields of Marketing and Management is given:

*"Relationships of complicity are potential management tools to make up for a service failure. The relationship of complicity is a close social relationship among customers, likely to make up for a breakdown or a failure in service delivery. The relationship of complicity takes the form of consumer reactive coalitions for or against a third party and is a source of value for the customer and for the firm. Relationships of complicity are determined by attitudes and behaviours" (*Antonini, 2006a, 2006b; Antonini, 2007; Ferrandez et al., 2008).

In 2009 the relationship of complicity is defined as *"An emotional service recovery strategy"* (Antonini, 2009).

3. MODEL AND HYPOTHESES OF RESEARCH

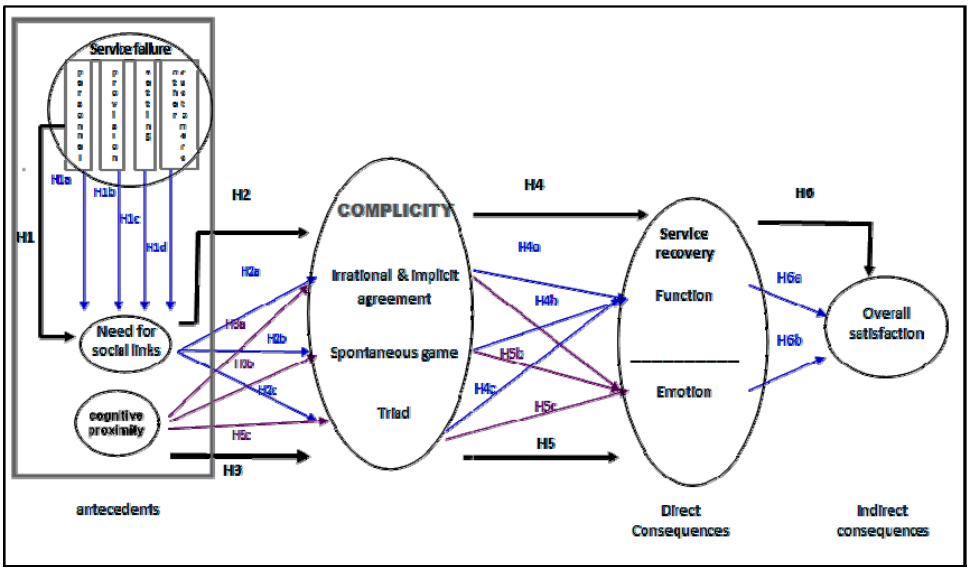
The model posits complicity as a tri dimensional element: an irrational and implicit agreement, a spontaneous game and a triad. Complicity is triggered by a service incident together with a need for human contact and cognitive proximity. The consequences are a functional and an emotional palliative action.

The hypotheses put forward have the objective of verifying the existence of links between service incidents and complicity relationships between consumers and its palliative impact. Given that 23% of positive services-related encounters between consumers result following a service failure (Bitner et al., 1990), that the relationships of concomitance favour compensation (Harris et al., 2000; 2004), and that this quantitative study has shown that it is the service incident which gives rise to the interpersonal contact and sets off the compliant interaction, thereby the H1hypothesis may be formulated: a service incident entails a need for human contact. Then, sub-hypotheses are inferred from each failure category.

Today interpersonal relationships are the rule in commercial dealings (Simmel, 1996). Individuals look for new ways of meeting people and forming interpersonal relationships with those sharing the same interest and the same values (Bargh, et al., 2004). Human contact passes through the spoken language and means of conversations between people who are strangers to each other (Harris and Baron, 2000; 2004). Speech is a vernacular and vehicular medium employed with facility by the individual and directly observable by the researcher. Which leads to the H2 hypothesis: the need for human contact following an incident has a positive and direct influence on the formation

of a relationship of complicity between strangers. Then, sub-hypotheses are inferred for each dimension of complicity.

FIGURE 1: MODEL OF COMPLICITY AND RESEARCH HYPOTHESES



The contributions drawn from the literature show that numerous interpersonal relationships are often formed by chance and the close proximity between people, and that the commercial connection as well as the service environment bring into contact individuals who, in another context would have remained strangers (Price and Arnould, 1999). A confined place also encourages interactions (Goodwin, 1996). Relationships differ once one is part of a group, or a community (Arnould and Price, 1993). The qualitative study (Antonini, 2006) has shown that several "antecedents" to the relationship of complicity can exist but the cognitive proximity is a necessary condition for establishing complicity; it is a significant antecedent which is however neither governable nor detectable beforehand but only perceivable retrospectively. Hence, the H3 hypothesis: there is a positive causal relationship between the cognitive proximity of the participants in a context of service deficiency and the relationship of complicity. Then, sub-hypotheses are inferred for each dimension of complicity.

Relationships of concomitance facilitate the service recovery action. For Harris et al., (2000; 2004), clients play a palliative role in dealing with the imperfections, failures or lack of service. Conversations between strangers have a stabilizing role enabling dissatisfaction to be dispelled, lessening tension. Exchanges between clients permit the threshold of tolerance, as regards service insufficiencies, to be crossed; clients share

their experience, share their frustrations and pause to reflect. This empathy on the part of others helps the users to feel better; there follows a positive impact upon the service consumer and a diminution in the number of complaints. The tendency to complain equally depends upon the emotions, and good humour has a positive effect in a complicated situation (Goodwin et al., 1995; Isen, 2001). Moreover, the exploratory study has shown that the recovery brought about by the consumer takes the form of help, of compassion, and of temporization, and that client-interelations have three functions: to reduce anxiety, to increase the tolerance of service imperfections and to cut the number of complaints. Hence, the H4 hypothesis: complicity has a direct and positive effect upon functional service recovery. Then, sub-hypotheses are inferred for each dimension of complicity.

Research related to the link between the affective states and satisfaction is numerous and is classified in three streams (Evrard and Aurier, 1995). Following the example of Westbrook (1997), Mano and Oliver (1993), and Szymanski and Hénard (2001), it may be postulated that the emotions felt during the course of a relationship of complicity have a bearing upon satisfaction. This influence is independent of expectations and non-confirmation. The emotions are a manner of reaction which compensates for frustrations. They are experience amplifiers (Johnson and Zinkhan, 1991). The emotions are the affective responses akin to humour, temperament or preference (Gardner, 1985). Unlike the other affective reactions, emotions are indispensably provoked by stimuli. In this study complicity is a stimulus of emotions. Moreover, according to Smith and Bolton (1998) the effectiveness of service recovery actions is linked to the consumers' emotions. Recovery is a mediating variable between complicity and overall satisfaction. The relationship is of positive sign, the emotions and complicity varying in the same sense. This relationship is simple, the service recovery acts upon emotions and vice-versa.

The exploratory study has also shown the important role of the positive emotions resulting from complicity in service recovery. Hence, the H5 hypothesis: complicity has a direct and positive effect upon the emotional service recovery. Then, sub-hypotheses are inferred for each dimension of complicity.

The aim is not to measure satisfaction. Satisfaction merely checks the palliative action resulting from the relationship of complicity. It is merely needed to be known whether the consumer is satisfied or not. Hence, the H6 hypothesis: the emotional service recovery has a direct and positive impact upon the overall satisfaction. Then, sub-hypotheses are inferred for each dimension of the service recovery action.

4. METHODOLOGY

The limited number of theoretical and empirical studies into the complicity relationships in Management led to the construction of adaptation of almost all the

scales. Four scales are created: that of complicity (24 items), measuring each of its dimensions; the contact-need scale (5 items); the cognitive proximity scale (4 items), and the palliative effect of complicity (10 items). The formulation of items is largely inspired by the literature and with the help of expert interviews. The service-incident scale was based upon a synthesis of the abundant literature, (Bitner et al., 1990; Keaveney, 1995; Eiglier and Langeard, 1987); Pranter and Martin, 1989; 1991). The anglo-saxon scales are subject to a retro-translation (Marchetti and Usunier, 1990). All the scales are the Likert type (scales of agreement) graduated from 1 to 5.

Finally the Aurier and Evrard 1998 scale is used to measure the emotions (16 items) to evaluate the overall satisfaction, used as a mere control variable, a one-item indicator (and 3 modes: 'more than expected', 'like expected', 'less than expected') is chosen.

To collect data a questionnaire was created. The definitive version of the questionnaire consists of 41 questions organized in five groups: service incidents, antecedents of the relationship of complicity, the dimensions of complicity; the consequences and identification (age, sex, professional group). Bearing in mind the length of the questionnaire the interviewing method of administration is chosen. Indeed this approach enables the number of unusable replies to be minimized and completes the quantitative enquiry by information of a qualitative nature. Of the 600 clients who accepted to reply, 562 questionnaires were obtained. The questionnaire was administered in two phases. A first data collection was carried out from a sample of 201 consumers and used for the pre-test; a second one conducted from 361 consumers and used for the main study.

This study is applied to several grounds of research, encompassing a vast number of services and companies mainly experiential, tourist and international ones. Five sites of services enterprises and forty seven activities are selected: a ski-resort in Savoie, a sporting resort, a restaurant-night club and bar, a hotel complex including gymnasium and swimming pool. This choice is made in order to avoid likely biases linked to a specific context, to meet a great number of consumers of all professional and social categories and of all age victims of services mishaps and susceptible to reactional behavior, and likely to form coalitions subsequent to a service failure. Also sought are the different causes of incidents: contact personnel, service provision, service environment and other consumers.

The validation of measurement tools is carried out in two stages. First, a data collection and purification, followed with a series of exploratory factor analysis by means of principal component analysis. This step enables the scales to be purified (Churchill, 1979), aiming at testing the psychometric properties of measurement tools. Validity and reliability are tested with SPSS through usual indices and criteria: eigen value, Communalities, the KMO test, the percentage of variance, Cronbach's Alpha.

Next, a confirmatory factor analysis enables the unidimentionality of the constructs to be tested, (Gerbing and Anderson, 1988). In order to ascertain the convergent validity and the discriminant validity of the constructs the test 't' is employed, which associated

to each factorial contribution is significant (i.e., superior to 1.96, with an associated probability $p<0.05$). Reliability and validity are tested with Cronbach's Alpha and Dillon-Goldstein Rhô, less sensitive to the number of items. Convergent validity is tested by means of the T test associated with each factor contribution, the factor weight and the Rhô of convergence. The Rhô of convergence corresponding to the average variation between the constructs and its measurements is also calculated (Roussel et al., 2002); values superior to 0.5 are acceptable. The method used to estimate the discriminant validity is that of the split variance between the different constructs which has to be lower than the split variance between the construct and its indicators.

Afterwards the external model of measurement is tested. Dimentionality is tested, through three sets of indices: absolute indices (RMSEA, GFI, AGFI), incremental indices (NFI, CFI) and parcimony indices (X^2/df). Finally, the quality of the adjustment of the constructs is tested through the three sets of indices above mentioned, with LISREL. Three steps are followed: specification, identification and model estimation. Hypotheses are confirmed by means of the Student's T and the standardized coefficients.

5. RESULTS

5.1. Validation of scales of measure

Here, only the main purified scales of measure, used for the main study are presented. The scale of complicity is validated in three dimensions and sixteen items.

TABLE 1: SCALE OF COMPLICITY[1]

Dimensions	Items
The triad The exchange was about:	
TRIAD1	The company
TRIAD3	Another client
TRIAD4	The setting
TRIAD5	Other clients
Spontaneous game	
LUDIQ1	I took up this relationship as a game
LUDIQ2	I took up this relationship to pass a pleasant moment
LUDIQ3	We both decided to amuse ourselves with the situation
LUDI4	I took up this relationship to share the displeasure of the situation
LUDI5	If the other person had not been there I would have had less fun
SPONTA5	We immediately got on well
Implicit & irrational agreement	
ENTENT4	We understood each other
IRRA3	It is intuitive
	I think that the others saw our exchange as:

IMPLI2	a mundane conversation
IMPLI3	a privileged relationship
IMPLI4	an exclusive relationship
IMPLI5	an exceptional relationship

Complicity as an implicit and irrational agreement gives 6 items and an Alpha of 0.91. Complicity as a spontaneous game gives 6 items and an Alpha of 0.89, and complicity as a triad gives 4 items and an Alpha of 0.80.

TABLE 2: SYNTHETIC TABLE OF THE INDICATORS OF COMPLICITY

Constructs	Number of items	Number of items retained	Rhô of Dillon-Goldstein	Cronbach's alpha	Rhô of convergence Explained variable of the constructs	Square root of the Rhô of convergence
Implicit and irrational agreement	6	7	0.89	0.91	0.75	0.86
Spontaneous game	6	5	0.85	0.89	0.51	0.71
Triad	4	4	0.80	0.80	0.68	0.82

The existing scales utilized to measure the antecedents of complicity are validated as follows: the scales of service failures caused by contact personnel get ten items; the service provision, six items; the serviscape and the other customers, ten items.

The created scales of need for social links and cognitive proximity are validated with four and five items respectively.

5.2. Scales measuring the consequences of complicity

The existing scales of emotional palliative complicity had twelve items, but only 8 are retained after purification (only the positive emotions). The created scales of functional palliative give seven items.

Dimentionality gives results within standard values for all the scales utilized.

The model of measure is validated through the values obtained: RMSEA: 0.061, GFI 0.9639, AGFI 0.903, NFI 0.992, CFI 0.954 and 2.35 X^2/df**.**

The structural model is validated through the values obtained: 0.0272 RMSEA, 0.9708 GFI, 0.97 AGFI, 0.9946 NFI, 0.99 CFI and 25 X^2/df**.**

TABLE 3: SCALE OF EMOTIONAL PALLIATIVE

EMO1	Happy
EMO2	Enchanted
EMO3	Cheerful
EMO4	Delighted
EMO9	Cool
EMO10	Relaxed
EMO11	Peaceful
EMO12	Pleased

TABLE 4: SCALE OF FUNCTIONAL PALLIATIVE

	This exchange
PALLIA1	Made up for my displeasure
PALLIA2	Brought a relief
PALLIA4	Brought a solution
PALLIA6	Provided me with better understanding of the situation
PALLIA7	Provided me a sympathetic ear
PALLIA8	Allowed me to share viewpoints
PALLIA9	Without the other person I would have been more dissatisfied
PALLIA10	Without the other person I would have lodged a complaint

TABLE 5: SCALE OF EMOTIONAL PALLIATIVE

EMO1	Happy
EMO2	Enchanted
EMO3	Cheerful
EMO4	Delighted
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EMO10	Relaxed
EMO11	Peaceful
EMO12	Pleased

TABLE 6: SCALE OF FUNCTIONAL PALLIATIVE

	This exchange
PALLIA1	Made up for my displeasure
PALLIA2	Brought a relief
PALLIA4	Brought a solution
PALLIA6	Provided me with better understanding of the situation
PALLIA7	Provided me a sympathetic ear

PALLIA8	Allowed me to share viewpoints
PALLIA9	Without the other person I would have been more dissatisfied
PALLIA10	Without the other person I would have lodged a complaint

TABLE 7: SYNTHETIC TABLE OF THE CONSTRUCTED

Constructs	Number of items	Cronbach's Alpha	Rhô of Dillon-Goldstein
Personnel	10	0.93	0.99
Service provision	6	0.93	0.76
Environment	4	0.88	0.88
Client	10	0.95	0.96
Contact	5	0.79	0.81
Proximity	4	0.79	0.81
Functional	7	0.72	0.83
Emotional	8	0.91	0.80

TABLE 8: SYNTHETIC TABLE OF THE ADJUSTMENT INDICES OF EACH CONSTRUCT

	Absolute indices			Incremental indices		Parcimony indices
Indicators	**RMSEA**	**GFI**	**AGFI**	**NFI**	**CFI**	**X^2/ddl**
Incidents	0.001	0.99	0.99	0.96	0.99	0.1
Contact	0.08	0.99	0.99	0.994	0.990	3.81
Proximity	0.050	0.985	0.946	0.966	0.97	5.21
Functional	0.065	0.923	0.888	0.989	0.954	2.53
Emotional	0.034	0.967	0.914	0.978	0.987	1.64

TABLE 9: ADJUSTMENT INDICES OF THE MODEL OF MEASURE

	Absolute indices			Incremental indices		Parcimony indices
Indicators	**RMSEA**	**GFI**	**AGFI**	**NFI**	**CFI**	**X^2/ddl**
Model	0.061	0.939	0.903	0.992	0.954	2.35

5.3. Causal relationships between the variables

The causal relationships between the variables are next examined, whilst retaining a threshold of significance of 0.01 (i.e., a T of Student of 2.33). The standardized structural coefficient, the equivalent of the regression p value, is given. A coefficient close to +1 or -1 indicates that the weight of the explicative variable in the explanation

of the variance of the variable to be explained is high. It is noted that all the estimates are significantly different from zero with a great majority of T of Student oscillating around the value 2. From this it may be deduced that the external model is valid.

These two elements henceforth permit the results of this research to be presented and the verification of the hypotheses to be undertaken. The results of the estimation of the structural model enable the choice of the hypotheses which invite verification to be made, taking into account the estimation accuracy. It is noted that service failures influence the need for human contact positively and significantly. The hypotheses H1b, H1c and H1d cannot be rejected, taking into account these results with the respective standardized coefficient of (0.2437, 0.1645 and 0.1443), and the respective T values of (5.7190, 3.954, 3.736). Only hypothesis H1a is not verified.

Service incidents have an impact upon the need for human contact with the exception of the incident provoked by the personnel in contact. Incident connected to the service provision, the environment and the other clients account for the need of human contact, and it is significant. This may be explained by the fact that relationships or situations of joint consumption are being considered. As for the service environment, it is a communal space open to everyone where all the customers have an equal right of access. If the incident is to do with the setting one may assume that a kind of solidarity will be formed between the consumers: they will have a mutual understanding over things they have in common.

Where incidents with other clients are concerned, neither the personnel nor the service provided is queried, but when they affect the group, the rules of etiquettes are infringed (or are seen as such). It can also happen with the incidents concerned to other clients perceived as external to the enterprise (the enterprise is not at fault), this enables the client to express himself more freely. When incidents linked to contact personnel lead to a need for human contact, it is probably because it consists of relationships or situations of individual consumption, faced with a salesperson or equivalent. It is likely that the customer fells the frustration as a personal affaire, an event of humiliation and does not wish to share it with anyone or even that he is frankly reticent to do so. He probably feels angry which makes him impervious to any exchange. The customers' sole wish is to leave and promises never to return.

It might also be supposed that the customer would not wish to draw attention to himself by making a fuss over the incident in front of the other customers who themselves say nothing. It may be noted that the need for contact and cognitive proximity has little influence, in a positive and significant manner, upon the relationships of complicity. Only the hypotheses H2a and H3a are verified.

The need for human contact following a service failure, only contributes to the formation of understanding between consumers. The cognitive proximity of individuals contributes to the relationship of complicity as regards to two dimensions: spontaneous game and the triad. That explains the fact that complicity is an implicit and irrational understanding, a spontaneous game with regard to a third person. Consequently, it is the

"*magical moment*", the "*hit it off with someone*", "*the alchemy*", "*more effective than a smile*" (mentioned in the qualitative study).

The customers understand each other in an implicit manner because "they hit it off" together. They enter spontaneously into an implicit interplay which is carried out to the detriment of an outsider who is excluded from it. Complicity functions in a logic of inclusion/exclusion; it may be supposed that mutual understanding is explained solely by the need for contact, and that nothing in this model can explain the irrational dimension of the relationship of complicity.

The equation of the creation of complicity is as follows:

Irrational and implicit agreement = 0.2068 x need for contact + 0.7110 x cognitive proximity + $\varepsilon_{agreement}$
Spontaneous game = -0.749 x need for contact + 0.3427 x cognitive proximity + $\varepsilon_{spontaneous\ play}$
Triad = -0.0705 x need for contact + 0.3653 x cognitive proximity + ε_{triade}

The dimensions of complicity only partially influence the functional palliative in both positive and significant manner. Only the H4a hypothesis is verified with a coefficient of 0.4607 and a T of 8.3912. Irrational and implicit agreement may be explained by the willingness of people not to show to others that they have even succeeded to make up for a failing so as to avoid any kind of conflict or to avoid being labeled as a "righter of wrongs". The consumer accomplice of another may equally feel embarrassed in front of staff or other clients for doing the work of the enterprise or for becoming involved in something which (from the outside) does not concern them as onlookers. If, for example, the incident is caused by a client of imposing stature or a group of clients, the compensation is made in an implicit manner because there is a "fear for reaction". Spontaneous game complicity does not have a positive direct effect as a functional service recovery. The game is an emotion- a sensation. It cannot compensate for an enterprise's inadequacy in a functional sense; it can only act upon the feeling. Finally, as far as the triadic dimension is concerned, it is likely that the accomplices will be satisfied with an agreement and a dyadic exchange without having the need to involve a third party. It is also possible to imagine that the customer might be functionally satisfied by having been recognized as the victim plus having been right, and therefore being pleased to have found someone sharing the same point of view as himself. If the hypotheses related to the functional palliative are not entirely verified, it is because the 'accomplices' have difficulty in effectively compensating for the enterprise's failing on the one hand, and on the other, the consumer cannot say whether he would have been satisfied or not in the case where the service had functioned correctly. He can only say how he felt after the exchange. If the 'accomplices' are unable to correct the enterprise's defective action- the place which is dirty or other customers smoking- and If they think they have nothing to fear from a client who breaks

the rules, they will express themselves freely. For example, when an elderly person jumps the queue, palliative complicity can be applied in an open manner by outspoken comments or by innuendos. Another example: it is difficult to clean up a place but it is possible to make someone return to join the queue.

The dimensions of complicity influence the emotional palliative in a positive and significant manner with a coefficient of 0.4125 and a T of 7.2113 for the spontaneous game dimension and a coefficient of 0.3114 and a T of 4.17009 for the triadic dimension. The H5b and H5c are verified. The hypothesis H5a is rejected. This can be explained, as previously mentioned, by the fact that the game is merely an emotion which does compensate for an enterprise's inadequacy in a functional manner. If the 'accomplices' cannot make up effectively for the inadequacy, 'it's better to laugh it off" and find another amusing substitute to compensate for the frustration. The enterprises' deficiencies are compensated for, in terms of emotion, the relationship of complicity. The equation of complicity on the emotional palliative is as follows:

Finally as to satisfaction, only the emotional palliative dimensions influence in a positive and significant manner the satisfaction, with a coefficient of 4.1885 and a T of 0.3979. To the extent where it is difficult to effectively compensate for all the enterprises deficiencies, consumers are content to counterbalance the frustrations through positive feelings. The H6a hypothesis is rejected.

6. CONTRIBUTION, LIMITATIONS AND FUTURE RESEARCH PATHS

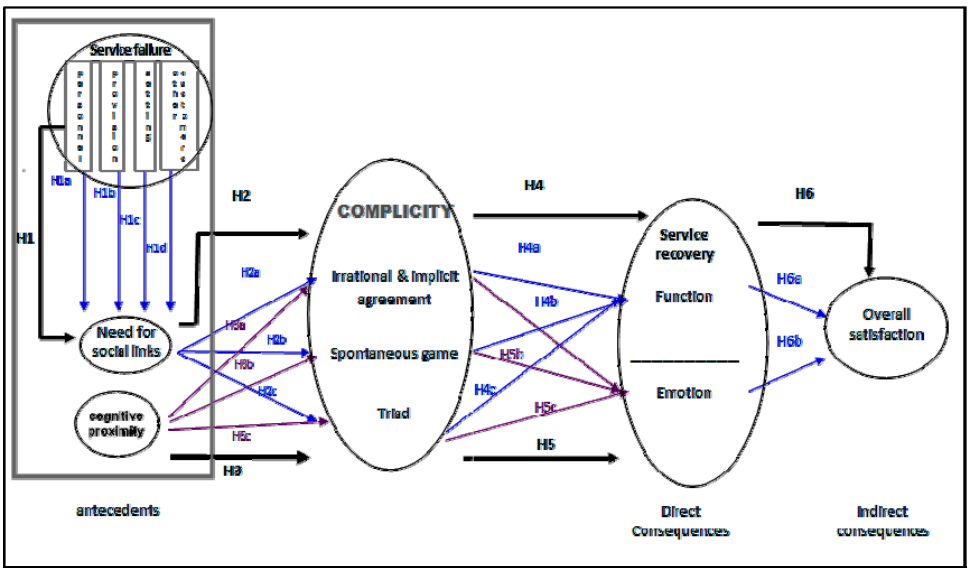
6.1. Contributions

The theoretical inputs of the research are mainly linked to the mobilization of the conceptual scope of complicity which as far as one is aware, does not appear in Service Marketing research. Next, a conceptual model and a scale of measure are tested and validated. This takes into account at one and the same time the constituents of complicity, of their palliative functions and of the satisfaction. The effect found between complicity and service recovery enables a great significance of the emotional aspect to be shown. In this respect, this study makes a contribution to the emotion process in service recovery.

In a managerial view, complicity may be thought of in terms of value both for the enterprise and for the client. The client who compensates an absence of insufficiency of service helps to correct the enterprises' deficiencies or act indirectly but positively upon the enterprises' image. They are often "corrections of servuction" or processes of satisfaction of the customer in extreme situations. The means that the client fulfills a function normally belonging to the responsibility of the enterprise: he replaces it without the slightest investment, without the slightest cost from the enterprises. He could be placed in the Customer Pyramid (Zeithaml et al., 2001) at the Gold of Platinum Tier because they bring profitability. In a sense the client becomes the "partial employee"

(Mill and Morris, 1986) of the recovery of the enterprise. Next, if the relationship of complicity is experienced as a game, the satisfaction acts favourably upon the enterprises' image. Emotions being more intense than simple satisfaction or dissatisfaction, the satisfied client is more likely than another to become a loyal customer and to spread a positive word-of-mouth communication. The management of complicity first requires re-definition of the roles of the employee and of the clients so as to find the means of implicating clients in the management of service recovery. The enterprise should encourage the more experienced customers to join with the less experienced ones (Bonnefoy-Claudet et al., 2008), and develop a strategy aimed at facilitating conversations and interactions of complicity between strangers, using the service's physical environment and making clients aware of their cognitive proximity. This managerial practice is actually employed in a service of functional re-education of traumatisms of the hand. Complicity is established and managed by the physiotherapists; it acts as a real palliative upon patients stress, compensating for their physical and moral suffering and speeding-up their recovery (Ferrandez et al., 2008). Another managerial practice would be to resort to "complicity agents", ie contact personnel, specially trained to pretend to be mere customers to generate relationships of complicity in case of service failure.

FIGURE 2: MODEL OF COMPLICITY AND RESEARCH HYPOTHESES



Whether there is complicity or not there are certain risks for the enterprise. In effect, if the enterprise is unaware of relationships of complicity it deprives itself of a useful function. Next the enterprise runs a real risk of seeing an increase in the probability that clients will express more emphatically their discontent or dissatisfaction. Being more numerous, they feel stronger. The client has everything to gain from a relationship of complicity. He makes up for a service failure, finds satisfaction in terms of emotions, which is stronger than the satisfaction/dissatisfaction. The client feels an increase in his standing by being amused or merely to have acted well (Harris and Baron, 2004), or again, he finds himself in a highly stimulated state – the "flow" (Csikszentmihalyi, 1977). Finally, the client runs no risk by entering into a relationship of complicity which is ephemeral and from which he can withdraw at any time.

6.2. Limits

The research presents two limits: one is theoretical, the other is methodological. The binomial accomplices were not examined but they were questioned without their counterpart. Cognitive proximity is neither controllable nor detectable a priori by the enterprise. It is historical antecedent but seen 'a posteriori'. That may be an inconvenience as it is a condition of initiating the relationship, but the enterprise is not aware of it before. Two individuals may be potentially close but never become accomplices.

The validity and accuracy criteria have been respected from a methodological point of view, but it appears the certain tools could be improved. In effect choosing to adapt and synthetize anglo saxon-scales for the service incident may have reduced the number of items for certain dimensions. Finally, the items measuring the palliative side only restitute 97.10% of the variance which suggests that the formulation of the items had to be reviewed with the aim of improving the measurement tool. Despite its adjacency with everyday situations the method of data collection rests upon the capacities of memorization of individuals. If the outstanding quality cannot be put into question, the events gathered by the survey, the recency, representativity or the recurrence cannot be validated. The memory may have played the role of a magnifying glass. The data treatment method was chosen in accordance with the objective of explanation and we have retained the LISREL approach. The prevision ought to have been partially dealt with at least.

6.3. Future research paths

It would be appropriate to test the model again in other services activities, notably the functional ones (such as advisory, banking, transport, distribution). The qualitative study showed that in the absence of incident the relationship of complicity could be a service amplifier (Antonini, 2006), in the sense of "experience amplifier" (Johnson and Zinkhan, 1991). The relationship of complicity constitutes a "plus" which acts favourably

upon the perception of service and the customer satisfaction, who will be even more satisfied than he expected. The impact of the relationship of complicity upon the need of respect (Schneider and Bowen 1996) and the need for justice (Oliver and Swan, 1989; Blodget, 1993 ; Clemmer and Schneider, 1996) could be examined. The relationship of complicity could be thought of as an adaptative behavior and a manner to please oneself from an OSL[2] perspective knowing that certain comportments called "exploratory" (Fiske and Maddi, 1961), do not have a defined aim but represent objectives in themselves. They introduce stimuli which may be considered as rewards in themselves (Berlyne, 1963). That could be linked to a typology of the accomplice and check whether the individuals with an autotelic personality (Csikszentmihalyi, 1977) are capable of enjoying what they do without thinking of the reward or gratifications which could result from the experience. Finally, it seems relevant at the time of future research to place the social link created by the relationship of complicity as the standard of satisfaction (Bourgeon-Renault et al., 2006), and to measure the impact upon the development of consumer loyalty.

NOTES

[1] Free translation of the items by the author

[2] Optimum Stimulation Level

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THE DEMOGRAPHIC TRENDS OF THE NEW GENERATION IN RELATION TO RESTAURANTS: THE CASE OF CYPRUS

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ABSTRACT

It is widely known that the trends of consumers in relation to the hospitality and in general to the tourism services are constantly changing. People of all ages and especially the new generation seek to engage in new and diversified services and experiences, as well as to be provided with updated services. Taking this into consideration the current survey research focuses on examining the demographic trends of the New Generation in relation to the hospitality services in general, and more specifically to the restaurant operation services, as these apply in the case of Cyprus. In more specific, the research attempts to investigate which are the trends and most importantly, what are the demands and needs of the New Generation in relation to the Restaurant operation services in Cyprus. In this case, the research aims to investigate the topic focusing on people of the age of 18-25 years old. More intensively, it obtains and exemplifies data in relation to the topic through a primary survey, specifically by the use of quantitative research. Through the integration, the research explains and highlights that indeed there are new trends arising in relation to the Restaurant operation services for the New Generation, which eventually have to be acknowledged by Restaurant operators in terms of upgrading and most importantly keeping their businesses at a period where economic crisis thrives. Nevertheless, there is the research's conclusion; in Cyprus, the restaurant operations should be upgraded and updated to meet the demands of the New Generation.

Keywords: Demographic Trends; New Generation; Restaurant Operation Services; Cyprus.

1. INTRODUCTION

Within the Hospitality Sector, Restaurants and generally the Food and Beverage sector plays a significant role in the economic development of many businesses. Cyprus, a small island in the Mediterranean Sea, is one of these countries, which is highly depended generally on the hospitality and tourism sector in terms of its development and more specifically on the Food and Beverage sector for its economic growth. Unfortunately, nowadays the island is suffering from the 'economic crisis' effect where more and more businesses, because of the shortage of clientele, are strained to close down or at least they have to find ways to keep their operations running.

For this reason, the current survey research attempts to investigate through a primary survey the demographic trends of the new generations. More specifically, the

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study researches youngsters in the age of 18-25 years old in relation to their preferences to Restaurant operation services, as these apply in the case of Cyprus. Through the research, restaurant operations would be able to acknowledge the demands and needs of this group segment, which eventually is the one that will change the nature of the restaurant operation services.

2. METHODOLOGY

The survey research conducts a primary data collection method that includes mostly questionnaires. The purpose of choosing this technique is to fulfill the research's objective in terms of examining the new trends of young people in the age of 18-25 years old in relation to the Restaurant operation services as these apply in the case of Cyprus. Consequently, the study addresses questionnaires at a representative sample of young people in the age of 18-25 years old. The potential participants have been chosen based on their age. Finally, where necessary the research compares the primary research results with some literature. At first, the survey research illustrates the demographic characteristics of the chosen group to be researched and then it shifts to the main point of survey, which is to investigate their preferences for Restaurant operation services as these are being applied in the case of Cyprus.

3. GENERAL INFORMATION OF YOUNG CYPRIOTS

Beginning with the main demographic characteristics, the majority of young people are between the age of 20-22 years old and 25 years old, (16%) (See figure 1). The rest of respondents count for those in the age between 18-19 years old and 24 years old (8%) and finally the minimum percentage counts for those in the age of 23 years old. It is important to look at the age of respondents in reference to their preference for Restaurant operation services, as their personal characteristics, behavior, way of thinking and way of living vary from the age of 18th to the age of 25th. As Eurostat explores, "as people get older, leisure time decreases as the gradual shift to working life leaves less time for leisure" (2011). In addition, as youngsters become older, they gain more knowledge, experiences, become more mature hence, they have elevated needs.

As far as the gender is concerned, more than half of the respondents are female (53%) and 41% count for male. Also, there is a 6% who did not give any response. Yet again, this share of gender as a demographic characteristic probably influences the research results, as young women's preferences may be completely different from those of young men.

Regarding marital status, Figure 3 illustrates that the majority of respondents are single (72%) and just a 20% are engaged. Further, it is perceptible the fact that these people in their young age decide to get married (8%).

FIGURE 1: AGE

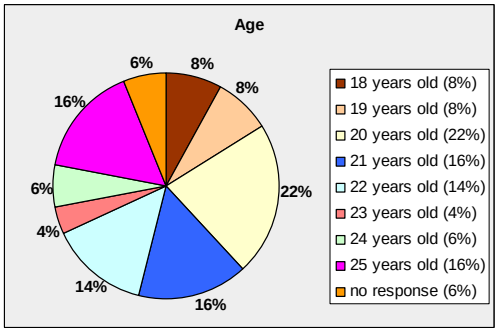
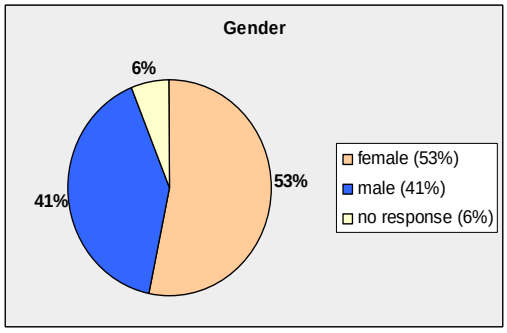
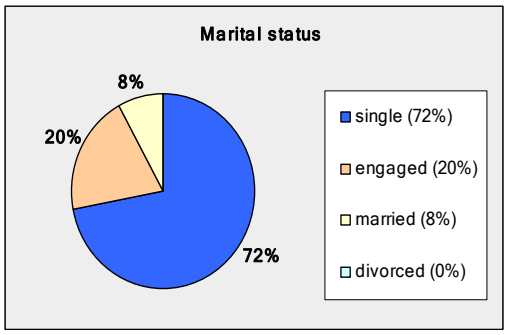


FIGURE 2: GENDER



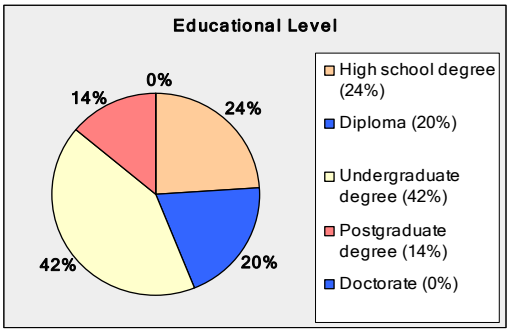
Based on this fact, it can be assumed that the trends of those married youngsters may be different from those who are single in relation to their demands for Restaurant services. There is a limitation of the research in investigating such a factor, as it is not on its major considerations, but at the same time, it gives recommendations for further research on this topic.

FIGURE 3: MARITAL STATUS



Continuing to the demographics of the new generation in the age of 18-25 years old and in relation to their educational level, 42% of respondents have obtained an Undergraduate degree or at least they are still following their Undergraduate studies and a 20% have completed a Diploma degree. It can be said that the effects of these data possibly will depend on the gender of the respondents as young women have the ability to persist their studies from High school, where young boys have to attend the army for an average of two years. In addition, it is obvious that a 24% of respondents obtained only a High school degree, a fact showing that a large proportion from the new generation is not attending further studies. On one hand, this allows young people to have more free time, but on the other hand, they miss the prospect to enhance their knowledge and create a career for the future. There is another notion: those who choose not to continue their studies, perhaps they choose to be employed in terms of bringing in some income. Finally, it is rational that none of the respondents acquired a Doctorate degree due to the young of their age.

FIGURE 4: EDUCATIONAL LEVEL



In reference to the question of "who you live with?" more that half of respondents (58%) in the age of 18-25 years old, live with their parents and a relatively high percentage (30%) are independent. This detail gives the impression that those independents in the young age may have more time and flexibility and thus it is more likely to visit restaurant operations habitually. Finally, a decent percentage (12%) refers to those who live with their own family, as the pre-mentioned data have shown that there are some who are married in their young age.

Looking further at the demographic characteristics of the population of Cyprus at the age of 18-25 years old and in relation to their occupation, the majority of them (68%) are Undergraduate students and the rest are being employed (32%). Once more, the research comes to the point where an enormous number of young people prefer to work rather than continuing with their studies. It is worth to mention a research supporting that "the rate of employment of youth Cypriots is one of the lowest in

Europe" (Daniel Gros, 2010). Finally, it is remarkable the fact that none of the respondents is a High School student or a soldier.

FIGURE 5: LIVE WITH

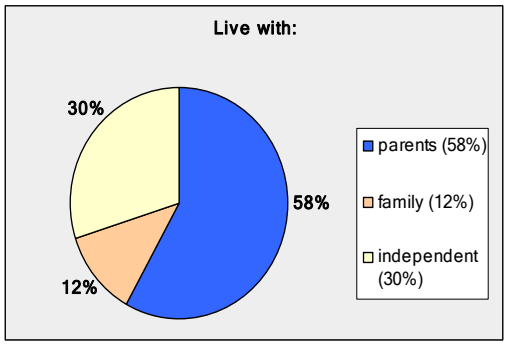
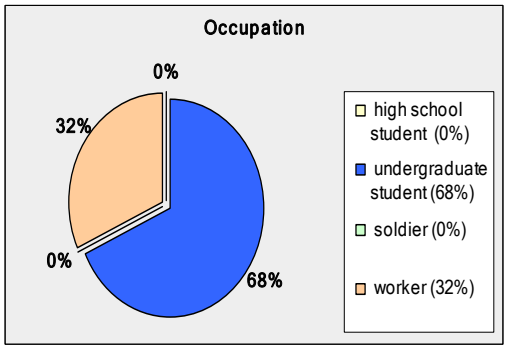


FIGURE 6: OCCUPATION



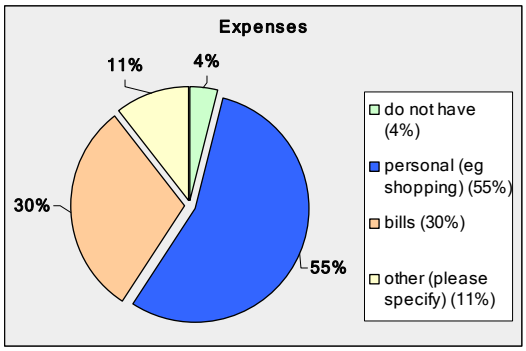
In terms of the expenses that young people have, even in the age of the 18-25 years old, mostly are concerned with personal expenses (55%). A lower percentage counts for those who have bill expenses (30%) and this is rational since there is a high percentage of independents, who leave alone. Further, only a 4% of respondents note that they do not have any expenses. Such factor comes to validate the notion that "young Cypriots continue to depend on their parents' financial or other assistance" (Daniel Gros, 2010). Finally, the remaining 11% refers to other expenses, which eventually are considered as personal expenses. Some mentioned expenses are for cigarettes, gas, loans, rent and medical expenses.

Generally, it is outstanding the fact that despite the huge expenses that young people have, still they decide to be independent. Based on this, the research can justify the fact that young people prefer to be employed rather than continuing further their

studies. Another arising point is the fact that there is nothing mentioned regarding expenses of travelling and visiting restaurants (in general hospitality) operations.

Moving deeper to the main point of the research and in the attempt to investigate the demographic trends of the new generations towards restaurant operation services, the research considers that it is important first to study what kind of hobbies young people undertake during their free time. Initially, it is remarkable the fact that 88% of respondents have free time and only 12% do not. Unfortunately, there is no reference as to the reasons why young people do not have free time. The research gives the excuse that a high percentage consists of Undergraduate students who spend a lot of time for their studies or even those who are already married and have varied household obligations.

FIGURE 7: EXPENSES



On the other hand, in researching youngsters' hobbies, there is a variety of options given. The majority of young people prefer to go out, fewer go to the gym and surf the internet, less are listening to music and watching TV, a fewer number of young people are reading books, play games, go swimming and like visiting cafes. The rest are undertaking all sorts of other activities during that free time as playing all kinds of sports, cooking, painting, going to the cinema, shopping, taking pictures, sleeping, dancing and visiting clubs. From all of the above, the research is investigating further the trends of those who mostly visit restaurant operations.

However, in the question whether they have free time to visit restaurant operations, a huge percentage of respondents answer positively (85%), regardless of the fact that there is nothing mentioned above that, visiting restaurants is one of their hobbies. It can be understood that either they do not consider visiting restaurants as a hobby or just that it is not the greatest of their hobbies. Even if there is a remaining share (15%) for those who do not like to visit restaurants, still this is inexplicable.

FIGURE 8: HOBBIES

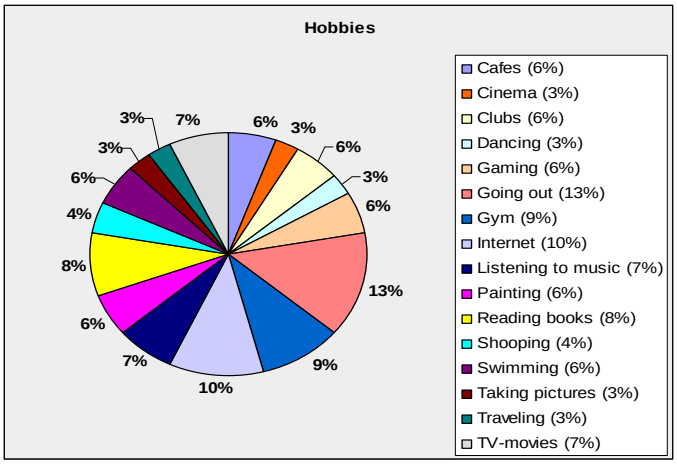
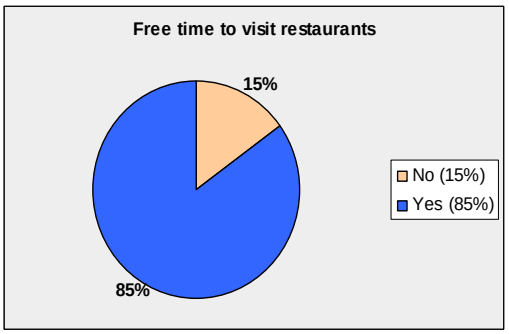


FIGURE 9: FREE TIME TO VISIT RESTAURANTS



4. RESTAURANT OPERATION SERVICES

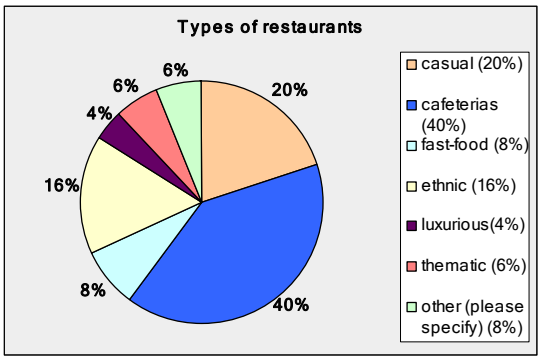
In the frames of investigating the demographic trends of new generations in the age of 18-25 years old and in relation to restaurant operation services, participants refer to their preferences on the type of restaurants, which they choose or wish to visit. Based on Figure 10, 40% prefer mostly cafeterias and a lower percentage choose to visit casual restaurants (20%). This is a tolerable result considering the age of the respondents. It is shown that even if the majority is not working, thus they do not have a basic source of income, still they prefer to visit a higher level of restaurant type than fast foods, which are cheaper. It can be assumed that young people in the age of 20-22 years old, since the majority of respondents count of this age, have as their priority enjoyment and socialization rather than cheap services.

Those preferring ethnic restaurants count for 16% and a very little percentage counts for fast food restaurants (8%). Such a factor certifies the research's pre-mentioned assumption; fast food operations are not captivating young people to any further extent. The remaining percentage goes for thematic (6%) and luxurious (4%) restaurants. Finally, a share of 6% visit other types of restaurants, however unfortunately there is not any specification on which these other restaurants may be.

Further to the above subject, the research raises the question to the young participants of which specific restaurants they have visited so far. Except of the choice of cafeterias, the majority of responses are concerned with ethnic restaurants mostly Chinese, Japanese and Mexican, Italian and traditional taverns. Hence, some of the mentioned restaurants visited in Cyprus are Chopsticks, Taipei Town, Wagamama, Dragon, El Torito, Marzano. Friday's is the first choice for the majority of respondents.

Finally, in the question of "which restaurants do you wish to visit" responses present a remarkable result. Young people in the age of 18-25 wish to visit very specific and with concept restaurants. Some of them refer to the restaurant of the Burj Al Arab hotel, with the concept of "dining on the sky" and some others refer to some luxurious restaurants. It is obvious that new generations are aware in general, of the hospitality services and more specifically of the Restaurant operations world wide. Not only this but also they wish to visit them at least once just to get an experience a factor that shows again their demand on enhancing their knowledge for and gaining experiences through visiting different restaurant operations. Finally, once more it appears that young people, even if they do not have the money to spend for more luxurious and upgraded services, still they are willing to pay for something unique.

FIGURE 10: TYPES OF RESTAURANTS

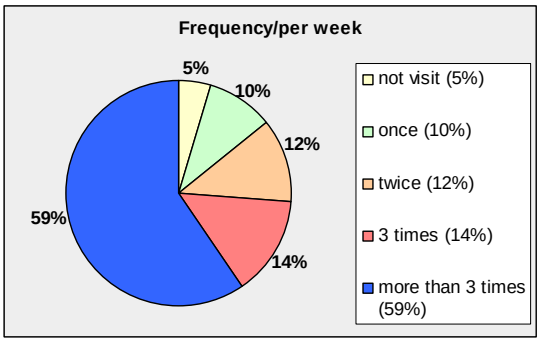


5. GENERAL DEMANDS FOR RESTAURANT OPERATIONS

5.1. Frequency

Continuing with the main point of the research, young people are being asked how often they visit any restaurant operation every week. The majority of them (59%) visit restaurants more than three times per week. This shows their interest to visit restaurants more frequently so as to be socialized. On a lessen extent, young people visit restaurant operations three times (14%) or even two times (12%) a week and an even lower percentage (10%) visit restaurant operations only once per week. To finish, there is a remaining percentage of those who just do not visit any restaurant operations (5%). These people may consist of individuals who just do not like going out, or those who have work or household obligations, since a proportion of participants are married and may have children. Even if the percentage of those who are married and with children is relatively low, there has to be a further study regarding services available for them, so as to explore whether there are alternative choices for this segment in terms of visiting restaurant operations or any other hospitality operation.

FIGURE 11: FREQUENCY/PER WEEK



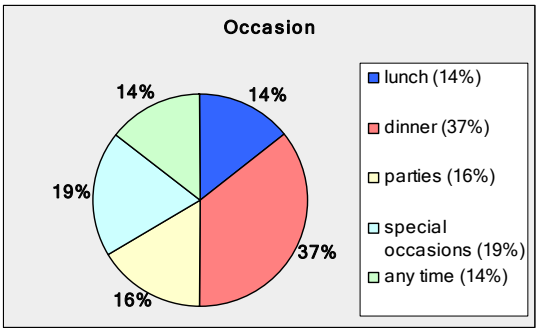
5.2. Occasion

Regarding the occasions that motivate young people to visit any restaurant operation, the highest percentage represents those who go for dinner (37%). This is rational as the majority of respondents are undergraduate students and the rest are workers, thus on day time they are busy and during night time they have the need to relax and meet with others.

The rest of respondents visit restaurants for a special occasion (19%), for parties (16%) and for lunch (14%). Finally, 14% of the contributors support that they visit

restaurant operations at any time, meaning that they do not have any preference on a specific occasion; they just visit a restaurant anytime they have the need. It is rational that most respondents visit.

FIGURE 12: OCCASION

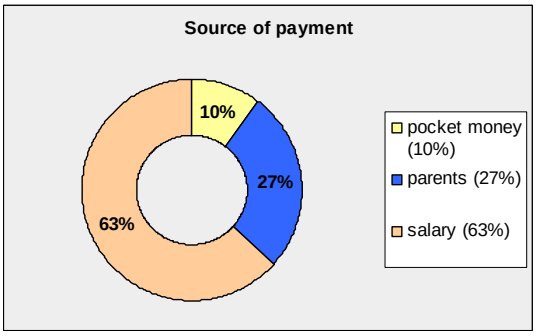


5.3. Source of payment

In search of the source of payment for visiting restaurant operations, young people mostly get the money from their salary (63%) and this is lucid as there is a high percentage of those who are being employed (32%, see Figure 6). Another 27% states that their parents pay for their visit at restaurant operations and the remaining 10% refers to those you use as a source of payment pocket money.

At any rate, the current research comes to the point that young people, even if they are employed, or students, staying with their parents or alone or with their own family, they still find the ways and the money to be entertained and enjoy themselves even by just visiting a restaurant operation. As Vasos Tsiakkiros (2004) comes to agree, one thing that Cypriots like to do is to spend their money for fun such as going out in the nightclubs, for holidays and for relaxation.

FIGURE 13: SOURCE OF PAYMENT



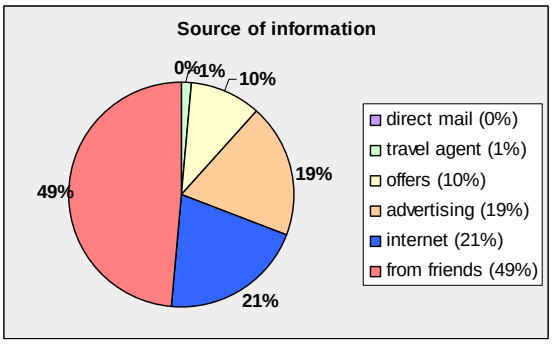
5.4. Source of information

In the attempt of researching what source of information young people use for collecting information or even for making their bookings at any restaurant operation, almost half of respondents (49%), rely on their friends' viewpoint based on personal experiences. The well-known 'word of mouth' is the strongest method of collecting information and becoming familiar with the services that a business is offering in general. Not only this but also restaurant operations are certain to this effect in terms of increasing their clientele. Nevertheless, it astonishes the fact that young people are not using any technological mean, such as the internet to collect information about a restaurant, but they are confident on "word of mouth", is astonishing.

Concerning the above issue, a relatively minimum percentage refers to those who are using the internet (21%) in terms of getting information about a restaurant operation. On a similar extent (19%) there are those who rely on advertising for making the decision to visit a restaurant operation. Using the internet is a booming factor nowadays, especially for young people, but it is remarkable the fact that in the current case the research did not come across any noticeable reference on the massive use of the internet by young people, even as their hobby. Such a factor gives good impressions to the notion that nowadays, young people are "slaves" of technology.

The remaining percentage counts for offers as a source of information (10%), travel agents (1%) while none responded to the choice of the direct mail (0%).

FIGURE 14: SOURCE OF INFORMATION



5.5. Accompaniment

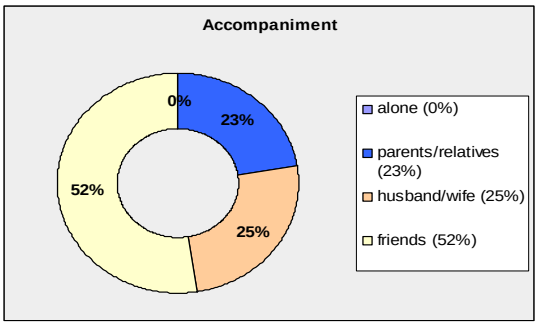
In regards to with who young people visit restaurant operations, the greatest part (52%) goes with their friends. At a minimum share, respondents visit restaurant operations with their spouse (25%) and at the same extend with their parents/relatives (23%). Young people prefer to visit restaurant operations mostly with their friends and

this is rational. However, it is remarkable the share of those who visit restaurant operations with their parents and relatives, a factor showing that young people keep the family bonds.

Another marvelous fact is that those who are married, even at a young age, still tchoose to go out for dining with their partners rather than with friends. Such a factor points out that young people are mature enough not only because they have made the decision to get married at a young age, but also because they are willing to keep the family ties and spend their free time with their partner.

Finally, none of respondents chooses to visit restaurant operations unaccompanied and this is explicable as the new generation is energetic and needs to have fun with friends or even with their families.

FIGURE 15: ACCOMPANIMENT

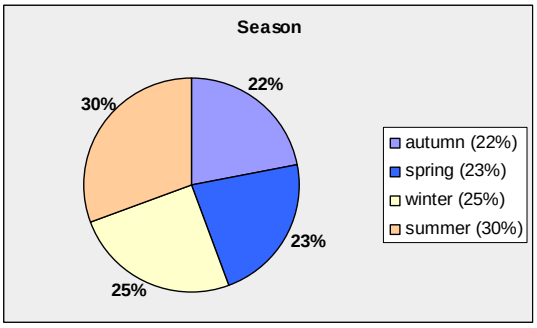


5.6. Season

Regarding the season that young people choose to visit any restaurant operation, Figure 16 shows that 30% visit restaurant operations during summer. This is rational as summer period is a peak period that young people want to enjoy, be entertained, have fun, interact with other people, and have extraordinary experiences.

The remaining percentage goes for those who visit restaurants during winter (25%), spring (23%) and autumn (22%). It is obvious that there is not any consideration on when young people visit restaurants; season is not their priority in visiting restaurants.

FIGURE 16: SEASON



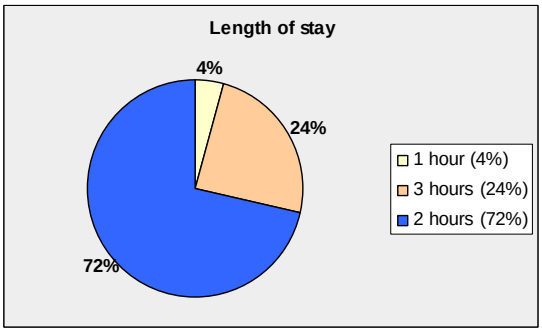
5.7. Length of stay

Looking at how much time young people stay at a restaurant operation, an enormous percentage (72%) stays for 2 hours. Such a factor points up that young people seek for a dining experience and not just for something to eat and go.

Considering the fact that the majority of them mostly visit cafeterias, a remarkable share (24%) responds that they stay at a restaurant operation for 3 hours, (Figure 10, page 9).

Finally, the lowest percentage goes for those who spend just 1 hour at a restaurant (4%).

FIGURE 17: LENGTH OF STAY



6. DEMANDS AND NEEDS FOR RESTAURANT OPERATIONS

6.1. Entertainment

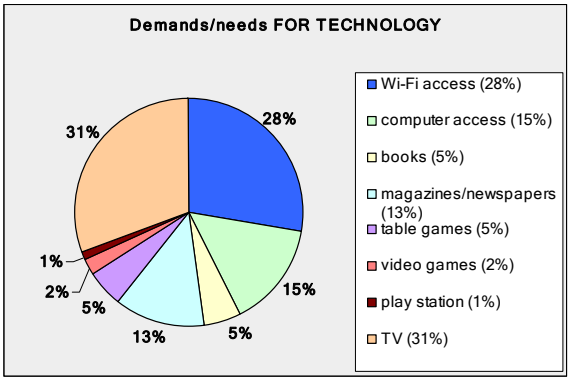
Moving to the main point and in regards to the trends of young people in the age of 18-25, the research studies their demands and needs in terms of the services offered by the restaurant operations which they visit. In this section the research mostly presents the data as they have been collected and gives some further explanation only where is necessary. Then, the results presented give recommendations, which restaurant operators can use to improve their services based on the needs of young clientele.

Firstly, looking at the demands and needs for technology, most of the respondents answer that they seek the operation to offer TV facilities (31%). It seems that TV remains in the life of young people as an entertainment tool even when they visit restaurants. Nowadays young people have a lot of interests and hobbies and they seek to get informed as frequent as possible about the sector of their interest. Considering previous results (Figure 10) young people mostly choose to visit cafeterias and it is noticeable that they are watching an assortment of TV entertainment shows; for example young women watch fashion shows, and young men watch football matches or any other sport of their interest. In addition music video clips are very popular among young boys and girls.

Another 28% seek for Wi-Fi access and it can be said that this is a very limited share, considering that technology is emerging and becoming part of people life, especially for young people. Again there is evidence that young people look for experiences and pleasure and do not choose to become "slaves" of technology.

On the other hand, an additional 15% refers to those who seek computer access at a restaurant operation. The remaining percentage goes for magazines/newspapers (13%), books and table games (5%), video games (2%) and play station facilities (1%).

FIGURE 18: DEMANDS/NEEDS FOR TECHNOLOGY

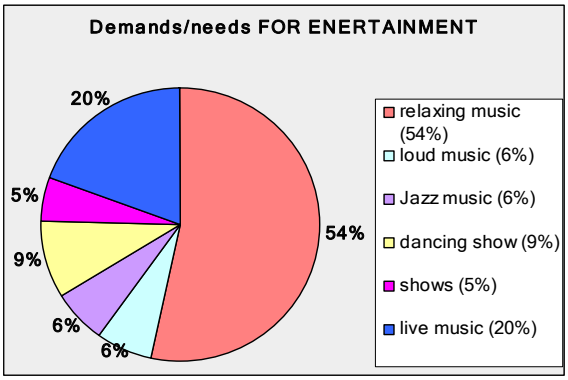


6.2. Entertainment

To continue, Figure 19 is evidence for the entertainment that young people aspire to find at the restaurant operation they visit. On first hand, more than half (54%) of respondents hold up that relaxing music is their major preference of entertainment at a restaurant. The results give the impression that, youngsters are mature enough so as to spend their free time hanging up with friends, relaxing and having fun, instead of looking for furious parties.

Moving forward, the second most demanded entertainment necessary for young people at a restaurant is live music, counting for just 20% of responses. The remaining shares count for dancing shows (9%) and shows in general (5%). It astonishes the fact that, on the same level (6%) teenagers seek to find as entertainment jazz music and loud music, two controversial types of music. In terms of youths, there are extreme situations, where there are those who look for relaxed experiences at a restaurant and those on the other extreme who pursue frenetic experiences.

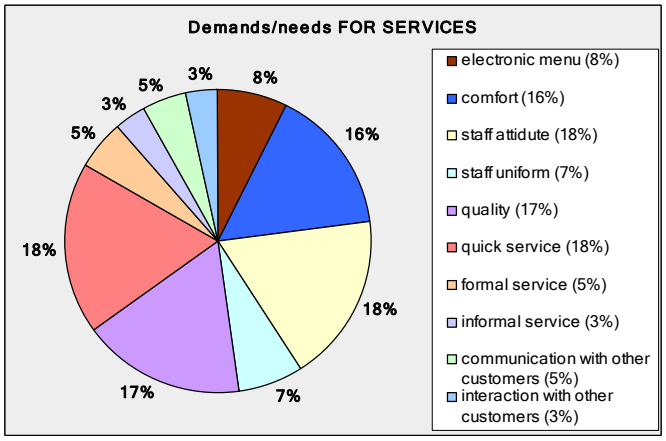
FIGURE 19: DEMANDS/NEEDS FOR ENTERTAINMENT



6.3. Services

In terms of services at a restaurant, young people prioritize staff attitude and quick service (18%). On a same extent, they inquire quality (17%) and comfort (16%). Less of their concern appears to be the use of electronic menus (8%) and staff uniform (7%). Fewer ask for formal service (5%), communication with other customers (5%), even less for informal service (3%) and interacting with other customers (3%).

FIGURE 20: DEMANDS/NEEDS FOR SERVICES

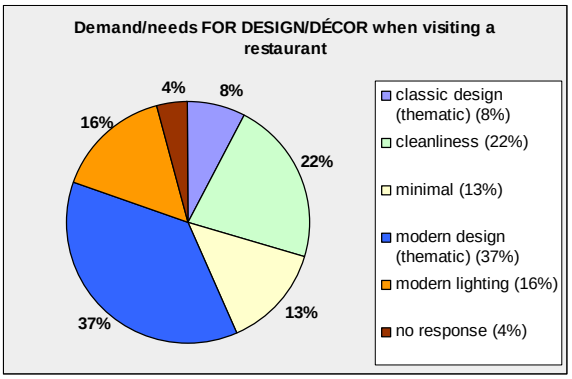


6.4. Design/Decor

As far as the design and décor is concerned, most of respondents seek for a modern (thematic) design (37%), whereas a minimum number look for classic (thematic) design (8%). It is lucid that young people will prefer modern designs rather than old-fashioned. Also in relation to the modern design, there is a proportion of those who consider modern lighting significant for a modern design (16%).

Furthermore, some of respondents support a minimal design at a restaurant (13%). It is admirable the fact that in terms of the design of a restaurant, youths consider cleanliness as one of their priorities (22%) and this evidence proves that youngsters are striving from low cost and quality service to more upgraded services. At last, there is a 4% of respondents who did not give any answer to the question.

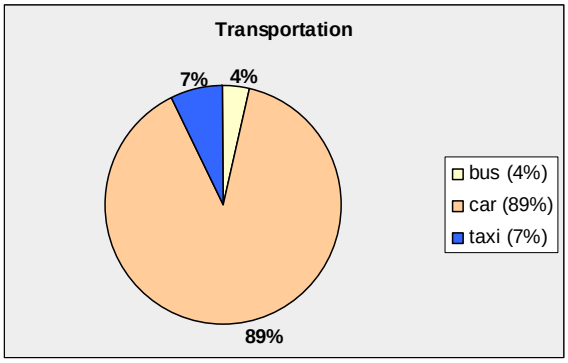
FIGURE 21: DEMANDS/NEEDS FOR DESIGN/DECOR



6.5. Transportation

Moving further, there is reference to the transportation means that young people are using in terms of reaching a restaurant operation. Most of them are using a car (89%), less are using taxi services (7%) and just a few use the bus service (4%). This issue is of vast consideration, as it is well known that transportation in Cyprus is limited for tourists, even for domestic travel in Cyprus. This is an alert for apposite organizations to improve the existing transportation system and at the same time for operations to provide further services in terms of transportation, as part of their services. Such an improvement will give the opportunity to young people to visit more habitually restaurant operations and especially those which are difficult to be reached.

FIGURE 22: TRANSPORTATION



6.6. Food/Drinks in restaurant operations

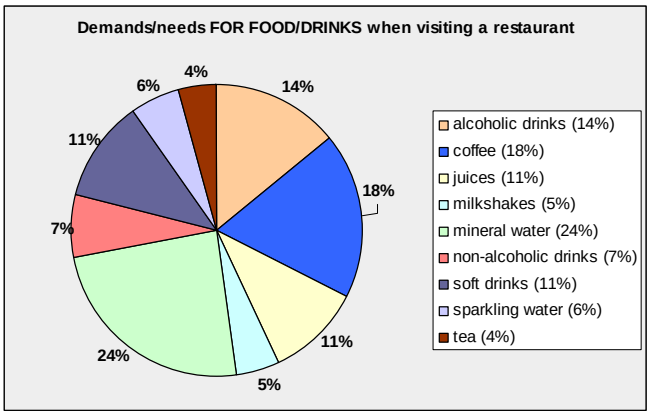
Another important issue that the research seeks to investigate in terms of the demands of young people when visiting a restaurant operation is that of the provision of food/drink. As it appears most of the respondents believe that it is important for a restaurant to offer mineral water (24%). It is a trend of some restaurants to charge even mineral water, a factor that discourages people from ordering a basic service in a restaurant, especially in a casual restaurant where young people hang out.

Additionally, an 18% support that coffee is the second most important facility offered in restaurants and another 14% goes for those who demand to have a choice of alcoholic drinks. Further, at the same percentage, youngsters seek soft drinks and juices (11%).

Moreover, there is a minimum percentage of those who support that non-alcoholic drinks should be provided at restaurants (7%).

The remaining percentage goes on the provision of sparkling water (6%), milkshakes (5%) and tea (4%).

FIGURE 23: DEMANDS/NEEDS FOR FOOD/DRINKS



Supplementary to the drink items that young people seek to find at a restaurant, the majority place desserts/sweets as the highest of their demands in food (19%). The second most important service in terms of food at a restaurant are both healthy and ethnic meals (17%) followed by the choice of balanced meals (15%). Further to the respondents' needs comes the choice of light meals (11%) and on a minimum percentage the choice of fast-food (9%). This is a considerable factor showing that young people are drawn away from the concept of fast, cheap and low quality food and they are opting for healthy food or even for new types and tastes of food, such as ethnic cuisine. This is the reason why, nowadays in restaurants, even in casual restaurants, people can make their own choice from the traditional snacks to sushi and pasta specials. Not only this but also this is a recommendation for restaurants which are facing problems to improve their menu items based on the demand of youngsters.

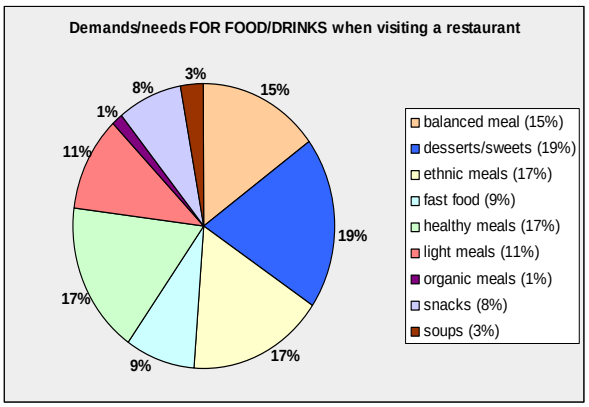
Lastly, the choices of food at a restaurant that young people prefer to have are snacks (8%) and on a very minimum extent soups (3%) and organic meals (1%).

6.7. Personal demands

In the section of investigating the personal demands of young people in the age of 18-25 years old when visiting a restaurant operation, the highest support goes on their demand for low prices (offers) (41%). This factor comes in contrast with the whole results, as the research so far concludes that young people are moving away from the traditional demand of cheap food and they are now looking for quality and upgraded services. It can be assumed though that the demand of young people is for restaurant

operations to reduce their prices to give motivation for more visitations or even to provide more offers that will attract their interest. The demand and the frequency of visiting restaurant operations exists and is vast; operators then have to take advantage of it in the most effective way by providing what is demanded. Another point of view based on this issue is that of Daniel Gros (2010) who noted in his research that "the sensitivity to price varies with age: very high for students, unemployed and new workers; less strong for employed".

FIGURE 24: DEMANDS/NEEDS FOR FOOD/DRINKS



Further to their personal demands, young people seek to expand their experiences in terms of visiting restaurant operations (30%). On a less extend, when visiting any restaurant operation, they have the need to be socialized (21%), meaning that they want to interact with other people. On a minimum extend they seek to be educated and enrich their knowledge in terms of restaurant operations and their services (8%). The data collected so far prove this issue, as the research sustainably concludes that young people know their needs and demands, they have an excellent knowledge on the existence of different types of restaurant operations and what each is offering and they choose the ones that meet the most of their demands.

6.8. Communication with other customers

While the previous results (Figure 25), show that young people have as a personal demand to be socialized when visiting a restaurant, and this is sometimes their motivation for visitation, the current section attempts to demonstrate to which extend this is important for young people. As it is shown, almost half of them (44%) support that this is of less importance while the minority (7%) believes that communication with other customers is of the greatest importance. In between these two extremes,

there are those who assume that this factor is of very little importance (33%) and those who find it just important (16%).

From the above results, the research comes to a general conclusion that even if young people find it important to communicate and interact with other customers while visiting a restaurant operation, this is not of their greatest concerns.

FIGURE 25: PERSONAL NEEDS

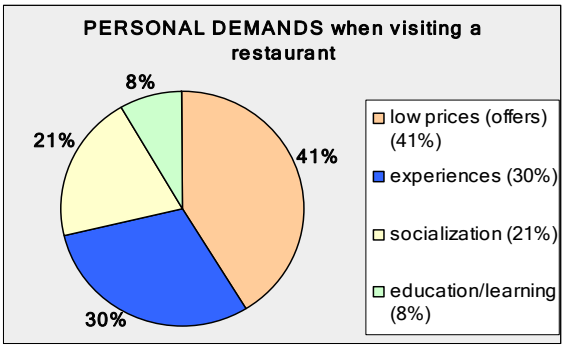
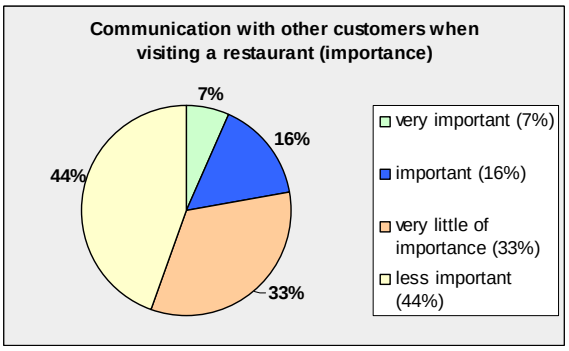


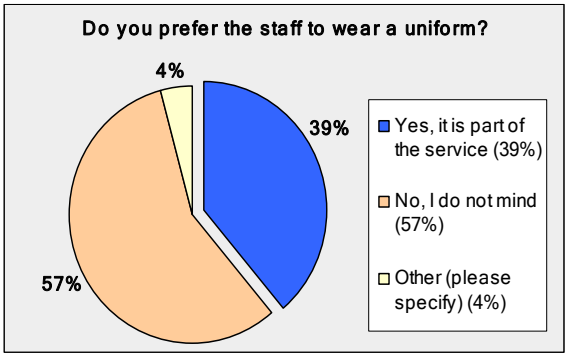
FIGURE 26: COMMUNICATION WITH OTHER CUSTOMERS (IMPORTANCE*)*



6.9. Staff uniform

In looking deeper to the preference of young people for the restaurant staff to wear a uniform, the majority respond that is not important as they do not mind (57%) and 39% prefer the staff to wear a uniform because this is part of the service. Finally, there is a 4% who mention that staff uniform is of great importance, mostly in hotels and restaurants, not in clubs and bars, in order to know who is a working person and who is a customer.

FIGURE 27: STAFF UNIFORM

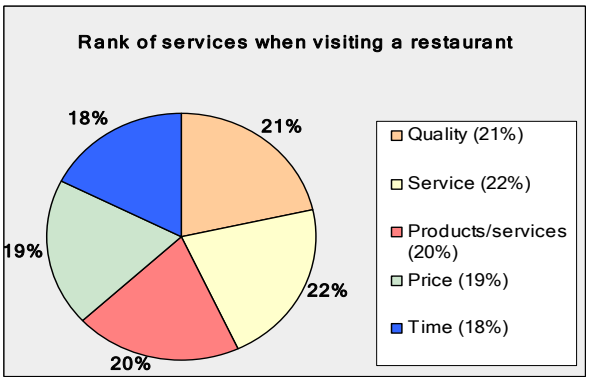


6.10. Importance of services

In concluding to the whole research, young people are being asked to give notice of which they consider the most important services when visiting a restaurant operation. As shown, most of them have as a main concern the whole service provided (22%), meaning the whole package of experience they receive. The next most important service is the quality offered (21%), followed by the exact products and services available (20%). Finally price and time offered are of less importance (19% and 18% correspondingly).

The current Figure 28 concludes to the most important issue of the whole research; nowadays, young people are not mostly concerned with the money they have to spend going out for food, but they have as their priority of demands to be provided with a whole package of experiences.

FIGURE 28: RANK OF SERVICES



7. ACCOMMODATION OPERATIONS OF THE FUTURE

As a final point to the whole survey research, respondents have been asked to give their opinion in terms of how they imagine restaurant operations to be in the future. In this field, there are countless options given and these give the opportunity for operations in Cyprus to improve their services against the demands of young people.

Some of the mentioned aspects given by the respondents refer to the factor that in the future restaurants have to create their own concept and be unique in their fields to attract more people. Some others mention that they imagine that restaurant operations will change their design to more modern and minimalistic, offer more upgraded services, improve their quality of services and offer "value of money", meaning to offer whatever customers are paying for. Few support that there should be more and alternative choices in terms of the products/services offered, such as more food choices, new designs, gadgets.

On the other hand, others imagine that restaurant operations will be able to offer quicker services, become more expensive, while others mention that the services will not be improved and upgraded for the reason that in Cyprus most of the operations prioritize their profits and not the needs of their customers.

It is remarkable the perception of some respondents who agree that in the future restaurant operations will improve their services through technology. This may happen by the use of computerized orders, a service that minimizes the time that the customers have to wait for ordering and receiving. Another mentioned element is the use of the e-menu concept, where customers are able to look at an electronic menu and lastly by the use of online booking, for the more convenience of customers in terms of not having to wait in queues, to be seated in a restaurant.

In general, the new generation has elevated expectations and visions for the future of restaurant operations. The most important part is that these expectations have to be considered by operations which they have to attempt and meet them on the highest possible extend.

Beyond the above, it should be noted that 30 of respondents did not give any answer.

8. CONCLUSIONS AND RECCOMMENDATIONS

Based on the whole survey research the general conclusion is that young people, when visiting restaurant operations, have elevated expectations and a joint consideration; to be provided with new and unique services that will enrich their dining experience. New generations' demands are moving away from the traditional concept of cheap, updated services and become fond of new and alternative choices. Even though they have specific demographic characteristics, the whole research shows that youngsters are willing to pay so as to meet their demands on the highest

extend. Also, through the research it is obvious that young people have a great knowledge concerning new types of restaurants and even better they have the need to visit them at least once so as to get the experience. Furthermore, the research makes the conclusion that young people are not looking for cheap prices, but seek for offers so as to give more motivation to visit restaurants. The demand for visiting restaurants exists and it is enormous, operations then have to take advantage of this demand, especially in terms of price offers.

Concerning the viewpoint of youngsters in terms of the future of restaurant operations, there are some who believe that restaurants in Cyprus are not able to be improved and grow as most of these operations are only concerned on their profits rather than spotlighting their customers' needs. Besides, the new generation will be the loyal customers of future restaurant operations.

Based on these factors, restaurant operations need to keep researching the changing demands of young people and in all cases to consider the demands of all customers, so as to be able through improvement of services to satisfy them. The current research gives reliable information about the demands and needs of young people especially in the age of 18-25 years old, which operators are able to use for improving their services.

As a conclusion, for those restaurant operations which attract or attempt to attract young Cypriots should adjust with their changing needs, as they:

- are willing to pay for upgraded and alternative services, even though they are independent and have huge expenses;
- are not attracted by fast food service any longer, but they choose mostly ethnic restaurants; Chinese, Mexican, Italian etc;
- know and thus are magnetized by differentiated, unique, with a concept restaurants and this is what they expect to be in the future;
- have as a demand to enrich their experiences through visiting restaurant operations;
- support the "word of mouth" effect;
- in the case of restaurant operation, they are not using the internet as a source of information or even for making reservations;
- season is not a concern for visiting restaurants;
- seek to be motivated by price offers;
- do not mind about staff uniform at restaurants; they seek for simple but still diverse options and services; and
- are not concerned about the money they spend, but they seek for a package of experiences.

As far as further recommendations are concerned, there is a number arising on the whole research. Such recommendations include further investigation on:

- the demands of young married couples, with children or not, in terms of available restaurant services and options for this subgroup of customers
- the improvement of the transportation services available at restaurants mostly in terms of accessibility for young people;
- the upgrading of new restaurant menus, with different types of food than cheap, fast snacks;
- the demand of young people for price offerings and value of money; and
- new restaurant concepts, designs, and services, that will offer upgraded and alternative services;

It should be noted that there is an attempt for further researching on this field, where other sectors of the Hospitality, as well as the Tourism sector, will be concerned. Thus, the following plans of research include:

1. The Demographic Trends of New Generations in Relation to the Club/Bar Services; the case of Cyprus.
2. The Demographic Trends of New Generations in Relation to the Travel Services; the case of Cyprus.

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ACCOUNTING INFORMATION AND DECISION-MAKING: THE CASE OF SERRES REGION COMPANIES

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ABSTRACT

This article examines the role of accounting information in industrial enterprises of Serres region, the way the economic aspects of decision making by senior executives and managers, as well as the problems they faced. The aim is to show how accounting information is influenced by various factors including the economic environment, and most importantly to show how senior management and the Board of directors use accounting information in their strategic decisions. We use the case study method because demonstrates better the uniqueness of decision making. Finally, the article indicates accounting procedures and practices to make decisions that will benefit day to day operations.

Keywords: Management Accounting; Decision-making; Case study.

1. INTRODUCTION

The issue of accounting information is of great significance, and is compelling evidence to make decisions for various businesses and organizations, different departments or any other activity associated with decision making. The rational decisions are based on accurate information (Kartalis, 2009). The global economic environment is characterized by continuous structural changes and increased competition, also accounting information plays a very important role. Accounting information is the driving force behind business expansion, development, innovation and competitiveness.

Several studies have examined the influence of factors on the role and use of accounting information in decision making. According to existing data, the importance of accounting as an information source for owners and managers of businesses and various stakeholders are obvious. Accounting information is defined as data that is

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meaningful to the receiver and can make some conclusions (Bushman, et al., 2001). Thus the two qualities of information should be relevance and reliability.

Nowadays there are various threats to the viability of an enterprise. Competitiveness, internationalization, globalization etc. are the main factors in decision making and have become a controversial topic in the international accounting literature. For this reason, some consider it imperative to adopt similar accounting systems (Courtney, 2001). However, this focus on global integration of forms management is often called into question by figures showing significant differences between countries (Helliwell, 1998). Decision-making is one of the basic pertinence. Decision making is a difficult task because someone has to choose among many alternatives. Decision is an important factor in business management because it improves the usefulness of accounting data. Several studies have shown that managers are quite dissatisfied with the accounting data received.

2. LITERATURE REVIEW

According to Wouters and Verdaasdonk (2002), accounting information may teach managers about possible alternatives and their consequences before they make their decision. They argue that if objectives are clear, but the consequences of a decision are unclear, accounting information is valuable in reducing uncertainty. They further argue that it is unlikely that accounting information could be considered as a useful tool for every decision problems. Therefore, management decisions have different dimensions, and trade-offs between these dimensions must be made.

Thompson and Tuden (1959) note the different roles which accounting and other organization systems serve in organizations. The authors distinguished between two types of uncertainties: (1) the objectives for organization action, and (2) the uncertainty over the patterns of causation, which determines the consequences of action. Galbraith (1973) shows that uncertainty reduction can be achieved by the introduction of an information processing mechanism, including accounting information. Simons (1990) identifies two general categories of decision variables: (1) differences between decision environments, and (2) differences among decision makers. Accounting information is inherent in both types of decision variables.

Abernethy and Vagnoni (2004) examine empirically the impact of authority structures on the use of accounting information systems (AISs) for decision control and decision management. Abernethy and Vagnoni's model was designed to enable an assessment of the relative impact of formal authority, which stems from allocation of decision rights, and informal authority, which stems from individual power and influence.

In contrast, Gilmore and Pine (1997), Lampel and Mintzberg (1996) and Anderson et al. (1997) argued that managers have to make complex decisions because of shorter product life cycles, a greater variety of products and services, and a greater number of

different markets and distribution channels. Such decisions would require more timely accounting information incorporating external and non-accounting data, and focusing on a range of functional areas and decisions (Chenhall and Morris, 1996; Chong, 1996; Gul, 1991). According to Chong (1996), accounting information may enable the managers to understand their tasks more clearly and reduce uncertainty before making their decisions.

Macintosh (1985), Chapman (1997) and Burchell et al. (1980) argue that accounting information systems may have the function of a "learning machine". These systems are interactive and provide a variety of information on current performance. The accounting information systems also have the ability to analyze information in many different ways. However, research has generally shown that managers are often not satisfied with accounting information (McKinnon and Burns, 1992).

Karmarkar et al. (1990) and Sullivan (1983) note that managers often do not consider accounting information as a very useful tool for decision making and would prefer to have better information. Other researchers have even argued that there are situations when managers do not use accounting information to evaluate decisions. Scapens et al. (1996) and Sillience and Sykes (1995) found that certain important decisions are made by managers without using accounting information. Mouritsen and Bekke (1999) provide instances that/when decisions were based on consequences of the dimension of time, rather than on accounting information.

3. THE ROLE OF ACCOUNTING INFORMATION

The use of accounting data is an effort to facilitate organizational decision making, and to exert greater control over the executives of a company. In addition, they serve as a tool for minimizing the complexity and uncertainty in decision making. The use of accounting information comes before decision- making, where in some cases is not used as a tool for decision-making (Baxter et al., 2003).

It should be understood that accounting and accounting information do not constitute the cornerstone in decision-making. They should not necessarily go together, which is even more important in identifying the role of accounting information.

Statutory requirements and procedures play a key role in organizations such as business and retain a strong hold on raft organizational action (Collier, 2003). At this point, it should be noted that accounting information plays a role and serves in making decisions. Below we identify distinctive roles of accounting information (Cohen et al., 2009).

In particular, accounting information can be identified initially as a technique that has a rational role, it must be used effectively to strengthen the decision making process. The rational use of accounting information by managers of enterprises, improve decision-making executives, reducing the uncertainty faced as well as the

effectiveness of their actions. So firms will provide efficient and effective information that will be useful for the needs of external users (Collier, 2003).

A second issue is the fact that information is identified as having a sociopolitical role, where the accounts are used for the rationality of business actions. A sociopolitical role indicates the extent to which managers use accounting data and justify the actions of their members (Cohen et al., 2009).

4. RESEARCH METHODOLOGY

This research was carried out in enterprises of the Serres region, focusing on the export business. The main object of this research is the extroverted industrial enterprises, whose study was done on how firms make decisions and what obstacles they face.

The case study was chosen to examine the current role and use of accounting information in decision making in industrial enterprises in the Serres region, and provide information on how this role and use of accounting information is influenced by contextual factors such as business structure, strategic objectives and the market.

The research is based on the case study of industrial enterprises in the Serres region, which was conducted by a questionnaire in April-May 2011. The case study employed the coherence of the objectives of this research. Indeed, this study aims to extend the existing literature on accounting management. Also, case studies are useful when relationships between actors are complex and dynamic. This study highlights the factors that affect and influence the role and use of accounting information in decision making and strategies.

This methodology is suitable because of the number and diversity of factors that affect it. Moreover, the case studies provide valuable insights when the effects of factors are difficult to quantify (Yin, 1994).

This criterion is certainly coupled with the various factors that influence such as characteristics of the industries, and most importantly, the preferences of managers and their views on intuition and emotion in decision-making strategies. The themes chosen for discussion is decision-making, the number of factors affect, as the focus on economic targets, the use of qualitative and quantitative data, the role of intuition, globalization etc.

4.1. Data collection

By collecting data we focus on opinions, knowledge, attitudes, personal characteristics and other descriptive attributes. The famous instrument for collecting data is the questionnaire (Yin, 1994). There are different methods of collecting data that may be taken into account in an investigation. These methods of data collection

can be summarized in personal interview, telephone interview, postal and e-conference interview (Yin, 1994).

For this research we have excluded the initial phone interview due to time constraints, since administrators, managers and general managers, are busy and can not allow the phone interview lasting about half an hour. We also excluded the postal survey because such a form of research is unable to provide details, there may be delays in data collection, and a small degree of responsiveness on the part of respondents.

The electronic form of an interview was excluded as well as because the main disadvantage is the necessary infrastructure. Noting the above, it must be mentioned that in this empirical study we used the method of the questionnaire. In addition, the questionnaire is the most common method for data collection.

As stated earlier, telephone interviews were excluded. Only telephone survey was employed to identify exports industries. Therefore, the case study approach was chosen to be done by using questionnaires and some additional questions primarily to senior business executives. It was acknowledged that one drawback of this approach is that returns will not be expected and there may be generalization of the conclusions of the study. Interviews and questionnaires were deliberately structured to explore the influencing factors on the role and use of accounting information in decision-making Serres region industries. All interviews were recorded in order to avoid inaccuracies (Winston, 1997). The duration of interviews ranged between 5 and 10 minutes, as we mentioned, because of workload interviewees did not devote more time.

In this research the questionnaire was not sent in the form of an e-mail but delivered personally to decision-makers. This was because when the executives, owners, members of a company, see such an email is likely to ignore and not read it at all. Apart from this, we can not be sure if the right person answered the questionnaire. For these reasons, and because we wanted to conduct a personal interview with selected respondents to the questionnaires delivered personally and expect to complete them. Thus, the data gathered from various sources, included short interviews with senior managers and directors of companies. This data collection was supported by the literature on decision making strategies and preferences, and the impact of globalization on the convergence of accounting practices. This use of multiple sources to evaluate a broader range of issues and factors is consistent with our objective to provide a complete evaluation. In addition, it improves research with the most reliable and most convincing (Kaplan et al., 1988).

4.2. The case-study sample

In the Serres region there are 115 export firms. A significant role in the extraction of this information played the Chamber of Serres who willingly gave us a list of Serres export enterprises. The researchers contacted by telephone with 115 businesses, of

which a significant proportion of around 52% do not export now. Thus, nine of these companies have agreed to our willingness to accept and respond and to help in our research, although they said that there is a large workload. In addition, several participants called for privacy and confidentiality by the researcher on the answers provided. Thus, initially the questionnaire indicated that the questions are anonymous and confidential. Moreover, to preserve anonymity as originally promised, we renamed the business in an 'A' company 'B' company 'C' etc.

For this research 30 industrial companies in Serres were selected in order to gather data. The respondents were mainly managers, consultants, accountants and business owners. Moreover, the adequacy of respondents and the questions depend on the amount of new information that can be retrieved (Wouters et al., 2002). In conclusion, in our case the number of 30 respondents composed of people who represent the main entities to process accounting information and decision-making. Therefore, the number of participants of our research is sufficient and, most importantly, it provides comprehensive knowledge on the subject of research.

4.3. The case-study questionnaire

The topic which was primarily chosen for analysis was the decision-making and strategies through factors that influence decision making. The questionnaire should be consisted of short, readable and pertinent questions in order not to overwhelm the reader. Intentionally, the questionnaire included questions with which we could explore all the factors which influence the role and use of accounting information in decision-making industries of the Serres region. It examines what decisions are taken, by whom, by what the decisions are affected, and finally, what are the most common problems in decision making.

The questionnaire that we distributed to enterprises was accompanied by an introductory letter. Also, the questionnaire includes two sections. For the smoother introduction of respondents the most common way to prepare a questionnaire are demographic questions (Brace, 2008). Thus, the investigator separated the questionnaire into two sections.

At this point, to understand the following, it is necessary to say that the ordinary, nominal and proportional level is the key levels of the variables, used for research analysis. The headline used when each member of the sample belongs to a category, or a man or a woman, with the most common example being the person's sex; was No. 0 for men and No. 1 for women. The tactical level measurement is maybe used when possible rating in all categories of a variable with a criterion. Finally, the proportional level measurement is used when possible rating categories of a variable, and is equal to the distance between the intervals.

Thus, initially the first part presents the demographic data referred to the company as, turnover, etc., as well as some personal information of the interviewee including

gender, age, education level, etc. The record shall be to assist in research analysis. The first part includes multiple choice questions that were measured in ordinary, nominal and proportionate level.

The second section consists of questions related to making business decisions, such as who makes decisions, what decisions are made, who is affected by the decisions and what the problems in decision making are. Also, the second part of the questionnaire includes questions of regular measurements, nominal and proportional level.

For the questionnaire closed questions, were mainly chosen in which respondents choose the best according to their view. There are open questions in the questionnaire, in which respondents can deepen their thoughts or even identify the causes of some their views. Unfortunately, there was no immediate response to these questions, thus we had to record what respondents said. But some do not answer in a complete way. In conclusion, it must be said that closed questions are appropriate for an empirical research as a direct response from the public, but the treatment is easier and allow conclusions to emerge with greater accuracy.

The questionnaire was designed to be small and the questions to be coherent. The duration for completing the questionnaires ranged between 10 and 15 minutes. All completed questionnaires were used to conduct findings to avoid inaccuracies. The questionnaires are analyzed with the statistical program SPSS.

5. DATA ANALYSIS

Industrial companies of Serres were chosen in this research to evaluate the role and use of accounting information in decision making, which are also the largest export companies in the Serres region, according to information given from the Chamber of Serres. The role and use of accounting information is the result of a process which can be termed complementary and contradictory.

The paragraphs below present the most important factors that influence and show the multiple rationales that exist in relation to the role and use of accounting information in decision making and the preferences of managers. Despite its international orientation, and the state of the economy, a significant proportion of Serres business turnover continue to export. The following table 1 shows that the export activity of firms analyzed in percentage reaches 20% and 30% of their production activities.

Table 2, which determines the sex of the respondents in the study, we realise that the majority of interviewees consists of men with a frequency of 20, while women with a frequency of 10. It should also be noted that 19 of the 30 executives, managers and owners who participated in the study and make up the percentage of 63.3%, are employed in corporations, as we can confirm from Table 3.

TABLE 1: THE EXPORT BUSINESS OF INDUSTRIAL ENTERPRISES IN SERRES

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
0-10%	5	16,7	16,7	16.7
10-20%	6	20,0	20,0	36.7
20-30%	9	30,0	30,0	66.7
30-50%	6	20,0	20,0	86,7
50-70%	1	3,3	3,3	90,0
More 70%	3	10,0	10,0	100,0
Total	**30**	**100**	**100**	

TABLE 2: NUMBER OF PEOPLE PER GROUP SHEET

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
MALE	19	63,3	63,3	63,3
WOMAN	11	36,7	36,7	100,0
Total	**30**	**100,0**	**100,0**	

TABLE 3: SEPARATION OF ENTERPRISES BY LEGAL FORM

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
SA.	19	63,3	63,3	63,3
GP.	11	36,7	36,7	100,0
Total	**30**	**100,0**	**100,0**	

Furthermore, as shown in Table 4, a remarkable rate of about 36.7% are permanent employees and 30% of the sample is business owners. The businesses are organized according to the Greek corporate law and some with the international law, and therefore have the necessary committees as a board consisting of executive and honorary members. The paragraphs below present the most important factors that influence and show the multiple rationales that exist in relation to the role and use of accounting information in decision making and preferences of managers.

5.1. Group decision-making

Decision process involves more than one person. Especially the important decisions require group decision making, 80% of the persons surveyed say that the

decisions are taken collectively. Also, a significant percentage of 43.3% in groups receive 70% of decisions (Table 6). In our study a rate of about 63.3% (Table 3) shows the respondents working in companies with a legal form of limited liability companies, while only 36.7% of respondents consist of the legal form of the general partner. Therefore, the format of the companies in question requires that the team takes decisions, in accordance to the board of the organization which must be convened at regular intervals.

The significant percentage of 70% (Table 7) responded that decision-making does not involve additional cost to the company because the meetings of the Board are designed to this end.

TABLE 4: POSITION OF STAFF IN FIRMS

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
MASTER	11	36,7	36,7	36,7
SEASONAL	4	13,3	13,3	50,0
OWNER	9	30,0	30,0	80,0
UPPER STEM	5	16,7	16,7	96,7
OTHER	1	3,3	3,3	100,0
Total	**30**	**100,0**	**100,0**	

TABLE 5: TAKING GROUP DECISIONS

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
YES	24	80,0	80,0	80,0
NO	6	20,0	20,0	100,0
Total	**30**	**100,0**	**100,0**	

Here are the views of two members from businesses that have the highest turnover. Specifically, a senior member of 'A' technological education institution and a member of Company 'B' with university education reported the following:

"It takes time, but of course, taken collectively, the decisions are more effective, because a person does not possess the knowledge, experience, skills, crisis and creativity of bringing together all the people and the sixth of them, shared non-expected results."

"They identify problems or opportunities, the alternatives are more, and group evaluation is an objective and realistic option. Furthermore, there is a sharing of the risk of failure of the Decision."

TABLE 6: PERCENTAGE OF DECISIONS TAKEN COLLECTIVELY

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
0-10%	7	23,3	23,3	23,3
20%-30%	2	6,7	6,7	30,0
30%-50%	1	3,3	3,3	33,3
50%-70%	7	23,3	23,3	56,7
above 70%	13	43,3	43,3	100,0
Total	**30**	**100,0**	**100,0**	

TABLE 7: ADDITIONAL COST FOR DECISION-MAKING

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
YES	9	30,0	30,0	30,0
NO	21	70,0	70,0	100,0
Total	**30**	**100,0**	**100,0**	

From the views already mentioned, and from the questionnaires, we can conclude that their views coincide, regardless of their different educational backgrounds, as well as the position in the underlying business decision (as indicated by the questionnaires). These two business executives have a similar opinion on the group decision making. From the above we can conclude that it is very rare not to use committees in decision-making. Undoubtedly, a lot of time is devoted to identify the decisions they want to take, to identify problems and generally those involved in making a decision. On the one hand, collective decisions require years, but on the other side there is an advantage because they combine views and experiences of different people, there are more alternatives and allocate the risk of failure. So, the above views show that collective decisions are more effective and more accurate than the decisions taken by one person.

5.2. Get short or long term decisions

A significant percentage of respondents corresponding to the present research suggest that a major influence in decision making about the role and use of accounting information is short or long term decisions. This distinction is of great concern for making the strategic decisions on investments.

TABLE 8: TAKE LONG-TERM OR SHORT-TERM DECISION

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
LONG	1	3,3	3,3	3,3
SHORT	15	50,0	50,0	53,3
DESPITE ALL OVER	14	46,7	46,7	100,0
Total	**30**	**100,0**	**100,0**	

Respondents in interviews said that they have a strong preference for short-term positive results, rather than on strategic objectives that will provide long term benefits. Particularly a manager of company 'C' said:

"People we work with want to be informed about the price of products, the most common question is whether increasing the price of product A. And they want to know today, not tomorrow, they have an interest for the outcome. And of course, it involves what should be the business decision to release how much we can beat a price increase and what further steps you allow us to take? Is sure what the prevailing assumption that firms tend to do things causing immediate profit. Nowadays it is increasingly difficult for a company to participate in activities to restore long-term results. We are a company that invests too much on short-term prospects, and generate immediate profit."

The focus on short-term outlook affects the use of accounting data. Thus, an investment that provides greater efficiency in the short period is more likely to be accepted by its members. However, each enterprise should set targets in relation to ROI. Moreover, firms often face the dilemma between members who prefer short-term benefits, and the members who say there will be more satisfactory benefits from a long-term strategic planning because they ensure future stability, as well as the success and growth targets. The contrast is emphasized by the leaders in making a decision who are the 3.3% of respondents.

As already said, the conflict among the members who welcomed the decision making and long-term members who strongly support the benefits of short-term decisions is very important (Table 8). According to what we have learned, more than the above conflict affects the role and use of accounting information in making strategic decisions. But the board wanted to focus on ensuring stability, and future development should be considered a duty and responsibility of balancing the goals of its members.

Contrary to these conflicts between members, a strong influence on the role and use of accounting information in decision making is a combination of some data. It is important to support the decisions in various informative sections which include reviews, such as calculating ratios, investment and other relevant qualitative and

quantitative information. It must be a collective decision-making not only in terms of Board members, but also between departments. As mentioned above a significant proportion of 80% made use of group decision making.

Furthermore, the extent to which accounting data and other qualitative information is used significantly affects the decisions. It is also mentioned that new investment decisions are usually evaluated under consideration of the various factors affecting them, as the competitive situation. Smaller investment decisions are deemed to require less stringent evaluations. However, the limited evaluations are not considered sufficient. Instead, an accountant said that all significant decisions should be assessed satisfactorily and the information should be clear to be able to decide for sure.

5.3. Financial statements and decisions

It should be noted that there are differences in the use and interpretation of accounting information between the managers of financial information, showing heterogeneity rather than homogeneity, even in the same company. The financial statements are necessary to obtain information because in large companies decisions are based on this accounting information. On the one hand, a small proportion (36.7% Table 9) takes account of the use of financial statements in making decisions or strategic objectives of the company, this figure probably lies in the fact that respondents do not trust us enough to answer honestly.

TABLE 9: USING FINANCIAL STATEMENTS

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
YES	11	36,7	36,7	36,7
NO	19	63,3	63,3	100,0
Total	**30**	**100,0**	**100,0**	

On the other hand, there are cases where the company manipulates the figures in the financial statements, or want to experience reduced profits or gains or losses. So, justifiably the accountant discloses financial information in which there is a significant deviation or distortion of the facts. From table 9 we conclude that the number of respondents (frequency 19) shows that the majority does not trust the financial statements of the company, because most are unaware of the penalties laid down by applicable laws and falsifying financial information.

5.4. Intuition, education, experience of decision-making

The educational background of decision makers should be considered as a factor influencing the use of accounting information, particularly in relation to the specialization of financial information. The strategic decision-making processes involve many people. This large group of decision makers is characterized by a variety of educational and other personal preferences. As it is already known, disparities arise not only among individuals of high and low educational level in decision making, but it is obvious also within the respective groups of the same level of educational attainment. Indeed, training, work experience, age group and personal preferences seem to be particularly critical to the use of accounting information in decision making.

Conducting, that accounting data is not used to make decisions, but rather to justify its decisions to members. However, this does not set specific requirements in relation to the use of accounting data. Instead, the requirements of administrations and personal preferences seem to have greater influence on the complexity and number of current approaches.

The development of this theme in the research, said that the choice of accounting decisions depends on the intuition of managers and their educational background. Intuition seems to be a cornerstone for taking any decision.

TABLE 10: EDUCATIONAL BACKGROUND

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
PRIMARY SCHOOL	1	3,3	3,3	3,3
ELEMENTARY SCHOOL	6	20,0	20,0	23,3
HIGHER EDUCATION	11	36,7	36,7	60,0
UNIVERSITY EDUCATION	9	30,0	30,0	90,0
MASTER	3	10,0	10,0	100,0
Total	**30**	**100,0**	**100,0**	

In this study, the educational background of decision makers is quite high; a rate of about 86.6% attended a college. However, managers of firms reported examples that intuition is a component directly related to decision making. This is evidenced by the occurrence of 18 in Table 11, which is over the 50% of the survey sample. Also on interpersonal interviews with senior executives, they noted that a number of senior executives come from a technical educational background and gained the necessary

business knowledge to work and not in formal education. However, following the declaration referred to an experienced person and successful businessman of the company ΄A΄:

"*In earlier times, the worker, with rubber boots, started a job and later became the boss. This is no longer feasible. Data in our time have evolved and maybe this is no the case any more."*

TABLE 11: INTUITION AND DECISION-MAKING

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
LESS	4	13,3	13,3	13,3
SUFFICIENTLY	3	10,0	10,0	23,3
MUCH	18	60,0	60,0	83,3
VERY MUCH	5	16,7	16,7	100,0
Total	**30**	**100,0**	**100,0**	

Here it must be emphasized that the manager, who has many years of experience in the business, wants to emphasize that in our time with the rapid developments, one can not be evolved without knowledge. Previously, when there was a trend that exists also today, a worker with intelligence and with a combination of circumstances could be the master in his own business. Nowadays, however, things have changed. Knowledge is always required in combination with the experience to run a business.

Considering the pace of our era, we must apply some of those strategies for making business decisions. The 66.7% of companies responded that indecision-making they trust people who combine education and work experience, while a rate of about 33.3% said they only take into account experience. From the table we conclude that higher education itself is not a reliable asset for decision making.

Closing the development of the subject of education, we come to the fact that education level combined with experience and intuition significantly affects the extent to which accounting information is used in decision making. Training experience and intuition are factors, which complement one another. Therefore, in order to avoid significant deviations from the expected results, with the proper decisions, the above factors should be taken seriously.

5.5. External consultants for major decisions

The majority of the sample, acquired higher education, however, there is little difference between those who turn to important decisions in search of external consulting, to those who answered negatively. From the table below a relatively high frequency (44) claims that they do not need an expert in major decisions for the company.

TABLE 12: DECISION-MAKING WITH PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
PROFESSIONAL EXPERIENCE	10	33,3	33,3	33,3
COMBINATION OF MORE THAN	20	66,7	66,7	100,0
Total	**30**	**100,0**	**100,0**	

TABLE 13: USE OF EXTERNAL CONSULTANTS

	Frequency	**Percentage**	**Valid Percentage**	**Cumulative Percentage**
YES	11	36,7	36,7	36,7
NO	19	63,3	63,3	100,0
Total	**30**	**100,0**	**100,0**	

In contrast, there is higher frequency of positive responses. This probably stems from the fact that nowadays there is a risk to market confidence, and businesses need support to achieve the targets as an extension to funding grants for investment projects. More specifically, members of businesses seek advice from someone who is specialized in certain topics and know more. Members seek information on their economic environment and business development.

5.6. Globalization and decisions

Globalization has now become a priority for the business' minds of most entrepreneurs. This can be seen from Table 14, since 86.7% of respondents stated that globalization has influenced their decisions.

Also, they said that globalization has strongly influenced the industry, and in particular, that has caused severe structural changes in the last two decades. The following two comments are indicative of the responses:

"A totally different world. 1974 and now 2011, are two entirely different worlds. So, you can not compare Serres' products industry twenty years ago and today."

It is important to note that the move toward global integration, that globalization has caused is accompanied by changes such as reducing protectionism and support national industries (Salamonet al., 2007). This protected structure and the economic crisis has reduced the need for decision making, because decisions were of a different nature and often focus on reinvestment or expansion investment.

TABLE 14: PROBLEMS AND LIMITATIONS IN DECISION-MAKING

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
YES	26	86,7	86,7	86,7
NO	4	13,3	13,3	100,0
Total	**30**	**100,0**	**100,0**	

At this point the most common problems faced by members when making decisions should be mentioned. The problems faced by institutions of decision making are a lot and vary between companies which participated at the study. Many respondents argued that the most common problems facing today are mainly related to the weak economic environment in Greece and its competitors. Moreover, funding and proper display of accounting data without tampering is still one of the problems encountered by members in decision making.

The Manager of 'A' company stated:

"*The problems are associated with economic problems. There are also problems in cooperation and normal relations between boss and staff, but these problems are associated with the cost of business."*

In addition the Manager of 'B' company stated:

"We belong to the category where a decision is causing extra costs to business. Also, the life period of the operation, how long will last over time, competitiveness and crisis."

Furthermore, the manager of company 'C' stated:

"The unstable economic environment in Greece and the influence of international events on the economy".

Moreover, the Manager of ΄D΄ stated:

"Gathering information relevant to the environment of competitors."

It should be noted that the views on this question vary. A common problem faced by managers, owners and the general business environment is the economic crisis in general. Nevertheless, there are different opinions among the respondents. The economic crisis creates uncertainty for making a decision, the fear of affecting the behavior of consumers, for example, a decision that will bring changes in the price or the quality of products. Also, competition is considered as a problem for decision making. To enhance competitiveness a business must be strengthened and utilize appropriate mechanisms to improve the factors that comprise it.

5.7. How decisions are influenced by external factors?

Compelling evidence of external factors is the economic crisis. In this question there is 100% accordance with the economic crisis as a factor that has influenced the

decisions taken by firms. Other problems are of legal and ecological nature. Others argued that they were affected negatively or positively depending on the economic situation of the company. It should be noted that this study was directed primarily to export companies, which are strongly influenced by the international market. Documenting all of the above will be presented with the following views of some executives who agreed to answer:

The Manager of company 'A' stated:

"Positively or negatively affected by the economic performance of the company is in conjunction with the general economic environment."

The Manager of company 'B' stated:

"Negatively in the past two years, due to the economic crisis and low activity on the market."

In addition the Manager of company 'C' stated:

"If conditions are favorable, low competition, low prices and cheap labor, then decisions are negatively affected. If there is no liquidity, market movement, buyers and lending banks, then decisions are negatively affected."

Commenting on the above we concluded that the economic crisis affects significantly the enterprises. The national or the international market, may negatively affect the economy, it has also been suggested that it may be affected positively by them. We can say that the respondents stated specific factors that influence decisions, but the identification of factors should not suffice to understand the factors influencing decision.

5.8. Checking the results of decisions

Trying to explain the control of the results for decision making, apart from the question that we have in the questionnaire, an extra question was placed ´´Which decision has more control?´´

All respondents combined this question with their budgets because it is the compass of the company. The budget defines the objectives which are a factor which measures the performance of the company, as well as the cost of expenditure.

In table 15, the percentages of the respondents did not have significant differences. In 36,7% of the sample there is much control, in 30% there is very much control, and 30% of the sample there is enough control.

TABLE 15: TEST RESULTS OF DECISIONS

	Frequency	Percent	Valid Percent	Cumulative Percent
LESS	1	3,3	3,3	3,3
SUFFICIENTLY	9	30,0	30,0	33,3
MUCH	11	36,7	36,7	70,0
VERY MUCH	9	30,0	30,0	100,0
TOTAL	**30**	**100,0**	**100,0**	

5.9. Economic crisis and decision-making

Nowadays, the cornerstone in decision making is the economic crisis affecting our country. With the current economic crisis many firms face difficulties that force them to take difficult decisions. A significant percentage of around 53.3% responded that the decision making process has been very much affected by the economic crisis; 33.3% mostly which is a fairly small percentage.

TABLE 16: ECONOMIC CRISIS AND DECISION-MAKING

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
SUFFICIENTLY	5	16,7	16,7	16,7
MUCH	10	33,3	33,3	50,0
VERY MUCH	15	50,0	50,0	100,0
TOTAL	**30**	**100,0**	**100,0**	

Here it should be stated that no company which participated in the survey answered 'no' or 'little'. Even the most organized businesses, those with the highest turnover and high rates of exports, which are in the food industry, responded that were much affected, if not much very much from the economic crisis.

6. CONCLUSIONS

After examining and analyzing the use of accounting information in decision making, and the factors which affected the executives to take decisions, as well as the difficulties of making a decision on industrial-manufacturing firms in the prefecture of Serres, and the gathering of international and domestic literature, in this section we will provide results relating to the objectives set.

This work provides an in-depth knowledge about the role and use of accounting information in decision making of the industrial enterprises in the Serres region. The research focused on understanding the major influences on accounting decisions. For this research a case study was used, to illustrate that its senior executives, owners and general managers use accounting information in the most useful way. In this research, we used export companies, which consist mainly of general partnerships and limited liability companies. The sample consists mainly of people who have attended higher education.

Indeed, given the economic environment, this case study shows that contextual factors such as the preferences of managers significantly affect the use and interpretation of accounting information in decision making. In addition, information on accounting information affect as well the decision making process.

The evaluation of the role and use of accounting information in decision making has analyzed the impact of various factors affecting it, such as the preferences of managers, the economic crisis, external factors affecting decision making, intuition, educational background, etc. The effects of these factors are evaluated taking into account the wider environment of Serres industry. It should be also noted that we have demonstrated the role and use of accounting information in decision making which is the result of a complex interplay of endogenous and exogenous factors that have direct effects on the role and use of accounting data. For example, they show that the preferences of executives affect the role and use of accounting information. Moreover, there is manipulation of accounting data which does not allow carrying out objective decisions and thereby enhances the complexity of decision making.

In addition, the rates and questionnaires are evidence that the industrial enterprises of the Serres region tend to take short term decisions. Thus, Serres industrial companies follow mainly short-term decisions rather than long term strategic goals. Indeed, this focus on long term goals seem to be rather limited, short-term pressures arises from globalization and increasing pressures on the market. Nevertheless, the main strategic goal formulated by the use of accounting information still applies to long-term decisions.

Furthermore, although a good proportion of staff have welfare undertakings, significant level of educational knowledge and offer a lot, nevertheless refrain from participating in decisions to invest more, and thus, receive assistance from outside consultants to enhance robustness in decision making. Although there are indications that the role and use of accounting information varies depending on the significance of the decision, nevertheless, it is noted that the accounting data is of great importance.

Documenting the relationship between the role and use of accounting information we have identified the following key elements: The interpretation of accounting data differs not only in different educational backgrounds but also between the same educational levels. For decision making, both education and experience are important for each manager. Each decision-maker understands some things from his perspective.

Experience is very important, and so is the general perception and knowledge for each subject.

Apart from the above, a factor that was analyzed for decision making is intuition. Intuition is an agent with different views in relation to its influence in decision making and the use of accounting data. Through interviews we concluded that business users use intuition as a substitute for the use of accounting data. Statements about the influence of the forces of globalization, have revealed a contradictory situation in which globalization can extend, but also restrict the use of accounting information in decision making processes, we increased competition and globalization lead to increased use of accounting data.

Yet, an inseparable element for making the right decisions is the economic data-elements of the business. It was observed that there is a significant degree of falsifying financial statements which prevent an objective decision. Last but not least, is the economic crisis which has affected decision making significantly.

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DESIGNING THE VISUAL IDENTITY OF THE GREEK GOJI BERRY

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ABSTRACT

The aim of the presented work is to correlate the goji berry, which is generally accepted as a Chinese product, to the Greek agricultural tradition and the biological products. A series of different messages such as love for the Greek goji, the healthy Greek goji, the Greek land embracing a foreign product are used in order to create a new identity based on Greece. The basis for developing the promotion strategy of the newly designed identity is the "3G" (Goji Growing in Greece). The purpose of the "Greek Goji" identity is to emphasize its origin and to correlate the related products directly with the Greek food quality. While a visual identity consists of the brand-mark, the logo and the tagline are all used in this case. Its versatility results in significant adaptability for a series of different Greek products based on goji.

Keywords: Visual Identity; Branding; Design.

1. INTRODUCTION

Before the design of the trademark, a thorough research of the product itself is required, as well as a recording of the goals and wishes that the producer wants to stress to its customers (Doyle, 1990). The collection of all these data, leads to the creation of a mind-map which was used during the design phase (Figure 1). A mind map is often created around a single word placed in the center, to which associated ideas, words and concepts are added. Major categories come out from a central node, and lesser categories are sub-branches of larger branches (Jianxin, 2008). A mind map expressing the feelings, the experiences and the memories of the product, has the

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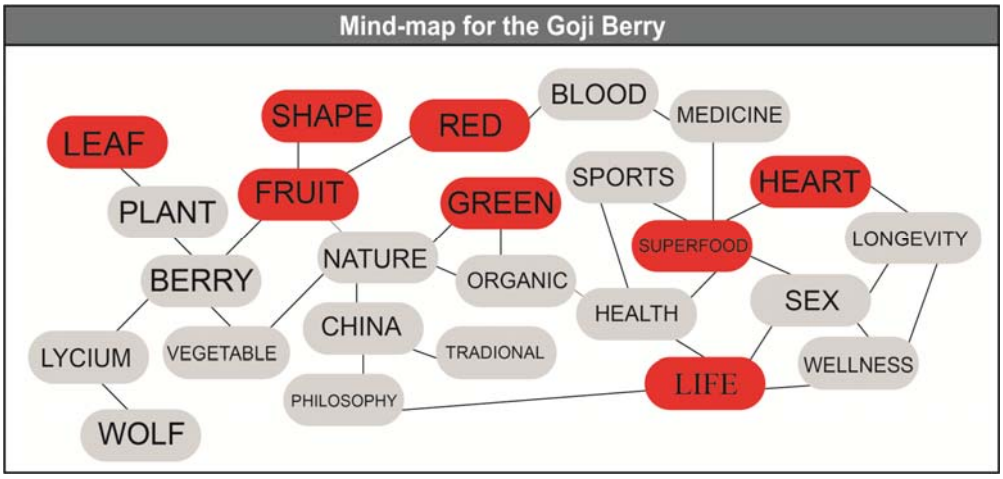
ability to give the guidelines for design. Every word is associated to another. This collection of words, as well as their processing through correlation with images and symbols, lead to the brandmark, the logo and the tagline standards. In general, mind-mapping is particularly useful in professional design because it's very effective for working through the following important steps of the design process: a) collecting thoughts, b) generating ideas, c) getting into a creative groove and d) associating words with images (Airey, 2010).

FIGURE 1: MIND-MAP FOR THE GOJI BERRY (WORDS IN RED ARE USED TO CAPTURE STRONG MEANINGS)



The Greek goji is used both as a natural product and as a newly promoted Greek product. In more detail:

- **Goji as a natural product:** The Goji Berry (meaning Berry of Happiness) is a fruit of orange-red color and ellipsoid shape (1 to 3 cm long), soft and tender, while its taste reminds of raisins with a small after taste of tomato and cherry. It can be consumed raw and dried or cooked in various recipes. It has been reported to have medical, remedial and beneficial properties and is considered as one of the richest natural sources of nutrients. Some of the benefits that have been associated with it, are: antiaging, elixir of longevity, booster of the metabolism, the immune system and the memory, heart strengthener and sexual vigor booster (Seeram, 2008).
- **The Greek Goji:** Greece is an excellent place for growing goji berries, having the desirable climate conditions in most parts of the country. With goji, new farmers have a fresh opportunity for Greek agriculture as they are looking for something

new and efficient. The same goes for the product itself, which finds a new homeland that can maximize its qualities and abilities.

2. THE DEVELOPMENT CONCEPT

The development concept is an outcome of the mind-mapping procedure study. The correlation of words with images, the sketching on paper, the clarification of concepts such as brand, brand identity, brandmark, logo, tagline and finally their digitalization, creates a solid basis for the conceptual design (Srivastava, 2011; Wheeler, 2009; Rensburg, 2013). In the present paper, different branding concepts for the Greek goji have been identified and are presented as follows:

- **Brand:** Unique design, sign, symbol, words or a combination of these, employed in creating an image that identifies the product and differentiates it from its competitors. Over time, this image becomes associated with a level of credibility, quality, and satisfaction in the consumer's mind. Thus, brands help harried consumers in crowded and complex market places, by standing for certain benefits and value. The legal name for a brand is the trademark and it identifies or represents a firm, it is called a brand name.
- **Brand identity:** The visible elements of a brand (such as colors, design, logo, name and symbol) that together identify and distinguish the brand in the consumers' mind.
- **Brand-mark:** The element of a brand that cannot be expressed in words (picture, symbol and typeface).
- **Logo:** Recognizable and distinctive graphic design, stylized name, unique symbol, or other device for identifying an organization or a product. It is affixed, included, or printed on all advertising, buildings, communications, literature, products, stationery and vehicles. It should not to be confused with the brand.
- **Tagline**: Simple and catchy phrase accompanying a logo or brand, that encapsulates a product's appeal or the mission of a firm and makes it more memorable. When it is used consistently over a long period, it becomes an important component of the product identification or image. Also it is called catch line, strap line or slogan.
- **Word-image correlation:** The decoding of words into forms and shapes composes the new symbols, which include all the messages given during the initial phase of the designing processes: love for the Greek goji, the healthy Greek goji, the Greek land embracing a foreign product.
- **Sketching:** Based on the shapes created through the correlation of words (leaf, green, fruit, heart, shape, superfood, red, life) and their images (Figure 2), the first drafts capturing the brandmark of the Greek goji was created. In this particular stage of the designing process, experimentation was an incentive (Figure 3).

FIGURE 2: CREATING THE CORRELATION OF SPECIFIC WORDS WITH IMAGES

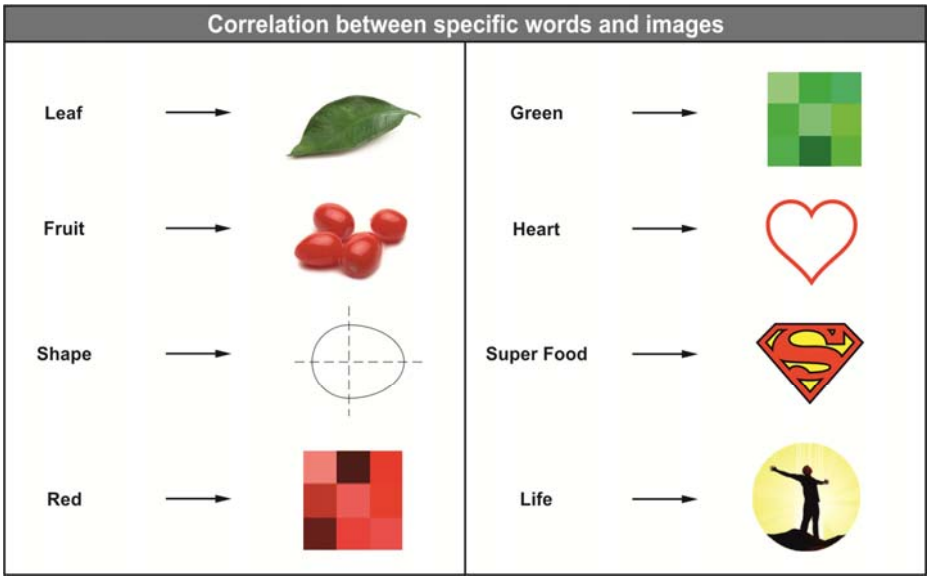
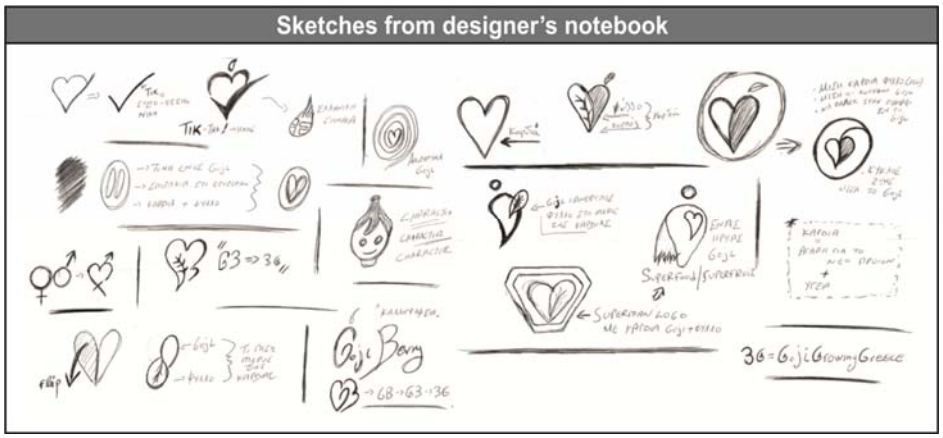


FIGURE 3: THE INITIAL SKETCHES FROM THE DESIGNER NOTEBOOK



3. BRANDMARK DEVELOPMENT

During the design stage four symbols (brandmarks) were developed and they emerged directly from the sketches. Their digitalization using vector elements assisted

in their artistic editing (coloring, effecting etc). Every new symbol and potential brandmark was governed by a design concept, which emerged from the two previous designing phases.

Concept under the name "The life cycle principle": The combination of the three visual elements: a) the circle, b) the heart and c) the fruit, were incorporated in a strong symbol, which can be interpreted directly through the life cycle and the dietary habits of the consumers as the new kind of crop emerges (the Greek goji). In addition, it locates health at the center of every person's life, represented by the heart in the center of the circle (Figure 4).The choices of colors are based exclusively on the mind-map and are related to the colors of goji (red) and the Greek nature (green for plants and yellow for the sun).

Concept under the name "Positive for health": The second brandmark uses the heart and fruit elements, similarly to the previous case. This can be justified by the great importance these words have for the product (health and growth of a new product on the hospitable Greek land). Instead of the circle, the international symbol for the words right, positive and healthy –the well-known "tick" (or "check mark") was used. The incorporation of all these images and symbolisms into one shape, gives the impression of a heart (health) which consists of two parts: a) the goji fruit (upper part of the brandmark) and b) the checkmark (lower part).

Concept under the name "The folding heart": In this case, more abstract shapes are used in order to communicate the messages of the product, with a special playful tone. The red goji fruit gets connected with a green leaf from the Greek nature, creating a visually "easy" but symbolically "clever" shape. The red heart which folds slowly from left to right hides the green color behind it. The interpretation is that, through the consumption of the goji berry the consumer's health is supported and maintained by nature.

Concept under the name "The cross-section of health": Inside the fruit there are small seeds. Two of them come together, creating a heart and a leaf (symbols which came from the mind-map). The final image of this brandmark emphasizes the qualities of goji and points out its rich properties, by revealing its inside world. It has nothing to hide and gives all of its benefits to the consumers.

3.1. Logo and tagline development

The use of the simple and terse word "goji" incorporates all those dynamic characteristics that the created brand needs. Emphasizing the product itself, was a key element and the use of any other word which could imply the goji would have been a designing flaw. The choice of a handwritten but elegant font, emphasizes the natural origin of the product but also its superior quality (Figure 5). The beginning of the tagline was the "3G". Goji is now planted and grown in the Greek land. For the

commercial use of the Greek goji in the international market the tagline "Goji, growing in Greece" is used.

3.2. Combination of elements and creation of the brand identity

With the combination of the three different elements, the final identity of the goji product was created. The four design proposals cover the whole research spectrum, which was studied throughout the design phases. The use of the same typography for the four different brandmarks, was used in order to emphasize the Greek goji symbol (Figure 6).

3.3. Colour usage

The choice of colors was made according to the visual elements of the raw material (goji berry) and the environment in which it grows (Greek land). Also, "gradient" colors were used so that more realistic results could be produced. The basic color families used were the green, red and yellow.

The psychological interpretation of the colors used, subconsciously affects the consumer on a secondary level (Ou et al., 2004), as follows:

- **Green:** It represents life and rejuvenation. It is a relaxing color. It is often used for products or situations emphasizing environmental conscientiousness. Some key words commonly used with this color are: environment, harmony, health, freshness.
- **Red:** An intense color representing strong feelings. It is used for products, situations and brandmarks related to action, adventure, energy, love and passion.
- **Yellow:** It immediately raises interest and associates with loving and warm feelings. Some key words commonly used with this color are: game, happiness, perkiness, warmth, sunset.

FIGURE 4: THE DESIGN PROCESS FROM SKETCHING TO THE BRANDMARK COLOURING

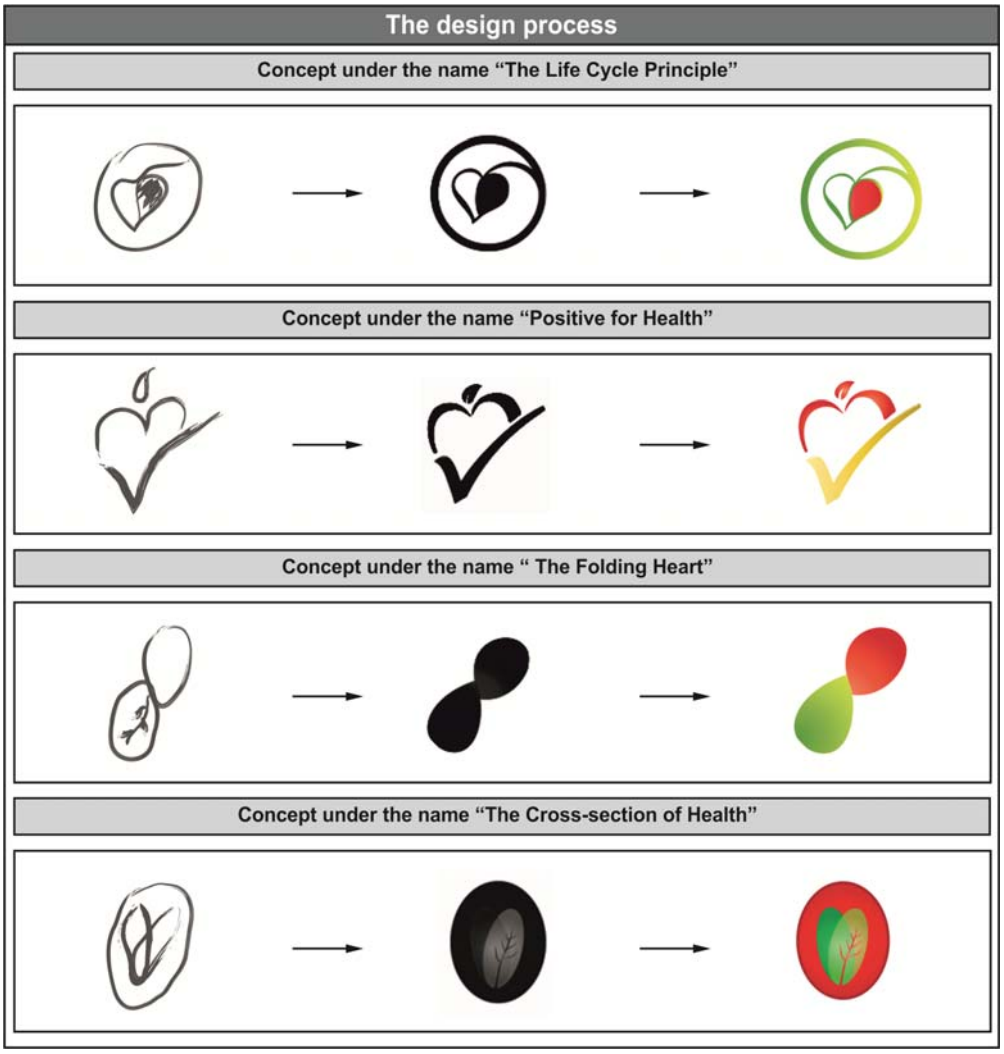


FIGURE 5: THE TAGLINE FOR THE GOJI COMMERCIAL BRANDMARK

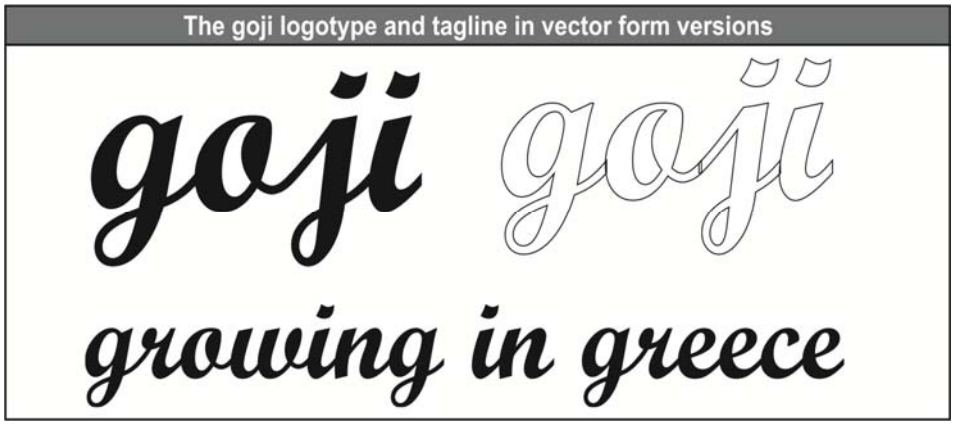
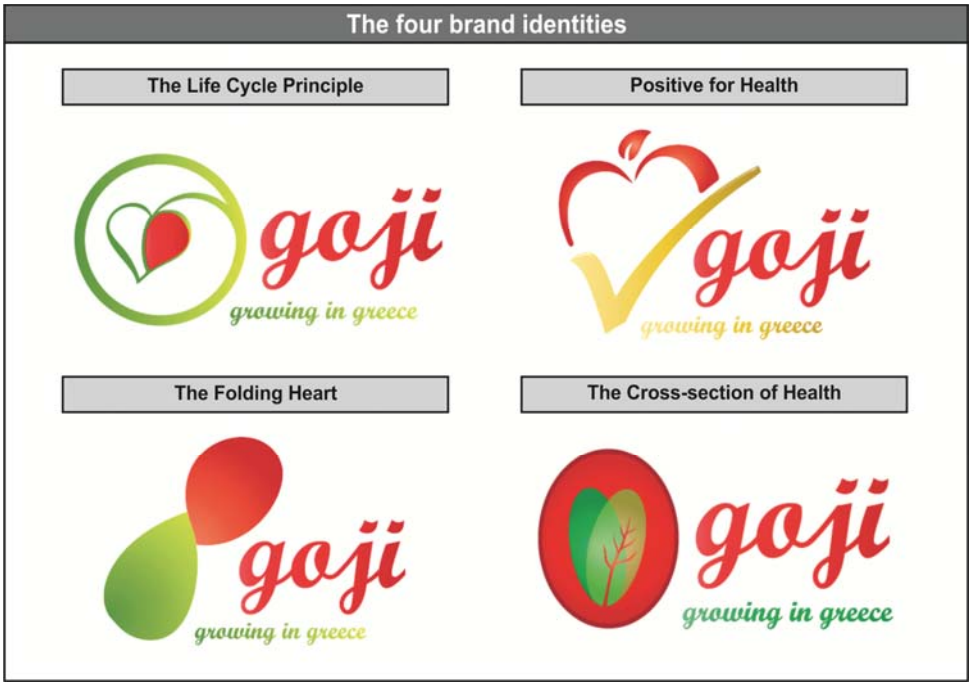


FIGURE 6: THE FOUR BRAND IDENTITIES



3.4. Alternative versions development

Based on the general form of the logos developed and analyzed in depth previously, the need to create alternative versions of these brandmarks emerged. The basic guidelines for the designing process were two: a) emphasizing the Greek aspects of the product through color and symbol correlations and b) the creation of a children's character based on the logo itself, which would target the young consumers. Based on the above, new versions of each concept were created, using in the first case the blue color and the Greek flag as prominent elements and in the second case a cartoon-like face created through the symbol itself, with no color changes (Figure 7).

3.5. A new symbol for the Greek goji cluster of companies and producers

The role of the Greek goji cluster of companies and producers is to promote the Greek goji in a variety of products, and create welfare for the producers by increasing their income. Additionally, it was necessary to create an additional logo representing the Greek goji cluster, while the Greek identity of the raw material was emphasized from the beginning. The visual elements of the new symbol follow a similar designing concept with the previous ones.

The symbol "gr" is used in order to stress out the Greek background of the raw material. The three leaves used, incorporate one of them in blue color and the cross is there to remind of its Greek origin. Finally the colors used are red, green and blue in order to combine the colors of the goji together with the Greek flag. As a result, there is no doubt that it reminds of something unique (Figure 8).

A series of proposals for product packaging using Greek goji is presented in figure 9. They have a modern character and can definitely promote the new concept for Greek goji usage with them.

FIGURE 7: ALTERNATIVE VERSIONS OF BRAND IDENTITIES

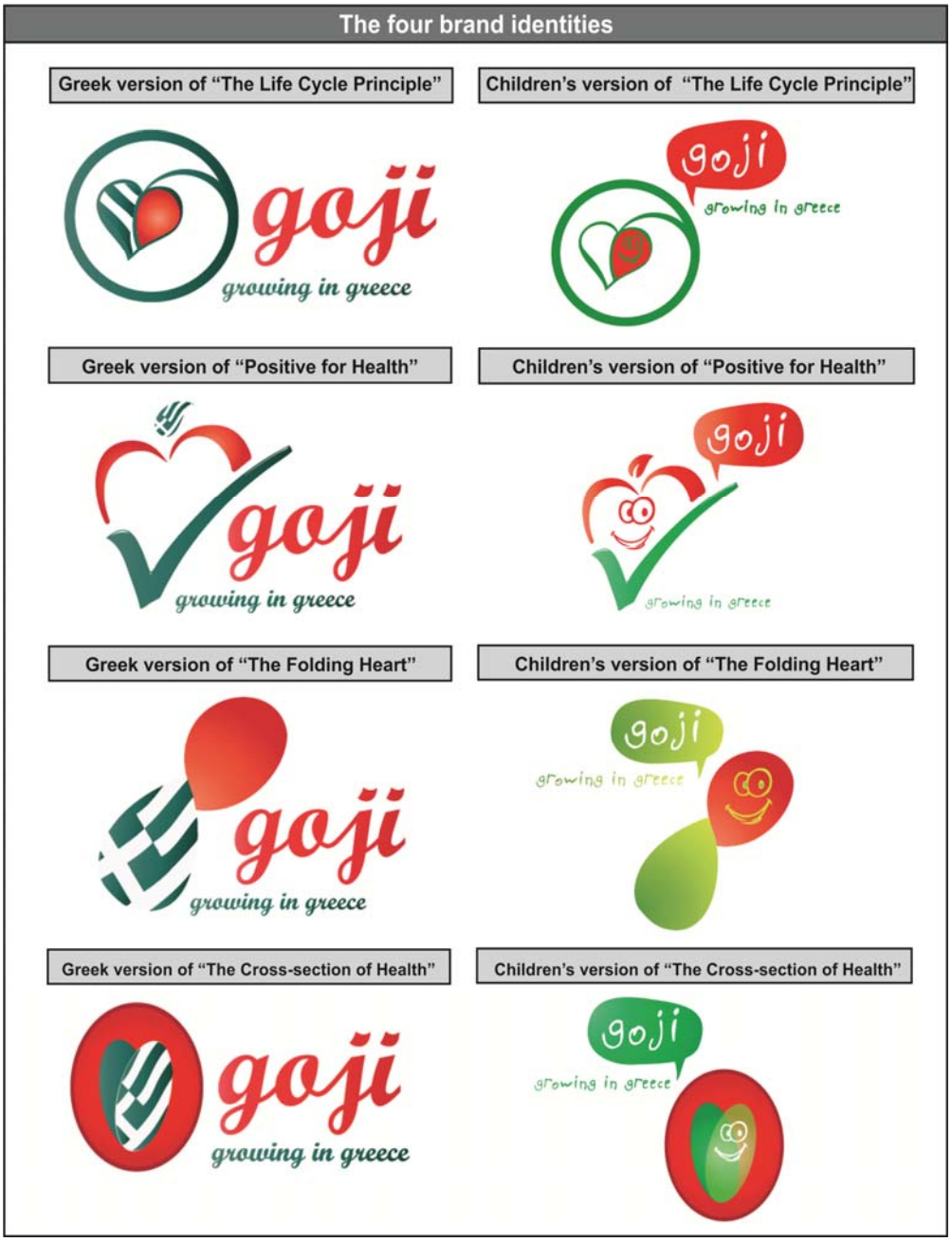


FIGURE 8: THE VISUAL SIGNATURE OF THE GOJI CLUSTER

FIGURE 9: GOJI PRODUCT PACKAGING EXAMPLES

4. CONCLUSIONS

Packaging is maybe the only kind of brand which is trusted by the consumers. It is the ideal brand medium and it was used in order to promote the Greek character of the products brought to market. The main difficulty of the presented work was to achieve the acceptance of the Greek goji in the market as something different. Goji by itself is a plant with Chinese origin and it is widely known and accepted as a Chinese product. A series of different packaging proposals for the product has been accomplished, and some are already in the Greek market.

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