The Relationship between Personality Traits and Virtual-web Based Service Brand Personality (SEM Method in Google Context)

Mahshid Gharibpoor, Farham Amiri

MBA, Department of Management, University of Isfahan, Isfahan, Iran

ABSTRACT

Brand personality is one of the most important factors of brand identity which has appealed most of the marketers' attentions. For the first time, in this research, a virtual-web service brand personality was investigated for the Google brand, as the most powerful and popular web search engine in the world. Big Five Model and refined brand personality scale for virtual-web service brands were used by SEM model in order to investigate the main hypothesis: personality traits have a positive relationship with Google brand personality and other hypotheses. It was found that users view Google as a creative brand.
Keyword: brand personality, personality traits, Google, Big Five, SEM.

1. INTRODUCTION

Most companies aspire to build a global brand. One of the important dimensions of brand equity is the brand personality which is an important factor of evaluating the company. Although Brands are not animate objects, yet consumers often consider brands as having the human characteristics, in which called a brand personality (Aaker, 1996, Aaker, 1997, Batra et al., 1993). Brand personality is thought to be a relatively enduring predisposition about a product's image or trait characteristics just like human personality (Fetscherin et. al., 2010). Three decades ago, emerged concept of brand personality led increasing interest among marketing academics and practitioners (Freling and Forbes, 2005). Consumers eagerly assigned human personality traits to brands. The idea that brand personality contributes in a meaningful way to the consumer brand relationship can be vital to develop a powerful brand strategy (Hayes et al., 2006). To deploy company brand, the perception of the consumer's mind should feed back to brand management, so it is necessary for the company to pay enough attention to their brand personality (Wong and Merrilees, 2005). Therefore, marketing practitioners concentrate on building "an obvious and distinctive brand personality". Indeed, at a time in which consumers consider high product quality as their particular rights and competitors may easily copy product characteristics, a strong brand identity and personality can be valuable to build brand equity (Gouteron, 2008). In the other hand, Plummer (1984, 2000) argued that brand personality can be crucial to understand brand choice. Brand personality is considered as all personality traits used to characterize a person and associated with a brand, which is related to the relational marketing. It tries to provide better understanding of development and maintaining the relations between brands and consumers. It can also explain how those relationships impact consumers' behaviour (Fournier, 1998; Ambroise, 2006; Gouteron, 2006, 2008).

Research on brand personality is separated into three streams. One of the stream is studying over the various dimensions of brand personality across countries and areas, such as Aaker's works (1997); the other stream concentrates on the antecedents of brand personalities and its fits, and another stream searches about the consequences of brand personality (Wang and Yang, 2008).

This study is categorized under the second stream. This study tried to investigate the relationship between personality trait and brand personality of Google brand, as the most popular web search engine. In the other word, this article wanted to study the virtual web service brand personality for the first time and examined if Aaker refined theory could fit with virtual-web service brands world.

2. Theoretical framework
2.1. Web search engine: Google

This paper concentrates on how a brand personality is communicated by means of a web site. In literature, brand personality is often discussed with clear reference to the products, the corporate brands, or even countries but not the web service brands. Research in this area is important because it can prove Aaker theory among virtual-web service brand world.

---

*Corresponding Author: Mahshid Gharibpoor, MBA, Department of Management, University of Isfahan, Isfahan, Iran. gharibpoor@yahoo.com , telephone: 9809384096267, fax: 983116683116

Web search engines are probably the most important tools of retrieving information for web-service information systems. Among the major search engines, Google could gain a reputation as one of the leading and most popular search engines. In 2006 in the USA there were 91 million queries searched daily on Google alone meanwhile The total number of queries searched daily on all search engines was 200 million (Jamali and Asadi, 2010). In 2010, the search market grew by 12%, driven both more people searching, and existing searchers searching more but Google remains the clear leader, receiving more than 2 of every 3 searches, with Yahoo! in second at 16% (www.digitaltrends.com).

Besides being fast and user-friendly, Google's popularity is mostly due to the relevance of the recovery results for a typical query. In other words, recall and precision could be high for Google's search results. Google regularly creates new services such as Google plus and Google Scholar to cover special contents. Google search engine could become increasing popularity among academic communities and students and it now plays a crucial role in their information-seeking behaviour. Web searching is a subset of information seeking, and could particularly concern with the interactions between the information user and the web using general web search engines. Nowadays, as a major search engine, Google could be successfully become one of the most essential tools for searching information for both academic and non-academic purposes (Jamali and Asadi, 2010).

This article has considered searching, mailing, translating, having news as the most applications of Google among Iranians students. These factors were achieved by asking sample group in first pilot study about "what they use Google for". At last, the answers were classified and put into 5 groups as shown in table 2.

2.2. Personality trait

Human personality can be considered as the starting point of the research on brand personality. The currently general school of thought in the area of psychology is the personality trait structure. Gordon Allport (1897-1967) is known as the founder of personality psychology. He described the personality as "a real person" and mentioned more specific and well-know definitions of personality (Yi Lin, 2010) such as: "Personality is the dynamic organization of physiological systems that creates a person's characteristic pattern of behavior, thoughts, and feeling" (Allport, 1961).

Traits are defined as "inclinations to adapt consistent modes of cognition, affection, and behaviour". Human personality traits can be determined by some multi-dimensional factors like the individual's behavior, appearance, attitude and beliefs, and demographic characteristics (Rajagopal, 2006).

Some personality trait researchers believe that, for the most part, personality traits can be generated by nature and they are stable, meanwhile some others mention that personality traits will continue to evolve and they are changeable, even though the natural-born temperament can never change (Sternberg, 2000). Overall, this paper considers personality traits as stable psychological features which are generating meaning to human actions and experiences.

McCrae et al. (1986) classified personality traits into five major factors:

1. Extroversion;
2. Agreeableness;
3. Conscientiousness;
4. Neuroticism; and
5. Openness.

The five factors are generally known as the Big Five Model, which is extensively used nowadays. By referring to Big Five Model, this study defines the personality traits as degrees that consumers believe themselves in terms of extroversion, agreeableness, conscientiousness, neuroticism and openness. Extraversion assesses an individual's quantity and strength of interpersonal interaction and activity level. The higher scorers refer to be sociable, active, talkative, person-oriented, optimistic and affectionate. Agreeableness assesses an individual's quality of interpersonal orientation along a range from compassion to antagonism in thoughts, feelings, and actions. The higher scorers are expected to be soft-hearted, good-natured, trusting, helpful, forgiving, gullible, and straightforward. Conscientious assesses one's degree of organization, persistence, and motivation in goal-directed behavior. The higher scorers of this dimension are likely to be organized, reliable, and hard working. Neuroticism assesses an individual level to psychological distress, unrealistic ideas, excessive cravings or urges, and maladaptive coping responses. The higher scorers tend to be worried, nervous, emotional, and hypochondria cal. Openness assesses an individual's proactive seeking and appreciation of experience for its own sake, toleration for, and exploration of the unfamiliar. The higher scorers are likely to be curious, creative, original, imaginative, and untraditional (Yi Lin, 2010).

2.3. Brand personality

Human beings need to personify objects in order to improve their interactions with the intangible world (Plummer, 1984). Humans have a tendency to attribute positive traits to products through anthropomorphism in order to improve their feeling of comfort and familiarity, and to reduce feelings of risk during using them. Guthrie (2008) defined "anthropomorphism" as "the transmission of human characteristics to non-human things and events".

On the other hand, According to theories of animism, brands can possess their own personality, too. Animism believes that all natural and inanimate or even intangible things have spirit and can influence human events (Cambridge advanced learner's dictionary).

Therefore, "The brands" like humans, may possess distinct personality characteristics (Plummer, 1985). Brand personality is one of the core dimensions of brand equity (Aaker, 1996), which is related to how people tend to contribute a "pseudo" human personality to the brand itself, rather than to what the brand really does (Keller, 1993).

Brand personality has appealed marketing scholars in last decades (Okazaki, 2006). It contains many advantages for marketers including an increase in consumer preference and usage, an increase in consumer's trust and loyalty, and the ability to produce emotional responses in consumers (Guthrie et. al., 2008). Brand personality can provide characteristics used to market a brand. It is applied and improved by advertisers in hopes that consumers will associate with their brand regarding to some specific adjectives or imageries (Guthrie et. al., 2008).

Brand personality, defined as all personality traits applied to characterize a person and related to a brand, is a concept within the field of relational marketing which can help to understand the development and maintaining of relations between brands and consumers. In addition it mentions how those relationships can influence consumer behaviour (Gouteron, 2008).

Ambroise et al. (2004) blamed some first founding definition for being too general. He believed that it can lead, when measuring brand personality traits, to include ad hoc terms that exist in no human personality measurement tool. Although there are many definitions of brand personality, none of them is generally adopted (Lombart, 2010). Several researchers have concentrated on the personification of a brand and to the use of human metaphor, as they supposed that it was the best way to conceptualize the complexity of a concept reflected in brand personality aspects (Davies et al., 2001; Keller and Richey, 2006; Okazaki, 2006).

Keller (1993) pointed out that brand personality is considered to possess symbolic values rather than utilitarian functions. Brand personality can provide the means of constructing and maintaining social identity for consumers, and can offer a mechanism for expressing his/her actual self, ideal self or social self. The brand is viewed as having "personality" and described using human characteristics. The brand is thus viewed as a "character, a partner and a person" (Aaker and Fournier, 1995, p. 393). In 1997, Aaker defined brand personality as "the set of human characteristics associated with a brand". She also mentioned "Sources that contribute to the formation of brand personality can be classified into two categories: direct and indirect sources" (Aaker, 1997). Direct sources contain the set of human characteristics related to the typical brand users, company employees, corporate CEOs, and brand endorsers. Indirect sources include of all the decisions made by company managers, such as decisions related to the product, its price, distribution, and promotion (Wang and Yang, 2008).

Azoulay and Kapferer (2003) conceptualized this construct as "the set of human personality traits that are applicable and relevant to brands". Likewise, Ferrandi and Valette-Florence (2002) defined brand personality as "all personality traits used to characterize the individual and associated with a brand". This latter definition will be applied in this research because it provides the defining brand personality only based on human personality traits. It also extends the possibility of considering the meaning transfer between the perception that an individual has of his personality and that of the brand he buys and therefore consumes or rejects.

Brand personality can be applied to express one's ideal self or different versions of the self, as well as, one's perceptions and evaluations of the brand. For example, brand personality can be used to an individual's own personality (Guthrie et. al., 2008). Brand personality mention symbolic meaning or emotional value that can contribute to consumers' brand preferences and can be more stable than functional attributes (Rajagopal, 2006).

Previous research has suggested that consumers prefer specific brands when the brand personality parallels the consumer's own personality or the personality they tend to achieve (Yi Lin, 2010; Carlson et. al., 2009). Brand personality also indicates how consumers perceive and judge the brand itself and value certain characteristics over others, which can finally influence their brand choice. For example, Kim (2000) found that although personality expectations for apparel brands were different, the brand personality of "competent" was a common characteristic for brands that were perceived positively (Guthrie et al., 2008).

Successfully positioning a brand's personality within a product category requires measurement models that can be able to disentangle a brand's unique personality from those traits that are common to all brands in the product category (Rajagopal, 2006).

Previous research used the trait approach, in which brand personality was assumed as a set of multi-dimensional traits. In the most comprehensive study to date, Aaker supposed a theoretical framework by enhancing the "Big Five" composition from human psychology and by isolating the dimensions of sincerity, excitement, competence, sophistication and ruggedness with several sub-categories (Aaker, 1997). Aaker specified a total of 42 terms in a scale. Each of these five dimensions includes several corresponding adjectives. For example, as Carlson mentioned in his study, "Sincerity is defined as down-to-earth, honest, and wholesome. Brands such as Hallmark, Coca-Cola, and Disney rate high on this trait. Excitement is assumed as daring, spirited, imaginative, and up-to-date as demonstrated by Target with its high-energy advertising campaign. Competence is viewed as reliable, intelligent, and successful. The Wall Street Journal is a brand that rates high on competence. Sophistication is viewed as upper class and charming. BMW and Lexus are two luxury car brands that rate high on sophistication. Brands such as Hallmark, Coca-Cola, and Disney rate high on this trait. Excitement is considered as daring, spirited, imaginative, and up-to-date as demonstrated by Target with its high-energy advertising campaign. Competence is defined as reliable, intelligent, and successful. The Wall Street Journal is a brand that rates high on competence. Sophistication is seen as upper class and charming. BMW and Lexus are two luxury car brands that rate high on sophistication" (Carlson et. al. 2009). Mainly, positive attributes are listed, because the scale was assumed to be used to determine "the extent to which brand personality affects the probability that consumers will approach (versus avoid) products" (Aaker, 1997, p. 350). Her work established a significant basis in the development of an object measurement scale, the variables which influence consumer purchase decisions both independently and interdependently (Okazaki, 2006).

The Brand Personality Scale (BPS) (Aaker, 1997) is used in this study because it enables researchers to recognize the symbolic meanings of brands as if they were people. A large collection of brand personality studies based on this particular scale suggests that both marketing academia and professionals are eager to utilize this framework widely (Aaker, 1997; Aaker, Benet-Martinez and Garolera, 2001). Aaker's (1997) original scale, developed in the USA, was found to have some international applicability in following work (Aaker et al., 2001) in extensions conducted with Spanish and Japanese brands. This shortcoming led several researchers to construct a country-specific brand personality scale (Geuens et al., 2009).

In addition, The Aaker (1997) brand personality scale is used widely to traditional, tangible brands; meanwhile Google is a virtual brand which the multi-faceted dimensions of Aaker brand personality may not directly apply. Consequently, this article applied Aaker BPS and developed it for virtual-web service brands. Therefore, the most acceptable facets of Aaker BPS in a Google context were chosen to change or improve in the two pilot studies. Refining the scale and determining the variables were done by professors and marketing experts do to eliminate some variables or add in some others within Aaker model. By Collecting 50 questionnaires from sample group, analyzing and refining the measurement of the models was done two times. Finally the BPS dimensions achieved as shown it in table 1 for Google brand. The research purpose was conducting a scale which can widely use for virtual brand personality. To gain this goal, considerations of comprehension, unambiguity, and simplification of the final model were required.

Table1: BPS dimensions for virtual web service brand

Sincerity	down-to-earth: down-to-earth, fast, easy use
	Honest: honest, confident
	Creative: energized, creative
	Cheerful: cheerful, sentimental, friendly
Excitement	Up to date: up to date, exciting
	pleasant: new environment, pleasant environment
	Imaginative: imaginative, unique
	independent: independent, contemporary
Competence	Reliable: reliable, secure
	technical: technical, corporate
	Successful: successful, leader
manner	upper class: upper class, appealing, good looking
	Lovely: lovely, feminine
flexibility	flexible: flexible, changeable

2.4. Relationship between personality trait and brand personality

There are a few studies which investigated the relationship between personality trait and brand personality by Aaker BPS but none of them studied virtual brand such as Google.

Sicilia (2008) mentioned that a web site can act as a marketing tool to develop a group of loyal consumers around the brand. Yi Lin (2010) found out a significantly positive relationship between extroversion personality trait and excitement brand personality; a significantly positive relationship between agreeableness personality trait and excitement brand personality, sincerity brand personality and competence brand personality. Chow et al. (2004) conducted a study on college students' sports shoes buying behavior in an attempt to find if there was a significant correlation between personality trait and brand personality. By classifying the brands into the ones preferred by college students and the ones actually being purchased recently, the research found that the college students of different personality traits shows significant difference in the preference of brand personality.

Guo (2003) investigated if there was a significant correlation between personality trait and brand personality according to the scores of the five dimensions of the Big Five Model. The result shows that all five dimensions of the Big Five Model have significant positive relationship with the cognition of brand personality.

3. Research hypotheses and conceptual model of research

As it discussed above, there is a significant relationship between personality trait and brand personality in tangible products. But this study is conducted to examine this hypothesis on Google brand as a virtual web-service brand. Figure 1 shows the conceptual model of this research. Following Hypotheses have been conducted to investigate the relationship between personality traits and brand personality:

H1: Sincerity is largely an element of brand personality.
H2: Excitement is largely an element of brand personality.
H3: Competence is largely an element of brand personality.
H4: Manner is largely an element of brand personality.
H5: Flexibility is largely an element of brand personality.
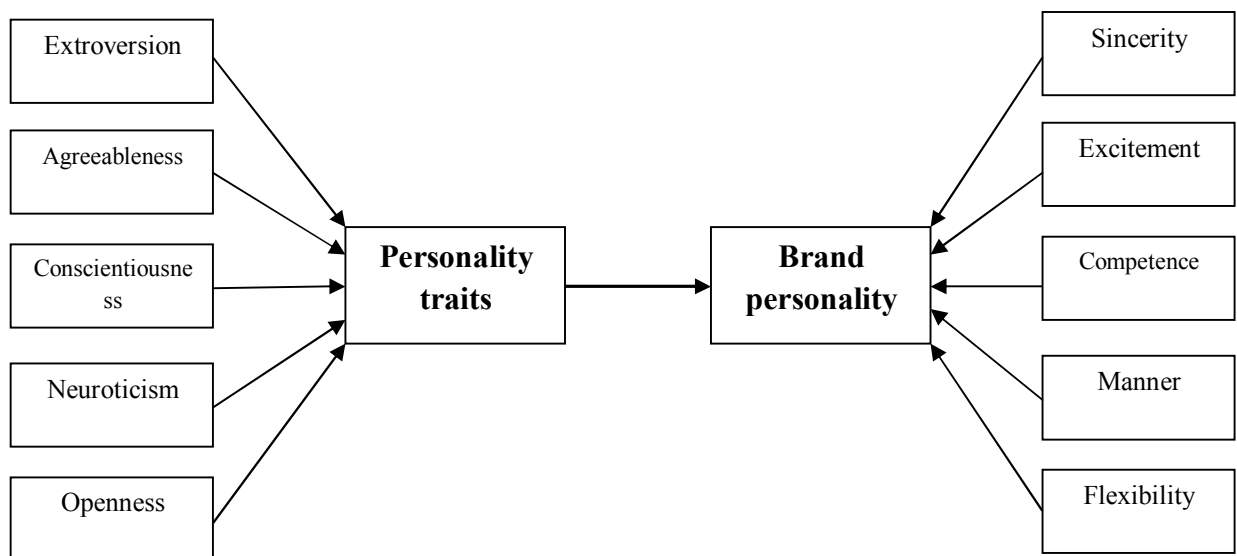H6: There is a strong relationship between personality traits and brand personality.

Figure1: conceptual model

4. RESEARCH METHODOLOGY

4.1. Research procedure and sampling

This study adopted structural equation model (SEM) in the data analysis. SEM includes two stages: measurement model analysis and structural model analysis. For the intended structural equation modeling (SEM), the power of the test is dependent upon the number of specified parameters and the sample sizes. For SEM, estimating power is more complicated and tedious. Indeed, by considering degree of freedom and root mean square error of approximation (RMSERA), we can gain the optimal sample size. Meanwhile, one of the most important advantages of using SEM is ability to test good fitness of model by using not large sample size.

To determine target group of the research authors had some limitations. In Iran, Many people know and use Google for searching, mailing, translating and so on, but the study required a target group which has these

conditions: utilizing Google and working with it continuously for more than 2 years, having stable access to the internet, ability to compare Google with other web search engines. To achieve this goal the descriptive-empirical survey was conducted among junior and senior students of university of Isfahan. Students were chosen as a target group of this study because they are the permanent users of Google especially for their academic activities. They know Google better than anyone else. From the 185 dispersed questionnaires, 155 of them were usable which was adequate to analyze by Amos. As the results of pilot study showed, HOELTER, the essential size of sample, was just 84 but the authors preferred to consider bigger sample size. The sample composed of 94 male and 61 female. Their ages were between 18- 40 as shown in table2.

Table2: demographic statistics data

gender	Female			Male	
	39%			61%	
education	M.A.			B.A.	
	84%			16%	
Age	18-20	20-25	25-30	30-35	35-40
	4%	36%	28%	21%	11%
Years of using Google	2 years	2-4 years	4-6 years	6-8 years	8-10 years
	11%	23%	46%	11%	9%
The Most Applications of Google	search	Gmail	translate	news	others
	47%	25%	22%	3%	3%

4.2. Scale and measurement

This survey utilized a questionnaire designed to collect data regarding personality traits of Google consumers and Google brand personality. The questionnaire had three major parts. The first part, adapted from the Big Five questionnaire. Its reliability and validity have proved in many researches (Bozionelos, 2004; Robie et. al., 2005). For the second part the authors used Aaker's refined brand personality dimensions as questions. Most of brand personality researches have showed good reliability and validity of this scale (Fetscherin et. al., 2010; Lombart, 2010). To achieve the appropriate scale for Google brand as a virtual web-service one, the most acceptable facets of Aaker BPS in a Google context were chosen to change or improve in the two pilot studies. Refining the scale and determining the variables were done by professors and marketing experts in order to eliminate some variables or add in some others within Aaker model. By Collecting 50 questionnaires from sample group, testing, analyzing and refining the measurement of the model was done two times. After correcting the scale, by using Amos factor loading, the result scale as shown in table 1, was achieved. In the third part the respondents' demographic data were collected, such as gender, age, education, and Google's the most applications. All items in the questionnaire were measured on a five– point Likert types of scale anchored from "strongly disagree" (1) to "strongly agree" (5).

4.3. Measurement model estimation

To assess the measurement model, exploratory factor analysis (EFA) is performed separately on each construct to confirm scale dimensionality. Then, Items with factor scores of less than 0.3 are eliminated and the items retained for each construct are tested for Cronbach's α. The result of the exploratory factor analysis of this study showed that all of the factor loadings of conformity and satisfaction's scales are higher than 0.3, so no items was deleted (the inappropriate factors were eliminated in 2 pilot studies). Each of measurement models assessed with Cmin/df, goodness of fit index (GFI) root mean square error of approximation (RMSERA) and comparative fit index (CFI). Amos graphics.18 used to estimate all of measurement models. All fit indices fall within acceptable ranges: Cmin/df=1.98, GFI=0.92, RMSEA= 0.048, CFI= 0.96 and P (value) =0.026.

Construct indicators show high Reliability (Cronbach's alphas range from 0.69 to 0.88), and indicates strong internal consistency. Examining construct validity, all factor loadings in the CFA for the total measurement model were statistically significant (with all t values at $p< 0.01$), demonstrating convergent validity (Kumar et al., 1998). A total Cronbach's alpha was 0.82.

5. Data analysis and hypotheses testing
5.1. Test of structural model

This study adopted structural equation model (SEM) in the data analysis. After the measurement models were analyzed separately, the conceptualized model of research ran as a structural model to test the hypothesis regarding to relationship between personality trait and brand personality. The method of maximum likelihood estimation in Amos Graphics.18 software used to analyze data and hypotheses testing.

To assess the proposed model's fit, we used the overall model Cmin or chi-square, the Tucker – Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA), goodness of fit index (GFI). Also, the number of distinct parameters was being estimated (NPAR) 95 and the number of degrees of freedom for testing the model (DF) was 114.

After refining the initial structure model, all of the goodness of fit indexes were within acceptable range and indicate that the model of the research has a good fitness. In order to test the hypotheses and casual path, the maximum likelihood methods have been used (See table 3).

Table3. Goodness Indicates of Model

Indicator	CMIN/DF	DF	CMIN	TLI	P	RMSEA	GFI	CFI	NPAR
value	1.528	114	174.141	.912	.18	.059	0.96	.941	95

5.2. Hypothesis testing and results

To test the hypotheses, the conceptualized fit model of research ran as a structural model regarding to relationships between personality traits of Google users and brand personality of Google. The method of maximum likelihood estimation in Amos Graphics.18 software was used to analyze data and hypotheses testing as shown in table 4.

Table 4: hypothesis testing

Hypothesis no.	path		analysis	Standardized Regression Weights (β)	S.E.	C.R.	
H1	Sincerity	<---	Brand Personality	.994	.033	34.315	accepted
H2	Excitement	<---	Brand Personality	.982	.024	31.407	accepted
H3	Competence	<---	Brand Personality	.988	.030	33.929	accepted
H4	flexibility	<---	Brand Personality	.975	.077	37.975	accepted
H5	manner	<---	Brand Personality	.929	.018	23.165	accepted
H6	Brand Personality	<---	personality traits	.920	.675	9.157	accepted

The main purpose of this study was to investigate the relationship between personality traits and brand personality of a virtual-web service brand, the Google brand, as the most powerful and popular web search engine in Iran and the world (H6). This purpose was gained by introducing a conceptual and structural model for investigating virtual brand personality (H1-5).

The results show that Sincerity is the strongest element of virtual brand personality (β=0 .994, C.R = 34.315). We investigated this dimension by four facets which are: cheerful, creative, honest, down to earth and their Standardized Regression Weights are .972, .980, .653, and .230. It means that the users believe that Google is not down to earth. The best facet to explicit Sincerity of Google is cheerful. Therefore, the hypothesis 1 was supported. The results indicate that Excitement is one of the element of virtual brand personality (β=0 .982, C.R = 31.407). Therefore, the hypothesis 2 was accepted. This dimension was tested by four facets which are: pleasant, independence, imaginative, up to date and their Standardized Regression Weights are .626, .946, .948, and .976. All of these factors explicate Excitement of Google very well. As the authors hypothesized, Competence is another element of virtual brand personality (β=.988, C.R = 33.929). Reliable, technical, and successful are facets of Competence dimension by Standardized Regression Weights of -.239, .974, and .907. It means that Google does not seem reliable among Iranian users. Hypothesis 4 is supported, too as flexibility is another element of virtual brand personality (β=.975, C.R =37.975). Iranian users believe that Google is really flexible. As the results indicate manner is another element of virtual brand personality (β=.929, C.R =23.165). So, the hypothesis 5 was supported. We considered two facets for this dimension: Lovely and up class by Standardized Regression Weights of .778 and .971. Iranian users believe that Google is very up class. The results show that there is a significant positive relationship between personality traits of Google users and brand personality of Google (P<01, β = .920, C.R= 9.157).

Proving this relationship was the main aim of this study. Previous studies confirmed such relationships between personality trait and brand personality too, (Yi Lin, 2010) but for the first time, this research investigated brand personality of a virtual-web service brand. Carlson et al. (2009) found out that the two brand personality dimensions of wholesomeness and successfulness are mediated through prestige to predict the consumer's identification with the team and brand personality dimensions of imaginativeness positively influences identification with the team while successfulness has a negative influence on identification with the team. Maehle et al. (2010) found that consumers prefer brands with personalities that match their own. As a

conclusion, the results strongly proved that the proposal BPS of this research can be used for virtual-web service brands such as Google. All five proposal dimensions have confirmed to be dimensions of virtual web-service brand personality scale as their Standardized Regression Weights are really significant.

Other findings mention that the users believe that Google is very creative, cheerful, up to date, technical, and up class. The final model is showed in Figure 2.
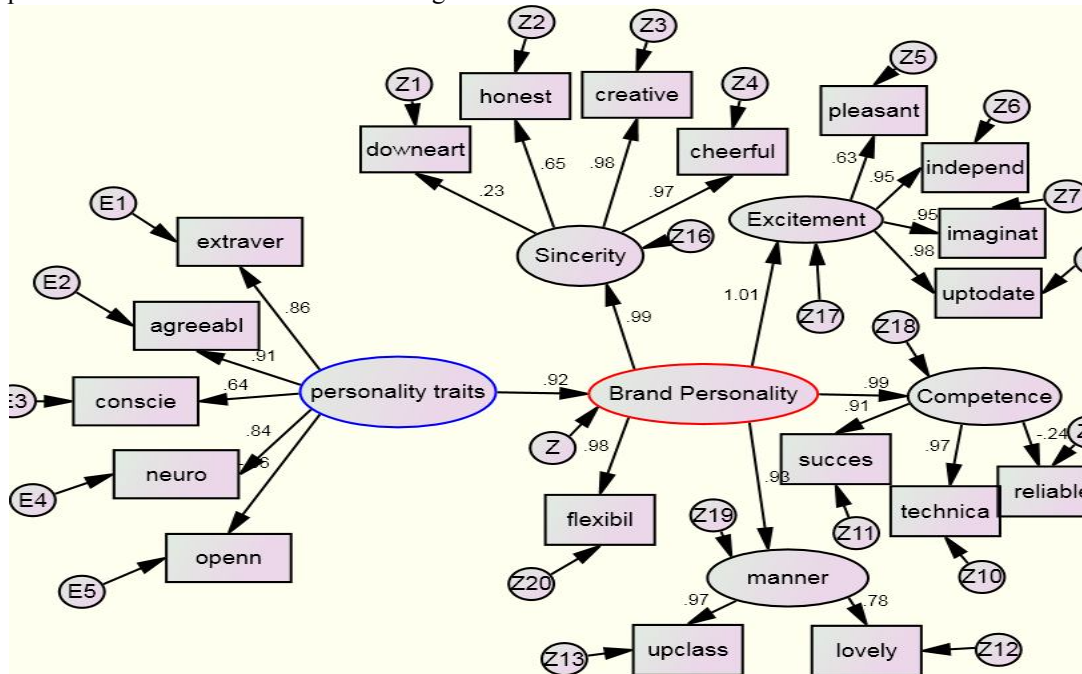

Figure 2: final model

6. Discussion, Implications and Limitation

In this electronic world, the capability to identify brand personality is an important matter. By collecting brand personality studies, the author concluded that there was a gap in investigating brand personality. Even though there are some studies, which has examined the relationship between personality traits and brand personality, but none of them was included a virtual- web service brand such as Google.

Brand personality is an in visual term which its conceptualizing in a determined framework is not simple. To achieve this purpose, the authors preferred to use an existing model and developed it instead of offering a new model. By investigating previous brand personality researches, the Aaker brand personality scale was chosen to be a basis of brand personality model. At last BPS dimensions provided as: " sincerity, excitement, competence, manner and flexibility". Most of brand personality researches have showed good reliability and validity of Aaker scale. These papers` results have shown a high reliability and validity.

Therefore, as the main purpose of this study, the authors investigated the relationship between personality traits of Google users and brand personality of Google. To gain this goal the suggested scale is tested for virtual web service brands with five distinct dimensions. Aaker's brand personality scale was indirectly used and developed in this study. Refining the scale and determining the variables were done by professors and marketing experts in order to eliminate or add some variables within Aaker model. By conducting two separate pilot studies, analyzing and refining the measurement of the models was done. Finally the results provided a model which can widely use for virtual brand personality. To achieve this purpose, comprehension, un-ambiguity, and simplification of the final model was very important.

Moreover, this study could determine brand personality of Google as it considers among students users. Among internet users and especially students, Google is known enough to be the most popular web search engine. The results find out that the most regular application of Google is "searching" as the results of third part of questionnaires show. The major group users of Google are 20-25 years old and they are M.A. students. Student users consider Google very creative, cheerful, up to date, technical, and up class.

As it was mentioned above, investigating virtual web service brand personality is complex and restricted, so there is no research which has tested it before. Then, for the first time, by using refined virtual web-service

brand personality scale and Big Five, this paper proved that there is positive significant relationship between personality traits and virtual-web based brand personality as it was predicted.

It illustrates the model on a data-set about brand personality of Google. The consideration of web-based brand context is developing and refining the model. It is obvious that natures of virtual-web based brands are different and this model, like others, should adapt with brand's special situations.

Brand personality is an important factor of brand equity and it is valuable enough to appeal marketers' attentions. By this model, we hope that marketers and managers can investigate their virtual brand personality and improve it as their consumers prefer. It is noticeable that by increasing devotement of electronic brands, the essential rising marketers' require is to identify all aspects of such brands like brand personality and brand image, more than ever.

REFERENCES

- Aaker, D. (1996), Building Strong Brands, the Free Press, and New York, NY.
- Aaker, J.L. (1997), Dimensions of brand personality, Journal of Marketing Research, Vol. 34, pp. 347-56.
- Aaker, J.L. and Fournier, S. (1995), "A brand as a character, a partner, a person: three perspectives on the question of brand personality", Advances in Consumer Research, Vol. 22, pp. 391-5.
- Allport, G.W. (1961), Pattern and Growth in Personality, Holt, Rinehart & Winston, New York, NY.
- Ambroise, L., Ferrandi, J-M., Merunka, D. and Valette- Florence, P. (2004), "La personnalite´ des marques explique-t-elle le choix des marques? Un test de la validite´pre´dictive du barome`tre de la personnalite´ des marques", CD-ROM, Proceedings of the 20th Congre`s de l'Association Franc¸aise du Marketing, Saint Malo, France, May.
- Azoulay, A. and Kapferer, J-N. (2003), "Do brand personality scales really measure brand personality?", Journal of Brand Management, Vol. 11 No. 2, pp. 143-55.
- Batra, R., Lehmann, D. and Singh, D. (1993), ''the brand personality component of brand goodwill: some antecedents and consequences'', in Aaker, D.A. and Biel, A.L. (Eds), Brand Equity and Advertising: Advertising's Role in Building Strong Brands, Lawrence Erlbaum, Hillsdale, NJ, pp. 83-95.
- Bozionelos, Nikos (2004), "The big five of personality and work involvement", Journal of Managerial Psychology, Vol. 19 No. 1, pp. 69-81
- Cambridge advanced learner's dictionary, third edition, (2008), Cambridge University Press, ISBN: 0521712661
- Caprara, G.V., Barbaranelli, C. and Guido, G. (2001), "Brand personality: how to make the metaphor fit?", Journal of Economic Psychology, Vol. 22 No. 3, pp. 377-95.
- Carlson B. D. & D. Todd Donavan & Kevin J. Cumiskey, (2009), Consumer-brand relationships in sport: brand personality and identification, International Journal of Retail & Distribution Management, Vol. 37 No. 4, pp. 370-384.
- Chow, H.-L. (1993), "A study on the relationships among big-five personality traits, gender-role orientation, and transformational leadership", thesis for Master of Graduate Institute of Department of Business Administration, Chung Yuan Christian University, Jhongli City.
- Chow, S. Y., Chen, C. W. & Chang, W. S. (2004), "A study of relationship between human personality and brand personality: sports shoes as an example", Chung Hua Journal of Management, Vol. 5 No. 3, pp. 1-16.
- Davies, G., Chun, R. and DaSilva, R.V. (2001), "The personification metaphor as a measurement approach for corporate reputation", Corporate Reputation Review, Vol. 4, pp. 113-27.
- Ferrandi, J.-M. and Valette-Florence, P. (2002), "Premiers test et validation de la transposition d'une e´chelle de personnalite´ humaine aux marques", Recherche et Applications en Marketing, Vol. 17 No. 3, pp. 21-40.
- Fetscherin, Marc; Toncar, Mark, (2010), The effects of the country of brand and the country of manufacturing of automobiles An experimental study of consumers' brand personality perceptions, International Marketing Review, Vol. 27 No. 2, pp. 164-178
- Freling, T.H. and Forbes, L.P. (2005), "An empirical analysis of the brand personality effect", Journal of Product & Brand Management, Vol. 14 No. 7, pp. 404-13.
- Gouteron, J. (2008), "L'impact de la personnalite´ de la marque sur la relation a` la marquee dans le domaine de la te´le´phonie mobile", La Revue des Sciences de Gestion, Vol. 233 No. 4, pp. 115-27.

- Geuens, M.; Weijters, B.; Wulf, K.D. (2009), "a new measure of brand personality", Intern. J. of Research in Marketing, VOL 26, 97–107

- Guthrie M. & Hye-Shin Kim & Jaehee Jung(2008), The effects of facial image and cosmetic usage on perceptions of brand personality, Journal of Fashion Marketing and Management, Vol. 12 No. 2, pp. 164-181

- Hayes, J.B., Alford, B.L., Silver, L. and York, R.P. (2006), "Looks matter in developing consumer-brand relationships", Journal of Product & Brand Management, Vol. 15 No. 5,pp. 306-15.

- Jamali,H., R. & Saeid Asadi, (2010), Google and the scholar: the role of Google in scientists' information-seeking behavior, Online Information Review, Vol. 34 No. 2, 2010, pp. 282-294.

- Keller, K.L. (1993), "Conceptualizing, measuring, and managing customer-based brand equity", Journal of Marketing, Vol. 57 No. 1, pp. 1-22.

- Keller, K.L. and Richey, K. (2006), "The importance of corporate brand personality traits to a successful 21st century business", Brand Management, Vol. 14, pp. 74-81.

- Kumar, N., Scheer, L.K. and Steenkamp, J.E.M. (1998), "Interdependence, punitive capability, and the reciprocation of punitive actions in channel", Journal of Marketing Research, Vol. 35, No. 2, pp. 225-3

- Louis, D. & Cindy Lombart, (2010), Impact of brand personality on three major relational consequences (trust, attachment, and commitment to the brand), Journal of Product & Brand Management, 19/2, 114–130.

- Maehle, N. ; Shneor, R. (2010), " On congruence between brand and human personalities", Journal of Product & Brand Management, Vol: 19, Issue: 1, pp. 44–53

- McCrae, R.R., Costa, P.T. Jr and Busch, C.M. (1986), "Evaluating comprehensiveness in personality systems: the California Q-set and the five-factor model", Journal of Personality, Vol. 54 No. 2, pp. 430-46.

- Okazaki, S. (2006), "Excitement or sophistication? A preliminary exploration of online brand personality", International Marketing Review, Vol. 23 No. 3, pp. 279-303.

- Plummer, J. (1984), "How personality makes a difference", Journal of Advertising Research, Vol. 24 No. 6, pp. 27-31.

- Rajagopal, (2006), Brand excellence: measuring the impact of advertising and brand personality on buying decisions, Emerald Group Publishing Limited, ISSN 1368-3047, VOL. 10 NO. 3, pp. 56-65.

- Robie, c., Brown, D., Bly, P. (2005), "The big five in the USA and Japan", Journal of Management Development, Vol. 24, No. 8, pp. 720-737.

- Sicilia M. & Mariola Palazo´n(2008), Brand communities on the internet A case study of Coca Cola's Spanish virtual community, Corporate Communications: An International Journal, Vol. 13 No. 3, pp. 255-270

- Sternberg, R.J. (2000), Pathways to Psychology, 2nd ed., Harcourt, A Division of Thomson Learning, Inc., New York, NY.

- Wang, X., Taipa, Macau and Zhilin Yang, (2008), Does country-of-origin matter in the relationship between brand personality and purchase intention in emerging economies? Evidence from China's auto industry, International Marketing Review, Vol. 25 No. 4, pp. 458-474.

- Wong, H.Y. and Merrilees, B. (2005), "A brand orientation typology for SMEs: a case research approach", Journal of Product & Brand Management, Vol. 14 No. 3, pp. 155-62.

- Yi Lin, L. (2010), the relationship of consumer personality trait, brand personality and brand loyalty: an empirical study of toys and video games buyers, Journal of Product & Brand Management, 19/1, 4–17.

- www.digitaltrends.com, (accessed December 22, 2011).