

FOOD AND BEVERAGE PRODUCTS CONTAINING ALOE VERA: EVIDENCE FROM THE GREEK MARKET

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ABSTRACT

The aloe vera plant, known for its beauty, health and skin care properties throughout the world, has recently emerged as an important ingredient for the food and beverage industry. Its popularity has been increasing the last years and as a result, firms producing food and beverages containing aloe vera have focused R&D in an effort to better address market needs. The objective of this paper is to examine the Greek consumers' purchase intentions towards food and beverage products containing aloe vera. It is based on the Theory of Planned Behaviour (TPB), which enhances the understanding of the attitudes, the subjective norms and the perceived behavioural control of the consumers. The findings contribute to the existing international literature on consumer preferences for functional food and beverage products as to the best of the authors' knowledge, this is the first research on aspects of the consumers' purchase intentions towards aloe vera in the Greek food and beverage market.

Key words: Marketing, Purchase Intention, Food and Beverage Products Containing Aloe Vera, Theory of Planned Behaviour

JEL classification: M16, M30

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INTRODUCTION

The aloe vera plant has been used since ancient times. This plant belongs to the family Asphodelaceae (Liliaceae) which has originated from Africa and has spread to the Far East and the Western countries (Agarry and Olaleye, 2005). There are more than 400 different species of Aloe plants, however, only a few of them are known to be of some medicinal or economic value (Shelton, 1991). Additionally, the most widely used and commercially available specie of aloe vera is *Aloe barbadensis* Miller, a tropical or subtropical plant characterized by “lance-shaped leaves with jagged edges and sharp points” (Grindlay and Reynolds, 1986; Surjushe, Vasani, and Saple, 2008; World Health Organization, 1999).

The use of the aloe vera plant has a long history in several different cultures. Greece has been associated with aloe vera since ancient times, along with Egypt, Mexico, Japan, China and India. Among the Egyptians, this plant was known as “the plant of immortality,” while Greek scientists regarded it as “the universal panacea” (Surjushe et al., 2008). Currently, the increasing number of health-conscious customers and the increasing preferences for healthy food and beverage alternatives are considered to be the main drivers for the development of the aloe vera market (Business Wire, 2016). The aloe vera leaf plant consists of about 98% water. Moreover, the colorless gel (dry matter) which is extracted from the leaf of aloe vera, contains: polysaccharides (55%), sugars (17%), minerals (16%), proteins (7%), lipids (4%) and phenolic compounds (1%) (Bozzi, Perrin, Austin, and Vera, 2007; Reynolds and Dweck, 1999).

The current popularity of the aloe vera plant has been an advantage for food and beverage companies producing products with aloe vera. The aloe vera extract has been used as a functional ingredient for the preparation of different types of food, especially for the creation of various healthy drinks, ice creams, yogurts, etc. (Eshun and He, 2004; Manoharan and Ramasamy, 2013; Ramachandra and Rao, 2008). Future Market Insights (FMI, 2016), estimates that global revenues for aloe vera gel extract will exceed US \$3.3 bn. by 2026. In Greece, the total area of aloe vera cultivated has been increasing substantially from 0.74 hectares in 2012, to a total of 25.98 hectares in 2014 (Agricultural Ministry of Greece, 2017).

Table 1: Total volume of Aloe vera cultivation in Greece in hectares (ha)

Year	Total volume of Aloe vera cultivation in Greece in hectares (ha)
2012	0.74
2013	3.61
2014	25.98

In addition, Liantakis and Tzouramani (2016) have shown that organic aloe vera is a crop with high potential in Greece. However, it is worth mentioning that even though aloe vera has been used for the production of many food and beverage products, there is still not clear scientific evidence about the benefits of the aloe vera extract. There are contradicting findings regarding the benefits and safety of aloe vera consumption, while the myth about aloe vera's infinite benefits has still not been clarified (Eshun and He, 2004; Ulbricht et al., 2008; Ye et al., 2016).

The projected increase of aloe vera production globally and its use in food and beverage products is related to the growing consumer demand of food and beverage products containing aloe vera. Although several studies have examined the consumers' purchase intentions towards functional foods and drinks, to the best of the authors' knowledge, none of them have examined food or beverage products containing aloe vera.

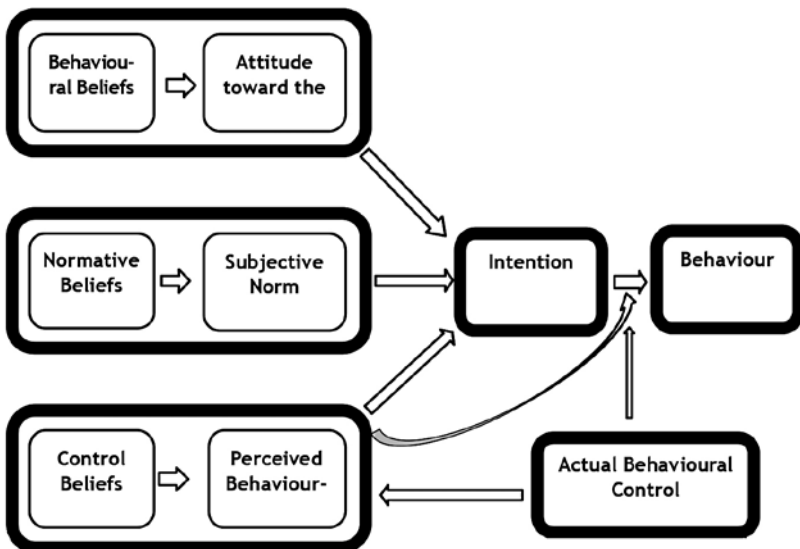
The aim of this research is to investigate the Greek consumers' purchase intentions towards food and beverage products containing aloe vera. A number of variables and different constructs for each variable, adopted from the Theory of Planned Behaviour (TPB) are used. The objective is to develop and empirically examine a set of research hypotheses on the Greek consumers' purchase intentions towards food and beverage products containing aloe vera. More specifically, the following five parameters and their effect on the consumers' purchase intention for food and beverage products containing aloe vera will be examined: a) the consumers' attitudes towards these products b) their perceived health benefits c) the consumers' social contacts d) the consumers' previous purchasing behaviour and e) the consumers' price perception about the products. The remainder of this paper is organized as follows: in the first section, the TPB model is presented and discussed, then the literature review is analyzed and the research hypotheses are developed. Next, the research methodology is presented, followed by the analysis and discussion of the empirical results. The paper ends with the conclusions and recommendations for further research.

LITERATURE REVIEW

Theory of Planned Behaviour

The TPB model is used to forecast consumers' intentions to get involved in a behaviour at a specific place and time. This theory aims to explain the behaviours over which people have the ability to exercise self-control (Ajzen, 1991). As the theory suggests, behavioural intention rests on both motivation and ability. Moreover, according to TPB, the possibility of performing a specific behaviour can be assessed by combining two factors – theoretical constructs and individual motivational factors. (Ajzen, 1991).

Figure 1: TPB Model (As proposed by Ajzen, 1991).

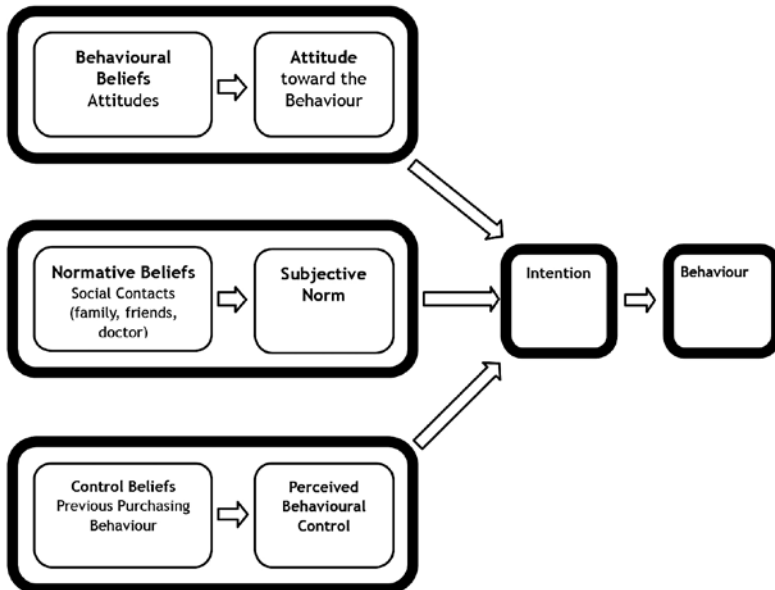


The TPB aims to explain human behaviour and a human's definite control over a specific behaviour. Furthermore, this model takes into consideration three main types of beliefs: behavioural, normative and control (See Figure 1). Behavioural

beliefs (attitudes) help to examine the degree to which a person has a favorable or unfavorable evaluation of the behaviour of interest. Next, normative beliefs (subjective norms) are used to analyze whether the respondent believes that his/her people of importance believe that he/she should get involved in the behaviour. Last but not least, control beliefs (perceived behavioural control) examine the respondent's perception of the level of difficulty of performing a particular behaviour (Ajzen, 1991).

Even though the TPB model allows the prediction of the consumers' purchase intentions, the main limitation is the gap between the intention and actual behaviour. This means that having a positive purchase intention might not always result into an actual such behaviour and vice versa. This study analyzes the relationship of each independent variable used, upon the dependent variable – purchase intention. The proposed model, including the variables examined in this research paper, is presented below:

Figure 2: Proposed TPB Model for this research (Adapted by Ajzen, 1991).



HYPOTHESES DEVELOPMENT

Attitudes

Attitude is considered to influence consumer behaviour. Attitudes are evaluations of various aspects stored in one's memory and learned predisposition to respond in either favorable or unfavorable manner to a particular product (Sokolowski, 2013). Positive attitudes towards products increase the probability of purchase intention as well as of actual purchase. Previous studies have shown that positive attitudes towards a product can lead to positive purchase intention (Chen, 2007; Tarkiainen and Sundqvist, 2005).

However, to the best of the authors' knowledge, there is no previous research on food and beverage products containing aloe vera from the consumers' perspective in Greece. Studies regarding functional foods indicate positive attitudes in countries such as Sweden and Finland (Bech-Larsen and Grunert, 2003; Sukboonyasatit, 2009). Furthermore, Cazacu (2012) found positive attitudes of Greek consumers towards dairy functional foods that positively influence purchase intentions. On the contrary, according to Labrecque, Fournier, Luther, and Piercey (2006) French consumers (students) have negative attitudes towards functional foods. The above results indicate a need to further investigate the impact of consumers' attitudes on purchase intention. Therefore, it can be hypothesized that:

Hypothesis 1: Positive attitudes towards food and beverage products containing aloe vera will positively influence purchase intention.

Perceived Health Benefits

Aloe vera is generally regarded as a "health plant" (Reynolds, 2004). Moreover, "science" has been defined as "a set of systematic safeguards against confirmation bias" and aims to obtain evidence supported by hypotheses as well as to eliminate evidence that is not supported (Lilienfeld, Lynn, Namy, and Woolf, 2009). On the contrary, "pseudoscience" is defined as "non-science impersonating pure science" (Hsu, Chuan – Chuan Lin, and Chiang, 2013). Pseudoscience uses impressive-sounding or highly technical language to influence consumers who are not familiar with the particular product or claim. In this case, the consumers can be easily

persuaded and consider these pseudoscientific claims as true facts (Lilienfeld et al, 2009).

Although there is no strong scientific evidence on the health benefits of aloe vera, there have been pseudoscientific health claims associated with this product, among others anti-inflammatory for joint comfort, detoxification, digestive aid immune-stimulation, etc. (Gruenwald, 2009). Additionally, Hsu et al., (2013) argue that consumers are equally persuaded by claims not supported by scientific evidence as they are by pure scientific claims. More recently, the most important theme in beverage innovation has been the need to introduce products with more natural and healthy ingredients. In addition, Sharma, Kharkwal A.C., Kharkwal H., Abdin, and Varma (2014) showed that aloe vera based beverages have a potential to serve as a health/functional drink and can definitely benefit health conscious consumers. Hence, it can be hypothesized that:

Hypothesis 2: Perceived health benefits of food and beverage products containing aloe vera will positively affect the Greek consumers' purchase intention towards these products.

Social Contacts

Individuals belong to different social groups and they are likely to be influenced by them. Duncker (1938) and Birch (1998) argue that social influence affects one's acceptance and food preference. As individuals value the judgment of their social contacts, they tend to accept not only their opinion but their behaviour as well. As a result, when an individual's friend is purchasing a product, that individual is more likely to purchase the same one rather than to not purchase it (Birch, 1998). Also, as proposed by Ajzen (2002), there are many social aspects that can affect consumers' purchase intention (including family, friends, colleagues, doctor, etc). Previous research has shown that subjective norms had either positive or negative influence on the consumer's purchase intention of a particular product (O' Connor and White, 2010; Smith, Coyle, Lightfoot, and Scott, 2007).

Aloe vera has been associated with the Greek culture for many centuries. Additionally, the family's influence on purchasing decisions in Greece is high as family ties remain strong. According to Cazacu (2012), and Cazacu, Rotsios and Moshonas (2014), there is a positive relationship between social contacts and

purchase intentions of Greek consumers towards dairy functional foods and water buffalo milk products. These findings indicate that there is a positive relationship between social contacts and purchase intention of food and beverage products containing aloe vera. Hence, it can be hypothesized that:

Hypothesis 3: Social contacts will positively influence purchase intention towards food and beverage products containing aloe vera.

Previous Purchasing Behaviour

According to Oliveira (1997), previous food consumption should be examined carefully in order for companies to better address their consumers' demands. Additionally, previous positive purchasing behaviour leads to a positive future purchase intention (Ajzen, 2002). The repeated purchasing behaviour may create a habit which may result to more frequent purchases of a product. Cazacu (2012) has found that previous purchasing behaviour is one of the most influential factors for Greek consumers to purchase functional foods. Hence, it can be hypothesized that:

Hypothesis 4: Previous positive purchasing behaviour will result in a future positive intention for the Greek consumer to purchase food or beverage product containing aloe vera.

Price Perception

Another factor with an impact on purchase intention is the consumer's price perception of particular product. Consumers are likely to be influenced by price changes (Green et al., 2013). Price perception depends on the individuals and their background. Generally, it is accepted that the consumers' price perception is the outcome of the comparison between their own reference price and the market price (Janiszewski and Lichtenstein, 1999). However, there is a difference between the actual and the perceived price. The actual price of the product is defined as the objective price, while the perceived price is what consumers feel about the price in relation to the product's quality (Burton and Lichtenstein, 1990). For example, some consumers may perceptually relate high price with high product quality and consequently increase their purchase intention and vice versa.

Due to the economic recession Greek consumers, became more price conscious and search for discounts, special offers and less expensive product alternatives (Euro monitor International, 2016). Similarly, a study by the Research Institute of Retail Consumer Goods, (IELKA) in 2014 has shown that 82% of Greek consumers examine carefully products in their search for less expensive alternatives. For the purposes of this study, a market analysis was conducted on the prices of food and beverage products containing aloe vera in the Greek market. The findings reveal that the prices of drinks containing aloe vera sold in the kiosks and supermarkets range from 1,40 euros to 2,00 euros for 500ml bottles, while biscuits are sold for 2,50 euros and yogurts containing aloe vera cost 2,24 euros (for two portions). These prices are most likely perceived as relatively high by lower- and middle-income consumers. Similarly, previous studies have shown that functional foods are considered as expensive compared to the benefits they may offer to consumers (Cazacu, 2012; Mitchell and Ring, 2010; Niva, 2008; Sääksjärvi, Holmlund, and Tanskanen, 2009). Based on the above it can be hypothesized that:

Hypothesis 5: Greek consumers' purchase intention will be negatively influenced by the high prices of the food and beverage products containing aloe vera.

METHODOLOGY

The quantitative method was used in this research as it allows for testing pre-specified concepts, constructs and hypotheses and for the generalization of the results from a sample to the entire population of interest (Marshall, 1996). Additionally, the quantitative research method has been proposed by Ajzen (1991) and Amaratunga, Baldry, Sarshar, and Newton (2002) as the most efficient to examine consumers' purchase intentions. A questionnaire was designed taking under consideration all the variables and constructs chosen. A cover letter stated the purpose of the research, informed respondents about the approximate time needed to complete the questionnaire (five to ten minutes) and verified that the information provided by respondents will be kept anonymous and confidential. The constructs used for the variables were adopted from Labrecque et al. (2006), Mitchell and Ring (2010), Sukboonyasatit (2009) and Verbeke (2005). Possible answers were on a 5-point Likert scale (from Strongly Disagree to Strongly Agree). A pilot questionnaire was initially distributed to 15 respondents in order to check for its validity and comprehension. Based on their feedback, some of the questions

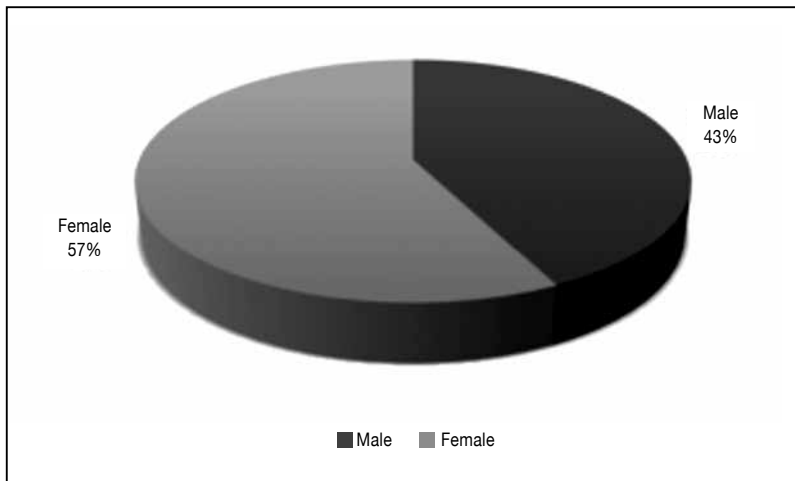
were amended in order to be more easily understood by the average respondent. Then, in order to gather a larger number of responses, the questionnaire was translated and distributed in Greek language. More specifically, the questionnaire was distributed in several physical locations as well as online through e-mail and social media, from February to March of 2017. Respondents were from various regions of Greece. A total of 414 usable questionnaires were collected and translated to English. Finally, the pie charts were created with the use of Office Excel 2013, while SPSS v 23 was used for the descriptive statistics as well as for the validity and reliability analysis of the constructs. The correlation analysis was also performed with the use of SPSS v 23.

RESULTS

General profile of respondents

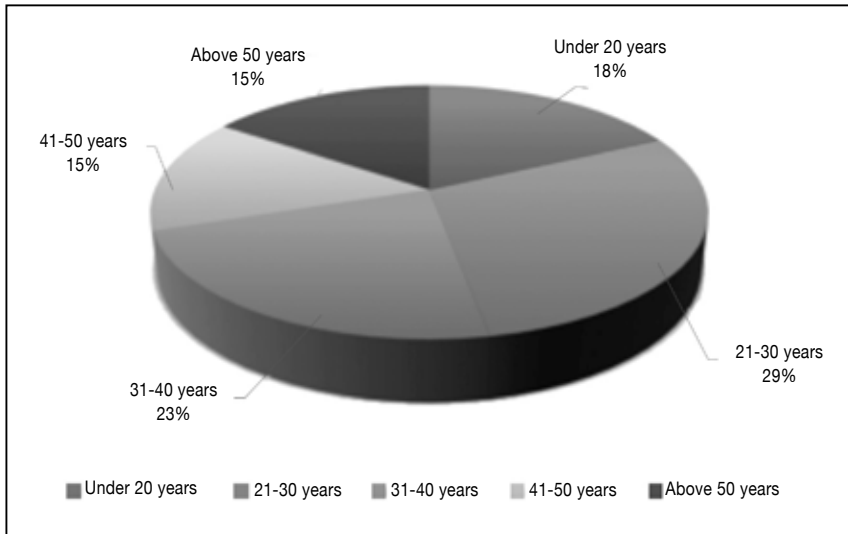
From the total of 414 respondents 177 (43%) are men and 237 (57%) are women as depicted in Figure 3.

Figure 3: Gender Distribution



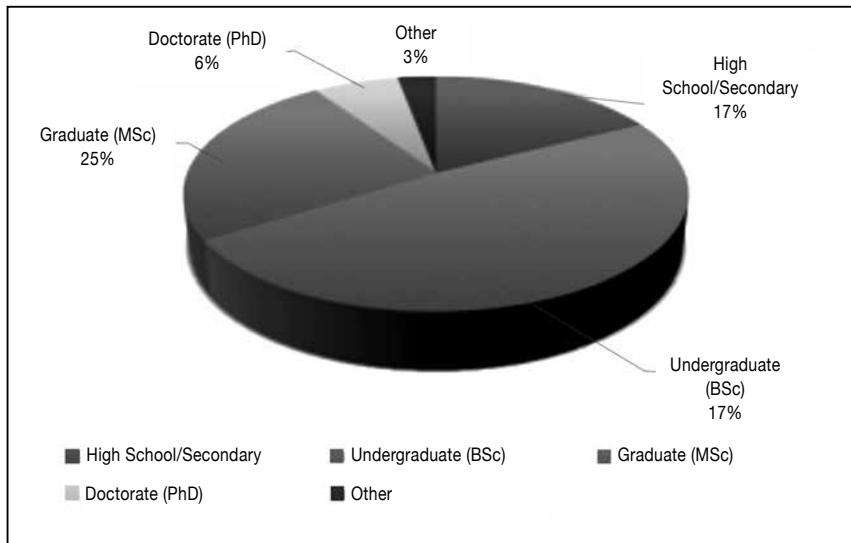
The sample included mostly participants from the age groups of 21-30 years old (29%) and 31-40 years old (23%), followed by the age group of under 20 years old (18%), the above 50 years old (15%) and 41-50 years (15%) (See Figure 4).

Figure 4: Age Distribution



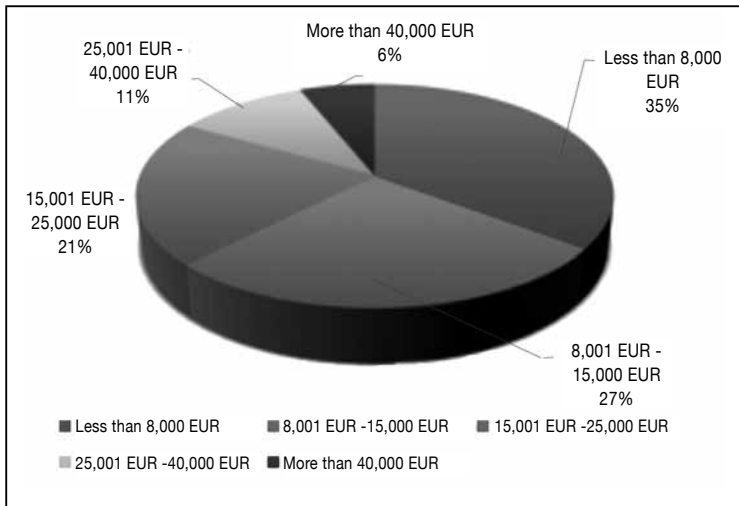
Almost 50% of the respondents have an undergraduate university Degree (B.Sc), followed by 25% who reported to have graduate degree (M.Sc). A total of 17% of the respondents have a high school/secondary level degree. Furthermore, 6% of the respondents have a doctorate degree (Ph.D.), while 3% of the respondents belong to the “Other” category (no high school completed, vocational school, etc.) (See Figure 5).

Figure 5: Education Level Distribution



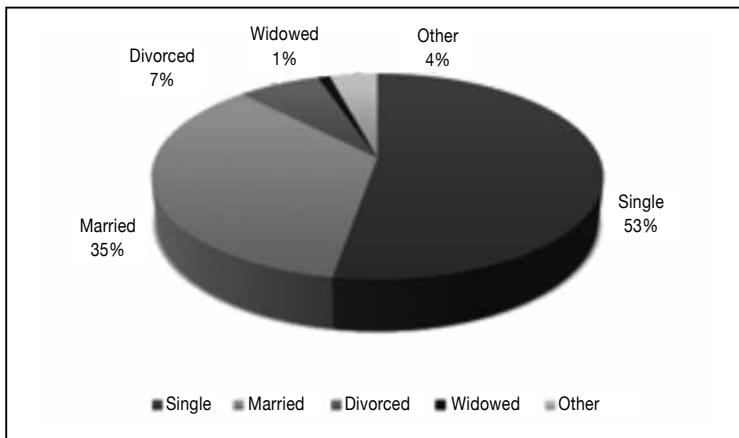
Regarding the annual income of the respondents, 35% earn less than 8,000 euros per year, followed by 27% of the respondents who earn between 8,001 euros – 15,000 euros. There are 21% of the respondents who earn 15,001 euros – 25,000 euros, 11% between 25,001 euros and 40,000 euros, and 6% who earn more than 40,000 euros per year (See Figure 6).

Figure 6: Annual Income Level Distribution



With regards to the respondents' marital status, the majority are single (53%), married (35%), divorced (7%), other (4%) and widowed (1%) (See Figure 7).

Figure 7: Marital Status Distribution



Factor Analysis (Validity)

Factor analysis was used to analyze the constructs set for each question. The variables were named: Attitudes, Perceived Health Benefits, Social Contacts, Previous Purchasing Behaviour, Price Perception and Purchase Intention. After the application of the factor analysis, all of the questions loaded a factor above .700 with the exception of one construct from the variable purchase intention (“I am willing to buy food and beverage products containing aloe vera”). This construct loaded a factor of .436, and was dropped due to poor loadings. Similarly, Cronbach’s Alpha’s results suggested for the same construct to be excluded. As all of the loadings except one, are above .700, this confirms the validity (accuracy) of the measures used in the questionnaire.

Table 2: Variables, type of constructs and number of constructs in the set used for the questionnaire

Variable Name	Type of construct	Number of constructs in the set
Attitudes	For me, buying food and beverage products containing aloe vera is: Worthless – Valuable?	3
Perceived Health Benefits	Food and beverage products containing aloe vera are healthy choices for me.	1
Social Contacts	My friends/colleagues think I should consumer food and beverage products containing aloe vera.	3
Previous Purchasing Behaviour	I have purchased food and beverage products containing aloe vera in the past.	1
Price Perception	I am willing to pay a higher price/price premium for food and beverage products containing aloe vera.	3
Purchase Intention	I intend to buy food and beverage products containing aloe vera in the next two weeks.	3 then 2

Cronbach's Alpha (Reliability)

The Cronbach's Alpha test is used for "Likert scale" types of questions and the objective is to determine if the scale is reliable (Nguyen, 2010). The Cronbach's alpha values range from 0.000 to 1.0. In most social science research cases, an "acceptable" Cronbach's alpha coefficient is a reliability coefficient of .700 or higher (UCLA, 2016).

For the majority of the question sets of the variables, except for the variable of Purchase Intention, the Cronbach's Alpha values indicate a great level of consistency. The price perception variable indicated 0,221 and for this reason, one construct ("I am willing to pay a higher price/price premium for food and beverage products containing aloe vera") was removed, which led to an increase to 0,665. Similarly, the purchase intention variable indicated 0,681 and after removing one construct ("I am willing to buy food and beverage products containing aloe vera") it increased to 0,875. The Perceived Health Benefits and Previous Purchasing Behaviour variables were not tested with Cronbach's alpha as they consist of only one construct for each variable. The demographics were also not tested with Cronbach's alpha test.

Table 3 below includes the summary of all Cronbach's Alpha coefficients of the tested variables.

Table 3: Cronbach's Alpha Results

Variable	Cronbach's Alpha Coefficient
Attitudes	.838
Social Contacts	.850
Price Perception	.221 -.665
Purchase Intention	.681 -.875

Analysis

After running the validity and reliability tests, a new mean was calculated for each variable. The results from the descriptive statistics are shown in the table 2 below.

Table 4: Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Perceived Health Benefits	414	1	5	3,58	,825
Attitudes	414	1	5	3,60	,760
Social Contacts	414	1	5	2,75	,827
Previous Purchasing Behaviour	414	1	5	2,36	1,097
Price Perception	414	1	5	3,09	,557
Purchase Intention	414	1	5	3,01	,784
Valid N (list wise)	414				

Attitudes

The mean of the responses provided (Mean = 3,60) shows that most of the respondents' answers are in between positive and negative attitudes about food and beverage products containing aloe vera. In particular, the average of the first attitude (Mean = 3,76) where the respondents had to choose if the food and beverage products containing aloe vera are harmful or beneficial, depicts that there is a greater inclination towards "beneficial" rather than "harmful". However, regarding the second attitude "worthless or valuable" and the third attitude "unwanted or desirable", the respondents tend to be neutral (Mean = 3,47 and Mean = 3,55 respectively).

Perceived Health Benefits

The average of the responses provided is 3,58 indicating that the respondents feel neutral towards the construct for the “Perceived Health” variable. The result shows that on average they tend to neither agree nor disagree with the statement that “Aloe vera food and beverage products are healthy choices for me”.

Social Contacts

Concerning the constructs given for social contacts (family, friends and doctor), the mean of 2,75 shows that social contacts do not have positive thoughts regarding the respondent’s consumption of food and beverage products containing aloe vera. Also, by calculating the means of each construct separately rather than together, the results are very close to the total mean (Mean Family = 2,77; Mean Friends = 2,73; Mean Doctor = 2,76).

Previous Purchasing Behaviour

Regarding the previous purchasing behaviour variable, respondents on average have stated that they have rarely purchased food and beverage products containing aloe vera in the past (Mean = 2,36).

Price Perception

The mean of the constructs included for the price perception variable indicates that Greek consumers tend to be on average, neutral regarding the prices of food and beverage products containing aloe vera (Mean = 3,09). Respondents, on average disagree (Mean = 2,86) with the first construct “I am willing to pay a higher price/price premium for food and beverage products containing aloe vera”, whereas they are neutral regarding the other two constructs “I think the food and beverage products containing aloe vera are too expensive” and “I think the food and beverage products containing aloe vera are over-priced (the product is not worth the money given)”. This implies that the Greek consumers on average are not willing to pay higher prices for food and beverage products containing aloe vera. Furthermore they are in between “agree” and “disagree” whether aloe vera products are too expensive or over-priced. It is logical to assume that this variation depends, to an extent, on the consumers’ income level.

Purchase Intention

The respondents, on average, have a neutral purchase intention towards food and beverage products containing aloe vera (Mean = 3,01). In regards to the means of each construct, the respondents' tend to be neutral to slightly agree (Mean = 3,45) with the construct "I am willing to buy food and beverage products containing aloe vera". They tend to disagree or be slightly neutral with the other two constructs "I intend to buy food and beverage products containing aloe vera in the next two weeks" (Mean = 2,83) and "I plan to buy food and beverage products containing aloe vera regularly" (Mean = 2,74). This indicates that Greek consumers are not certain if they would purchase food and beverage products containing aloe vera in the future.

Correlations

In order to test for correlation between the independent variables *Attitudes*, *Social Contacts* and *Previous Purchasing Behaviour* and the dependent variable *Purchase Intention*, the Kendall's Tau-b correlation test was used. Kendall's tau-b is used to measure the relationship between ordinal or continuous variables, thus, it is the most suitable for conducting the analysis for this research.

Table 5: Kendall's tau b Correlation - Attitudes and Purchase Intention

Correlations				
			Attitudes	Purchase Intention
Kendall's tau_b	Attitudes	Correlation Coefficient	1,000	,278**
		Sig. (2-tailed)	.	,000
		N	414	414
	Purchase Intention	Correlation Coefficient	,278**	1,000
		Sig. (2-tailed)	,000	.
		N	414	414
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 6: Kendall's tau b Correlation – Perceived Health Benefits and Purchase Intention

Correlations				
			Perceived Health Benefits	Purchase Intention
Kendall's tau_b	Perceived Health Benefits	Correlation Coefficient	1,000	,234**
		Sig. (2-tailed)	.	,000
		N	414	414
	Purchase Intention	Correlation Coefficient	,234**	1,000
		Sig. (2-tailed)	,000	.
		N	414	414
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 7: Kendall's tau b Correlation - Social Contacts and Purchase Intention

Correlations				
			Social Contacts	Purchase Intention
Kendall's tau_b	Social Contacts	Correlation Coefficient	1,000	,259**
		Sig. (2-tailed)	.	,000
		N	414	414
	Purchase Intention	Correlation Coefficient	,259**	1,000
		Sig. (2-tailed)	,000	.
		N	414	414
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 8: Kendall's tau b Correlation - Previous Purchasing Behaviour and Purchase Intention

Correlations				
			Previous Purchasing Behaviour	Purchase Intention
Kendall's tau_b	Previous Purchasing Behaviour	Correlation Coefficient	1,000	,219**
		Sig. (2-tailed)	.	,000
		N	414	414
	Purchase Intention	Correlation Coefficient	,219**	1,000
		Sig. (2-tailed)	,000	.
		N	414	414
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 9: Kendall's tau b Correlation – Price Perception and Purchase Intention

Correlations				
			Price Perception	Purchase Intention
Kendall's tau_b	Price Perception	Correlation Coefficient	1,000	,095*
		Sig. (2-tailed)	.	,012
		N	414	414
	Purchase Intention	Correlation Coefficient	,095*	1,000
		Sig. (2-tailed)	,012	.
		N	414	414
*. Correlation is significant at the 0.05 level (2-tailed).				

The variables are significant at the 1% level, which indicates that they are positively related with purchase intention.

Regarding the correlation between attitudes and purchase Intention, there is a positive significant relationship between the two variables (r -value =,278 and p -value=,000). Based on the results, we conclude that a positive attitude towards food and beverage products containing aloe vera leads to a positive purchase intention as well. Therefore, H1 is supported: Positive attitudes towards food and beverage products containing aloe vera will positively influence purchase intention. These results support the findings of Tarkiainen and Sundquist (2005) and Chen (2007), while they contradict the ones of Labreque et al. (2006), who have found that French consumers have shown mostly negative attitude towards functional food products as well as negative purchase intention.

Next, the relationship between the perceived health benefits and purchase intention variables, is a statistically significant (p =,000). The r -value,234 shows that the relationship is positive, but not very strong. However, since there is a positive relationship between the two variables, H2 is confirmed: Perceived health benefits of food and beverage products containing aloe vera will positively affect the Greek consumers' purchase intention towards these products. This finding is quite interesting considering that there is no strong scientific evidence regarding the health benefits of aloe vera. The finding is consistent with the findings of Hsu et al. (2013) who have shown that Chinese consumers are equally persuaded by claims with and without scientific evidence.

It can be also seen that there is a positive correlation between social contacts and purchase intention. This signifies that the social contacts (family, friends and doctor) have an impact upon the Greek consumers' purchase intention towards food and beverage products containing aloe vera. Thus, H3 is confirmed - Social contacts positively influence purchase intention towards food and beverage products containing aloe vera. This finding is similar to the ones of Cazacu (2012) and Cazacu et al. (2014) who have found that Greek consumers are influenced by their social contacts regarding their purchase intention towards dairy functional foods and water buffalo milk products. Therefore, it confirms the findings of the abovementioned research papers by using a similar food category for analysis and a larger sample size.

The correlation between the two variables (price perception and purchase intention), is very weak ($r=,095$ and $p=,012$), the p value indicates that the correlation is positive. Therefore, the high prices for the food and beverage products containing aloe vera have a negative impact upon the consumers' purchase intention, hence, H4 is confirmed: Greek consumers purchase intention will be negatively influenced by the high prices of the food and beverage products containing aloe vera. This result is similar to the findings of Mitchell and Ring (2010), which have showed that American students tend to be influenced negatively by the high prices of functional foods. Also, it is in accordance with the findings of Niva (2008) and Cazacu (2012) which examined the effect of price perception upon purchase intention towards functional foods. A possible reason is the country's economic crisis that led Greek consumers to be more price conscious and search for cheaper product alternatives (Euromonitor, 2016).

Finally, the findings show a positive relationship between the variables of previous purchasing behaviour and purchase intention of Greek consumers' towards food and beverage products containing aloe vera. This indicates that previous positive purchasing behaviour leads to a positive future purchase intention. So, H5 is confirmed: Previous positive purchasing behaviour will result to future positive intention for Greek consumer to purchase food or beverage product containing aloe vera. These results are in accordance with the ones of Ajzen (1991) who has shown that previous purchasing behaviour has a positive impact on future purchase intention. Additionally, the findings are similar to Cazacu (2012) who has found that previous purchasing behaviour is one of the most influential factors affecting Greek consumers' purchase intention.

CONCLUSION

To the best of the authors' knowledge, this is the first study that empirically examines specific factors and their impact on Greek consumers' purchase intentions towards food and beverage products containing aloe vera. For the purposes of the research, a detailed literature review was conducted, and the TPB model was chosen as the most effective model to examine the consumers' purchase intentions. The results show that all variables examined (attitudes, perceived health benefits, social contacts, previous purchasing behaviour and price perception) have a positive effect on the purchase intention of food and beverage products containing aloe

vera among Greek consumers. Furthermore, the number of questionnaires (414) allows for generalization of the results.

The main limitation of this study is that it uses only one theoretical model (TPB) for the examination of the research hypotheses. The TPB theory has been successfully applied to studies of the relations among beliefs, attitudes, behavioural intentions and behaviours in various fields such as public relations, advertising and healthcare (Ajzen, 1991), but has also received criticism by some scholars (Sniehotta, 2009). More specifically, the theory has been criticized on the basis of ignoring one's needs prior to engaging in a certain action, that would affect his/her behaviour regardless of his/her expressed attitudes. The application of a different theoretical model in future research could lead to the attainment of additional findings regarding the Greek consumers' purchase intention towards food and beverage products containing aloe vera (Sniehotta, 2009). Apart from that, this study is correlational. Correlational research is useful in providing links between variables that can further be investigated. However, correlational research only uncovers a relationship and it cannot provide a conclusive reason for why there is a relationship (Mitchell, 1985). As correlation does not infer cause, this type of research can also be affected by mediating factors, making it lack internal validity. Therefore, future research should include more evidence based on experimental studies, although experiments, by nature, lack external validity since they prioritize internal validity (Thompson, Diamond, McWilliam, Snyder P., and Snyder S. W., 2005).

Although all of the hypotheses empirically examined in this paper are confirmed, the relationships among the variables are weak indicating the need for further research, with the use of different variables and/or constructs. This study contributes to the existing literature on functional foods by empirically examining the effect of five parameters on the consumers' purchase intention for food and beverage products containing aloe vera (a) the consumers' attitudes towards these products b) their perceived health benefits c) the consumers' social contacts d) the consumers' previous purchasing behaviour and e) the consumers' price perception of the products. Finally, the study provides industry stakeholders with an insight on the Greek consumers' purchase intentions towards food and beverage products containing aloe vera by examining some variables that affect the consumers' purchase intentions.

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