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Confronting Pharmaceutical Products Selection Criteria: A comparative survey of consumers in Greece, France and Bulgaria

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ABSTRACT

Purpose

The survey at hand explores the factors describing the consumers' profile in the pharmaceutical markets of three European nations

Design/methodology/approach

A primary research was carried out using questionnaires with a sample of citizens (pharmacy customers) in the capital of each nation and aiming to determine the criteria motivating the customer/patient to purchase particular pharmaceutical preparations and the ultimate goal is to get an objective picture of the buying behavior of Greek, French and Bulgarian consumers

Findings

Behavioral motives appear to be affected by health scientists, price, advertising, alternative available options and "public opinion". Moreover, it appears that customers differ from one nation to the other but also between themselves, both with respect to their choices, as well as their special mode of action. Such individuality mainly results from the different levels of education and basic income of each pharmaceutical products consumer. Comparative study reveals that Frenchmen, Greeks and Bulgarians tend to agree in some common behavioral trends, yet substantially differ in issues of major importance

Research limitations/implications

Any research on the quantitative measurement of perceptions has inherent limitations as it rests on the subjective views and attitudes of the respondents. Additionally, some obstacles emerged in the course of the survey and in regard to the filling-out of the questionnaires in all three countries, thus account must be taken of the following limitations when interpreting the findings: (1) lack of detailed knowledge of the legislative framework for the supply of pharmaceutical products in Bulgaria and France; (2) rapid changes in external factors (legal-political-social) in the case of Greece; (3) inability of personal contact with every respondent in order to get a first-hand view of their "pharmaceutical behavior" and education, and (4) time and resources limitations dictated that the survey be carried out with respect to a very limited and small sample compared to the total population of Athens, Paris and Sofia.

Originality/value

This research effort was motivated by former researches relating to the consumers of pharmaceutical products, the knowledge gap that was created with respect to this issue during the years of the financial and more general crisis and the continuous changes in the health system of Greece. The idea for a comparative survey then rested on the practical and substantial comparison of consumers from Greece and those from the two other nations. It was simultaneously reinforced by the fact that no other similar research effort (for Greece-France-Bulgaria) has been published in recent years

Keywords

pharmaceutical marketing,
consumer profile, pharmaceutical
preparations, pharmacies,
behavioral motive

1. Introduction

The final demand for products and services is shaped by consumers as they attempt to cater for and cover various

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needs and desires on a set and given budget. Consequently, consumers differ both with respect to their purchasing abilities and preferences, as well as their purchasing decisions and behaviors. Especially in the medical-pharmaceutical field, customers/patients are

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those who determine the success or failure of the health system by virtue of their demands and attitudes. At the same time, the pharmaceutical sector faces major issues and difficulties as the executives of the sector strive to demonstrate the real value of their products to potential buyers (Gardner, 2009). According to a survey by the Economist Intelligence-Unit Limited and the relevant report of Quintiles 2012 "*The value challenge*", with the participation of 399 senior executives from the field of biosciences, the bio-pharmaceutical industry has fallen victim of its own success, since the effectiveness of existing pharmaceutical treatments make the effective introduction of newer technology medicines very difficult. According to the aforementioned survey, there are three pillars that call for attention by means of the changes to the pharmaceutical sector (The Economist, 2012):

- Understanding market needs: Insurance firms, the pharmaceutical industry, patients and regulatory authorities all interpret the value of a medicine differently. The pharmaceutical sector must establish a collaboration and dialogue framework with the other key actors of the market so as to be able to collect all necessary information and shape new strategies that will address the new needs.
- A Research and Development – R&D department oriented towards value: The intra-company collaboration between marketing and R&D must become closer. The key concern of all departments is to address the needs of patients and their deeply-rooted desires. The marketing department must collect and analyze data and offer findings and inferred knowledge to the R&D department, so that the latter may steer research in the right direction.
- A market-focused marketing strategy: The value of a medicine is not what we used to allude to until now, namely that it is "an effective medicine that has been clinically tested". The real value of a medicine is shaped where the product meets patients' needs.

Pharmaceutical marketing is a business activity where advertising or some other means of promotion are aimed to boost the sales of pharmaceutical products or medicines (Finlayson and Mullner, 2005). It is defined as the set of activities that target the selection, circulation, prescription and proper use of pharmaceutical products destined for human use. Marketing of pharmaceutical products has a social nature (distribution of preparations suitable to treat diseases) and in recent years has seen great amounts of money being invested towards its development (Smith, 1991; Rollins and Perri, 2014). The authors of this paper feel that due to its two key characteristics cited above and since it regards and involves specialized scientists, there is an imperative need for a deeper exploration and investigation; a need that is fast becoming pressing in recent years, since the sector does not simply undergo a transitional stage, but faces a major crisis.

The sales attained by pharmaceutical marketing are indirect to third parties, –thus, they do not intervene in their choice– through the prescription and/or

The objective of this paper is to determine the criteria that motivate a customer/patient to purchase specific pharmaceutical preparations with the ultimate objective being to furnish an objective picture of the purchasing behavior of Greek, French and Bulgarian consumers. The selected countries are developed ones – all being members of the European Union–, still with different living standards and a different UN Human Development Index. With the aim to deduct these criteria a primary research was carried out using questionnaires with a sample of citizens (pharmacy customers) in the capital of each nation and aiming to answer the following research questions:

- What constitutes the basis (financial, medical, etc.) for a modern European consumer's selection of pharmaceutical products?
- What is the profile of Greek, Bulgarian and French consumers in the medicine market and how do these profiles differ from one another?
- What affects a consumer's final decision for choosing pharmaceutical products?
- Which are the purchase-use intentions of consumers with respect to the products of a pharmacy, based on possible financial and technological developments?

This research effort was motivated by previous research relating to consumers of pharmaceutical products, the knowledge gap that was created with respect to this issue during the years of the financial, as well as the more general crisis in Greece and continuous changes to the latter's health system. The idea for a comparative survey then rested on the practical and substantial comparison of consumers from Greece and those from the two other countries. It was simultaneously reinforced by the fact that no other similar research effort (for Greece-France-Bulgaria) has been published in recent years.

2. Pharmaceutical marketing

Pharmaceutical marketing is shaped and practiced exclusively by pharmaceutical companies (Rollins and Perri, 2014) and is addressed to the medical field and the scientists who are legally authorized to prescribe or administer pharmaceutical products and to the consumers of such products. It satisfies the real, present and pressing needs for reliable and well documented scientific informing, offering precise knowledge aimed to sell pharmaceutical products (Dickov and Kuzman, 2011). It is principally practiced by means of human communication and contact. Those authorized to prescribe and administer medicines are briefed by pharmaceutical representatives (pharma reps), individuals who are adequately trained and skilled to provide such information. Other means of communication may be auxiliary employed, depending on the resourcefulness of each pharmaceutical company, under the condition, however, that they do not run against the Code of Conduct of pharmaceutical marketing and the relevant provisions in the Law. administration of the pharmaceutical products by authorized professionals. To attain the sales in question, pharmaceutical marketing does not employ methods for

the creation of needs, but, in an ideal environment, will exclusively and solely address the satisfaction of real and material needs relating to human health. To succeed in this objective, pharmaceutical marketing addresses the motive of scientific research and inquiry that distinguishes the medical world and the other scientists participating in the distribution of pharmaceutical products. To this end, it utilizes the documented scientific information available for and about the products (Rollins and Perri, 2014).

2.1 Pharmaceutical marketing mix

The marketing mix comprises of a set of decisions that must be taken in order for the pharmaceutical marketing strategy and, consequently, the placement strategy for the product to be implemented and for the objectives to be attained. In the basic pharmaceutical marketing mix, the 4Ps (Product, Price, Place, Promotion) can be construed as follows (Gardner, 2009):

- **Product:** all pharmaceutical preparations must respond to the needs and desires of their end consumers/users. This regards and relates to characteristics such as brand name, the preparation's effectiveness, the product's features, packaging, size, colour, taste and smell.
- **Price:** the product prices must be competitive in order to for them to make the medicines' lists or hospital supplies and to be at a price consumers are prepared to pay, when the medicines are not covered by health insurance organizations. Pricing of pharmaceutical preparations is not flexible, since it is usually legislated. The designation of the price for medicines depends on the business strategy of the enterprise, government policy in the health sector, the compensation policy of the insurance funds and the regulative framework of EU.
- **Place:** The distribution process must ensure adequate stocking of the market with medicines, so that any citizen will be able to procure the medicines they may need at the time they need them, from easily accessible points of sale. It needs an ever-increasing number of doctors who will prescribe the preparations from locations that are easily accessible by the users of said products. In this respect the pharmaceutical sector is inflexible due to the regulative framework for the prescription and distribution of the products at specialized points: hospitals, health centers and country practices.
- **Promotion:** the media employed for the promotion of medicines to doctors are: scientific journals, advertising leaflets, the internet, mass media. Until recently, scientific conferences and meetings were a reference point for the informing and promotion of pharmaceutical products. However, this role has now been taken over by e-detailing, that is the form of medical informing and simultaneously promotion realized via the internet or with the

help of other modern digital media (Giareniou, 2012).

2.2 Investigation of behavior per country

In broad lines, one can identify roughly four different pharmacy systems on the global scale. The Scandinavian type of pharmacies regards large pharmacies serving 10,000-18,000 people and focusing on the sale of medicines. In Southern Europe and in France and Belgium one finds very small pharmacies, serving approximately 2,000-2,500 customers and also selling parapharmaceutical products and cosmetics. Chemists, or Anglo-American pharmacies are common in the UK, Ireland as well as the US and Australia and sell a wide range of non-medical products while serving approximately 3,500 people. Finally, there are the pharmacies one finds in Central and Eastern Europe that focus on the sale of all goods for health treatment and serve approximately 3,000-5,000 people.

In Europe the notion of a pharmacy as a shop exclusively for medicines is uncommon, save for Great Britain (Grund and Vartdal, 2000; Hepler and Strand, 1990). With respect to consumer behavior and the special characteristics of demand, these are shaped by different factors. A common denominator is the human factor. The increased demands of pharmaceutical marketing with respect to the reliability and accuracy of the handling of scientific information and data impose the need for the Human Resources performing this adopt and be subject to commensurate requirements. The personnel that designs and implements pharmaceutical marketing must possess scientific training in the field of medical-pharmaceutical (health) sciences, a fact considered self-evident in the case of similar scientific sectors. These professionals must, however, besides their formal qualifications, which are in many cases further consolidated by relevant legislative provisions, also possess professional skillfulness and exhibit responsibility and dedication to moral values (EEFAM, 2014).

Besides the knowledge secured by their scientific education, pharmaceutical representatives are also called to continuously attend to their training, especially in the field of their professional activities, something which is also a fixed and standing obligation of the Pharma Company for which they work. Communication between pharma reps and those scientists who prescribe or/and administer pharmaceutical products must be limited to the context dictated by their mutually accepted moral principles, as well as the need to protect public health. The transfer of scientific information from pharma reps to the aforementioned professionals needs to be performed with accuracy and responsibility, without exaggeration or distortions of the truth and with arguments that are strictly based on the data derived from the literature. It is prohibited for a pharma rep to make insinuations or defamatory remarks against other companies, scientists, state officials, institutions, etc.

The executives of pharmaceutical marketing (chief product managers, marketing directors, etc.) need to possess or acquire specialized knowledge in order to plan the activities of the Pharmaceutical Company so

that it will comply with the principles of the Code of Ethics and the relevant provisions in the Law (EEFAM, 2014). The table below outlines the principal

characteristics that shape demand in the market of each one of the countries in our survey.

Table 1. Characteristics of the demand for pharmaceutical products in the three countries under assessment

Country	Characteristics of demand
<i>Bulgaria</i>	It has one of the highest shares of pharmaceutical expenses in Europe as a percentage of the total health cost (Rohova et al. 2013). This is a common characteristic amongst EU countries with lower incomes, due to the high levels of prices. Local businesses appear to have a greater say in the establishment of the list of medicines. Producers frequently establish a distribution of medicines using multiple distribution channels. Additionally, exclusive distribution rights are offered as consideration to wholesalers promising to include the preparations by specific manufacturers on central pharmacy lists and across all hospitals (Andreev, 2004). It is evident that the course to full accession to the EU is expected to intensify the competitive pressure from local and multi-national pharmaceutical industries (Meagher et al. 2005).
<i>Greece</i>	The drug and health sectors exhibit particularities. Due to the imperfections of the pharmaceutical products market, demand is not driven by the patient (end user), information between doctors and patients is asymmetrical, while the percentage of participation of the patient towards the cost of the medicine renders the patient impervious to price concerns. The dominant negotiating role in the medicines sector is played by doctors, while the role of pharmacists and pharmaceutical wholesalers is intermediary and implementary (Platis et al., 2009).
<i>France</i>	France's population ranks amongst the largest consumers of pharmaceutical products. This fact is further reinforced by the high level of health expenses, especially in an era where the public system is challenged by long-term deficit which are expected to further rise due to the current economic recession. The French health system can be characterized as the most liberal health system in the world, with respect to the autonomy of patients, as well as doctors, but especially the first ones to drive demand to a major extend (Couffinhall and Perronnin, 2004). A series of measures have been adopted in the last decade to improve and limit doctor prescription practices, as well as the patient consuming habits (Smart Pharma Consulting, 2014).

3. Synthesizing the literature review for the research questions

In this section we discuss the literature review for the four research questions.

Which is the basis (financial, medical, etc.) for a contemporary European consumer to select any pharmaceutical product?

The financial state of consumers plays a key role in the selection of a pharmaceutical product, principally affecting the selection of pharmaceutical preparations. Those with low to medium incomes will chose the cheapest option and the lowest possible quantity. Others with high incomes are mostly interested in the quantity of their purchases. With respect to customer education and access to direct and immediate information, the more educated customers act rationally and seek the best possible solution (based on other factors as well), while they can more easily detect "targeted product promotion", are more open to generic drugs, more accepting of newly entrant cosmetics brands.

Moreover, the perceived value of a preparation (reputation, image, effectiveness, advertising) is also of major importance for such a choice. According to the research by company Scott Levin Ass, it was ascertained that consumers who can choose between a multitude of products can more easily procure those manufactured by

better-known pharmaceutical companies. Thus, they trust the experience, reputation and course over time of the preparations marketed by the "giants" of the sector. At the same time, a small percentage of respondents to a survey suggested that they choose based on the effectiveness of each product and not the reputation of the manufacturing company (Fill and Dimopoulou, 1999). As a general point, it has been proven that good corporate image positively affects consumer habits. Simultaneously, the packaging of the drug is not deemed to be as important by consumers.

They believe that information cited on the external packaging of pharmaceutical preparations mainly exist for reasons relating to legislation and not to facilitate them (Padisson and Olsen, 2008). With respect to the demographic factors, the findings of the surveys carried out by Stephens and Johnson (2000) have shown that younger people base their decision to buy an OTC drug, on the information offered by their friends and family, due to their lack of experience in using and purchasing drugs. Parallel to this, family status affects the kind of products someone procures. Thus, a bachelor will choose differently from a single woman (with respect to beauty products, food supplements and metabolism improvements), while both will make different choices than those by parents (that mainly

relate to baby-children products). Finally, sex is associated with the footfall for pharmacies, with women being more frequent customers, a fact manifest across age groups, while men are not as frequent although they too are consumers of pharmaceutical products (Campo et al. 2005; Smith, 2009; Degeratu et al. 2000).

What is the profile of Greek, Bulgarian and French consumers in the medicine market and how different are these profiles?

Consumers in Greece in recent years are better informed on issues relating to their health. The use of the internet has greatly contributed towards this, as they devote considerable time surfing the relevant sites. The continuous search for new healing methods that go beyond chemical preparations may lead them, on the one hand, to consult their physician, but also to listen to the view of the pharmacist or views shared on the benefits of organic-based treatments. They are driven to nature by the economic crisis and their inability to pay frequent visits to the physician for minor ailments.

With respect to France, a survey carried out in the country has shown that consumers need advice and guidance, but the pharmacists themselves are frequently in need of updating their knowledge and even their habits (Ragot et al., 2005; Foppe and Schulz, 2006). More specifically and with respect to generic products, in a survey carried out in autumn 2014 for the National Union of Health Professionals, 85% of Frenchmen stated that they are ready to change their custom and start taking generic drugs. It is generally noted that they observe their doctor's orders to the letter and pay much attention to their good health and good looks. Thus, they purchase several high quality and high end medicines, parapharmaceutical products and cosmetics. However, due to the redistribution of wealth, there is a seven-year gap in the life expectancy of the lower, compared to the upper income groups in France, which may be negatively affected by the economic recession (Elbaum, 2007a). Higher income individuals are three times less likely to be in very bad health compared to those of lower and lowest income (Elbaum, 2007b; De Looper and Lafortune, 2009). There is already a concern that the amounts not covered by the VHI and which relate to visits to doctors, auxiliary care, transfer and prescription of medicines act determinatively to the principle of universal access to health care (Chevreul et al., 2010).

Due to the economic recession plaguing their nation, Bulgarian consumers exclusively rest on their centralized insurance system to cover part of the expenditure for the purchase of medicines. They even need someone to facilitate (as a contact – connection and against some form of consideration) their being monitored by contracted doctors. This renders treatment even more time and resource consuming for the patient. One must, therefore, not be surprised by the high tendency for self-healing and alternative medicine (Delcheva, 2006; Balabanova, 2001; Ensor and Savelyeva, 1998; Delcheva 1999; Balabano and McKee, 2002). In recent years and with the evolution of the internet and their close relations with Greeks, Bulgarians have become better informed and begin to

form a semblance of a consuming attitude towards pharmaceutical products. Consumers in all three nations are principally briefed by their physician with respect to the products they purchase from a pharmacy. They are also informed, to a major extent, by the pharmacist. Advertisements do not appear to affect their choices, while French consumers, against both Greeks and Bulgarians, exhibit a tendency to take into account information from various sources and mainly from friends and family on alternative treatments. Bulgarians and Greeks place little weight on such, as well as advertisements and other sources. The criteria for choosing pharmaceutical products by modern age consumers appear to fall under the term medical more than any other category.

Who affect a consumer's final decision for selecting pharmaceutical products?

The information being taken into account by consumers before they proceed with the purchase of a pharmaceutical product originate from various sources (Paddison and Olsen, 2008), both internal and external. *Internal sources of information* originate from the past experience of using a particular medicine and the general knowledge with respect to them that consumers have. The acquired experience has a materially significant effect on the preference for certain brands. *External sources* comprise of: Pharmacists, Doctors, interpersonal relations (friends, family), Information on the reputation of pharmaceutical companies (image, packaging), Advertising, Internet (pharma companies' websites, on-line drugstores) and Demographics.

Despite the fact that some consumers rest on their experience from past use of pharmacy products, it is the pharmacists themselves who play a key role in offering advice and information useful for the proper selection and use of pharmaceutical products. Their advice is deemed most useful by their customers. In accordance with a research carried out, following the pharmacist's intervention several consumers purchased a different product than the one they intended to purchase (Nichol et al., 1992; Wazaify et al., 2005).

Although clearly unreliable sources of information, as they lack the required knowledge, friends and family are always the most "directly accessible source of trust" for their medical-pharmaceutical views. The findings of the research by Stephens and Johnson (2000) have shown that young people base their decision to buy an OTC drug, on the information offered by their friends and family, due to their lack of experience in using and purchasing drugs.

According to the research by company Scott Levin Ass, it was ascertained that consumers who can choose between a multitude of products, can more easily procure those manufactured by better known pharmaceutical companies. (Fill and Dimopoulou, 1999). According to Holden, author of the book *Marketing Communications in the Pharmaceutical Industry* (1992), "competition in the industry is intense and no-one objects that many of the drugs are unique".

Consumers are informed on most of the pharmaceutical products by the mass media. In the research by Paddison and Olsen (2008), respondents

suggested that advertising did not affect their choice in one category of drugs, *painkillers*, while its contribution was limited to the reinforcement of their purchasing choice. Additionally, the survey by Stephens and Johnson (2000) has shown that TV ads have a minimal effect on consumer behavior, both young and old, and even less so today where the TV has been replaced by the PC. Some researchers (Kanavoor et al., 1997) stress the value of advertisement as a source of information for pharmaceutical products, while others (Singler et al., 2000) advocate that advertising contributes more to the reinforcement of consumers' decision than their briefing. In the model, however, developed by Milgrom and Robert (1986), the reputation of a product with respect to its quality, may be transmitted to consumers using price, initially, and then advertising as media.

Internet is for the medical-pharmaceutical world, a medium for communication, interaction, informing and customers support, as much as it is a medium for direct sales or the facilitation thereof. Its use by the pharmaceutical companies principally focuses on the establishment and maintenance of relations with patients and health professionals. In addition, pharma companies have created websites that cater, besides advertising, also for the informing of the public.

Overall, as Eysenbach (2001) cites, the internet constitutes, in general, of a new way of thinking, a new attitude and the commitment of individuals and organizations for networking activities aimed to the overall improvement of health care by utilizing new IT and communication technologies. In practice, Paddison and Olsen (2008) distinguished those patients who reported that they visited the websites of pharma companies to seek more information on various pharmaceutical products. However, respondents testified that they faced difficulties in understanding all the information provided and have doubts as to the objectivity of said information. It is in general reported that 80% of adult Internet users search for health-related information and offers on-line.

Finally, with respect to their demographic features, consumer age differentiates the sources of information that affect them and the characteristics they take into account for evaluating medicines (prescribed or not), cosmetics and food supplements. Older consumers place more trust on health professionals and do not themselves decide on choosing any of these products. What is more of interest to them is the reliability and safety of the drug. Young people, on the other hand, rest on the information they are given by their friends and family, since they lack experience from using similar products. Price is the determinant factor for them (especially for today's youth who are plagued by unemployment), while advertising does not appear to influence the decision of both the young and the old

4. Research methodology

This paper aims to investigate the factors outlining the profile of consumers in the pharmaceutical markets of three countries. A primary research was undertaken, using questionnaires filled out by a sample of pharmacy customers in the capitals of the countries. Regarding the

(Stephens and Johnson, 2000). With respect to the demographic factor of income, in recent years an unprecedented decrease of income took place, especially in Greece, to the extent that the inflexibility for pharmaceutical products abnormally decreased. Consumers on low to medium incomes choose the cheapest option and lowest possible quantity of pharmaceutical product. With respect to the education and access to informing, the better educated customers act rationally, search for the best possible option (based on other factors as well), can more easily detect "targeted product promotion", are more open to generic medicines, more accepting of new entrants in the cosmetics field. Family status affect the type of products brought, same as in the case of sex, while the latter also relates to the frequency of visits, with women being more frequent customers, while men pay less visits to the pharmacy (Campo et al., 2005; Smith, 2009; Degeratu et al., 2000).

Which are the purchase-use intentions of consumers with respect to the products of a pharmacy, based on possible financial and technological developments?

As represented, consumer health in most of the developing countries in Europe is usually interwoven with their financial status. Based on economic developments, it is certain that the quality of their health, and consequently their quality of life, will improve if the economy of the country improves. Then, consumers will no longer be forced to strictly buy generics, while with respect to parapharmaceutical and cosmetic products, consumer will use what they deem to be good and what is recommended to them without cost factoring in the equation. Should, however, a greater recession ensue, as it did in Greece, preparations will continue to be prescribed based on their active ingredient and then customers will choose only the cheapest product while they may stray away from making the choice at all.

Consumption of parapharmaceutical and cosmetic products will further decrease, while the sales of 'natural' products increase. Technological developments act in parallel to this general climate, since an increasing number of pharmacies appear to also have an internet presence, with many exclusive specials and offers, due to the intense competition. In any case, consumer will attempt to exploit the advent of technology for their benefit, choosing to make on-line purchases where they can immediately compare prices, preparations and be exhaustively informed. Their orders of pharmacy products are thus facilitated and direct and, depending on the economic climate, will focus on higher or lower price levels.

sample of the survey, it was a convenience sample that comprised of the customers of the pharmacies who agreed to fill the questionnaire in the presence of a researcher. Sampling was carried out during normal business hours. The acceptable number of answers, as well as the target for each nation was set to 50 respondents (with a 95% confidence level and 14% range

of standard error, for 1,000 residents at a commercial distance from the selected pharmacies). The total sample, therefore, comprised of 450 European citizens, customers of pharmacies. The pharmacies were randomly selected in the three capitals (Athens, Paris, Sofia) where sampling took place. The questionnaire was handed out with the necessary clarifications by the researchers, after the pharmacist has given his/her consent for the research to be carried out on their premises.

A preliminary research was initially carried out, by distributing 10 questionnaires in Greece. After they were collected, ambiguities, unclear points that confused respondents, omissions and errors in the formulation and wording of the questions were ascertained and, following their correction, the final questionnaires were translated to Bulgarian and French.

The proposed method is as follows: An individual fluent in Bulgarian translates the

questionnaire to this language. A second individual, from Bulgaria, is given the translated text and translates it back to Greek. In case there are divergences in the translation, a third stage takes place, where such discrepancies are surveyed and addressed, the opinion and views of each contributing side being taken into account. The same procedure is followed for French. This process begun in November 2016 and was completed in January 2017, with a total of 150 questionnaires being filled and collected for each country.

The questionnaire for this survey comprises of two parts. The first part includes 7 questions describing the qualitative characteristics of the respondents, which are grouped as demographic data, while the second part includes 10 questions on the consumer profile of the respondent. Pairwise Comparisons were also employed in the descriptive statistical analysis, to investigate statistical differences per country.

4.1 Analysis of the answers to the first part: Demographic Characteristics

The table below outlines the sample's Demographic Characteristics:

Table 2. Profile – demographic characteristics of the sample

	Bulgaria	France	Greece
Sex (%)			
Female	52	66	68
Male	48	34	32
Age (%)			
19-34	26	26	22
35-49	34	10	24
50-64	28	32	28
>65	12	32	26
Education (%)			
Secondary	54	28	42
Tertiary	46	72	58
Employment (%)			
Private sector	30	40	52
Public sector	30	18	10
Pensioner	10	36	24
Unemployed	30	6	14
Annual Income (%)			
>10,000 Euro	52	27	52
10,000-20,000	48	23	44
>20,000		50	4
Family Status (%)			
Single	44	46	46
Married	54	42	30
With underage children	12	12	14
Long-term pharmaceutical treatment (%)			
Yes	60	72	60
No	40	28	40

4.

2 Answers to the second part: Behavior Analysis

Source of informing

Initially and with respect to the source of the information for the medicine market, the overwhelming majority (Greece – 56%, Bulgaria – 66%, France – 42%) of customers are informed by their doctor and then by their pharmacist for the products bought there.

Advertising scores very low with respect to their influence (2%-8%-2% respectively). The parameter of “source of information” exhibits statistically significant differences ($p=0,026$), attributable, to a large extent, to the differences between France and Bulgaria, while there are no differences between Bulgaria and Greece in this respect. French consumers exhibit the greatest

variability in their responses, covering all available options, a particularity that is not reducible to their educational or financial level, but may, rather, be indicative of their idiosyncrasy.

Frequency of visits

In the question relating to the number of visits, to make purchases, per month, i.e. the frequency by which customers visit the pharmacy, 1 in 2 French consumers visits a pharmacy 1-2 times a month, while for Greece the rate is 8-10 times (a very high rate), and Bulgarian consumers visit their pharmacy 2-6 times. Generally, the overall frequency is statistically significant ($p = 0.000$).

Amount of money spend

The amount of money spent by customers at the pharmacy for purchases per month exhibits extreme values for Greece (upper extreme values ranging between 150 and 260 €) and Bulgaria (lowest value 10 and highest 75 €, the frequency of visits is also taken into account) while overall the difference between the countries is statistically significant ($p=0,002$). Bulgarian consumers exhibit a different behavior than their French and Greek peers, spending more money per month in the pharmacy for various purchases (the analysis does not take account of extreme values).

In all three countries, the majority of consumers appear to spend from 0-50€/month at the pharmacy. More specifically, with respect to the frequency of visits and the amount of money spent on average in a month, we may observe (excluding extreme values) that: Greek and French consumers visit the pharmacy two times per month on average, while Bulgarians visit it three times on average. Consumers in Bulgaria spend the most (33€) followed by those in Greece (26€) and, lastly, the ones in France (21€). Nevertheless, if one looks at the average expenditure per visit to the pharmacy this ranking is reversed. That being said, Greek consumers spend an average of 13€ per visit, with Bulgarians ranking second at 11€ while Frenchmen are third with an average of 10,5€ spend per visit.

Type of medicine (prescribed or not)

The vast majority in all three countries purchases medicines on prescription. This parameter does not exhibit statistically significant differences between countries ($p=0,517$). Ninety percent of Greek consumers stated that they purchase prescribed medicines, with French consumers ranking second (86%) and Bulgarians third (82%). With respect to the choices made by consumers for medicines treating the same ailment, no statistically significant difference was observed for the factor that affects it ($p=0,760$). The overwhelming majority of consumers in all three countries (73,33% for Greece, 86,05% for Bulgaria and 79,07% for France) buys the medicine recommended to them (prescribed by the doctor). A second factor quantitatively affecting the choice of Greek consumers is the manufacturing company, the product's reputation for Bulgarian ones and price for French consumers. Product advertising does not appear to have any effect, with zero percentages across all countries. In parallel, the company does not

enter the equation in Bulgaria, and the same holds for reputation and French consumers.

Vitamins and /or food supplements

The majority of respondents in all three countries answered that they do not purchase vitamins and/or food supplements. This parameter does not exhibit statistically significant differences between countries ($p=0,089$). In Greece, 44% answered that they buy such products, with French consumers ranking second with a percentage of 40% while Bulgarians are last with a percentage of just 24%. Although few Bulgarians purchase vitamins and/or food supplements, when they do so, it happens fairly frequently in a month (up to 10 times) in contrast to Greek and French consumers who, as a rule, buy these products in one visit to the pharmacy, while this parameter also exhibits statistically significant differences ($p=0,000$). Expenses for the purchase of vitamins and/or food supplements by consumers do not exhibit statistically significant differences ($p=0,699$). The price range segments from €5 to €15 accumulates the largest percentages for all three countries. Greek and French consumers, however, also fall in the <€20 group, while Bulgarian consumers spend up to €20.

Cosmetics and/or other care products

Satisfactory percentages of roughly 60% of pharmacy customers (56% of Greek, 64% of Bulgarian and 66% of French ones) purchase cosmetics and/or other care products, without any statistically significant differences between consumers across all three countries ($p=0,554$). There seems to be great divergences and statistical significance with respect to the frequency of purchasing cosmetics and/or other care products from the pharmacy per month between the consumers in the three countries. Bulgarian consumers are significantly differentiated from Greek and French ones, since they stated, at a percentage of 90%, that they make such purchases up to 5 times per month, in sharp contrast to the large percentages of Greek and French consumers who make less than one purchase per month (75% and 80% correspondingly). A small percentage of French consumers (18%) and slightly larger of Greek ones (21%) stated that they will make up to 5 purchases per month. The group of 6-10 purchases per month scored low across all three countries. The differences observed are statistically significant ($p=0,000$) with Greek consumers being differentiated compared to both French and Bulgarian ones. More specifically, Greek consumers do not appear in the group <€5, exhibit close percentages in the intermediate groups, while they exhibit the largest percentage, 40%, in the group that spends > €20 per month towards the purchase of cosmetics and/or other care products.

Impulse buying

Impulse buying, the phenomenon that somebody buys a product without this being the reason he/she is in the pharmacy is a parameter that exhibits statistically significant differences between consumers ($p=0,000$). Greek and French consumers appear to avoid impulse buying, while Bulgarian ones seem to succumb to it more

frequently, with 70% answering that they do so sometimes. On the contrary, against the percentage of 20% who answer that they would never impulse buy anything or very rarely do so, this percentage raises to 40% for French consumers and as high as 50% for Greek ones. As a whole, however, consumers in all three countries that purchase pharmaceutical products are infrequent impulse buyers, since only a percentage of 1.6% stated that they would very frequently make an unplanned purchase at the pharmacy. More specifically, Greek consumers usually buy cosmetics (32%) or care and hygiene products (22%) this way, while the great majority of Bulgarians purchase pain-killers (46%) and care and hygiene products (40%) and, finally, French consumers do so for a great number of products with care and hygiene products (44%) and pain-killers (28%) being at the top of the list.

Financial status

In the question *"If your financial status was better what/how much would you purchase?"*, an improvement in the consumers' financial status does not seem to affect French consumers, who for the most part answer, by a percentage of 66%, that they would not change their choices or purchase more products (24%). Greek and Bulgarian consumers exhibit split tendencies between maintaining their choices (46% and 36% respectively) and purchasing more expensive (34% and 26% respectively) or more products (28% in both countries). The percentages relating to the purchase of greater quantities of the same products are small, independent of the country. In the case where financial status worsens, Greek and French consumers state that they would stop buying cosmetics and care products at a percentage of roughly 60%, as well as vitamins and food supplements to a lesser degree (36% of Greeks, 22% of Bulgarians and 38% of French consumers).

Customer loyalty

Customer loyalty is an important parameter for businesses, pharmacies in the case at hand, but one that exhibits statistically significant differences between consumers in the three countries of study ($p=0,034$). In general, Greek and French consumers/customers exhibit over 70% for choosing one particular pharmacy for their purchases compared to Bulgarian consumers who exhibit an almost evenly-distributed (50-50) percentage between a fixed or not pharmacy. The majority of Greeks visiting and making purchases from one given pharmacy for all products does so since they trust the pharmacist (54%), while the proximity of the pharmacy is the second priority (18%), followed by range of products (16%) and ease of payment (buying on credit). French consumers exhibit more scattered percentages for these reasons. Over 40% trusts the pharmacist, but no one chooses a pharmacy for reasons relating to possible arrangements of payment. Finally, Bulgarian consumers appear to place greater weight to the proximity of the pharmacy (28%) and the range of products (20%) and to a lesser extent on the trustworthiness of the pharmacist (18%) or the ease of payment (8%). Greek and French consumers responded

in much smaller percentages that they do not have a particular reason for choosing a pharmacy.

On the contrary, those consumers who are not loyal to one pharmacy do so for various reasons. Bulgarians choose the first open pharmacy they will find (22%) when they wish to make purchases for no specific reason, while they may simply change pharmacies based on the products they wish to purchase (12%). A similar trend is exhibited also by Greeks (16% for the first open pharmacy and 10% for a different pharmacy for some products), while the percentages of the answer relating to non-specific reasons was minimal (2%). Finally, French consumers appear to be equally affected by the first open pharmacy (random choice) (10%) and making a choice for no particular reason.

Internet-based purchases

The last question deals with new technologies and the existence of *"digital pharmacies"*, as well as the ability to purchase pharmaceutical products online. It exhibits statistically significant differences ($p= 0,000$) while it is ascertained that French consumers (almost universally-98%) would not buy pharmaceutical products over the internet, compared to Bulgarian ones, who are split (50% YES, 50% NO) and Greek ones, who exhibit a less positive trend (34% YES and 66% NO).

5. Conclusions

The goal of this work was to identify and study the behavior of the contemporary pharmaceutical products consumer. Three particular countries were chosen to be surveyed, since France's pharmaceutical-medical system is one of the most sophisticated, as was accentuated from the literature review, in sharp contrast to the Bulgarian one which is under development and admitting of many improvements and the Greek system which ranks somewhere in the middle, exhibiting a downward trend amidst the prolonged economic crisis climate. The project of exploring the attitudes of a Greek consumer compared to one from France and from Bulgaria is, thus, very interesting. From an academic standpoint, this paper is deemed significant since this subject has not been explored by the scientific-pharmaceutical field of marketing in 2014. The authors feel that the findings of this survey will assist in outlining the consumer's profile during a period of economic crisis and help in subsequent legislative changes with respect to the pharmaceutical industry. From a practical standpoint, this profile would be useful for the companies of the sector and, more specifically, for smaller private pharmacies especially if complemented by a more targeted survey of their localities.

Findings are expected to shed light to an aspect of pharmaceutical marketing which is useful for the development of small or even large enterprises in Greece. More specifically, businessmen will be facilitated in making more targeted sales in their localities, while larger enterprises will decrease or increase their production volumes for cheap or expensive medicines and the corresponding state bodies will better assess the state of affairs with respect to the consuming public at a given time.

Initially, with respect to the sample's profile, results showed that women constitute a pharmacy's most frequent customer. With respect to the age, almost every group makes purchases from a pharmacy, with a slight trend for more senior citizens exhibited by the French. With respect to their employment, small differentiations are observed in the urban environment of each capital (unemployed, pensioners, employees in the public and the private sectors). Family status does not appear to exhibit any variability that ought to be considered. These five demographic parameters do not contribute towards any significant differentiation of the sample for the countries under survey. On the contrary, significant statistical differentiation was observed with respect to the level of education and the financial status and these constitute the parameters from which differentiation of choice ensues for the customers in each nation. Thus, they shape their consumer profile and it is on them that the interpretation of the divergences-differences presented rests.

With respect to the consumer profile, results have shown:

- Consumers in all three countries are principally informed by their doctor with respect to the products they buy from a pharmacy. To an important extent they are also informed by their pharmacists. Advertisements do not appear to significantly affect their choices. In contrast to Greeks and Bulgarians, the French exhibit a tendency to place weight in information originating from various sources, especially from friends and family, while such sources are of little importance for Greeks and Bulgarians, as are advertisements and other sources. One can safely assert that the selection criteria by present day consumers fall under the term 'medical' more than any other category.
- Bulgarian consumers visit the pharmacy more frequently (2-6 times/month), compared to Greeks and the French, who make all monthly purchases for the most part in two visits. Furthermore, Bulgarian consumers spend the most on a monthly basis.
- The overwhelming majority of consumers across all three countries buy prescribed medicines, with Greeks exhibiting the highest percentages. With respect to vitamins and food supplements, most pharmacy customers do not purchase such with Bulgarians choosing them less frequently than the others. Finally, the percentages of pharmacy customers purchasing cosmetics or other care products are satisfactory.
- In conclusion, save for medicines, customers in all three countries purchase cosmetics and care products from pharmacies with a satisfactory frequency. This fact underlines a similarity in the consumer profile and with respect to the consumer habit to attend to their care independently of external factors (socio-political-economic).
- With respect to selection of prescribed medicines for the same ailment, the overwhelming majority of consumers in all three countries purchases the preparation recommended by their doctor, while the other significant factor is the manufacturing company for Greek consumers, product reputation for Bulgarians and price for the French. Product advertising bears no effect, while the company is of no importance in Bulgaria, as is reputation in France. Even for similar vitamins or/and food supplements, consumers trust and purchase that which is recommended to them, while their decision is affected to a lesser degree by the company and the price of the product. Advertising appears to have a minimal effect and indeed only with respect to Greek consumers, while product reputation appears to be of more significance for Bulgarian and French consumers.
- Customer choice of cosmetics and/or other care products is interesting, since Greek consumers principally select based on "what is recommended to them" and the reputation of the company, French based on the reputation, "what is recommended to them" and other factors, while Bulgarians base their choice on "reputation" and the company. In general, one observes great divergences in the consumer behavior across pharmacy customers in each nation with respect to what influences them when they make the final choice to purchase products intended for such use, especially when they are not medicines.
- As a rule, Greeks and French avoid making impulsive purchases, while Bulgarians may succumb to them occasionally. It can be observed that Greek consumers usually buy cosmetics or care and hygiene products impulsively, Bulgarians pain-killers and care and hygiene products and, finally, the French various products and principally care and hygiene products and pain-killers.
- Improvement in consumer financial status does not appear to affect French consumers who, for the most part, state that they would not change their selection or purchase additional products. Greek and Bulgarian consumers are divided between maintaining their selections or purchasing more expensive or additional products. On the other hand, in the case of a worse economic climate, Greek and French consumers stated that they would stop purchasing cosmetics and care products and to a lesser degree (for respondents in all three countries) vitamins and food supplements.
- Greek and French consumers/customers appear as a majority to fixedly choose one pharmacy for their purchases compared to Bulgarian consumers. With respect to Greek consumers who exhibit customer loyalty, they initially do so on account of the trust they show towards

the pharmacist, then due to the locality of the pharmacy, the range of products and, finally, the facilitation of payment. The French select the pharmacy based on the trust they show to the pharmacist, while it is interesting to observe that ease of payment does not constitute the basis for selecting the pharmacy in any nation. Finally, Bulgarian consumers appear to place greater importance to the proximity of the pharmacy and to a lesser extent on the trustworthiness of the pharmacist or ease of payment. Therefore, it appears that the pharmacist is most important for Greeks, the pharmacist and the proximity of the pharmacy for the French, while for Bulgarians the most important factors is proximity and the range of products.

- Many Frenchmen state that they have paid no attention to any advertisement for pharmaceutical products and few notice them on TV or in magazines. On the contrary, Greeks and Bulgarians notice such advertisements on TV, in pharmacies, leaflets, on the internet and in magazines, while the latter are the only ones that noticed such advertisements on the radio.
- With respect to new technologies, the existence of "internet-based pharmacies" and the ability to purchase pharmaceutical products over the internet, the French would universally shy away from making such purchases, compared to Bulgarians who exhibit both positive and negative attitudes towards this and Greeks who exhibit a less positive attitude, compared to Bulgarians.

Overall, one could suggest that by virtue of the comparative analysis, it is observed that French, Greek and Bulgarian consumers tend to agree to some common behavioral trends, but materially differ in matters of major importance. According to the results, behavioral motives appear to be affected by health professionals, price, advertisement, alternatives and "public opinion".

Additionally, it appears that customers differ across countries but also within a country with respect to their choices and their particular mode of operation. This particularity principally ensues from the different levels of education and basic income for each pharmaceutical product consumer.

Any research on the quantitative measurement of perception has inherent limitations as it rests on the subjective views and attitudes of the respondents. Additionally, some obstacles emerged in the course of the survey and in regard to the filling-out of the questionnaires in all three countries, thus account must be taken of the following limitations when interpreting the findings: (1) lack of detailed knowledge of the legislative framework for the supply of pharmaceutical products in Bulgaria and France; (2) rapid changes in external factors (legal-political-social) in the case of Greece; (3) inability of personal contact with every respondent in order to get a first-hand view of their "pharmaceutical behavior" and education, and (4) time and resources limitations dictated that the survey be carried out with respect to a very limited and small sample compared to the total population of Athens, Paris and Sofia.

It is recommended that more surveys exploring the views of patients-consumers are carried out in the future in developing countries, where cost-effectiveness is more fundamental than in developed ones, and also to utilize constructive comparisons. However, the need to repeat the survey at regular intervals (establishment of a permanent satisfaction barometer) must be noted, since customer demand changes with the passage of time. This is principally due to rapid advances in technology, economy, legislation and policy in every nation, the creation and introduction of new services, changes in the competitive field and to social factors.

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