

The impact of individual factors in ethical determining of pharmaceutical marketing

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Abstract

This study provides the impact of individual characteristics, such as age and level of education, on issues dealing with ethical pharmaceutical marketing. The used data were collected from questionnaires distributed to doctors of the University Hospital Center “Mother Teresa” and pharmaceutical distributor companies operating in the Albanian market. This paper shows that in determining ethical pharmaceutical marketing, age group, has a statistically significant effect. For more, this paper shows that the 31-40 and 41-50 age groups are statistically significant different from 18-30 age group in terms on the determination of ethical pharmaceutical marketing. Also, is shown that the level of education (BA or Master), has statistically significant effect on the determination of ethical pharmaceutical marketing. Based on our results, recommendations are made to improve the ethical reasoning evaluation on issues related to marketing.

Keywords: *individual characteristics, ethical determination, pharmaceutical marketing etc.*

1. Introduction

Interest in these problems has increased year after year. This is due to the growing number of observed unethical practices. As regarding the business area, the impact of individual factors on ethical problems has until now been the subject of many studies.

Lovisky et al. (2007) suggests that the complexity of the individual factors in ethical decision-making affects the ethical reasoning processes of directors and managers. While Arjoon (2007) states that the individual factors affect the proportional variations in ethical reasoning.

The complexity of personal characteristics plays a crucial role in ethical reasoning because it involves the process of choosing between ethical alternatives.

Studies conducted so far have shown that personal variations play a fundamental role in ethical reasoning as well as in the ethical decision-making in an organization (Mustamil and Quaddus, 2009). It has also been proved that personal factors such as gender, age and experience have different impacts on the individual ethical reasoning (Freeman, 2007; Costingan et al., 2007; Huang, 2006; Mustamil and Quaddus 2009, Khalid et al., 2011).

One of the identified factors affecting ethical reasoning is age.

Freeman (2007) stated that age is an important factor in determining the ability of ethical reasoning. Similarly, Ruegger and King (1992) found that age is an important factor in ethical reasoning: the older a person the more ethical his reasoning becomes. Another study carried out by Cannon (2001), Hyppolite (2003), Huang (2006) and Mujtaba et al. (2009) points out that one of the empirical findings, based on a comparison of individuals aged 30 years and above with individuals up to 29 years of age, is that the age of the individual has an important influence in his ability of ethical reasoning.

However, there are studies such as that of Bastons (2006), which indicates that age does not significantly affect ethical reasoning and concludes that there are other factors that influence ethical decision-making, such as life experiences and family environment. In their studies Christie et al. (2003) and Forte (2004), also support the conclusion that there is no significant link between age and ethical reasoning.

Another identified factor which has an impact in ethical reasoning is experience.

There are studies, such as Forte's one (2004) indicating that experience in a particular field of business has an important relationship with ethical reasoning. Furthermore, Forte (2004) stated that maturity reflects on moral issues encountered in business. This conclusion also supports the arguments given by Kohlberg suggesting

that „individual capacity of moral reasoning develops over time“ (Kujal, 1995). But what happens in the pharmaceutical marketing reality? Marketing is „everything that happens from production to the sale of a product (including even pharmaceutical ones). More broadly marketing in the pharmaceutical industry, includes:

- advertising of pharmaceutical products,
- purchase / sale of pharmaceutical products
- transport of pharmaceutical products
- storing pharmaceutical products
- planning of pharmaceutical products
- market research
- support of pharmaceutical products
- financing
- Customer service

Honest and clear communication is very important in pharmaceutical marketing, and this based on the pharmaceutical ethical code.

The sale of pharmaceutical products is essentially an extension of the marketing program where experienced managers directly introduce products that the market demands. Field Communication, conducted by marketing teams or certain groups in order to ensure the sale of pharmaceutical products, must always be in accordance with the rules of the Pharmaceutical Code of Ethics.

Nowadays there is an increase of unethical marketing in pharmaceutical activities by pharmaceutical companies, in collaboration with various doctors. These activities include: the distribution of gifts to doctors, sponsorship of social activities, sponsoring training seminars or conferences abroad, giving free samples etc. Ethical issues raised by the use of such marketing strategies are the focus of analysis and discussions in the medical literature.

This paper, driven by the studies made in this field for the impact of individual factors on ethics, makes modest efforts to investigate the influence of age and education level on some issues dealing with ethics and behavior of physicians and pharmaceutical companies regarding pharmaceutical marketing. The instrument used was the questionnaire, which was distributed in 30 pharmaceutical companies in our country and in 30 doctors of the University Hospital Center „Mother Teresa“.

2. The purpose and the objectives of this study

The main purpose of this paper is to analyze the impact of some of the individual factors in determining ethical pharmaceutical marketing.

Objectives of the paper:

1. To investigate whether age has an impact on the definition of ethical pharmaceutical marketing
2. To investigate whether the educational level has an impact on the definition of ethical pharmaceutical marketing.

3. The research question, the hypothesis and paper methodology

Research question

Do individual factors such as age and education effect in the ethical determining of pharmaceutical marketing?

Hypothesis:

1. H_0 : Individual factors do not have a statistically significant effect in the ethical determining of pharmaceutical marketing.

Ethical issues appearing in the sales practices of pharmaceutical products are highly problematic because of their direct impact on citizens' lives. Hence the importance of this paper deals with the handling of the impact of individual factors in the ethical assessing or non-ethical assessing of pharmaceutical marketing.

The instrument used in this case was the questionnaire, which was distributed to 30 pharmaceutical companies which are present in the Albanian market and 50 doctors at the "Mother Teresa" University Hospital Center. Non probability selection techniques were used, operating with known persons. The data were taken from all the pharmaceutical companies and only 30 of the 50 doctors to whom the first questionnaire was distributed. Doctors who filled the form are of different specialties, of which 3 with the title of professor and 27 others with different degrees (15% margin of error). At UHC Tirana, there are already contributing a total of 190 doctors, of whom 44 titled professors and 146 are doctors of varying degrees. In order to process the data we have used the statistical package SPSS20. The statistical tests used in this paper are: Shapiro-Wilk test, Kruskal -Wallis test, Mann Whitney U test, as well as the multiple comparisons based on the ranks table.

4. Analysis and data interpretation

Develop now the sub-hypotheses to test whether individual factors have a statistically significant effect in ethical determining of pharmaceutical marketing.

In this paper we examine these individual factors: age group and educational level. The first sub hypothesis tests the influence of age group in ethical determining of pharmaceutical marketing. The tested variables are: The dependent variable: The ethical determining of pharmaceutical marketing. The independent variable: Age group. For the measurement of the dependent variable, in the questionnaire are used scenarios for which should be given the answer with the Likert's scale, if the issues they address are considered as ethical issues or not Scenarios include the following: party organization, sports activities, sponsoring training seminars or abroad conferences, providing free samples as well as cash prizes for doctors.

First, we test if the dependent variable is taken from normal distribution. The null and alternative hypothesis are written as follows:

H_0 : The ethical determination of pharmaceutical marketing (the dependent variable) is taken from normal distribution.

H_a : The ethical determination of pharmaceutical marketing (the dependent variable) is not taken from normal distribution.

To test for normality data, we use the Shapiro – Wilk test.

From the output below, we see that:

$p = .000 < 0.05$

TABLE 1: The result from Shapiro-Wilk test

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
The ethical determining	.286	60	.000	.813	60	.000

a. Lilliefors Significance Correction

Since the p-value is smaller than , the null hypothesis is rejected and alternative hypothesis is accepted.

The result: The ethical determining of pharmaceutical marketing (the dependent variable) is not taken from normal distribution.

In these conditions, we use non-parametric tests to test the bellow hypothesis.

Sub-hypotheses1

H_0 : Age group has not a statistically significant effect in ethical determining of pharmaceutical marketing.

H_a: Age group has a statistically significant effect in ethical determining of pharmaceutical marketing. Based on data collected from questionnaires, ages of respondents were divided into 3 groups:

Group	Age group
1	Age 18-30
2	Age 31-40
3	Age 41-50

As the dependent variable was not taken from normal distribution, we use Kruskal-Wallis test. From the table below, we see that: $p = 0.012 < 0.05$.

TABLE 2: Kruskal – Wallis test

Test Statistics ^{a,b}	
	Ethical determining
Chi-Square	8.814
df	2
Asymp. Sig.	.012
a. Kruskal Wallis Test	
b. Grouping Variable: age group	

Based on p value, we reject the null hypotheses and accept the alternative hypotheses. The result: Age group has a statistically significant effect in ethical determining of pharmaceutical marketing. Let us see now which age groups differ from each other regarding ethical determining of pharmaceutical marketing. For this, we refer to the table of ranks below:

TABLE 3: Ranks Table

Ranks			
	Age-group	N	Mean Rank
Ethical determining	Age 18-30	6	50.42
	Age 31-40	20	28.70
	Age 41-50	34	28.04
	Total	60	

From the above table, it can be seen that the age group 18-30 differs from age groups 31-40 and 41-50 regarding the ethical determining of pharmaceutical marketing, meanwhile the age groups 31-40 and 41-50 do not differ from each other.

This result shows that the age group 18-30, unlike the 31-40 and 41-50 age groups, does not define the issues presented as problems dealing with ethics in marketing.

Sub-hypotheses 2

H₀: Educational level has not a statistically significant effect in ethical determining of pharmaceutical marketing.

H_a: Educational level has a statistically significant effect in ethical determining of pharmaceutical marketing.

The dependent variable: Ethical determining of pharmaceutical marketing

The independent variable: Educational level

In this paper, we have considered two levels of education: graduate and postgraduate level.

To compare the two levels of education if they differ regarding the ethical determining of pharmaceutical marketing, we have used the Mann-Whitney U test. From the table below, we see that:

$p = 0.012 < 0.05$.

TABLE 4: Mann-Whitney U test

Test Statistics ^a	
	Ethical determining
Mann-Whitney U	295.000
Wilcoxon W	730.000
Z	-2.302
Asymp. Sig. (2-tailed)	.021
a. Grouping Variable: Educational level	

Based on p value, we reject the null hypotheses and accept the alternative hypotheses. The result: Education level has a statistically significant effect in ethical determining of pharmaceutical marketing.

5. Conclusions / Recommendations

The findings of this study confirm the results of several previous studies made in different cultural contexts and different business areas. The study showed that age has a significant impact on the determination of ethical pharmaceutical marketing. Based on statistical tests carried out it was shown that 18-30 age group have

significant differences from 31-40 and 41-50 age groups and this concerning the definition of ethical pharmaceutical marketing.

Furthermore the study showed that the level of education (which in most cases is related to the years of experience), has a statistically significant effect on the determination of ethical pharmaceutical marketing.

Based on our findings, we give these recommendations to the relevant bodies in the field of education.

Recommendations for the ethical evaluation of pharmaceutical marketing:

- The application of a module as part of graduate studies at the University of Medicine, entitled "Ethics in pharmaceutical marketing and pharmaceutical management"
- The assignment of a number of credits for health professionals focused on ethical behavior for pharmaceutical marketing.
- Including questions about defining ethical behavior and ethical pharmaceutical marketing in the content of the licensing test for health professionals.
- The development of an oath about ethical behavior in the pharmaceutical business.
- Including specific topics in seminars and educational programs about setting ethical pharmaceutical marketing.

Paper restriction:

The lack of time and resources, obliged us to distribute the questionnaire only to wellknown doctors of the "Mother Teresa" University Hospital Center.

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