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Research Article

CONSUMER'S BEHAVIOUR IN TERMS OF PAPER'S RECYCLING. CASE STUDY: THE MUNICIPALITY OF AIGALEO BUSINESSES IN GREECE

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ABSTRACT

In this work the aim is to explore consumer behaviour regarding the recycling of printed paper. As case study chosen by the municipality of Aigaleo in Greece. For the purposes of research conducted both bibliographic and empiric primary research. The primary research data based on the use of laminar, which came from a questionnaire that was distributed to 50 businesses operating in the municipality of Aigaleo. The investigation revealed that certain factors affect the behavior of the citizens of the municipality of Aigaleo in recycling. More specifically, the findings of this study show that very few and specific factors influence their behaviour towards recycling. More specifically, income and level of pleasure of entrepreneurs from the cleaning services of the municipality is statistically significant determinant of their attitude towards recycling. Finally the research findings show that the age of entrepreneurs, the size of the enterprise, knowledge entrepreneurs about how they paid the fees of cleanliness, their agreement to the proposal if you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program and the knowledge that the tinplate packaging recycled are statistically significant factors of quantity of waste being disposed of in bins.

INTRODUCTION

The man was wasteful and decades borne the planet. The consumer society that was formed especially in the 20th century, led to over-consumption of energy and raw materials, as well as producing excessive amounts of waste. Municipal solid waste is one of the most important problems of modern society. The rapid growth of urban centres by high concentration of municipal solid waste in small spaces, as well as the development of citizens ' living standards had resulted in an increase in the consumption of goods and waste disposal. Panagiotakopoulos (2002), Karvounis and Georgakellos (2003) The problem of waste management has taken explosive dimensions in Greece, because the State probably failed miserably to implement the appropriate those national environmental policies in this direction, while lost an additional opportunity through EU financial instruments to resolve the problem. Accomplices in failure this stood also the lack of environmental and ecological sensitivity of ordinary people and the wrong way to approach of local communities for consensus and rallying around the problem of litter. Score was certainly grave social tremors that appeared in the form of dynamic action and reactions. Leventis (2007), Andreadakis (2000).

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In nodal and central point well is the recycling in the context of an integrated political thought for the management of solid waste, playing a catalytic role. Recycling comes to justify the most indicative of way the views of many scholars and researchers for the endorsement of the traditional economic model, which was unaware of the environmental considerations in economic production process. The reservations of these people led to overthrow of the data with the final incorporation of environmental factor as a productive factor. It is perhaps the most accessible side of the environmental revolution. The main exponent of this reflection was recycling. As a method and as always, compared with practice the other waste management methods is the only one that involves simultaneously on all three dimensions, educational, technical and economic dimension. But in any case should not be seen as a panacea to recycle, because on the one hand is the saving of raw materials and energy, on the other hand, however, cannot work forever, for the reason that every item of trash has a limited life span, beyond which ceases to be suitable for reuse or recycling. Moreover, in advanced assessment considered that recycling does not remove the refuse, but merely pushes farther their mood. Leventis (2007), Symeonidis (2005). Realizing the situation, was chosen to carry out this investigation, which has as its main purpose the investigation of factors affecting the attitude and behavior of entrepreneurs in particular as recycling and recycling paper.

The purpose of this paper is to examine the determinants of recycling and paper recycling in particular. To achieve that purpose investigated the degree of knowledge, attitude and behavior of entrepreneurs in the municipality of Aigaleo in Greece as regards recycling generally and to recycling paper. To achieve the purpose they were collected and evaluated primary data gathered through research with questionnaires completed by a random sample of citizens of the municipality. Prior to the required presentation of relevant theoretical concepts, which are required as a basis for understanding by the reader of the narrative of this work. Also, reviewed previous empirical studies by other researchers which aimed to study the determinants of recycling.

Municipal solid waste-waste management-recycling

The complete absence of basic principles and guidelines of land use planning in Greece, as well as the application of basic urban settings failure in recent decades was probably the main cause for an unprecedented expansion of the population and the productive activities of the Greek cities. In addition to the obvious advantages of solid and lend such a situation in the large urban centers with the emergence of economies of scale leading to leverage finances mainly benefits, gradually began to emerge and serious problems in inner cities and larger areas of influence. One of these problems was and remains the degradation of the natural and built environment and the fall in living standards. Symeonidis (2005), Leventis (2007).

Awareness, therefore, degradation of environmental quality and hence quality of life no longer made a compelling case for taking necessary measures, aiming at first preserve the wealth of the natural environment but also long-term safe management of, under the protection of the principles of sustainable development, or otherwise the need for ecologization of economy, a rather ecological condition, that emphasizes the social dimension. One of the most important and most critical tools that move in this direction is the design, the meaning of which contains some procedures for determination of appropriate actions, through a series of options which are to be implemented in the future, with the ultimate aim of substantially addressing a problem. Mousiopoulos (1998), Symeonidis (2005).

The exacerbation of environmental problems has led to their incorporation in the design when implementing their respective development and spatial policies at any scale (International – European – national-regional-local). Under this framework, design modern human societies seize the opportunity to place and to express their concerns about environmental issues that affect them directly. Without any doubt, recycling may be viewed as the answer of science and modern technology to the problem of waste, which is a particularly important problem for modern societies. By recycling it is possible to derive significant benefits, such as reducing the volume of waste sent to landfill and the saving of raw materials and energy. Today, recycling is a key component of waste management. Furthermore, recycling is one of the policies for the protection of the environment and can contribute actively to the realization of the objectives of green and sustainable development. Terzis (2009), Georgakellos & Karvounis (2003). The legislation until now Greek legislation for waste management is in the most unequivocal manner avoiding simple rejection, because of significant and diverse handicaps that presents as a method. However, absent a comprehensive plan for solid waste. At the same time, efforts are underway to harmonize with the EU directives. In our country unfortunately still only borderline conditions have matured, so the State to assume the financial cost, but also the political and legal responsibility to enforce laws with great clarity and rigor require the management of solid waste. At the level of the municipality until today, in many cases dominated by simple – uncontrolled discharge waste at random points with landings of litter in the ground, or in natural cavities, without advance prior measures to prevent current or future environmental impact where appropriate. Arvanitis (2011), Andreadakis (2000). As recycling means the process that involves the systematic collection and technical was processing materials from all the trash and reintroduction in the economic cycle, as opposed to re-use, in which there is some editing and just used usually with different use. For those materials for which there is some economic value, so it partially solves the problem of managing Symeonidis (2005), Leventis (2007).

The reintroduction into the production process materials that are considered waste, i.e. recycling as mentioned above, is an important component of rational waste management. Without any doubt, recycling may be regarded as the proper response of science and modern technology to the problem of waste, which is a particularly important problem for modern societies. In order to achieve recycling will need to overcome problems arising from the entrenched habits of the audience, which is difficult to change, while the successful recovery of useful materials (e.g., paper, glass, metals, plastic) depends on several factors, such as the quantitative and qualitative characteristics of waste etc. (Basiloglou, 2005). By recycling it is possible to derive significant benefits, such as reducing the volume of waste sent to landfill and the saving of raw materials and energy. The last is due and spread the application of recycling, despite the significant financial resources that usually requires. Given the significant percentage of total waste, packing materials are especially cherished goal of recycling programs (Mousiopoulos, 1998).

Furthermore, recycling is one of the policies for the protection of the environment and can dynamically contribute to the attainment of the objectives of green and sustainable development. The development to be sustainable must be based on three basic principles of sustainability: social justice, economic development and environmental protection. The relationship of management methods of municipal solid waste and sustainable development, to identify the impact of each method in economic development, in environmental protection and social equity (Arvanitis, 2011).

Research-Regressions for businesses in the municipality of Aigaleo

The primary analysis of that research studies the factors that influence the behavior of entrepreneurs in the municipality of Aigaleo waste recycling with emphasis on recycling paper. For conducting this survey selects the primary sample survey method with the use of questionnaires. The questionnaire was addressed to companies of the municipality of Aigaleo. Questionnaires were distributed to randomly selected sample.

The process of distribution and collection of questionnaires took place during the period of 1/3/2013-20/3/2013. The set of questionnaires were distributed to businesses in the municipality of Aigaleo was 50. The acceptance rate was 100%. The questionnaire includes twenty-four (24) questions, of which the twenty one (21) were closed-ended questions and three (3) questions open-ended. The first section of the questionnaire (questions 1-3) examines the demographics of entrepreneurs (gender, age, level of education). The second section of the questionnaire of entrepreneurs included five questions (4-8) to consider the elements of the business such as the size, type, annual revenue, number of employees, and the number of customers. Questions 9 to 24 consider the perception and satisfaction of entrepreneurs for recycling and the actions carried out by the municipality of Aigaleo and update actions that need to be done.

This questionnaire was distributed to firms that their shops are located in the two most central streets of Aigaleo, i.e. the Iera Odos and Thebes. In this way we tried to approach the main business of our municipality and to ascertain the views of the owners for the important issue of recycling and to identify potential problems they face for this burning issue facing our society. We followed these two central axes of movement, as these are the hallmark for the municipality of Aigaleo (constitute the Central crossroads), in addition to the construction area of the municipality is spread along them and of course there are important enterprises located in them. The questionnaires collected were tested for their validity and numbered. Next was the introduction of data into the data statistical analysis program IBM SPSS STATISTICS 20.0, in two different data files (sav) from which emerged the frequency distributions and the correlations between variables.

Then held financial regression between the dependent variable (*recycling implementation*) and independent variables derived from the literature that are associated with the trend toward recycling, as well as multiple linear regression between the dependent variable (quantity of waste that ends up in garbage bins). As we mentioned earlier, empirical studies have identified several factors that influence the attitude of consumers to recycle. Whether they tend to recycle consumers are influenced by various factors such as the demographic and economic data (gender, age, level of education, income) (Smallbone (2005), Jenkins et al., (2003), Martin et al., (2006), Afroz et al., (2009), McDonald and Ball (1998), Kishino et al., (1998), Sidique et al., (2010), Straughan and Roberts (1999), factors directly related to recycling, as is knowledge of what materials are recycled, the distance from the recycling bins, factors associated with consumer attitudes towards recycling Smallbone (2005), d.o. Valle et al., (2004), McDonald and Ball (1998), Vicente and Reis (2007) and factors regarding ecological consumer behaviour and include the concern for the environmentopinions, attitudes, and behaviors, et al. (Straughan and Roberts (1999), do Valle et al., (2004).

Estimate of regression model for investigating factors influencing behaviour towards recycling business of the municipality of Aigaleo

To investigate the factors influencing the attitude of entrepreneurs to recycle or not assessed by the method of maximum likelihood logistic regression equation.

The original model with all the variables not allowed smooth further investigating. So, removed the variables that give results that distorted the model, i.e. the questions 12, 18 and 19. The final accounting regression equation used to estimate, using the method of maximum likelihood, factors affecting recycling behavior of operators is as follows:

$$Recycle\ (q15) = b_o + b_1\ gender + b_2\ age + b_3\ income\_dummy + b_4\ size\_dummy + b_5\ Education\_dummy + b_6\ q7 + b_7\ q8 + b_8\ q9 + b_9\ q10 + b_{10}\ q11 + b_{11}\ q13 + b_{12}\ q20 + b_{13}\ q21 + \varepsilon i$$

Where we detail:

Recycle Q15: going for dependent qualitative variable, which expresses the attitude of businesses towards recycling and takes the value 1 when companies recycle and the value 0 when businesses do not recycle.

Gender: it is for independent qualitative variable that reflects the gender of entrepreneurs and take the values 1 and 0 for man for woman.

Age*:* this is independent quantitative variable, which represents the age of entrepreneurs.

Income_ dummy: this is regression which expresses the annual income of the company and takes the value 0 when < is 15,000 €, and a value of 1 when it is over 15,000.

Size_ dummy: this is regression which expresses the size of the company and takes the value 0 when it is very small (< 10 employees), and a value of 1 when it is small (< 50 employees), medium (< 250 employees) or large (> 250 employees).

(E) Education_ dummy: this is regression which expresses the level of education of businessman and takes the values 0 for education up to high school and 1 for AEI/Tei education or postgraduate/PhD level.

Q7 Employees: this is independent quantitative variable, which indicates the number of employees employed by the business.
Q8: this is independent quantitative variable, which indicates the number of the number of customers it serves an average business day.

Q9: this is an independent quantitative variable that expresses how informed are entrepreneurs for environmental issues and takes the value 0 when it is absent, the value 1 when is a little, the value 2 if moderate, 3 when they are long and the value 4 when is too much.

Q10: going for an independent quantitative variable that expresses how happy are entrepreneurs with the cleaning services of the municipality and takes the value 0 when it is absent, the value 1 when is a little, the value 2 if moderate, 3 when they are long and the value 4 when is too much.

Q11: going for an independent qualitative variable that expresses the opinion of entrepreneurs if the waste bins are satisfactory and takes the value of 1 when it is Yes and 0 if not.

Q13*:* this is a qualitative independent variable that expresses knowledge entrepreneurs on whether the municipality has recycling bins and takes the value 0 when saying yes and is

colored blue, a value of 1 when you mention Yes and is colored yellow and 2 when they report no, has recycling bins.

Q20: this is a qualitative independent variable that expresses knowledge entrepreneurs about how they paid the fees of cleanliness and takes the value 0 when reporting through SEWAGE account, the value 1 when reporting through OTE's account, the value of 2 when reporting via PPC account and 3 when you mention I don't know.

Q21: this is an independent quantitative variable that expresses how happy are the businessmen from the municipality's recycling process and takes the value 0 when reporting at all, the value 1 when reporting a bit, the value 2 when reporting moderate, 3 when they report a lot and the price of 4 when you mention too.

(E) i: regression errors

The income is statistically significant determinant for the conduct of undertakings in the 1% level in the recycling. The positive sign of the estimated coefficient indicates that firms with higher incomes are more likely to recycle in relation to businesses with low income. This result confirms the investigations of (Smallbone (2005), Jenkins et al., (2003), Martin et al., (2006), Afroz et al., (2009), Ojeda-Bentitez et al., (2003)), which indicate that income is an important explanatory variable and is positively correlated with recycling.The level of pleasure of entrepreneurs with the cleaning services of the municipality is statistically significant determinant of their attitude towards recycling at the level of 5%. The negative sign of the estimated coefficient indicates that the entrepreneurs who are not happy with the cleaning services of the municipality are more likely to recycle in relation to entrepreneurs who are happy. This result agrees with the research of do Valle et al., (2004), who indicate that their level of satisfaction with regard to recycling services associated with the recycling behavior.

Table 1. Estimation of regression accounting for the application or not of recycling from businesses

	Original model		Final model	
Variables	B	Wald	B	Wald
Fixed (does your recycling company)recycle	-9.631 * *	4,609	3,119 * *	3,569
sex	-. 296	.088		
age	.079	1,489		
Income (income_dummy)	3,221 * *	4.174	2,926 * * *	7.011
Size (size_dummy)	1.801	1,712		
Level of education (education_dummy)	.622	.296		
Workers(q7)	.045	.538		
How many customers you serve on average a day? (q8)	-. 005	.484		
How informed are you about environmental issues (q9)	1.985 *	3,085	1,239	2.263
How happy are you with the cleanliness of your services? (q10)	-2.388 * *	4.899	-1,124 * *	2,891
In your opinion the number of waste bins is satisfactory? (q11)	910.	266.		
Has your municipality recycling bins? (q13)	-. 327	.085		
You know how you pay cleaning fees? (q20)	.570	1,674		
How happy are you from your municipality's recycling process? (q21)	1,010	2.150		
(chi-square)	19,025		11,149	
coxx & snell R square	316		200.	
2 log likelihood ratio	36,083		43.959	

From the demographic factors examined in the original model only income seems to be a statistically significant factor in business attitudes towards recycling. More specifically, the sex, the age, size and level of education does not interpret statistically significant the attitude of entrepreneurs toward recycling. The number of workers employed in the enterprise and the number of clients served by the undertaking are not statistically significant determinants of business attitudes towards recycling. In addition, the entrepreneurs ' knowledge about environmental issues seem not to affect their attitude towards recycling. A similar conclusion with this ends and the investigation of do Valle et al., (2004), which States that perceptual ability in solving environmental issues is not an important determinant of behavior towards recycling. Non-statistically significant factors also are recycling, the level of satisfaction of traders in connection with the services bycial or public activity of the municipality, their knowledge about whether the municipality has active special recycling bins, about whether the Recycle Bins are sufficient and how happy is from the municipality's recycling process.

The final estimated equation model of the determinants of recycling behavior of enterprises in the municipality of Aigaleo is as follows:

$$Recycle\ (q15) = b_o + 2.926\ income\_dummy - 1.124\ q10 + ei$$

According to the coefficient of determination, R2, Coxx & Shell of table 1, the independent variables considered in the original specimen interpret the 31.6% of the dependent variable. In addition, the independent variable is statistically significant in the original model, reviewed in the final model and interprets the 20% of the dependent variable (according to the coefficient of determination R2 Coxx & Shell).

In conclusion, it follows from the above that the business income is statistically conclusive factor and is positively correlated with recycling; firms with higher incomes are more likely to recycle in relation to businesses with low income. In addition, it appears that the entrepreneurs who are not happy with the cleaning services of the municipality are more likely to recycle in relation to entrepreneurs who are happy.

Multiple linear regression model Estimation for the investigation of factors affecting the amount of waste that ends up in garbage bins

To investigate the factors that influence the quantity of waste that ends up in garbage bins from business, valued by the method of least squares, the following multiple linear regression equation.

$$Waste\ volume\ (q19) = b_o + b_1\ gender + b_2\ age + b_3\ Education\_dummy + b_4\ \ size\_dummy + b_5\ income\_dummy + b_6\ q7 + b_7\ q8 + b_8\ q9 + b_9\ q10 + b_{10}\ q11 + b_{11}\ q12 + b_{12}\ 13 + b_{13}\ q14.1 + b_{14}\ q14.2 + b_{15}\ q14.3 + b_{16}\ q14.4 + b_{17}\ q14.5 + b_{18}\ q15 + b_{19}\ q18 + \ b_{20} q20 + b_{21}\ q21 + \varepsilon i$$

So detailed we have:

Waste volume (q19): this is the dependent variable which expresses quantitatively the amount of solid waste that ends up in the conventional rubbish bins every day. Take the values 0 for 1-2 large garbage bags, 1 for 3-4 large trash bags, the value 2 for 4-5 large garbage bags and 3 > 5 large garbage bags.

Gender: it is for independent qualitative variable that reflects the gender of entrepreneurs and take the values 1 and 0 for man for woman.

Age: this is independent quantitative variable, which represents the age of entrepreneurs.

Income_ dummy: this is regression which expresses the annual income of the company and takes the value 0 when < is 15,000€, and a value of 1 when it is over 15,000.

Size_ dummy: this is regression which expresses the size of the company and takes the value 0 when it is very small (< 10 employees), and a value of 1 when it is small (< 50 employees), medium (< 250 employees) or large (> 250 employees).

(E) Education_ dummy: this is regression which expresses the level of education of businessman and takes the values 0 for education up to high school and 1 for AEI/Tei education or postgraduate/PhD level.

Q7 Employees: this is independent quantitative variable, which indicates the number of employees employed by the business.

Q8: this is independent quantitative variable, which indicates the number of the number of customers it serves an average business day.

Q9: this is an independent quantitative variable that expresses how informed are entrepreneurs for environmental issues and takes the value 0 when it is absent, the value 1 when is a little, the value 2 if moderate, 3 when they are long and the value 4 when is too much.

Q10: going for an independent quantitative variable that expresses how happy are entrepreneurs with the cleaning services of the municipality and takes the value 0 when it is absent, the value 1 when is a little, the value 2 if moderate, 3 when they are long and the value 4 when is too much.

Q11: going for an independent qualitative variable that expresses the opinion of entrepreneurs if the waste bins are satisfactory and takes the value of 1 when it is Yes and 0 if not.

Q12: going for an independent quantitative variable that expresses knowledge entrepreneurs when the municipality's garbage trucks collect garbage and takes the value 0 when it is every day, a value of 1 when is each 2 or day 2 when is every 3 or day and 3 when you do not know.

Q13: this is a qualitative independent variable that expresses knowledge entrepreneurs on whether the municipality has recycling bins and takes the value 0 when saying yes and is colored blue, a value of 1 when you mention Yes and is colored yellow and 2 when they report no, has recycling bins.

Q14.1: going for an independent qualitative variable that expresses knowledge entrepreneurs if they know that the glass is recycled and gets the value 1 when you say Yes and 0 when they report No.

Q14.2: going for an independent qualitative variable that expresses knowledge entrepreneurs for if they know that the paper is recycled and gets the value 1 when you say Yes and 0 when they report No.

Q14.3: going for an independent qualitative variable that expresses knowledge entrepreneurs for if they know that aluminium is recycled and gets the value 1 when you say Yes and 0 when they report No.

Q14.4: going for an independent qualitative variable that expresses knowledge entrepreneurs if they know that the plastic is recycled and gets the value 1 when you say Yes and 0 when they report No.

Q14.5: going for an independent qualitative variable that expresses knowledge entrepreneurs for if they know that the tinplate packaging is recycled and gets the value 1 when you say Yes and 0 when they report No.

Q18: this is a qualitative independent variable welcomes citizens ' proposal agrees *If you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program* and gets the value 1 when you say Yes and 0 when they report No.

Q20: this is a qualitative independent variable that expresses knowledge entrepreneurs about how they paid the fees of cleanliness and takes the value 0 when reporting through SEWAGE account, the value 1 when reporting through OTE's account, the value of 2 when reporting via PPC account and 3 when you mention I don't know.

Q21: this is an independent quantitative variable that expresses how happy are the businessmen from the municipality's recycling process and takes the value 0 when reporting at all, the value 1 when reporting a bit, the value 2 when reporting moderate, 3 when they report a lot and the price of 4 when you mention too.

(E) i: regression errors

In the second column of the following table presents the results of the assessment of the above equation for the total of interpretative variables. Non-statistically significant variables were removed from the original model and the results of the final model presented in the third column of the table.

From the above table it can be observed that gender, education level, income, the number of employees employed in the business and the number of clients served by the company are not statistically significant determinants of influence on the quantity of waste that ends up in garbage bins from business. Also, the frequency of garbage collection is not a statistically significant factor in recycling.

Table 2. Multiple linear regression estimate for investigating the factors affecting the amount of waste that ends up in garbage bins

	Original model		Final model	
	B	t	B	t
(Constant)	-2.489	-1,539	-1.831	-1.626
Sex	-. 217	-. 814		
Age	0.0401 * *	2,193	0.0245 * *	1,915
edu_dummy	328.	1,221		
size_dummy	0.7601 * *	1,973	1,185 * * *	4.527
income_dummy	-. 011	-. 037		
How many staff you employ in the business?	-. 016	-. 812		
How many customers you serve on average a day?	003	1,524		
How informed are you about environmental issues	-237	-1,054		
How happy are you with the cleanliness of your services?	-. 037	-189		
In your opinion the number of waste bins is satisfactory?	-169	-447		
When the city's garbage trucks collect garbage in the area?	126	115.		
Has your municipality recycling bins?	180.	.673		
You know what materials are recycled? (Glass)	188	h.263		
You know what materials are recycled? (Aluminium)	-. 415	-1,031		
You know what materials are recycled? (Plastic)	.237	.633		
You know what materials are recycled? (Leykosidires packages)	0.968 * *	2,638	0.711 * * *	3,169
Make your recycling business	-. 346	-1,078		
If you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program?	1.791 * *	2,019	1,638 * *	2,055
You know how you pay cleaning fees?	-0.203 * *	-1.918	-0.1774 * *	-2,113
How happy are you from your municipality's recycling process?	.042	.246		
F statistic	3.504 * * *		10,174 * * *	
R square	707.		536.	
R square (adj)	.505		.484	

In contrast according to the Abbott et al., (2011) the frequency of garbage collection is one factor that helps manage recycling rate. Non-statistically significant explanatory variable in the quantity of waste that ends up in garbage bins is informing entrepreneurs about environmental issues. Also, the level of satisfaction of traders in connection with the services bycial or public activity of the municipality, about whether the number of trash bins are satisfactory, knowledge entrepreneurs on whether the municipality has recycling bins and how happy is from the municipality's recycling process does not interpret the amount of waste that ends up in garbage bins for any level of statistical significance. Finally, knowledge entrepreneurs on whether glass, plastic and aluminum are recycled are not a statistically significant explanatory variable for the amount of garbage that ends up in garbage bins.

According to the final model estimated equation of determinants as to the amount of garbage that ends up in garbage bins are as follows:

$$Waste\ volume\ (q19) = b_o + 0{,}0245\ age + 1{,}185\ size\_dummy + 0{,}711\ q14.5 + 1{,}638\ q18 - 0{,}1774 q20 + \varepsilon i$$

The age of entrepreneurs is a statistically significant determinant of the volume of waste that ends up in the trash at the level of 5%. The plus sign indicates that older entrepreneurs more likely to drive a larger quantity of waste in buckets in relation to younger entrepreneurs. The size of the business positively affects the quantity the quantity of waste that ends up in buckets and the estimated coefficient is statistically significant at 1% level.

The plus sign indicates that large firms are more likely to lead to larger quantities of rubbish bins in relation to small businesses. Knowledge entrepreneurs that tinplate packaging recycled is a statistically significant determinant of the volume of waste that ends up in buckets at the level of 1%. The positive sign of the estimated coefficient suggests that entrepreneurs who know that tinplate packaging recycled is more likely to drive more quantities of waste in garbage bins in relation to businesses that don't know it. The agreement of entrepreneurs in the proposal *If you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program* is statistically significant interpretive contributor of quantity of waste transported in buckets at the level of 5%. The positive sign of the estimated coefficient suggests that entrepreneurs who agree with the proposal lead more quantity of waste in buckets in relation to entrepreneurs who disagree.
Finally, knowledge entrepreneurs about how they paid the fees of cleanliness is statistically significant determinant of the volume of waste being disposed of in garbage bins at the level of 5%. The negative sign of the estimated coefficient suggests that entrepreneurs who know how paid cleaning charges are more likely to drive smaller quantities of waste in buckets in relation to those who do not know.

Studying the table 2 above, in accordance with the coefficient of determination R square the independent variables considered in the original specimen interpret the 70.7% of the dependent variable. In addition, the independent variables is statistically significant in the original model, reviewed in the final model and interpret the 53,6% of the dependent variable according to the coefficient of determination R square. In conclusion, it follows from the above that entrepreneur's greater age are more likely to drive a larger quantity of waste in buckets in relation to younger entrepreneurs. Also, it seems that large firms are more likely to lead to larger quantities of rubbish bins in relation to small businesses. Furthermore, entrepreneurs who know that tinplate packaging recycled is more likely to drive more quantities of waste in garbage bins in relation to consumers who do not know it. Then more garbage bins are leading businessmen who agree with the proposal *If you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program.* Finally, the findings suggest that entrepreneurs who know how paid cleaning charges are more likely to drive smaller quantities of waste in buckets in relation to those who do not know.

Conclusions

By examining the conduct of undertakings in the recycling has revealed that the majority (76%) business of respondents no recycles the materials he uses while just 24% of companies participating in the survey recycle materials it uses. The material is recycled more frequently than businesses at a rate of 22% is paper, follows the glass at a rate of 18%, while the plastic holds the smallest percentage (8%). From the findings of the survey are presented and the reasons for the respondent companies do not recycle the materials they use. The main reason I don't recycle the businesses the materials they use is the lack of motivation from the municipal authority. Also, it is important to remember that other main reasons who lead the respondent operations in non-material recycling is the lack of time and inadequate information. Of course, the majority of the sample (98%) I participated in the paper recycling program if the municipality gave them free indoor recycling bins. In addition, 40% of respondents are very satisfied from the recycling process of the municipality in which they operate.
Compared to the demographics showed that income is statistically significant determinant for the behavior of firms as regards recycling, firms with higher incomes are more likely to recycle in relation to businesses with low income. This result confirms the investigations of (Smallbone (2005), Jenkins et al., (2003), Martin et al., (2006), Afroz et al., (2009), Ojeda-Bentitez et al., (2003)), which indicate that income is an important explanatory variable and is positively correlated with recycling.

Also, regarding the level of pleasure of entrepreneurs from the cleaning services of the municipality, it emerged that a statistically significant determinant of their attitude towards recycling. Entrepreneurs who are not happy with the cleaning services of the municipality are more likely to recycle in relation to entrepreneurs who are happy. Finally, from the results of the survey reveal the factors that affect the amount of waste sent to the trash by businesses. The age of entrepreneurs and the size of the enterprises are statistically significant determinants of the volume of waste that ends up in the bin. It is more likely the older entrepreneurs and big business to drive greater amounts of waste in buckets in relation to younger entrepreneurs and small businesses.

In addition, statistically significant determinants of the volume of waste that ends up in the bucket are the knowledge entrepreneurs that tinplate packaging recycled and their knowledge about how paid cleaning fees. Entrepreneurs who know how paid cleaning charges are more likely to drive smaller quantities of waste in buckets in relation to those who do not know. Finally, the agreement of entrepreneurs in the proposal *If you give the municipality of Aigaleo free indoor paper recycling bins will participate in the recycling program* is statistically significant interpretive contributor of quantity of waste transported in buckets, businessmen who agree with the proposal lead most amount of waste in buckets in relation to entrepreneurs who disagree.

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