ASSESSMENT OF THE AWARENESS AND KNOWLEDGE OF THE RETAILERS WHO ARE SELLING HEATING DEVICES ON AIR POLLUTION ISSUES

THE RESEARCH WAS CONDUCTED BY AGENCIJA RAITING

WITHIN THE PROJECT

TACKLING AIR POLLUTION IN THE CITY OF SKOPJE

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Contents

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1. INTRODUCTION AND RESEARCH GOALS

Healthy and clean environment is one of the fundamental conditions for quality life of all citizens. Quality life contributes a lot to the proper growth and development of the individual but also speaks to the values nurtured by society as a whole. Clean air is one of the main components in our country that has high values in recent decades. Air pollution in the country is a continuous and major problem that intensifies every year and in excessive scale and has its greatest rise during the winter months. Air pollution is the biggest cause of premature death and the increasing number of diseases in humans. In fact, air pollution is the greatest risk to human health in the field of the environment. Socio-economic factors directly influence air pollution to increase from year to year, and the situation is becoming alarming[1]. Certain analyzes of the emissions of pollutants for the household heating sector in the Skopje valley, showed an assumption that the pollution will increase by 30% by 2025 if urgent systemic measures are not taken to reduce emissions. Many stakeholders are involved in the fight against air pollution, like international organizations that act globally and locally, the state - primarily as a guarantor of the fundamental values of the Constitution[2], including the protection and promotion of the environment and nature, then civil society organizations, various associations and initiatives in this area, other interest groups, as well as citizens.

The main purpuse of this report is to make an analysis of three pre-targeted levels, i.e. target groups, which will be beneficiaries but also factors in implementation of the project Tackling Air Pollution in the City of Skopje[3] to address the problem of air pollution in the country. *The first target group* in the first survey are *retailers* selling heating devices, surveyed in the entire territory. The *second target group* are the *citizens of Lisiche*, a territory that is marked as a significant field of action by UNDP in this area. Finally, *the third target group* consists of the *civil society organizations in the country* that operate in the field of air pollution at the national level.

The results obtained from the conducted surveys, i.e. researches created databases through which it will be possible to analyze many different aspects, cause-effect relationships and factors in the field of air pollution.

For the needs of this project, Rating Agency conducted three surveys whose main goal was to make:

1. Assessment of retailers' technical knowledge about the products they offer in the market and retailers' perception of customers' purchasing decisions. Analysis of retailers' attitudes regarding possible solutions or practices to be adopted in order to increase the level of procurement of energy efficient heating devices and the like. Assessment of the type of heating devices offered by authorized distributors and retailers, as well as an assessment of awareness of the sources and effects of air pollution.
2. Assessment of the awareness of the citizens in Lisiche about the sources and effects of air pollution and the impact of household heating practices on air pollution. Their willingness to invest in heating devices with higher energy efficiency, as well as assessment of the main motives and priorities that influence their decision when purchasing a heating device. Special attention will be given to the use of subsidies that have been used in recent years as a model

[1] Clear Air Plan/План за чист воздух, https://vlada.mk/PlanZaChistVozduh

[2] Constitution of the RM, Article 8, Fundamental values of the constitutional order, para. 10 the arrangement and humanization of space and the protection and promotion of the environment and nature

3 This survey is prepared within the project *Tackling Air Pollution in the City of Skopje*, implemented by the United Nations Development Programme (UNDP) in partnership with the Ministry of Environment and Physical Planning and the City of Skopje. The project is funded by the Swedish International Development Cooperation Agency (SIDA).

to encourage the purchase and sale of energy efficient heating devices, whose ultimate goal is to reduce air pollution.

3. Assessment of the awareness and perception of civil society organizations operating in the field of air pollution in the country, i.e. the perception of their founders, executives or management staff about air pollution sources. Knowledge of their capacities for dealing with complex problems such as air pollution, by creating partnerships and participation in constructive decision-making processes, as well as assessing the level of trust of civil society organizations in the organizations/institutions dealing with air pollution issues. Insight into the type and level of information that these organizations receive (through various communication channels) and opportunities for participation in decision-making processes and other topics.

The collected and analyzed data from these three surveys, as well as all relevant information that could later be used for the preparation of awareness raising activities and other related activities, preparation of various documents/models for the needs of UNDP North Macedonia, as well as proper implementation of strategic planning and decision-making processes will be presented in this report separately for each target group.

1.1 Research methodology

For the needs of each of these three surveys, Rating Agency followed the approach: creating a sample, creating a questionnaire, reporting on activities undertaken, data analysis and report writing.
As indicated above, three separate target groups are the subject of this research:

- The citizens of Lisiche;
- CSOs working in the field of air pollution (national level);
- Retailers selling heating devices (national level).

The research aimed at the citizens of Lisiche is quantitative, and was conducted by face-to-face method on a representative sample of 300 respondents.
The survey for retailers is also quantitative and was conducted with the primary method face-to-face on a representative sample of 100 respondents - representatives of the companies. For the quantitative studies, samples were created in accordance with the prepared methodology used to collect, analyze and present the findings and the appropriate data quality management plan.
Regarding the civil society organizations working in the field of air pollution, a qualitative research was conducted - 3 focus groups.
Additional constituent materials that support these surveys are statistical books in Excel format for both quantitative surveys, which show the general and cross-sectional results of the survey. Audio recordings are an integral part of the qualitative research for civil society organizations, which served to prepare an in-depth analysis of the participants' responses.

This version of the report presents the key findings from the analysis of the survey that was conducted on the retailers who are selling heating devices.

2. RETAILERS RESEARCH: RESULTS AND ANALYSIS BY TOPIC

Efficient use of energy or energy efficiency could primarily be discussed as a matter of people's awareness and their willingness to change established habits towards more energy efficient solutions in everyday life. Reducing air pollution caused by households through the use or implementation of energy efficient devices and measures is based on several factors. Household pollution is high, and as one of the potential target groups are socially vulnerable families who do not have the opportunity to contribute to improving the environment on their own, and this indirectly contributes to the deterioration of air quality for everyone else. Investing in energy efficient products/measures in housing facilities such as: insulation, energy efficient heating bodies and home aplliences, solar collectors for hot water, photovoltaic systems, and so on, directly reduces unnecessary energy consumption. In this way, households have direct financial savings. In addition to the rational usage of energy and saving money, energy efficient products also improve people's living standard, quality of life and reduce greenhouse gas emissions.

The companies that are part of the Macedonian market, which sell heating devices, could undoubtedly influence the habits, choices and decisions of consumers when it comes to buying such devices in their homes. Retailers, in the broadest sense of the word, are those who have direct contact with consumers and could directly (through the offer) promote new products on the market and in some way set and/or suggest trends thus having a share in creating demand for heating devices. The research, which targets retailers, aims to examine their views on consumer habits but also to provide an overview of attitudes on potential solutions to increase the demand for energy efficient heating devices.

In addition, the results of the survey answered by retailers who sell heating devices with a territorial scope of the entire country will be presented. The general results will be presented in graphs, and additionally the cross-results with the independent variables will be interpreted, where there are statistically significant differences. To conduct the survey, in cooperation with UNDP and engaged experts in this field, a questionnaire was prepared which covered the following topics:

1. Characteristics of the company;
2. Technical knowledge for the heating devices offered on the market;
3. Consumer habits – Retailer perception;
4. Retailers' attitudes regarding possible solutions in order to increase the level of procurement of energy efficient heating devices;
5. Assessing awareness of the sources and effects of air pollution.

For the purposes of this quantitative research, a stratified random sample was designed.
An integral part of this report is statistical books with relevant intersections submitted in Excel format.
The survey was conducted from November 12 to November 22, 2020, and the average duration of the interview was 20 minutes.
Way of selection of the respondent: The person who has knowledge of heating devices in the business entity.

Table 1 below shows the characteristics of the companies that were part of this research. At the same time, these characteristics represent independent variables through which we will perceive the statistically significant differences in the results according to respondents' answers. Most of the surveys were conducted with owners (47%) and managers of companies (33%), and a smaller number

of surveys were answered by the director (manager) of a company (13%), seller (4%) and seller/installer (3%). Most of the companies have an annual gross income of up to 2,000,000 euros (54%), followed by companies with an annual gross income of up to 50,000 euros (24%). Regarding the number of employees in the companies, the most represented are the companies that have up to 10 employees (75%), followed by companies that hire up to 50 employees (22%) and companies with up to 250 employees (3%). The sample does not contain companies with over 250 employees. Most of the companies in the sample exist on the market for over 10 years (80%), 15% of them are on the market for 6 to 10 years and 5% of the companies exist from 2 to 5 years.

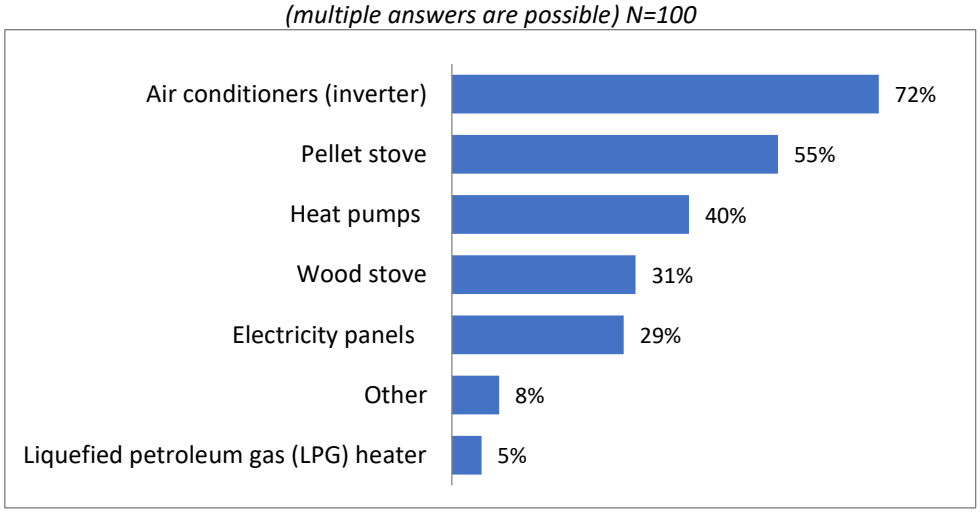
Table 1: **Companies' characteristics**		%
The interview was held with:	Owner of the company	47.0%
	General Manager/Director	13.0%
	Manager	33.0%
	Salesperson	4.0%
	Salesperson/Installer	3.0%
	Self-employed	0.0%
	Other	0.0%
Annual income of the company (gross income)	Up to 50.000 EUR	24.0%
	Up to 2.000.000 EUR	54.0%
	Up to 11.000.000 EUR	12.0%
	Over 11.000.000 EUR	4.0%
	I don't know	4.0%
	Refuses to respond	2.0%
Number of employees in the company	Up to 10 employees	75.0%
	Up to 50 employees	22.0%
	Up to 250 employees	3.0%
	Over 250 employees	0.0%
Existence of the company in the market	One year	0.0%
	From 2 – 5 years	5.0%
	From 6 – 10 years	15.0%
	Over 10 years	80.0%
	I don't know	0.0%
	Refuses to respond	0.0%

A. Technical knowledge about heating devices offered on the market

The first set of questions was primarily aimed at analyzing the technical knowledge about heating devices that company representatives offer on the market. This part of the research should first show the extent to which retailers are familiar with the technical specifications of the products. Furthermore, it should provide information on whether the employees in the companies receive appropriate training for the heating devices, whether there is a follow-up of new trends and technologies and whether the employees have enough information that consumers are most interested in. To the question "What heating devices do you offer on the market?" most of the respondents answered that their companies offer inverter air conditioners (72%), followed by pellet stoves (55%), heat pumps (40%), wood stoves (31%), electricity panels (29%) and liquefied petroleum

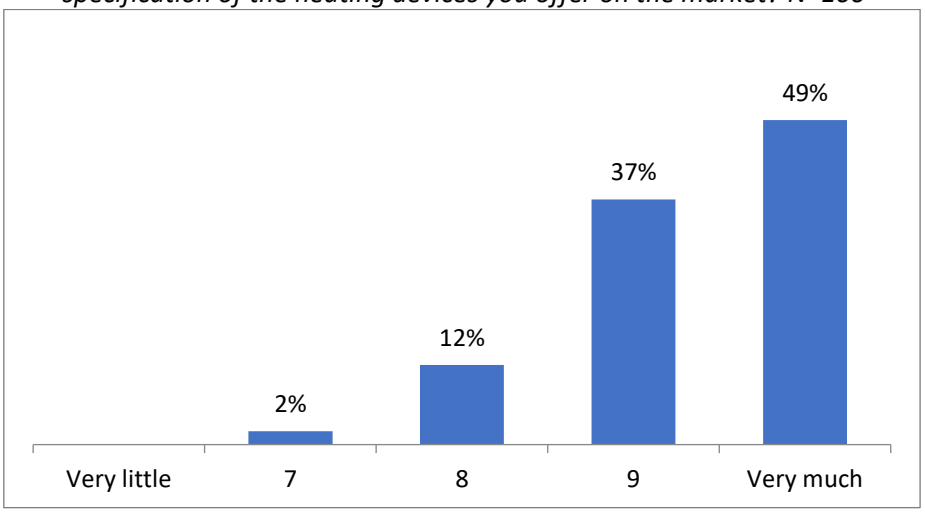
gas stoves (5%). Other heating devices such as: gas boilers for home heating, air conditioning of industrial buildings, central heating, and other heating devices, are sold by 8% of the companies.

Graph 1. What heating devices do you offer on the market?
(multiple answers are possible) N=100



Generally, retailers believe that they have a high level of knowledge about the technical specifications of the heating devices they offer on the market. Thus, almost half of the respondents (49%) said that they know the technical specifications very well, i.e. they gave a grade 10 for that. High grade 9 was given by 37% of the respondents, grade 8 - 12%, and grade 7 - 2% of the respondents. Cross-referenced results do not indicate differences in familiarity with the technical specifications of the devices in different groups of representatives according to the position in the company (e.g. company owner, manager, and salesperson).

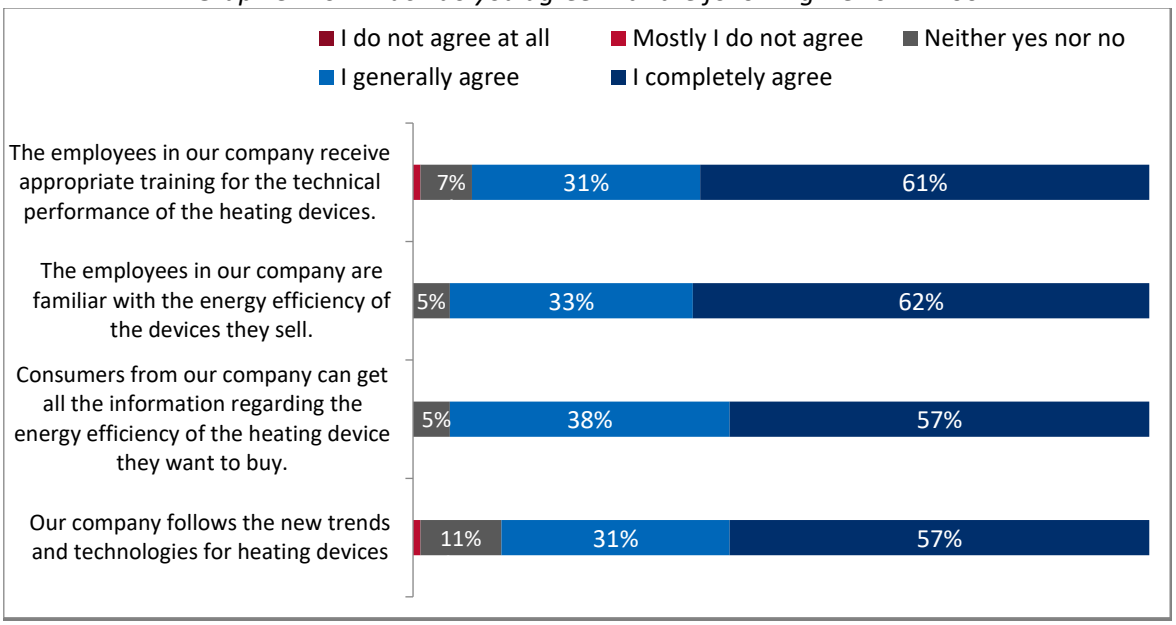
Graph 2. On a scale of 1 to 10, how much would you say you are familiar with the technical specification of the heating devices you offer on the market? N=100



In order to assess the technical knowledge of the respondents, the next set of questions examines several aspects related to the regular operation of companies.
A high 61% of respondents fully agree with the view that *employees receive adequate technical performance training for heating devices* and 31% of them generally agree with this. Only 7% of the

respondents expressed a neutral response to this attitude, with the most pronounced percentage of companies that exist on the market for 2 to 5 years.
According to the answers of the respondents, there is a great knowledge about the *energy efficiency of the devices they sell*, 62% completely agree and 33% mainly agree. Only 5% of respondents expressed a neutral response to this view.
Regarding the attitude: *The consumers from our company could get all the information regarding energy efficiency of the heating device they want to buy*, 57% of the respondents completely agree, and 38% generally agree with it. Only 5% of respondents gave a neutral response.
Regarding the *following of new trends and technologies for heating devices*, we also have positive results, i.e. 57% of the respondents fully agree with the view that the new trends are followed in their companies, and 31% of the respondents mainly agree with this. Neutral attitude regarding the following of new trends and technologies for heating devices was expressed by 11% of the respondents.
From this set of questions, it could be concluded that the respondents generally receive training on the heating devices they sell on the market, and at the same time they think that they are familiar with the energy efficiency of the heating devices. Furthermore, respondents believe that their companies could largely provide the information that consumers require from them regarding the energy efficiency of heating devices. Most companies follow the new trends and technologies in the market related to heating devices.

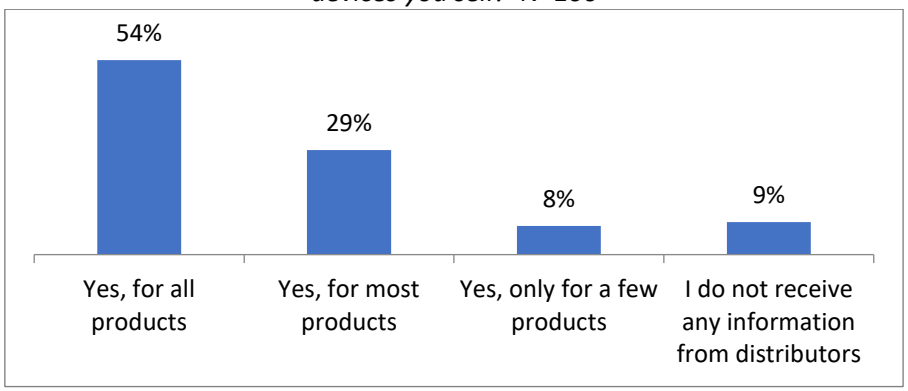
Graph 3. How much do you agree with the following views: N=100



To the question: *"Do you get enough information from your distributor about the characteristics of the heating devices you sell?"* more than half of the respondents (54%) answered that they receive information about all products, while 29% of the respondents answered that they receive such information about most products they offer on the market. Only 8% answered that they receive information from distributors for only a few products, and 9% of the total number of respondents answered that they do not receive any information from distributors. The table below shows the cross-sectional results of this issue with the type of devices sold and the years of existence of the company. Respondents who answered that they do not receive information about heating devices at all, the most pronounced percentages are in companies that sell electricity panels (17%) and companies that have been on the market for over 10 years (10%). The result in the first situation may be due to the fact that the electrical panels are in fact devices that are easy to use and there is no need to issue additional information for them, and in the second case, the experience in the operation of these

companies (above 10 years) is a factor for which it could be assumed that these companies do not have a real need for information from distributors because the practice of continuous work with distributors is already established. However, this may be due to other reasons because in order for there to be continuous cooperation, professionalism is required in the operation, which in our case would mean the provision of relevant information by distributors on the characteristics of heating devices.

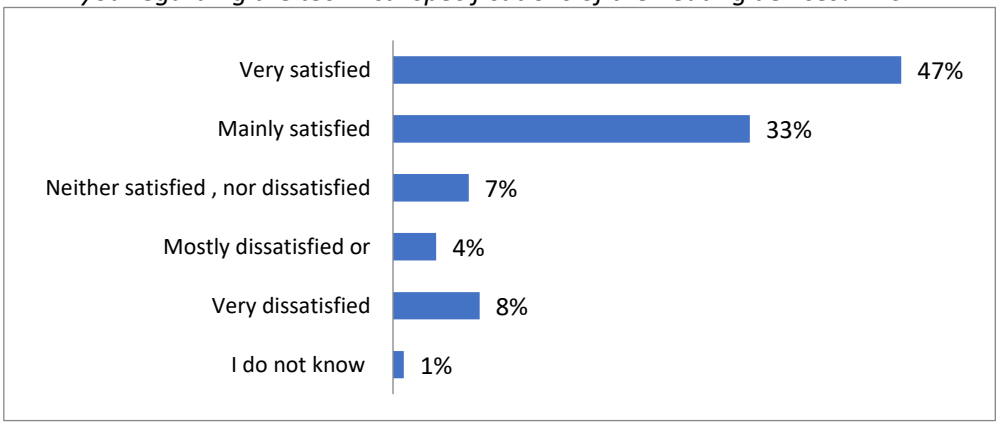
Graph 4. Do you get enough information from your distributor about the features of the heating devices you sell? N=100



Do you get enough information from your distributor about the features of the heating devices you sell?	**Heating device**				**Years**		
	Wood stove	**Pellet stove**	**Inverter**	**Electricity panels**	**2 – 5 years**	**6 – 10 years**	**above 10 years**
Yes, for all products	55%	53%	54%	48%	60%	60%	53%
Yes, for most products	36%	31%	31%	21%	40%	33%	28%
Yes, only for a few products	7%	7%	8%	14%	0%	0%	10%
I do not receive any information from distributors.	3%	9%	7%	17%	0%	7%	10%

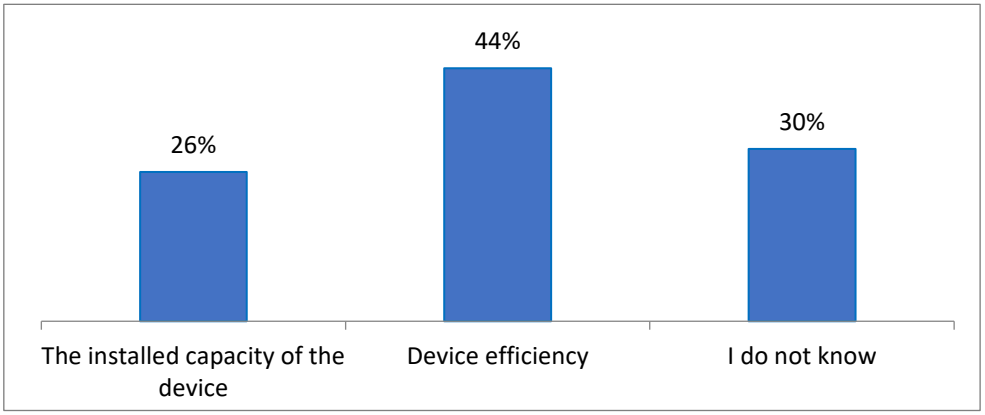
The next question examines the satisfaction with the information that companies receive from distributors regarding the technical specifications of heating devices. Almost half of the respondents (47%) are very satisfied and 33% of them are mainly satisfied with the information they receive from distributors. A neutral answer to this question was given by 7% of the respondents, while 12% of them were dissatisfied with the information provided by the distributors regarding the technical specifications of the heating devices (4% mainly dissatisfied, 8% very dissatisfied).

Graph 5. Are you satisfied with your heating device distributor in terms of the information it provides you regarding the technical specifications of the heating devices? N=91



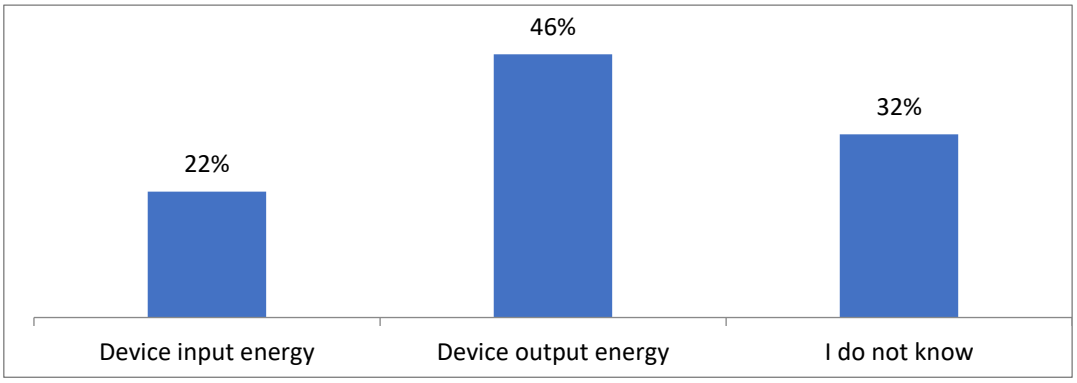
The next three questions refer to the actual technical knowledge of the respondents about the air conditioners. These three questions were intentionally asked at the end of the questionnaire, in order not to discourage the respondents in the other answers of the survey. To the question *"Do you know what COP or EER means in air conditioners?"* 44% of respondents answered that it is the efficiency of the device, and 26% answered that it is the installed capacity of the device. Three out of ten retailers said they did not know what these air conditioner abbrevations meant. The fact that 44% of retailers know that these abbreviations mean heating device efficiency (COP) or cooling device efficiency (EER) indicates that most retailers do not actually know this feature of air conditioners, although the largest percentage of respondents a) sell inverter air conditioners and b) made a high self-evaluation in terms of the technical specification of the heating devices.

Graph 6. Do you know what COP or EER mean in air conditioners? N=100



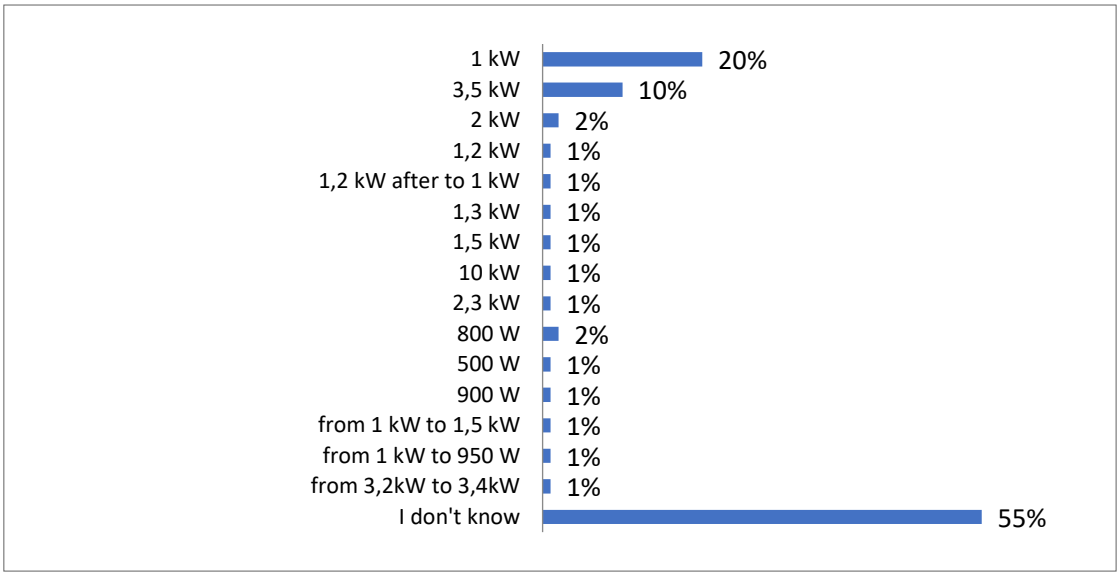
To the question *"Could you tell us what it means if we say that air conditioners/inverters have a capacity of 3.5 kW?"* the majority of respondents (46%) answered that it means energy at the output of the device, and 22% answered that it means energy at the input of the device. 32% of the respondents answered "I do not know". Again, this technical question has a high percentage (more than half) of respondents who do not know the answer, as well as retailers who gave the wrong answer.

Graph 7. Could you tell us what it means if we say that air conditioners/inverters have a capacity of 3.5 kW? N=100



The last question that was intended for direct check of the technical knowledge of the respondents was the following: *"Could you tell us what is the input energy for air conditioners /inverters of 3.5 kW?"*. Graph 8 below shows all the answers of the respondents. The largest percentage of respondents (55%) did not know the answer to this question, and the most repeated answer was 1kW, mentioned 20 times. After that, the next most repeated answer is 3 kKW mentioned ten times. It could be concluded that part of the answers of the respondents who answered the previous question that 3.5 kW is the power output of the device, said it intuitively and without relying on their knowledge because of this question (what is the input energy of 3.5 kW air conditioners) it is seen that an additional 13% responded with 3.2kW, 3.5kW, 2.3kW and 10kW.

Graph 8. Could you tell us what is the input power of 3.5 kW air conditioners/inverters? N=100 ***Input energy*** **N=45**



Energy efficient heating devices are available on the market, as evidenced by the fact that most of the companies that are part of the research sell inverter air conditioners, followed by companies that offer pellet stoves and heat pumps. The data indicate that most of the companies on the market that offer energy efficient heating devices are well acquainted with the characteristics of these products. The general attitude of retailers is that consumers could get all the necessary information about the energy efficiency of the device they want to buy. The representatives of the companies also consider that they have a great knowledge of the technical specifications of the heating devices that they offer on the market, and they also pointed out that the employees receive the necessary training for the

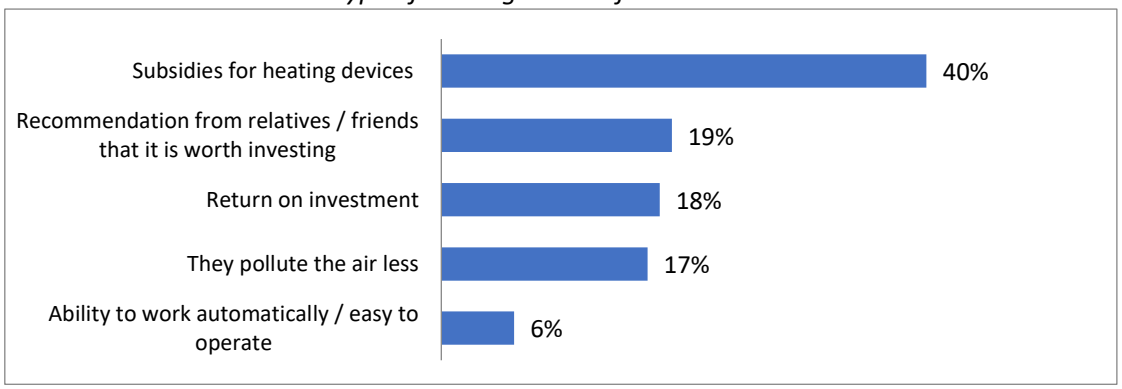
technical performance of the heating devices. The set of three technical questions and the obtained results related to the knowledge about air conditioners, show the opposite of the high self-evaluation of the retailers for the technical specifications of heating devices. The companies generally get the necessary information from the distributors about the heating devices, and the satisfaction from the information they receive from them is at a high level.

B. Consumer habits – Retailers' perception

The second part of the questionnaire was created in order to explore the perception of the retailers regarding consumer habits. In fact, through this part i.e. through the experience and attitudes of retailers from the sale of heating devices, the main motives for citizens to buy such products will be revealed. Furthermore, the research will show according to which priorities consumers choose these devices, for which devices there is agreatest demand at the moment and whether we have a change in shopping habits today compared to a period two years ago. Finally, this part of the research should reveal whether and how retailers influence consumers in their decisions about choosing a heating device.

Most retailers believe that the main reason why people buy certain types of home heating devices is because of subsidies - 40% of retailers believe that. The next motive is the recommendation from relatives and/or friends that it is worth investing in a certain device - this is the opinion of 19% of the retailers, followed by those who think that the main reason for this is the return on investment (18%). **The opinion of 17% of retailers is that the main motive for buying a certain heating device is because they pollute the air less.** For 6% of respondents the possibility of automatic operation or ease of operation is the main reason for buying certain devices. The cross-references of this issue with the working position of the respondents indicate that the managers prevail over the attitude towards subsidies (52%) and return on investment (24%), while the owners of the companies besides the subsidies (34%), pointed out the recommendation from relatives or friends as a second motive. For companies with more than 10 years of existence, which could make a comparison over the years, the motive of subsidies also prevails as the primary reason for buying a certain type of heating device.

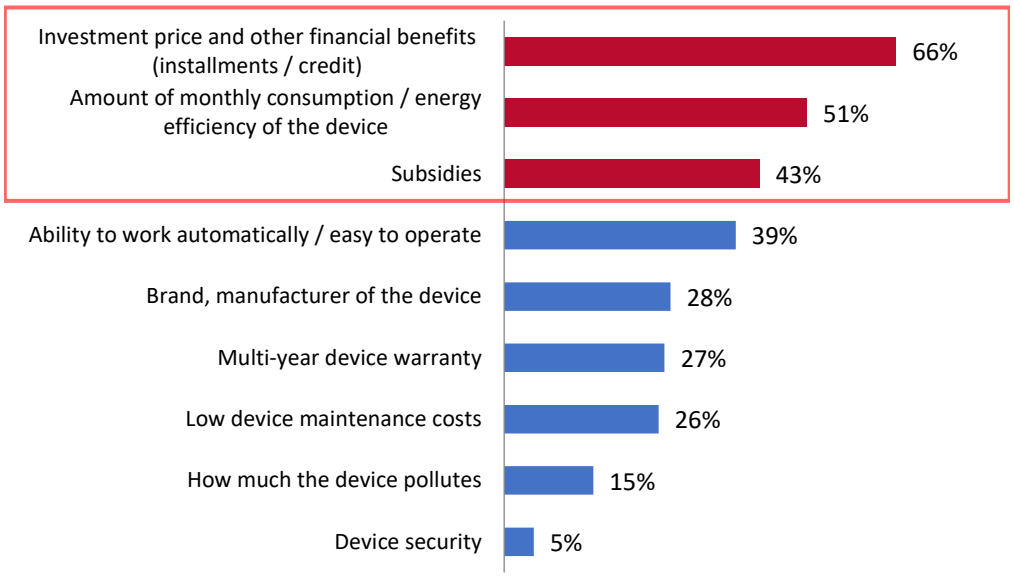
Graph 9. In general, what do you think is the main motive or the main reason why people buy a certain type of heating devices for their homes? N=100



To the question "*What are the top three priorities for consumers when choosing before deciding which heating device to choose?*" a high 66% of retailers believe that the first priority is the cost of investment and other financial benefits such as payment in installments or loans. As a second priority, the retailers pointed out the amount of monthly consumption, i.e. energy efficiency of the device - such a response is noted in 51% of the cases. The third priority when choosing a heating device for

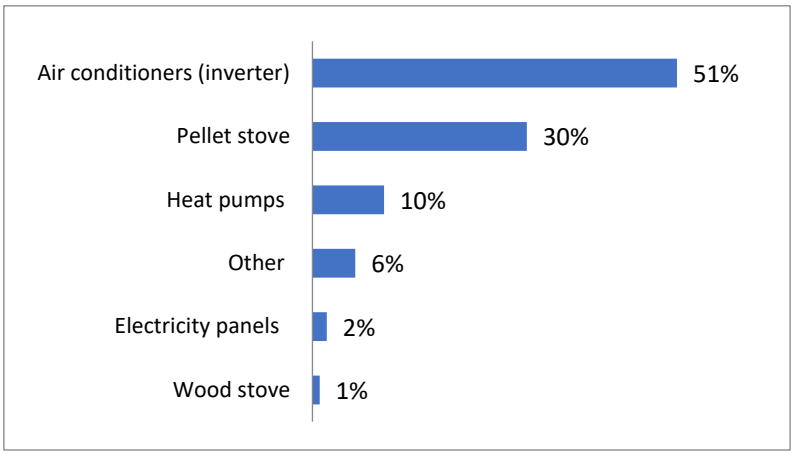
consumers is whether there are subsidies for the devices or not - this is the answer of 43% of the retailers. Graph 10 below shows the other responses with a lower percentage. What could be noticed is that in the decisions of consumers to buy a heating device, the cost factor is dominant, regardless of whether it is the cost of investment, monthly consumption or financial benefits of the devices. Indicative is the fact that the *safety of the device (5%) and how much the device pollutes (15%)* are at the bottom of the priorities when deciding to purchase a heating device. Also, in the opinion of retailers: the brand of the device, the multi-year warranty and low maintenance costs are not among the primary motives when deciding to buy such devices. The possibility of automatic and easy operation is still a highly rated priority that could play an important role in choosing a heating device.

Graph 10. What are the <u>top three priorities</u> that consumers have when choosing before deciding which heating device to choose? N=100



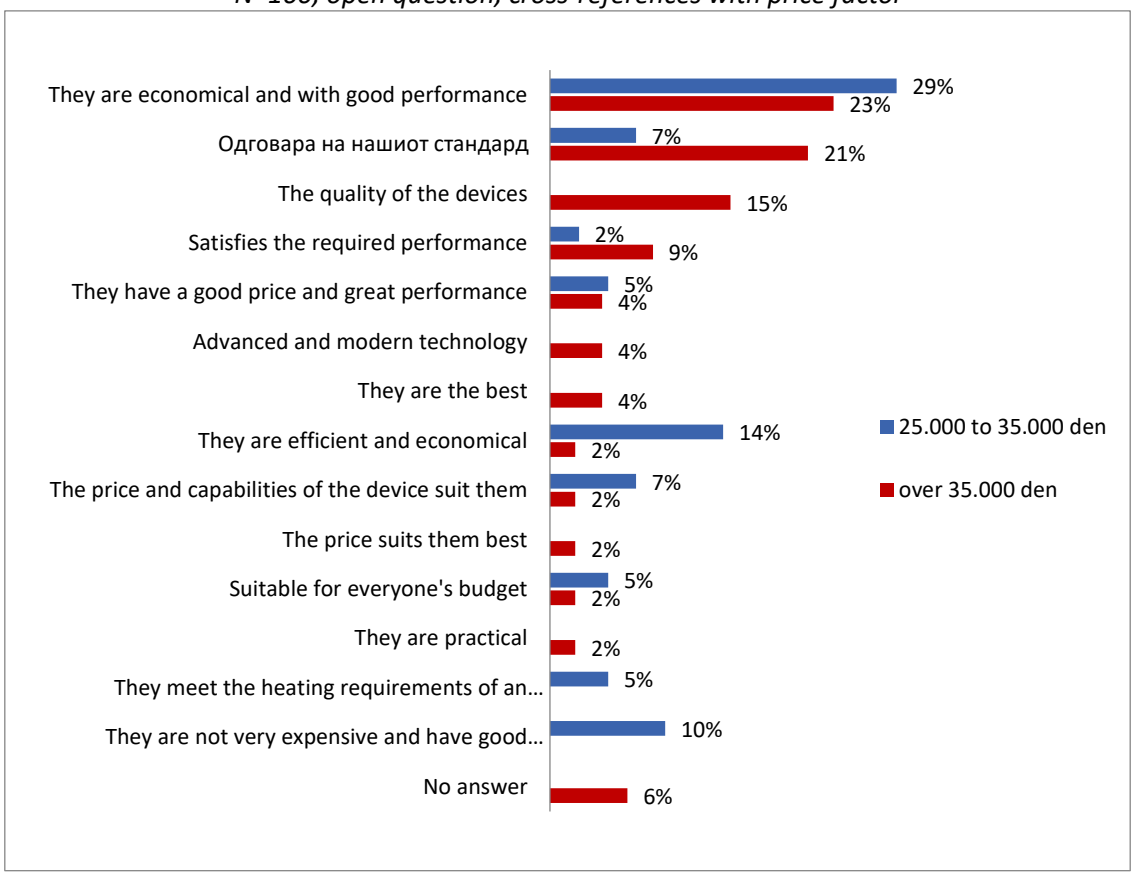
In general, the inverter air conditioner is the product for which there is the greatest demand on the market at the moment - this is the position of 51% of retailers. Second in demand are pellet stoves (30%), and third are heat pumps (10%). According to the factor price of the device, the most demanded group (47%) of heating devices are those over 35,000 MKD but a high percentage (42%) was given to devices with a price range from 25,000 to 35,000 MKD. Inverter air conditioners are an investment for which consumers would spend up to 35,000 MKD, and pellet stoves are an investment for which buyers would spend over 35,000 MKD.

Graph 11. Having in mind your offer on the market, for which household heating device is there the greatest demand at the moment? N=100



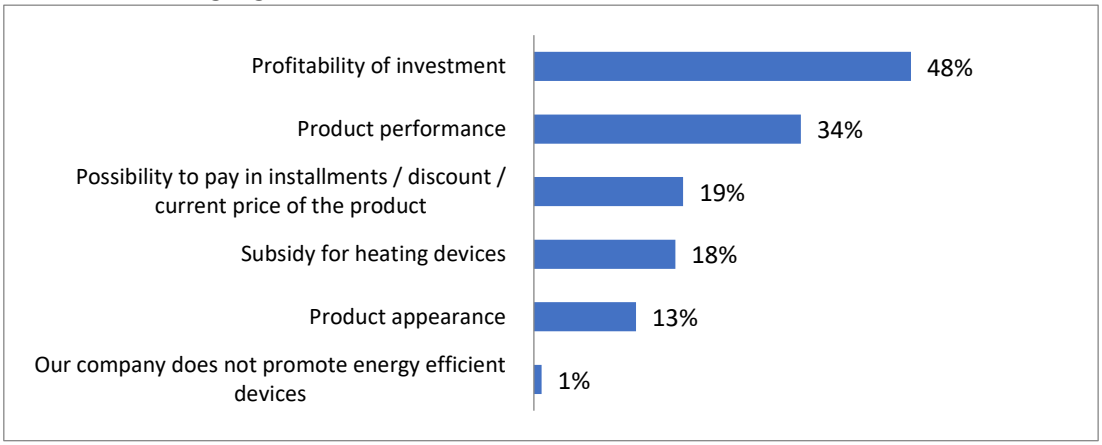
According to the previous interpretation of the most popular heating devices by price factor, in the table below we could see the explanations of retailers why consumers decide on a particular device according to the given price. For example, the comment *"they are economical and have good performance"* applies to both air conditioners and pellet stoves, which are the most popular devices selected according to the price factor. Pellet stoves are an investment that costs over 35,000 MKD, and according to retailers, it *"meets our standard"* the most (21%), and the *"quality of the device"* (15%) also corresponds to its price.

Graph 12. According to your opinion, why the group of devices with that price is the most requested? N=100, open question, cross-references with price factor



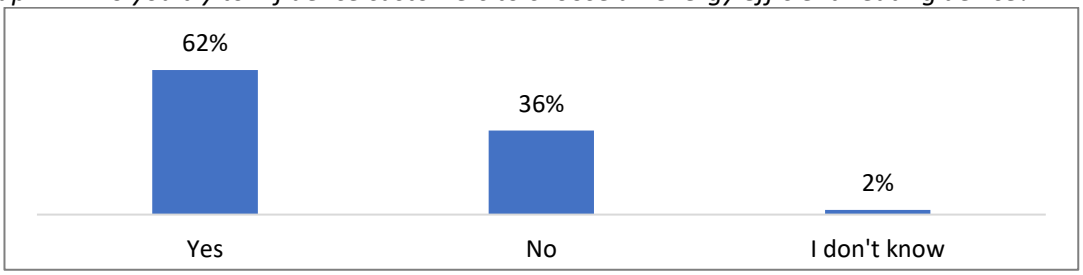
When asked *"How does your company most often promote energy efficient heating devices?"* almost half of the retailers said that what they emphasize the most is the return on investment (48%), followed by product performance (34%) and the possibility of paying in installments, discounts, etc. (19%). Subsidies as a way of promoting heating devices are practiced by 18% of retailers. Cross-referenced data indicate that both air conditioners and pellet stoves are equally promoted as a worthwhile investment, and payment options in installments and discounts are offered more for pellet stoves than for inverter air conditioners.
The old - new option is practically non-functional, i.e. it is not used as a potential model for promotion of energy efficient devices at the national level at all. All of the respondents (99%) answered that the companies in which they work do not offer an old-new option.

Graph 13. How do your company most often promote energy efficient heating devices, what do you highlight to make a sale? (multiple answers are possible) *N=100*



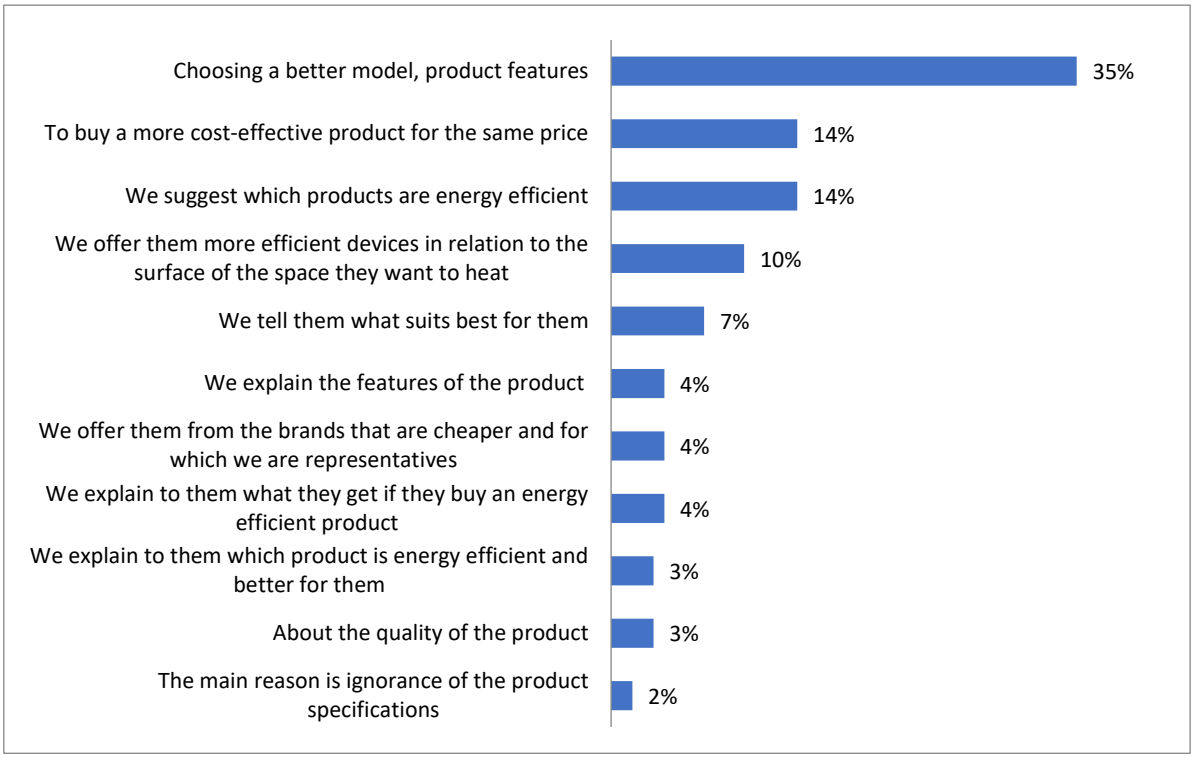
The survey results show that the majority of retailers try to influence consumers to choose energy efficient heating devices (62%), while 36% of them do not do that.

Graph 14. Do you try to influence customers to choose an energy efficient heating device? N=100



More than half (54%) said that they often change the opinion of customers and persuade them to buy another heating device, different from the one they primarily targeted. Eight per cent of retailers do this occasionally, and 38% of them do not try to change the opinion of the buyers. **The main reason why retailers change customers' opinions is to make the right choice of model and product features (35%).** In addition, 14% of retailers answered that they change the opinion of customers to make a more profitable investment and the same number answered that they suggest to consumers which are the energy efficient heating devices. The rest of the grouped answers could be seen in full in the table below.

Graph 15. Responses from respondents who change customers' opinions; What is the main reason why you change their mind? N=62

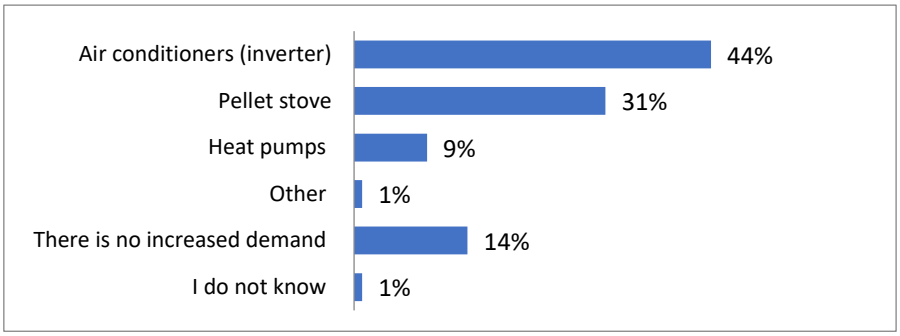


Inverter air conditioners are products for which there is currently the greatest demand on the market, and the general attitude of retailers is that subsidies are the primary motive that plays an important role in purchasing heating device. The cost factor, i.e. the price of the device, the amount of monthly consumption, the various financial benefits for payment, as well as the subsidies are the main priorities of citizens when they decide to invest in a new heating device. Profitability of the investment and highlighting the performance of the heating device are the most common ways in which retailers promote these products. The results showed that replacing old with new is a method that is almost not used for the sale of heating devices.

C. Attitudes of retailers regarding possible solutions in order to increase level of procurement of energy efficient heating devices

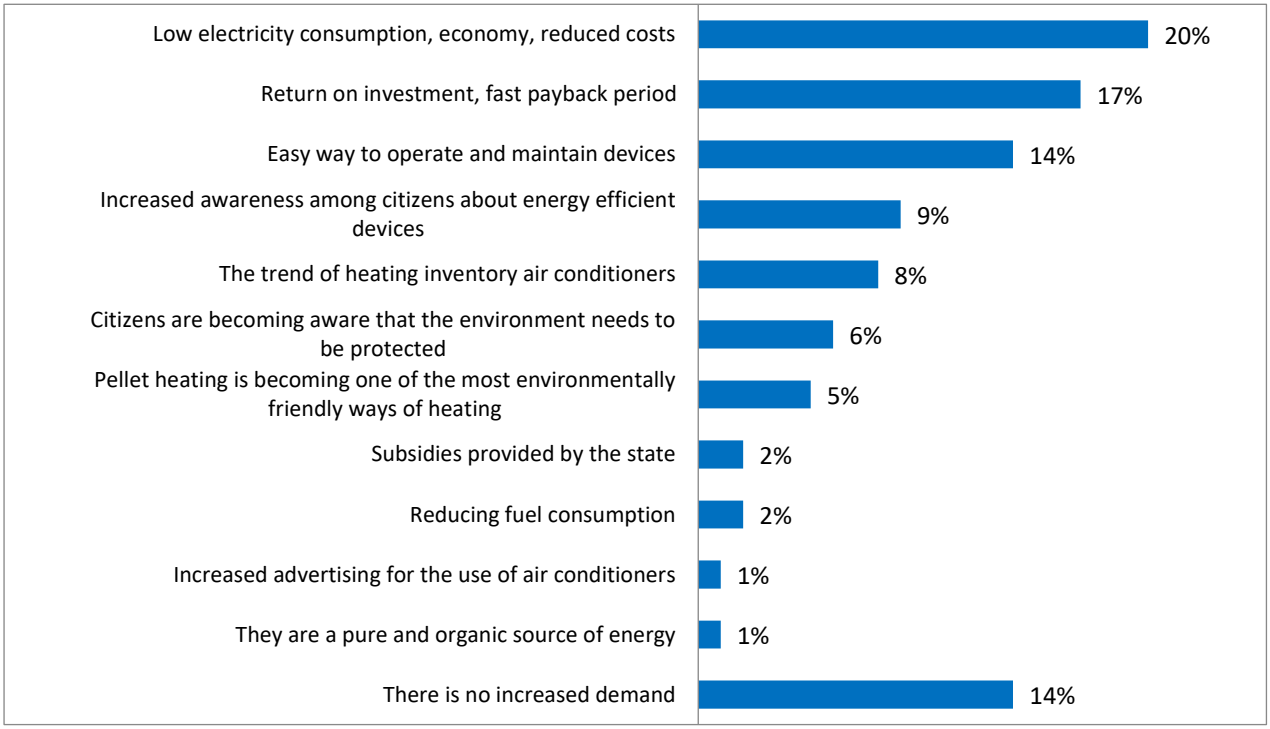
The following set of questions examines the views of retailers regarding possible solutions to increase the supply of energy efficient heating devices. This part of the research should highlight the indicators that would contribute to increasing sales of energy efficient devices. Most of the questions were open where the respondents had the opportunity to express themselves freely on this topic. For a more accurate interpretation, the answers are grouped according to category and repetition intensity. **Most retailers believe that today inverter air conditioners are more commonly purchased heating devices compared to the period two or more years ago.** This is the view of 44% of respondents. Pellet stoves are second in rank for increased demand, i.e. this is the opinion of 31% of respondents, and third in demand are heat pumps (9%). According to 14% of retailers today there is no increased demand for these heating devices, i.e. they believe that the demand is unchanged.

Graph 16. Compared to the period of 2 years or more in the past, is there an increasing demand for any of the following energy efficient heating devices today? N=100



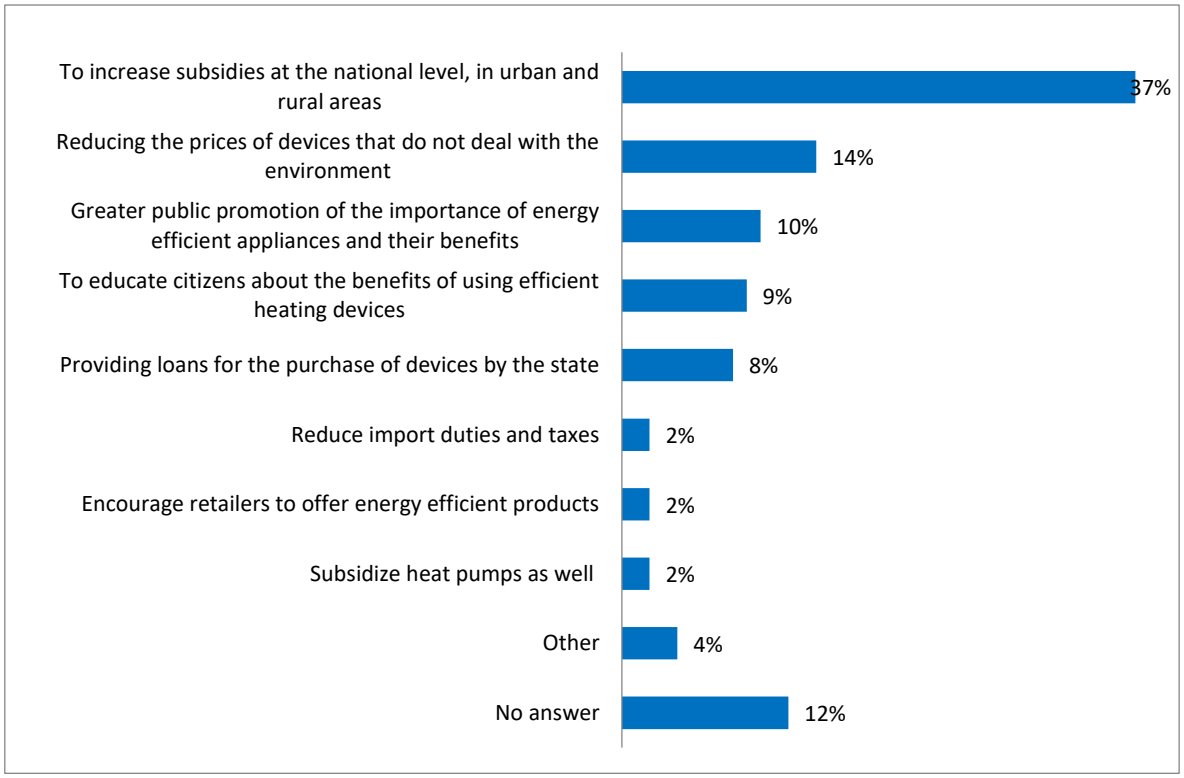
In the group of retailers who previously answered that there is an increased demand (inverter – 44%, pellet stove -31% and heat pumps – 9%) for energy efficient heating devices (85%), most of them (20%) believe that this is *primarily due to the low energy consumption of the devices,* which entails a reduction in costs for citizens, while 17% of retailers find the reason for the increased demand in the *profitability of the investment* and the fast period of return on investment. *Easy handling and maintenance* of the devices are also an important reason for the increased demand. It is interesting to note that 9% of the respondents believe that the increased demand is due to the *increased awareness of citizens about energy efficient devices*, and 6% said that *citizens are becoming aware that the environment should be protected*. Only 2% of retailers believe that the increased demand for energy efficient heating devices is due to subsidies offered by the state for this purpose. From the results of the chart below it could be concluded that there is no pronounced trend that dictates the increased demand for energy efficient devices but that the increased demand is mostly due to the low consumption of these devices and the return on investment in general. As a follow-up to these results, we would highlight the factor (monthly) consumption of the device which was highlighted as one of the main priorities when deciding to purchase products in the results shown above in the report.

Graph 17. What do you think is the reason for the increased demand for such heating devices? N=85



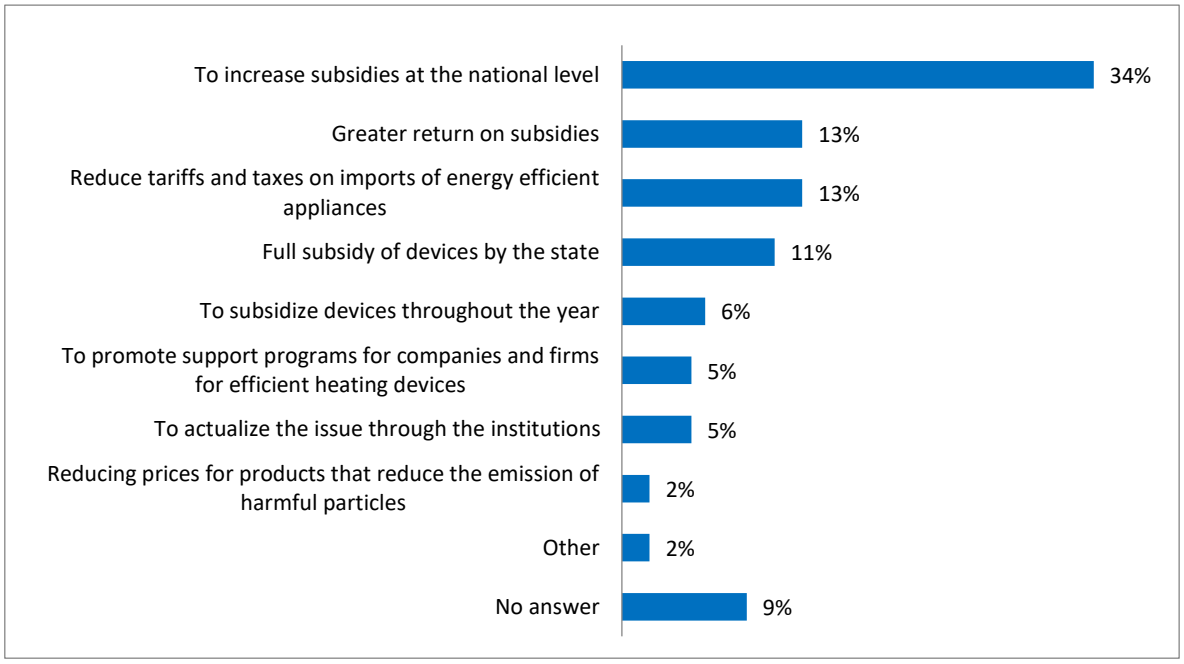
To the question *"What should be done, i.e. what are the possible solutions to increase the level of procurement of energy efficient heating devices?"* a significant part of retailers, as many as 37%, believe that *subsidies should be increased throughout the country*, *in both urban and rural areas*. With this, the retailers in the case may allude to the fact that not all municipalities provide subsidies for energy efficient devices (or at least not with the same intensity) and that what the state has subsidized so far is not enough to notice an increase in the demand of such devices at the national level due to subsidies per se. Furthermore, 14% of the respondents believe that this would be achieved *by reducing the prices of devices that do not pollute the environment.* Greater *public promotion of the importance of energy efficient heating devices* is a solution for 10% of retailers, and something similar is considered by 9% of retailers who believe that *citizens should be educated about the benefits of using efficient heating devices*. Providing *loans for the purchase of devices* by the state is a possible solution according to 8% of retailers.

Graph 18. If it is up to you to decide, and taking into account your work experience, what should be done, i.e. what are the possible solutions to increase the level of procurement of energy efficient heating devices? N=100



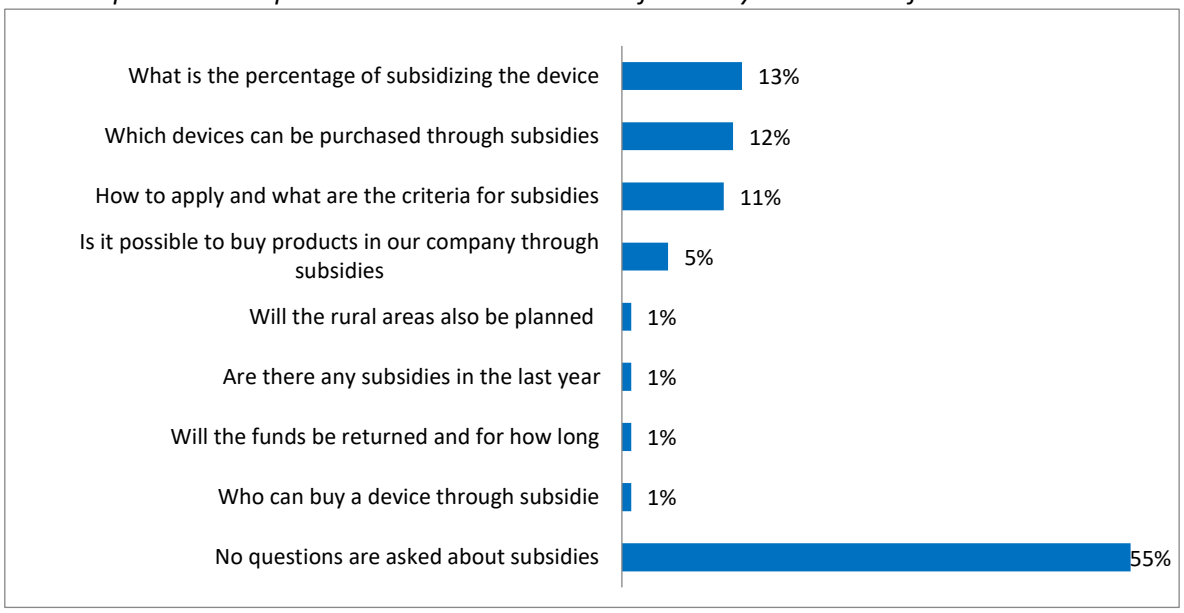
Regarding whether and in what way the state should help to increase the level of procurement of energy efficient heating devices, the general position of retailers is that **the state could help the most by subsidizing energy efficient heating devices.** Thus, one third of the retailers (34%) stated that the state should *increase the subsidies at the entire territory of the country*, 13% of the retailers think that there should be a *higher return on funds* when subsidizing devices, while 11% recommend that there should be a *full subsidy on the devices* by the state. Reducing taxes and duties on imports of energy efficient devices (and thus the prices of these products), according to 13% of retailers is one of the ways in which the state would help. Only 5% of retailers believe that *the state should promote programs to support companies for efficient heating devices*, and in this context we should mention the interesting position of one respondent who says: *"In cooperation with the retailers, mapping of retailers who sell energy efficient devices should be done, and they should be promoted."*

Graph 19. In your personal opinion, should and in what way should the state help to increase the level of procurement of energy efficient heating devices? N=100



To the question: *"Do you get questions in the area of subsidizing devices",* 45% of retailers answered positively, and more than half (55%) answered that they do not receive such questions. According to the job position, salesperson/installers and managers are the people who receive such questions more often than other categories of retailers. According to the retailers, in terms of subsidies, consumers most often ask the following questions: what is the percentage of subsidizing the device (13%), which devices could be purchased through subsidies (12%) and how to apply, and what are the criteria for subsidies (11%). The remaining frequently asked questions are shown in the graph below.

Graph 20. What questions do consumers most often ask you in terms of subsidies? N=45



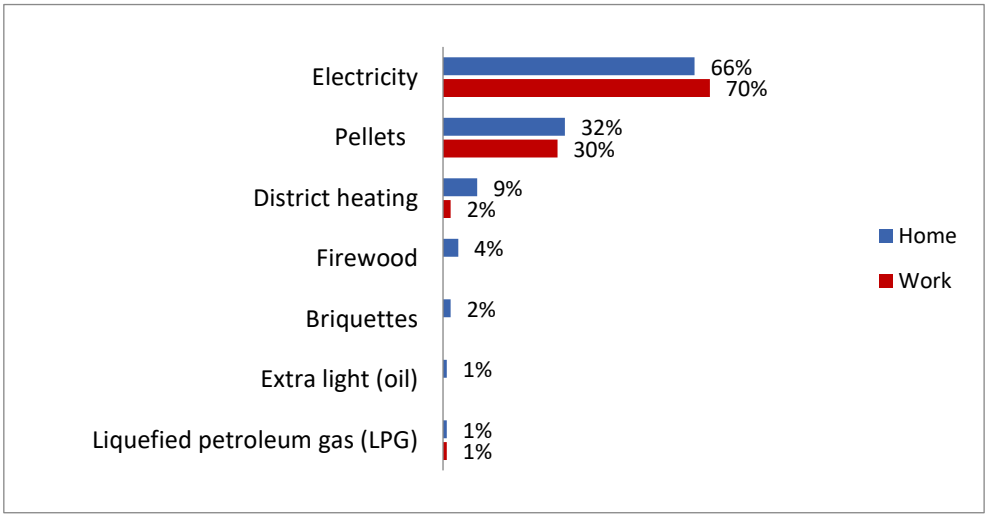
This part of the study showed that, compared to two years ago, retailers noted an increase in demand for heating devices, especially inverter air conditioners and pellet stoves. The increased demand for these heating devices is primarily due to their energy efficiency and the ability to save money.

Although the subsidies are proposed as a model through which the state could stimulate the demand for energy efficient heating devices the most, the perception of retailers is that they are not the factor that increases the demand for these devices. This could be due to a variety of factors, which could include: low or insufficient amount of subsidies, strict or high application/selection criteria, and the manner in which subsidies are awarded in general.

D. Assessment of awareness of the sources and effects of air pollution

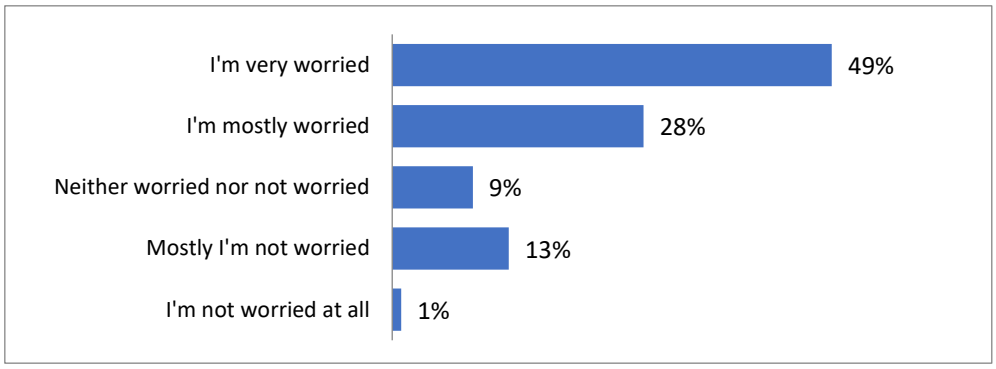
The main starting point of air pollution is to reveal the awareness of the source of pollution. Therefore, the last part of the survey for retailers is intended to assess the awareness of the sources and effects of air pollution. Most of the surveyed retailers (66%) in their homes use electricity as the main source of heating, and the same is the case with the companies (workplace) that they represent (70%). The second source of heating in homes and workplaces are pellets (32%, 30% respectively). Central heating is used by 9% of the retailers to heat their homes, 4% of them use firewood, and 2% use briquettes. These results are the starting point for analyzing the following issues related to the sources and effects of air pollution in the country.

Graph 21. Which of the following do you use as a basic heating source in your home and what do you use at work? (multiple answers are possible) N=100



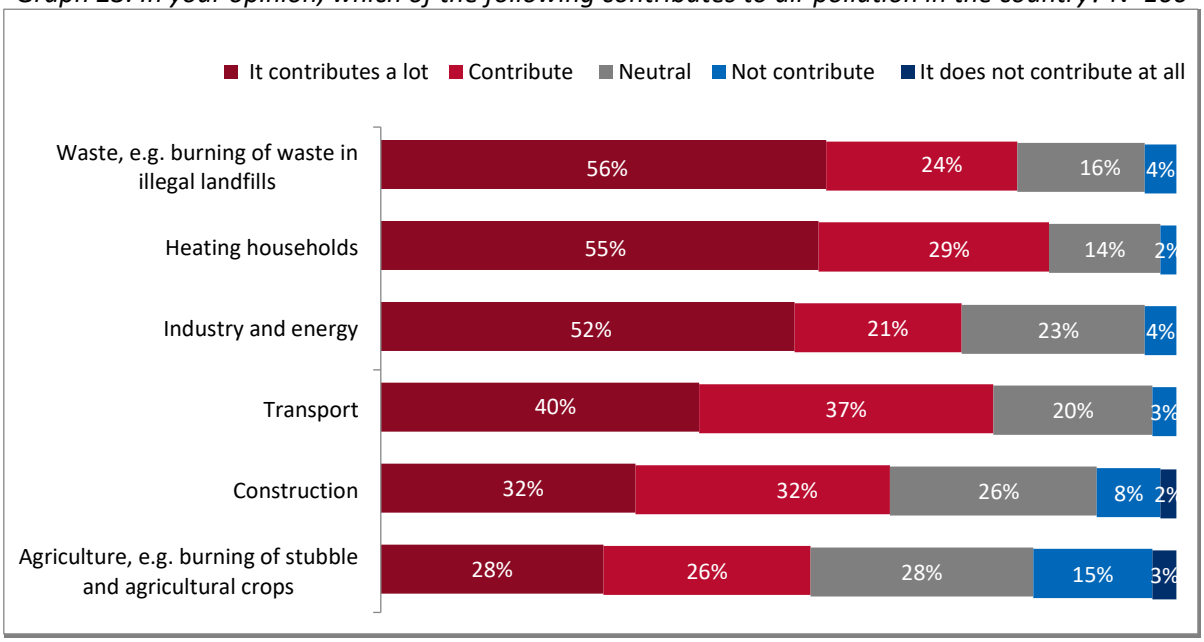
Most retailers are concerned about the consequences of air pollution - 49% of retailers are very concerned, and 28% are generally concerned. Only 9% of the respondents have neutral opinion, and about 14% of them do not express concern in general.

Graph 22. How concerned are you personally about the consequences that air pollution causes/could cause? N=100



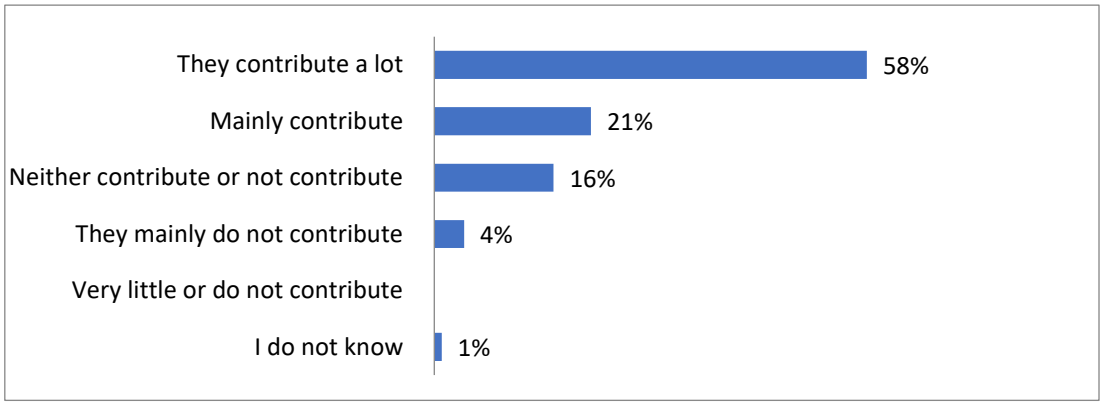
According to retailers, waste, i.e. burning waste in illegal landfills and household heating contribute the most to air pollution in our country. Industry, energy and transport are also rated as major air pollutants. Construction and agriculture are rated as areas that contribute the least to air pollution. Retailers who have expressed concern about health as a result of air pollution believe that households and the burning in illegal landfills contribute a lot to pollution, unlike less concerned retailers who also express less concern about these two potential categories of pollutants.

Graph 23. In your opinion, which of the following contributes to air pollution in the country? N=100



The majority of respondents believe that heating devices that are labeled as environmentally friendly devices contribute to reducing pollution (58% contribute a lot, 21% mainly contribute). A total of 16% of retailers have a neutral position on this issue, and only 4% believe that these devices generally do not contribute to reducing air pollution. There are no statistically significant differences in the responses of different categories of retailers by job position.

Graph 24. Do you personally believe that heating devices that are labeled as environmentally friendly devices (eco-friendly devices) contribute to reducing air pollution? N=100



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