

## SOCIAL MARKETING CHALLENGES IN WESTERN BALKANS: EVIDENCE FROM KOSOVO

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**Abstract** In a global world, doing business in heavy industry is becoming a concern to the environment. The need for production, export, and consumption under these circumstances has come as a challenge for marketers, consumers and surrounding residential population. The Western Balkan countries include Albania, Bosnia and Herzegovina, North Macedonia, Serbia, Montenegro and Kosovo. Kosovo has witnessed a considerable economic transformation during recent years, but is has fallen short of considering and implementing a strategy for the preservation of the environment. Kosovo is relatively rich with underground and surface resources, having large quantities of minerals and coal. But despite this, Kosovo continues to be the most underdeveloped country in the region. Exploiting these resources can have a great impact on economic growth and with it, consumer needs are more satisfied. Social marketing has a major impact on the activities of businesses in these areas and ensures that these businesses operate in accordance with certain rules and laws. This would also help in matters of general health of the population. Through Pearson's correlation and case studies, recommendations and conclusions will be given on the studied topic. The results show that there are positive and negative relationships between the variables which are significant.

### Keywords

social  
marketing,  
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## 1 Introduction

Policies instituted by a country to bolster its economy, to reduce unemployment, alleviate poverty and increase national income, often are in conflict with both the public and environmental health. A dilemma is how to foster economic growth while simultaneously protecting the environment or whether economic growth trumps safeguarding the environment. Industrial growth too often has come at the price of exploiting natural resources and consumers produce significant waste that pollutes the environment. In the long term, both can effectively weaken the prospects of growth and harm the public's health. This relationship is complicated and dependent on several factors, including community-based social marketing (Stern 2006; McKenzie-Mohr, 2000).

While developing economies such as Kosovo may argue the necessity to exploit the environment in order to adequately respond people's needs, and to elevate living standards and economic welfare, the developed economies with more capital have not yet come to a common agreement to address the environmental threat on a global scale. An example is the non-ratification by the United States, the largest economy in the world, of the Kyoto Protocol on reducing greenhouse gas emissions (Dessai, 2001; Jusufi et al., 2020). In 2011, additional larger economies such as Japan, Russia, and Canada failed to further commit to the Kyoto Protocol, with Canada even withdrawing from it.

The developing economies, primarily those that emerged after the fall of communism and civil wars in Central and Eastern Europe, as well as some from the Middle East, have seen a sharp increase in environmental pollution. Pollution is exacerbating the world's health. Viruses such as the COVID-19 are ravaging the overall health of the world's population. Environmental destruction in some areas is extensive, requiring significant expenditures of money to repair resulting damages, and yet resulting in minimal benefits in the short run. Many individuals could not afford the cost of repairs and were dependent upon donor assistance to try to cope with the consequences of all the damage. However, the assistance focused heavily on ensuring short-term needs were satisfied and conditions merely sufficiently fit to resume economic activities without improving the longer-term condition of the environment. Consequently, the disasters caused by the ongoing damage to the environment will lead to a vicious cycle of catastrophes, followed by mass

expenditures of monies to repair short-term damage, followed by additional environmental damage.

Donors tried to help, but their shortcoming was that they did not consult with environmental experts about the negative effects of various projects on the environment. It was not just a matter of institutions directly related to environmental protection like a ministry but of the rest of ministries and the government of a country (Bell & Russell, 2002; Erakhrumen, 2007; Libman & Obydenkova, 2019; Putzer, 2019). While the so-called environmental movement has made significant strides in developed countries, despite factional disagreements, and has made its way into politics by the establishment of *green parties* that would play a significant role in political, economic, and social life, many developing economies lag far behind when it comes to environmental reforms, as they have yet to even repair the consequences of recent wars.

War takes an especially heavy toll on the environment. Increasingly destructive weapons such as chemical, biological, and nuclear have caused extensive and in some cases long-lasting damage to the environment and the public. The 1986 Chernobyl nuclear disaster, for example, has produced long-term implications for much of Europe. Conventional weapons, too, apart from direct damages to infrastructure, release pollutants that can cause long-lasting environmental damage. The damage will be irreparable for the health of the population. In 2001, the World Health Organization reported several sites, mostly in the western part of Kosovo where NATO had used depleted uranium in the bombing campaign against Yugoslavia in 1999, but the results were inconclusive and further investigation was recommended (World Health Organization, 2001).

The total consequences of environmental pollution cannot be measured accurately, so the damage to the environment and public health can be irreparable. As Kosovo is relatively rich in minerals, primarily in lignite and metals such as lead, zinc and nickel, much of her economic growth is expected to come from their extraction and use. However, this is the source of most of Kosovo's environmental pollution. This pollution, which has a drastic negative impact on the health of the population, is the focus of this paper.

## 2 Literature review

As an important scientific discipline, social marketing has aroused the curiosity and interest of many in the scientific community and is fertile area for work. The impact of heavy industry on the environment and public health has long been an object of research and study, which has shined a spotlight on the need for alternative sources of energy that are both environmentally friendly and healthier. Renewable energy sources are very important, while alternative energy is gaining prominence among policymakers and researchers. Renewable energy emerged as a subject of interest as early as the 20th century (Bell, 1906; Kotler & Zaltman, 1971; Geller, 1989; Menegaki, 2012). Renewable energy research intensified in the early 1970s, reaching an "explosion" in the 21st century.

Achieving a desired level of development reducing greenhouse emissions and possibly undertaking measures in the form of a green revolution. Developed economies have realized the importance of balancing sustainable economic growth and development while at the same time carefully considering how such development harms the environment, which harm, in turn, reduces the capacity for further economic activities. The concern is becoming more acute in the age of global climate change, which is increasing in the 21<sup>st</sup> century. Stern (2006) has estimated that the cost of slowing or possibly avoiding the adverse effects of climate change by 2050 ranges between one percent to three-and-one-half percent of GDP. On the other hand, the costs associated with not taking action will lead to a down and assault on the world economy of anywhere from five percent and twenty percent of global GDP.

There is a great need for renewable energy as a result of the pollution we are causing to the environment and to the endangerment of public health. Most countries in the world still rely heavily on fossil fuel energy, which according to the International Energy Agency (IEA), accounted to about 80 percent of total energy in 2017. All stakeholders, including manufacturers, regulators, suppliers, distributors, consumers, and global countries, must work in a corroborative fashion to help eliminate substances that endanger the environment and public health.

Social marketing is indeed oriented toward easing human conditions, including raising living standards, but these results will not last for very long if the cost of achieving these goals is the depletion of natural resources. The increase in CO<sub>2</sub> emissions has accelerated sharply in the 21<sup>st</sup> century, mostly from the operation of vehicles and other fuel operating transport means. Meadows et al (1972) has studied the problems associated with the intensive use and consumption of natural resources such as minerals and metals. They argue that since the earth has a finite supply of natural resources, we must be better stewards of these resources if we are, as a world community of people, to provide steady, long-term economic growth and high standard of living in the long-term.

Commercial marketing encourages the production and selling of goods and services. This has the benefit of creating jobs and stimulating the economy. On the downside, however, this growth may come at the cost of environmental degradation from production (exploiting the resources) and after consumption- the cost of treating the waste and consumers' health (Ayres, 1998; Bhattacharya & Elsbach, 2002; Brenkert, 2002; Fuller & Ottman, 2004; Greyfeld & Bass, 2017; Rrustemi et al., 2020).

When considering the trade-offs between commercial marketing and the environment's health, there are two main alternatives. First, to encourage business growth and the concomitant benefits associated there with, such as income generation, increase employment, and higher living standards. A vibrant economy and high economic growth can in turn ensure that resources exist to intervene to repair the environment. Second, development, as social marketing advises, should work in such a fashion as to do as little harm to the environment as is possible. In the short term, or even the medium term, this may cause some drag on the economy. However, in the longer term, having business work in ways that are complementary (not harmful) to the environment will actually lead to increased economic growth, and require less of a country's GDP to repair unnecessary damage caused by environmental degradation brought about by harmful business practices, such as the continued use of carbon-heavy fossil fuels and similar dangerous carbon emissions.

The term *cowboy economy*, regardless of who might have been the first to coin it, is associated with harsh or intensive use of natural resources with almost total disregard for the harmful effects thus use has on both the environment and the public's health. It may only take into account the removal of garbage from the working place just

around the corner to enable the work. Due to the regulations, this hardly is allowed to apply in modern times. Some limitations are imposed everywhere, but the hunger and constraints for business and consumption often overshadow these limitations.

The second alternative, namely the one in which protecting the environment takes prominence over economic growth, is more applicable for developing economies. But they too, followed the same path as did China in modern times or as Great Britain did during the first industrial revolution. Activities during the second industrial revolution caused the same harmful effects to the environment as the first. We are now in the third revolution, known not as another industrial revolution but rather the era of information technology development. This revolution, while it is generally friendly to the environment, cannot by itself reverse the substantial degradation to the environment that occurred over the last 250 years or more. If done wisely, this revolution can spark substantial improvement in the global environment. But the question is how? We perhaps have to look no further than one man! William (Bill) Gates, one of the primary architects of the third industrial revolution, one that made him one of the wealthiest people in the world, has initiated the fourth industrial revolution, known as the revolution of the environment, for which in 2000 he established the Bill and Melinda Gates Foundation.

What makes his approach different from the first alternative discussed earlier, is that his foundations focus on providing economic growth and development primarily to underdeveloped countries. Another difference is that the fund's donations are primarily directed to developing nations in projects related to diseases, vaccines, agriculture, education, water supply, and irrigation. The Gates Foundation has joined a coalition providing for vaccines \$460 million (Nordhaus, 1974; Novacka, 1996; Lokhande, 2003; Gellers, 2010; Demšar-Pečak & Ovsenik, 2012; Welke, 2014; Greyfeld & Bass, 2017). This new approach to economic growth and development focuses on health and the environment.

Metal extraction, smelting and related work produce three types of hazardous waste and contamination:

- primary contamination created during the mining and smelting process;
- secondary contamination, which occurs during the transportation of waste by water or wind; and

- tertiary contamination, which are long-lasting deposits of waste resulting in accumulated contamination (More & Luoma, 1990).

Engineering techniques have been proposed to limit the types of contamination stemming from smelting activities, such as leaching or converting metals into liquid form from the ore, though even utilizing these better techniques, contamination still remains a challenge. Pollution caused by metals at different stages of the smelting process is of greater danger to public health. Unlike dust emitted into the air, metal waste atoms are more toxic when falling into the soil (Vareda et al., 2019; Bach & Alnajjar, 2016).

Cement is an essential product in the construction industry. Its demand during the past decades of urbanization and economic development has steadily grown. However, its production has constantly come at the expense of the environment and growing challenges how to mitigate its rising demand. As of 2016, it was estimated that cement production accounted for four percent of total carbon oxide CO<sub>2</sub> emissions (Andrew, 2018). Pollution resulting from the manufacture of cement, however, is being generated in relatively concentrated pockets of the world. China alone, for example, contributed to 60 percent of the global cement output and around 40 percent of total CO<sub>2</sub> emissions from cement production plants in 2017 (Zhang et al., 2018).

The problem of environmental pollution, especially stemming from metals and cement production, has raised awareness of the need to develop alternative ways of working and industrial capital with less harmful effects, such as social capital. This would also enable the preservation of public health. Social capital has been defined as a characteristic of social organization in networks, norms and beliefs that facilitate coordination and cooperation for mutual benefits. It refers to the degree of interaction between people, both formal and informal, and the levels of citizen engagement, trust, mutual obligation, and community care. Some people now believe that social capital is the most important determinant of health. Its significant social-ecological contribution is that social capital provides a framework of systems that serve to integrate behavioral and environmental factors (Eagle, et al., 2013; Jusufi and Ramaj, 2020).

Typical ecological health assessment includes various levels of analysis and multiple methodologies, from individual medical examinations to environmental assessments in epidemiological analyzes. Cohen et al. (2000) provided a useful framework based on ecological theory. They postulate four categories of structural factors that affect the behavior of individuals: the availability of defensive or harmful consumer products (e. g. tobacco, alcohol, weapons, fatty food, fruits, and vegetables, etc.), physical structures, and the physical characteristics of products (e. g. buildings, neighborhood design, lighting, safety belts, children's medical containers, etc.), social structures and policies (e.g., strict and poor application of laws and policies, youth without supervision, social norms, etc.), and media and cultural messages (e. g., messaging, materialism, violence, racism, etc.).

Becoming more social in terms of capital requires taking an innovative social approach and activities with the aim of meeting social goals. These goals are developed through social entrepreneurship and culminate in the creation of social values that benefit society (Paredo & McLean, 2006). It is difficult to narrowly define the phrase social entrepreneurship given its complexity. In broad terms, however, it can be defined as a process of exploiting a range of opportunities in order to create social value through innovative techniques, which also have to be social (Bacq & Jenssen, 2011). In emerging economies, an innovative social approach should be based on the reforms regulating private-public partnerships, the learning process, and capacity building (Rao-Nicholson, et al., 2017; Qorraj & Jusufi, 2019; Ramet, 2020; Jusufi and Ajdarpašić, 2020).

To sum up this section, traditional or commercial marketing, as its main objective, relies on different ways of producing products and offering services. Unfortunately, these traditional marketing methods have taken a heavy toll on not only the environment but public health. Heavy industry, and the hazardous wastes it has generated, has been the largest single culprit. Scholarly debate, coupled with the concerns of policy makers and others, has shifted away from the traditional, commercial marketing model in favor of enhanced social marketing, which will mutually benefit the stakeholders. Social marketing, in turn, utilizes various approaches and methods such as social capital, social entrepreneurship, policy reforms, innovation, capacity building, and above all, an enhanced level of social-oriented behavior than traditionally was the case with commercial marketing.

### **3 An Overview of the Environment in Kosovo: The scale of pollution and policies to protect it**

According to Qorraj & Jusufi (2018), there is a lack of sufficient and accurate data regarding what they do the firms in transition countries. Kosovo's relative small geographical area (less than 11 000 square kilometers) is best known for its natural resources such as coal and minerals. By various estimates, the coal reserves of Kosovo are amongst the largest in the world. The coal is primarily used for electricity generation and consumption as fuel by households. At the end of 2017, the Government signed a contract with Contour Global to build a new thermopower plant "Kosova e Re" that would rely on the exploitation of the coal nearby.

The contract envisages investment worth \$1.3 billion for a power plant with a capacity of 500 MgW. It is expected to be operational by 2023 and have a useful life of 40 years. Only a few kilometers away, the iron ore "Ferronickel" is a privatized company extracting and exporting nickel, another large polluter. The third largest polluter that is also included in our case studies, is the "Sharrcem" cement plant located close to the border crossing with North Macedonia.

The state of Kosovo's environment is measured and monitored by various indicators in different areas such as air, water, soil, flora, waste, and public health. Air pollution has been a problem for a long time. The quality of air did not change over 2013-2015 as it exceeded the maximum allowed contamination levels. As of late 2016 and early 2017, the concentration of SO<sub>2</sub> (sulfur dioxide), CO (carbon monoxide), NO<sub>2</sub> (nitrogen dioxide) and O<sub>3</sub> (ozone) has not exceeded the limits allowed, though their levels remain relatively high (Environmental Agency Protection, 2017).

Contamination of soil and water has risen as a result of waste, floods, uncontrolled use of water, illegal construction, and industrial development. Studies of companies involved in the largest ores, power plants, metal extraction and smelting sectors, listed by their level of pollution, show that Kosovo Electricity Corporation continues to emit dust well above the maximal allowed level, while Ferronikeli and SharrCem, which are of particular relevance as case studies in this paper, have steadily decreased the production and emission of various pollutants such that these are below the level allowed (Ministry of Environment and Spatial Planning, 2017).

Motor vehicles, especially those that are greater than ten years old and which therefore consume lower grade qualities of oil or petrol, contribute more to overall pollution than perhaps any other source. The costs for registering and maintaining the vehicles have led many consumers to opt for cheaper, older cars which in turn is adding significantly to air pollution. However, the extent to which these older vehicles contribute to overall air pollution has not been effectively measured. What follows are two case studies, the findings of which will help inform us on the impact social marketing policies will or may have on air pollution.

### **3.1 Ferronikel**

The main problems associated with environmental pollution stemming from the mines are that during the mining process large amounts of dust are released, especially during the summer season, causing significant harm to the health of the local population and vegetation. Ferronickel has replaced the filters in early 2007 (before resuming the work), in order to reduce the dust emission and polluting the local water supply (streams, rivers, lakes, etc.). The electric furnaces used to melt the iron and nickel release large amounts of dust and gases (CO, CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>x</sub>) because of their extremely high operating temperatures (about 1500°C). Shortly after privatization, when work at the factory resumed, this system operated without a dust and gas cleaning mechanism.

However, since 2008, the company has contracted with the Norwegian company "Vatvedt", to operate a gas cleaning system, which was installed in both electric ovens and became operational in March 2010. Unfortunately, however, the electric ovens comprise only one part of a much larger system required to excavate the minerals, as well as for transporting, depositing, processing them into alloys and for the storage of scrap and other remains. Taken together, these activities cause heavy pollution. The dust granules created during the extraction and processing of minerals are released into diffusive forms into the atmosphere. The dust is categorized by the size of the granules (PM<sub>10</sub>, PM<sub>2,5</sub>, and PM<sub>1</sub> with a certain aerodynamics diameter < 10µm, <2,5µm and <1µm) and total suspension granules (GTS). The emissions of these harmful materials by Ferronickel is presented in the table below.

**Table 1: Dust granules emission by Ferronikel, 2011 and 2018**

Years	2011	2012	2013	2014	2015	2016	2017	2018
mg/m <sup>3</sup>	3240	2160	2064	1692	1344	1524	1081.2	1704
MVA	600 mg/Nm <sup>3</sup>							

MVA = Maximum volume allowed

Source: Ferronikel database and Authors' calculation

The figures in Table 2 do not need much explanation as they can speak on their own. Every single indicator at all observed times is well above the maximum volume of allowed emissions. Clearly, Ferronikel is a major pollutant in this area. Other pollutants such as SO<sub>2</sub> and NO<sub>x</sub> are not as problematic.

**Table 2: SO<sub>2</sub> emissions into the air by Ferronikel, 2011-2018**

Years	2011	2012	2013	2014	2015	2016	2017	2018
mg/m <sup>3</sup>	18.96	22.92	23.16	21	7428	12	12	17.28
MVA	800 mg/Nm <sup>3</sup>							

MVA = Maximum volume allowed

Source: Ferronikel database and Authors' calculation

2011-2013 witnessed lower values of SO<sub>2</sub> emissions than the maximum volume allowed. But things turned dramatically worse in 2015, with values rising to nearly ten times above the MVA. The same can be said for NO<sub>x</sub> emissions, the value of which over the same period has always been under 400 mg/Nm<sup>3</sup> or the volume allowed by environmental standards. Despite this, Ferronikel remains a large polluter through dust granules.

### 3.2 Sharrcem

As in the first two cases, the production of clinker at the Sharrcem factory in Han i Elezit is causing a significant emission of pollutants having a negative environmental impact. The main environmental offender at the cement plant stems from the physicochemical breakdown of the raw material and the burning process in the oven at high temperatures up to 1,450°C. Pollutants resulting from this chemical reaction are spewed out into the atmosphere through the rotary kiln chimney.

Other potential sources of contamination from cement factories are mills used for milling cement, clinker warehouse packaging systems and the transport of finished products. All of these sources generate polluting dust and are controlled by the dust filtering system through mechanical dryers whose efficiency is 20mg/m<sup>3</sup>. The furnace outflow gas filtration system is controlled through an electrostatic filter whose efficiency is below 50mg/m<sup>3</sup>. The pollutants coming from or related to the Sharrcem, include: dust, flying dust, NO<sub>x</sub>, SO<sub>2</sub>, organic steam components, and greenhouse gases.

**Table 3: Emissions of pollutants by Sharrcem, SO<sub>2</sub>, NO<sub>x</sub> and Dust, 2011-2018**

Years	2011	2012	2013	2014	2015	2016	2017	2018
SO <sub>2</sub> mg/Nm <sup>3</sup>	18.96	22.92	23.16	21	7428	12	12	17.28
MVA	450 mg/Nm <sup>3</sup>							
NO <sub>x</sub> mg/Nm <sup>3</sup>	390	380	350	380	410	390	385	378
MVA	800 mg/Nm <sup>3</sup>							
Dust mg/Nm <sup>3</sup>	18	17	14	19	21	20	18	16
MVA	50 mg/Nm <sup>3</sup>							

MVA = Maximum volume allowed

Source: Sharrcem database and Authors' calculation

With respect to all of the pollutants it emits, Sharrcem falls under the limits allowed by regulation and environmental standards. Though still a heavy polluter, it nevertheless manages to keep all of the pollutants it discharges below the maximum volume allowed, which was not the case with other companies discussed above. Once it was privatized and sold to a foreign buyer, the investor (Holcim from Switzerland), prior to resuming production, undertook both a series of repairs and investments in technology that reduce levels of environmental pollution. Sharrcem is profitable, and its future economic forecast is extremely promising. The lesson to be learned is that investing in measures that will reduce pollution and protect the environment, instead of simply ignoring the problem until such a time that it becomes so harmful and unwieldy that repairs are not possible, and could even lead to the closure of the company, is not only wise but indeed can be prudent in so far as the company's economic bottom line is concerned.

## **4 Aim and Methodology**

The primary source of data used in our analysis derives from two case studies on the companies that are the largest private polluters in Kosovo and a survey involving 200 manufacturing enterprises. As there was no available consolidated data base for them, e. g. in the Ministry of Environment and Spatial Data were obtained through our direct visits to the companies concerned throughout the period 2010-2018. We deliberately chose this time period for two main reasons:

- as highlighted in the introductory section of this article, the WHO in 2001 had collected data on the consequences of NATO bombs of depleted uranium in Western Kosovo;
- the data for 2010-2018 were more consolidated and comparable for analysis compared to their availability both before and after that period.

Our interpretation of the primary findings was made taking into consideration the considerable gaps in research that presently exist for the respective country. After analyzing the findings, we recommend that before any environmental policies are instituted at the national level more comprehensive research should be performed, in particular, by gathering more detailed, diversified data on environmental pollution in relation to economic growth. The survey used to gather our data was designed to both provide representative data and avoid complexities in order that we could obtain accurate data so as to be able to address the main issues under consideration. Kosovo has a limited number of manufacturing enterprises and consequently our sample size is limited. The correlation results for the variables studied are set forth in the following tables.

## **5 Findings**

We utilized a quantitative approach in order to achieve satisfactory empirical and measurable results. We gathered our data using a carefully and strategically designed survey. We initially present descriptive statistics for each variable or question. The questions were constructed using the Likert scale. Choices or scales are defined as: Strongly Disagree (SD), Disagree (DA), Neutral (N), Agree (A), Strongly Agree (SA).

**Table 4: Descriptive statistics (frequencies of the variables)**

Questions	SA	A	N	DA	SDA
The main goal of social marketing is to preserve the environment	167	11	1	16	7
The main purpose of social marketing is to bring about positive behavior change within societies and companies	175	6	5	10	4
There is a need to understand the environment before developing social marketing campaigns	148	21	20	1	10
Marketing managers need to be able to clearly identify potential environmental problems	165	30	3	1	1
Social marketing should also incorporate partnerships and policy along with civil society	9	88	3	91	9
It is difficult to evaluate the success of social marketing programs as they aim to change widespread behaviors within the company	6	5	52	26	111
Challenges faced by social marketers include difficulties related to not following the elements of ethical marketing strategy	44	40	98	8	10
Social marketers should avoid the large impact of civil society on business activity	71	32	52	27	12
If it is proven that excess production harms the environment, the level of production must be reduced	126	29	36	8	1
Ecological health assessment analyzes should be increased and the company should adhere to the recommendations of relevant institutions	98	78	19	3	2

Source: own calculation

The target audience included CEOs, commercial managers, and functional managers of manufacturing enterprises throughout all regions of Kosovo. The interviews ranged from 40 to 90 minutes in duration. Due to the nature of the research problem, face-to-face interviews were conducted.

Table 5: Results of Correlation Analysis (Pearson correlation coefficient)

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Q1		-0.017	0.150	-0.028	-0.0103	-0.074	0.045	0.006	0.019	-0.157
Q2	-0.017		0.093	0.018	0.277	0.008	-0.262	-0.124	0.135	0.201*
Q3	0.150	0.093		0.124	0.062	0.109	-0.245*	-0.068	-0.180	-0.040
Q4	-0.028	0.018	0.124		-0.016	-0.045	0.020	0.094	-0.185	0.125
Q5	-0.103	0.277	0.062	-0.016		0.061	-0.261	-0.051	-0.062	0.040
Q6	-0.074	0.008	0.109	-0.045	0.061		-0.144	0.056	-0.026	-0.255*
Q7	0.045	-0.262	0.245*	0.020	-0.261	-0.144		0.206	0.002	0.130
Q8	0.006	-0.124	-0.068	0.094	-0.051	0.056	0.206*		-0.038	-0.034
Q9	0.019	0.135	-0.180	-0.185	-0.062	-0.026	0.002	-0.038		-0.202*
Q10	-0.157	-0.201*	-0.040	0.125	0.040	-0.255*	0.130	-0.034	-0.202*	

Source: own calculation

\* Correlation is significant at the level of  $p < 0.05$

In Table 5, correlation between the second and tenth variables represents significance. The results confirm that most respondents responded positively to these questions. Also, most respondents agreed that the main goal of social marketing is to generate positive behavioral changes within societies and companies. The correlation between responses shows that most respondents who think positively about social marketing also think positively about ecological health assessment.

There is also a statistically significant relationship between the third and seventh questions. However, this relationship is negative. Recognition of the environment should be of great importance as social marketing policies will be designed according to environmental needs. On the other hand, a relatively small number of respondents responded positively to the question bearing upon the ethics of social marketing. Similarly, our data reveal a negative relationship between the answers to the sixth and tenth questions. Our data reveal both a positive and statistically significant relationship between the third and seventh questions. The relationship revealed between the seventh and eighth questions is also significant, and this relationship is positive.

## **6 Discussion and Conclusion**

Heavy industry, especially that causing high levels of environmental pollution, fortunately, has declined significantly in most countries of the world, especially in those developed to the point of deindustrialization. Many developing countries, on the other hand, are still overly-dependent on industry because they lack other viable alternatives for creating material goods. An immediate closure of these heavy polluting plants would directly cause significant economic damage to many stakeholders, including not only the companies and their employees but also the state budgets and consumers who would be forced to import products. In other words, governments in lesser-developed parts of the world are in a difficult predicament. A parallel may be drawn regarding similar problems caused worldwide from the Covid-19 pandemic.

There, the unenviable choice has had to be made between closing down economies – to the significant detriment of business, individuals, the economy, etc. – or allowing the virus to spread unchecked, to the significant detriment of human health, overwhelming medical facilities, etc. To the subject of this paper, it obviously would be preferable to just close down facilities that are major polluters. But, doing so would, in the short term at least, cause much devastation to those directly and indirectly connected to the entities being closed, to local economies, and to the (state and national) governments that are then forced to step in and provide subsidies. Therefore, it can be exceedingly difficult for such countries to take the »long-term view« when the short-term consequences of taking such draconian actions as closing down large sectors of local communities are so costly and painful both in terms of human suffering and economic loss. Therefore recommendations are needed that would improve the environment and preserve public health. However, some of the recommended solutions will take time to institute and fulfill.

It would be much more beneficial, when evaluating current and future mining projects, to consider their impact on both the environment and public health when they are in the planning phase. As our Sharrcem study reveals, proceeding in this fashion can indeed be a win-win not only for the private (or public) company operator but also the broader public in terms of a cleaner, healthier environment. And in the end, this means more jobs, fewer expenditures of private/public funds to clean up old messes and deal with the health of a lot of sick people, and therefore better bottom line budgets for companies and governments alike.

Kosovo presently lacks sufficient resources to deal with the damage caused to the environment and public health. Therefore, our first recommendation is that the existing standards of environmental protection must be respected, at least with respect to the maximum volume of discharged pollutants that are allowed. Only Sharrcem has met the necessary criteria regarding the environment and public health.

Governments have a duty to protect public health. In fact, this is one of their main obligations. The goal is not only for people to live longer but to live healthier. And, with advances in medicine and science, there is no reason this cannot happen across the world. Therefore, the economic benefit of all activities must be balanced with public health and environmental protection. Neither can be considered in isolation; they are interconnected. Without public health, there will be no general well-being

either. Therefore, our second recommendation is that governments, in setting overall policy, and in particular policies relating to business development, must always balance economic well-being with public health and environmental protection. Studies have demonstrated, for example, that turning to a green economy will be a win-win not only for the economy in terms of creating many new (and safer, healthier, and better paying) jobs but also for the health of the world's environment.

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