THE SPREAD OF THE SHADOW ECONOMY AS A MORAL DILEMMA?

Giedrė Dzemydaitė*, Ieva Savilionytė

Vilnius University, Lithuania

Abstract. The shadow economy remains a significant problem in post-Soviet countries and less economically developed economies. Even though there are a lot of economic and social arguments for the emergence of the shadow economy, it remains the question how much of the shadow economy, as well as an intrinsic willingness to pay taxes, could be explained by social norms, business ethics and illegal business practices that come from the cultural and historical background. This paper focuses on the ethical dilemma and tries to figure out how morality reflects in the tendency to participate in shadow economy. A qualitative approach is applied in this paper to find linkages between moral norms and an acceptance of the shadow economy. This paper supports the idea that people’s backgrounds, their moral norms and close relationships affect how they perceive tax evasion and how much they are willing to participate in such illegal activities.

Keywords: shadow economy, moral norms, tax evasion, tax morale, morality.

1. Introduction

The shadow economy remains a significant problem in post-Soviet countries and less economically developed economies (Schneider 2015; Putnins and Sauka 2011; Kukk and Staehr 2014; Sagatova 2015; Culiberg and Bajde 2014). Even though there are a lot of economic arguments for the emergence of the shadow economy, there remains the question of how much of the shadow economy, as well as an intrinsic willingness to pay taxes, could be explained by social norms, business ethics and illegal business practices that come from the cultural and historical background. It is seen that illegal economic activities, during the Soviet period, have become the heritage of local communities (Hakkarainen 2013). During that time, illegal economic activities were about the relationship between the people and the state that acted as an economically ineffective external force. All those historical backgrounds and cultural practices are supposed to slightly change during a long period of time.

The development of the shadow economy is not just a matter of economic situation but also the problem of moral relations of agents in the economy (Sagatova 2015;
Culiberg and Bajde 2014; Torgler 2007). There is a diverse influence of tax morale in different countries (Wlliams and Horodnic 2015; Alm and Torgler 2006; 2011). For the case of Lithuania, even though the economy is growing and there are a lot of efforts to reduce tax evasion from the government’s side, the shadow economy remains one of the largest amid the European Union countries.

A lot of recent studies have mostly focused on the economic factors of the shadow economy in the Baltic States, e.g., Merikull and Staehr (2010) stated that firm-related characteristics, such as sectoral activity, firm size and employment changes, were important determinants for unreported employment in all the Baltic States, while the impact of sociodemographic factors, such as gender, age and education, were generally less important and varied across countries and time. Putnins and Sauka (2015) developed a method to measure the size of the shadow economy by interviewing companies’ managers. They figured out that a lower rate of dissatisfaction with the tax system was likely to decrease the size of the shadow economy. Čiutienė et al. (2015) measured the power of the shadow economy in Lithuania as the function of population, GDP, trade, unemployment and the labor force. Variables of social development, such as demographic change and risk of poverty, were also involved in the research.

These studies reveal strong evidence that there are linkages between the economic and social situation and the size of the shadow economy in the Baltic States. But the impact for the size of the shadow economy and a person’s decisions to avoid paying taxes and to participate in an illegal business because of the community and established moral norms in the society are still not widely evaluated. These aspects reflect the nonmonetary side of explaining the emergence of the shadow economy.

According to that, this paper focuses on an ethical dilemma and tries to figure out how morality reflects in the tendency to participate in the shadow economy. A qualitative approach is applied in this paper to find linkages between moral norms and the acceptance of the shadow economy. This paper supports the idea that people’s backgrounds, their moral norms and close relationships affect how they perceive tax evasion and how much they are at risk in participating in such illegal activities.

2. Recent Studies of a Moral Dilemma for a Shadow Economy

Moral norms arising from virtue and duty ethics help to explain economic outcomes and operations of economic agents (Wight 2015; Zak 2010). Moral beliefs create formal and informal rules that are in action while making transactions with other agents in the economy and that are related with the level of social responsibility (Ulrich 2008). The limits of individual’s morality is seen when the behavior is lowering general public welfare by participating in the shadow economy or evading paying taxes. It is seen that economic agents’ behavior is not only related with its own material payoffs, but also with certain
broader aspects, such as the moral intention to help others, respecting personal values or caring about the opinions of others (Zsolnai 2012).

There are a set of studies that tried to evaluate the aspects related with ethics, morality and tax evasion (Culiberg and Bajde 2014; Alm and Torgler 2011; Williams and Horodnic 2015; Daude et al. 2013; Doyle et al. 2009; McGee et al. 2008). These researches supported the importance of ethics in an economic activity and for the taxes compliance. Dependent variables like tax morale or the ethics of tax evasion were involved in these researches.

Tax morale could be defined as an intrinsic motivation to pay taxes that reveals people’s acceptance of tax evasion (Cummings et al. 2009; Daude et al. 2013; Alm and Torgler 2006). Several studies analyzed the level of tax morale, mostly using data from the the World Values Survey or the Economic Values Studies, i.e., Williams and Horodnic (2013), Alm and Torgler (2006); Daude et al. (2013); Rutkauskas (2016). Williams and Horodnic (2015) suggested that the evaluated tax morale index regarding the acceptability of participation in the shadow economy was 3.35 for the individuals living in Estonia, Latvia and Lithuania (where 1 is totally unacceptable and 10 totally acceptable according to the scale used). The higher rates of accepting the shadow economy were from private households’ side rather than companies’ side.

The likelihood to participate in the shadow economy significantly tended to vary by, for example, gender, employment status and country. Alm and Torgler (2006) indicated that the highest tax morale of individuals was in the United States, followed by Austria and Switzerland in a comparison to other European countries involved in the analysis. A strong negative correlation between the size of the shadow economy and the degree of tax morale was indicated in those countries. Vasiliauskas (2016) measured factors of tax morale suggesting that weak tax morale among European Union countries was mainly determined by the acceptance of a bribe rate, a low national proud followed by age, gender, religiousness and the level of income and education.

Even though these studies are focused on evaluating a tax morale and its correlation with the size of shadow economy, as well as socioeconomic evidences affecting it, these studies are lacking to explore more deeply ethical decision-making as a process composed of multiple steps and determinants, such as a moral recognition, a moral judgment, a moral intention and a moral intensity (Culiberg and Bajde 2014). Personal moral philosophies were introduced in recent studies as an antecedent to the consumer ethical decision-making process. So, in this research, more focus is devoted to these aspects.

3. Research Methods

Qualitative research was conducted to find out the specifics of the problems analyzed – the connection between the shadow labor market and moral norms. The study was fo-
cused on identifying and assessing the significant factors that were related to moral norms that are supposed to affect the perception of shadow labor relations in an economy. To get reliable data, respondents were introduced to the motives of the survey. Respondents were informed that the questionnaire was anonymous and that the data received would be used only for scientific purposes. Data was collected in 2017.

Questions in the survey were formulated according to the behavior principles that were related with moral norms explained in detail by Zsolnai (2012). Respondents were asked to rate questions according to the Likert scale (from 1 – strongly disagree to 5 – strongly agree) related with ethical aspects, i.e., if the welfare of the majority was more important than personal gain; if others’ opinions about himself/herself were very important; if one’s own material welfare was the most important factor in business relations.

Second, questions about how people perceive a taxation system were involved in the questionnaire, i.e., if they thought that labor taxes were optimal, if it was worth to pay labor taxes, if public institutions were efficiently using collected taxes if it is important to pay taxes. Finally, questions that try to evaluate the context conditions and how tax evasion or working in a shadow economy was spread in close relationships of respondents were also involved. The received information from different questions was compared to the results of a binominal question revealing if a person would have agreed to get income illegally. This question-revealing perception rate was used as a dependent variable and all the other conditions were compared to the answers of this question.

Respondents’ answers were analyzed by cross-classification tables, a Chi-square test for independence as well as Phi and Cramer’s V coefficients. With these coefficients, the relationships and an association among several variables were examined. These measures of association provided a means of summarizing the size of the association between two variables. The expected numbers of causes were expressed in percentage.

For the Chi-square test, an across-classification table was used to obtain the expected number of cases under the assumption of no relationship between the two variables. A Chi-square test of independence could be defined by the following equation:

\[ \chi^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i} \]

where \( \chi^2 \) is Pearson’s chi-square test statistic; \( O_i \) – the number of observations of type \( i \); \( E_i = Np_i \) – the expected frequency of type \( i \), asserted by the null hypothesis that the fraction of type \( i \) in the population is \( p_i \); \( N \) – total number of observations; \( n \) – the number of cells in the cross classification table. The hypothesis tested: \( H_0: \) no relationship between two variables (\( O_i = E_i \)); \( H1: \) some relationship between two variables (\( O_i \neq E_i \)). Another statistic applied was \( \Phi \) that is basically a measure which adjusts the chi-square statistic by the sample size. Phi statistic (\( \Phi \)) could be defined as:
\[ \phi = \sqrt{\frac{\chi^2}{N}}. \]  

Finally, Cramer’s V was applied for research. Cramer’s V corrects the problem that measures of association for tables of different dimension may be difficult to compare directly. Cramer’s V equals 0 when there is no relationship between the two variables and generally has a maximum value of 1, regardless of the dimension of the table or the sample size. Cramer’s V statistic \((V)\) is also related with the Chi-square and could be defined as

\[ V = \sqrt{\frac{\phi^2}{t}} = \sqrt{\frac{\chi^2}{nt}}, \]

where \(t\) is the minimum of the number of rows \((r)\) minus one or the number of columns \((c)\) minus one from the cross-classification table, defined as \(t = \min(r - 1, c - 1)\). Tables that have a larger value for Cramer’s V can be considered to have a strong relationship between the variables, with a smaller value for \(V\) indicating a weaker relationship.

All the data from the analysis could be understood as having the nonparametric nature. Because of that, the two-sample Wilcoxon rank-sum test was also applied to evaluate whether the median score of people likely to be involved in the shadow labor market significantly differs to the median score of people likely not to be involved in illegal activities.

The study questions were related with a working age population. Nevertheless, the sample size was calculated according to the size of Lithuanian labor market. The size of research sample \((n)\) was defined as:

\[ n = \frac{p(1-p)}{\left(\frac{e}{z}\right)^2} + \frac{p(1-p)}{N}, \]

where \(p\) – an estimate of the proportion; \(z\) – the number of standard deviations a given proportion is away from the mean; \(e\) – a sampling error; \(N\) – population size. In this research sample size is \(n=96\), calculated with \(z = 1.96\) (the confident level of 0.95), \(e = 0.1\), \(p = 0.5\) and \(N = 1.478\) millions. The reason of \(p = 0.5\) was selected was that the standard error formula is the largest when \(p = 0.5\), so this is a conservative assumption that allows for \(p\) being unknown a priori.

### 4. Research Results

The theoretical part discusses the assumption that moral norms act as a certain and a significant form of social responsibility and define the desirable economic behavior of an individual. However, the behavior of the participants in the economic activity is complicated, and due to the lack of moral standards, the actions can only be related to the pursuit of personal well-being. This means that any activity in the economy is supposed to be characterized by high moral standards or lack thereof.
TABLE No. 1. The binominal test results evaluating the extent of involvement possibility in the shadow labor market.

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Observed Prop.</th>
<th>Test Prop.</th>
<th>Exact Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you agree to get part or all income illegally?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probably yes</td>
<td>21</td>
<td>0.22</td>
<td>0.50</td>
<td>0.000</td>
</tr>
<tr>
<td>Probably not</td>
<td>75</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: authors’ calculations using survey data.

During the survey, respondents were asked to indicate whether they would agree to participate in the shadow labor market in answering the question of whether they would agree to accept all or part of their income illegally. The obtained data were analyzed by performing a binominal test (Table No. 1). The prior assumption was suggested that, if possible, half of the workforce would agree to participate in shadow labor relations. The results of the binominal test reflected that the likely behavior of the respondents was significantly different from the prior assumption. A large part of respondents did not perceive a shadow labor market. Around 22% of the respondents expressed a high involvement possibility in a shadow labor market that was quite the common size of a shadow labor market in Lithuania.

The Wilcoxon rank-sum test also supported the result that around 22–23% of the respondents would be mostly likely to enter a shadow labor market according to their attitudes. The most affected group could be understood as b with positive ranks of 22 respondents (Table No. 2) that did not perceive that paying taxes was important and that their personal wellbeing did matter more than a contribution to the welfare of general society by paying taxes. Others were more convinced that paying taxes was as much or even more important than only personal wellbeing.

TABLE No. 2. The Wilcoxon rank-sum test between the two questions of how important is paying taxes for respondents and if personal wellbeing is more important than general welfare.

<table>
<thead>
<tr>
<th>Questions:</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Paying taxes is very important</td>
<td></td>
</tr>
<tr>
<td>2. The most important is personal wellbeing</td>
<td></td>
</tr>
<tr>
<td>Negative Ranks</td>
<td>51a</td>
</tr>
<tr>
<td>Positive Ranks</td>
<td>22b</td>
</tr>
<tr>
<td>Ties</td>
<td>23c</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
</tr>
</tbody>
</table>

a. The most important is personal wellbeing < Paying taxes is very important
b. The most important is personal wellbeing > Paying taxes is very important
c. The most important is personal wellbeing = Paying taxes is very important

Source: authors’ calculations using survey data.
The close relationships and their possible impact for personal perception of a shadow labour market were also tested (Table No. 3). The results of the analysis revealed that if respondents’ close relationships, such as family or friends, were involved in shadow labour relations, they also perceived the shadow labour market more. Of the respondents who agreed with the possibility to join the shadow employment, 44% also indicated that they had shadow workers in their close relationships. These results indicated that social capital could be understood as a significant factor of how people used to perceive shadow labor relations and this leads to the idea that the larger size of shadow economy and more people participating in it leads to higher rates of perception of shadow labor market.

The Pearson Chi-Square, Phi and Cramer’s V tests reflected that there was a statistically significant difference supporting the idea that close relationships were significant for the emergence and the existence of a shadow labor market. If there was a shadow labor worker between the close relationships, it tended to support a participation in shadow labor relations. Results indicate that the primary economic relations and activities carried out by close social network have a significant influence on the formation of acceptable standards of behavior for the individual.

<table>
<thead>
<tr>
<th>Are there people in your close relationship who get some or all of their income illegally?</th>
<th>Would you agree to get part or all income illegally?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, who works illegally</td>
<td>Probably yes</td>
</tr>
<tr>
<td>Yes, who get part of income illegally</td>
<td>44.0%</td>
</tr>
<tr>
<td>No</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

**Statistics:**
- **Pearson Chi-Square Value (Asymp. Sig. 2-sided)**: 13.806 (0.001)
- **Phi Value (Asymp. Sig. 2-sided)**: 0.379 (0.001)
- **Cramer’s V Value (Asymp. Sig. 2-sided)**: 0.379 (0.001)
- **N**: 96

**Source**: authors' calculations using survey data.

Then, the understanding of the importance of general welfare and the perception of illegal labor relations were compared (Table No. 4). The results revealed that the greater understanding of the importance of general welfare was related with the lower tendency to participate in shadow labor relations. Nearly 94% of the respondents who indicated that general welfare was more important than personal gain would have been willing to
participate in the shadow labor market. To test the validity of the results, a Chi square test was evaluated. There was a statistically significant difference between the assessment of general and personal benefits and the choice of the person, whether to participate in shadow labor relations or to operate in the formal labor market.

To assess whether there was a strong and significant difference of those interested in the general well-being to be unwilling to participate in the shadow labor market, Cramer’s V test was applied. The test results indicated a statistically significant difference between the choice of participation in a shadow labor relations and the importance of general welfare. The value of the coefficients varied from 0 to 1, and the resulting value indicated that the difference was significantly strong. It supported the idea that if the individual was concerned with the welfare of the majority rather than only on the personal gain, the individual does not tend to perceive shadow labor relations.

TABLE No. 4. The measures of the consciousness of general welfare and its impact for the respondents’ perception of shadow labor relations.

<table>
<thead>
<tr>
<th>Would you agree to get part or all income illegally?</th>
<th>Probably yes</th>
<th>Probably not</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that the welfare of the majority is more important than personal gain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – strongly disagree</td>
<td>75.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>2 – disagree</td>
<td>45.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>3 – neither agree nor disagree</td>
<td>21.9%</td>
<td>78.1%</td>
</tr>
<tr>
<td>4 – agree</td>
<td>4.0%</td>
<td>96.0%</td>
</tr>
<tr>
<td>5 – strongly agree</td>
<td>6.7%</td>
<td>93.3%</td>
</tr>
</tbody>
</table>

Statistics:
- Pearson Chi-Square Value (Asymp. Sig. 2-sided) 19.568 (0.001)
- Phi Value (Asymp. Sig. 2-sided) 0.451 (0.001)
- Cramer’s V Value (Asymp. Sig. 2-sided) 0.451 (0.001)

N 96

Source: authors’ calculations using survey data.

The attitude to paying taxes was analyzed. Individuals who considered paying taxes to be important were not willing to participate in shadow labor relations. Of the respondents who indicated that paying taxes was very important, 90% also argued that they would not agree with shadow labor relations. The results of the Chi-square test result indicated a significant difference between the dependent variable and the importance of taxes. Individuals who were reluctant to participate in shadow labor relations were characterized by a higher tax morale. A statistically significant and rather strong difference was between tax morale and the choice to participate in shadow labor relations by Phi and Cramer’s V tests.
TABLE No. 5. The measures of understanding the importance of paying taxes and its impact for the respondents’ perception of shadow labor relations.

<table>
<thead>
<tr>
<th>Paying taxes is very important</th>
<th>Would you agree to get part or all income illegally?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – strongly disagree</td>
<td>60.0% 60.0%</td>
</tr>
<tr>
<td>2 – disagree</td>
<td>60.0% 40.0%</td>
</tr>
<tr>
<td>3 – neither agree nor disagree</td>
<td>16.7% 83.3%</td>
</tr>
<tr>
<td>4 – agree</td>
<td>33.3% 66.7%</td>
</tr>
<tr>
<td>5 – strongly agree</td>
<td>10.0% 90.0%</td>
</tr>
</tbody>
</table>

Statistics:

- Pearson Chi-Square Value (Asymp. Sig. 2-sided): 14.665 (0.005)
- Phi Value (Asymp. Sig. 2-sided): 0.391 (0.005)
- Cramer’s V Value (Asymp. Sig. 2-sided): 0.391 (0.005)
- N: 96

Source: authors’ calculations using survey data.

Finally, the economic aspects were also involved in the analysis to test the respondents’ sensitivity to the level of income compared to moral norms. It was based on the idea that shadow labor relations were usually chosen to generate higher income while avoiding wage-related taxes. Therefore, in order to verify whether the tax morale was significant for the emergence of shadow labor relations, it was analyzed whether there was a significant link between net income and the perception of shadow economy. Respondents were asked to indicate their take-home pay. It was assumed that higher income earners were not interested in working in the shadow labor market. The answers of respondents were analyzed by cross-classification tables, revealing the level of income and the intention of respondents to participate in shadow labor relations (Table No. 6).

TABLE No. 6. The measures of net income and its impact for the respondents’ perception of shadow labor relations.

<table>
<thead>
<tr>
<th>What is your monthly take-home pay?</th>
<th>Would you agree to get part or all income illegally?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less or equal to 340 euro</td>
<td>50.0% 50.0%</td>
</tr>
<tr>
<td>341 - 640 euro</td>
<td>10.5% 89.5%</td>
</tr>
<tr>
<td>641 euro and more</td>
<td>20.0% 80.0%</td>
</tr>
</tbody>
</table>

Statistics:

- Pearson Chi-Square Value (Asymp. Sig. 2-sided): 13.806 (0.001)
- Phi Value (Asymp. Sig. 2-sided): 0.379 (0.001)
- Cramer’s V Value (Asymp. Sig. 2-sided): 0.379 (0.001)
- N: 96

Source: authors’ calculations using survey data.
The results revealed that people with higher incomes were less likely to be involved in shadow labor relations. A Chi-square test was performed to ensure the reliability of the test results. The results indicated that there was a significant difference between the choice of respondents to participate in shadow labor relations and the level of monthly income. People who would receive higher take-home income were less likely to be involved in shadow labor relations. In addition, the coefficients of Phi, Cramer’s V revealed that the difference was statistically significant and rather strong between the amount of income received and the perception of shadow labor relations.

Even though the perception of the shadow labor market was supposed to be significantly related with the income level, there was a part of people (20% of respondents with above average income levels) that would have agreed to get income or part of their income illegally. This supports the idea that probably not only economical but also some other aspects affect the acceptance of shadow labor relations that were analyzed in this research.

5. Concluding remarks

The shadow economy remains a significant part in post-Soviet and the less economically developed countries. Not only economical, social or political aspects but also moral norms, activities of close relationships and previous business practices suppose to affect how people perceive participation in the shadow economy, evading taxes and getting paid illegally. Following these thoughts, this research was focused on a moral dilemma in perceiving the shadow labor relations and tried to figure out how morality and close relationships reflects in the tendency to participate in the shadow economy.

A qualitative approach was applied in this paper to find out linkages between views reflecting morality norms and an acceptance rate of shadow labor relations. A Chi-square test for independence, Phi and Cramer’s V coefficients and the Wilcoxon rank-sum test were applied to analyze the survey data. The gained research results supported the idea that people’s backgrounds, their moral norms and close relationships affect how they perceive tax evasion and how much they are at risk in participating in such illegal activities. And even though people with higher income levels tended to participate in shadow economy significantly less, around 20% of respondents with higher income rates would agree taking part in an illegal labor market.

The results also indicated that the size of the shadow economy is supposed to be partly reinforcing itself through moral norms and attitudes supposed to spread through close relationships and informal networks in a society. From the policy side, there should be a quite complex understanding of the shadow economy, as a part of evading taxes suppose not only to be affected by economic aspects but also by the ethical attitudes that come from all previous practices, morality norms and close relationships.
For any further research, it would be of interest to measure how the perception of shadow labor relations changes during a period of time and to also compare these results with a change of the size of the shadow economy. It is also of interest what is a size of the spill-over effect for a part of the society is involved in evading taxes.

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