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# **DO ONLY HIGHER PENALTIES HELP TO ACHIEVE COMPLIANCE IN SELECTED EMERGING MARKETS?**

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### ***Abstract***

*Living by the rules is a struggle that emerging markets are facing. High corruption that affects those emerging markets means low levels of compliant behaviour seen through not 'following the rules set by various laws and regulations. This paper aims to find whether imposing high penalties for committed offenses such as public corruption could be considered a plausible option for increasing levels of compliant behaviour or whether introducing other actions would help emerging markets reach that goal. The two hypotheses will be tested by the quantitative approach considering the sample of 27 countries classified as emerging markets (among them also the following European countries: Czech Republic, Greece, Hungary, and Poland) by applying a non-parametric statistical test to find whether a correlation between high penalties for public corruption and compliant behaviour exists and on the other hand, if a correlation between other actions and compliant behaviour exists. Results of the research point to the fact that, although increasing penalties is not perceived as a plausible option, raising awareness and incentivizing anti-corruption activities through other actions such as improved*

*education and increased wages of public officials presents an excellent potential for beginning the battle with corruption in emerging markets and opening their doors to successful economic development.*

**Keywords:** *Deterrence, Collective Action Theory, Corruption, Penalties, Compliance*

## 1. INTRODUCTION

Numerous scientific articles (e.g., Stigler 1970; Polinsky & Shavell, 2000; Dreher & Schneider, 2010; Achim 2017) were published to draw attention to the fact that corruption is not just a phenomenon negative from a moral perspective but rather to the fact that it hinders economic growth. Generally, many factors influencing economic development and corruption could take a toll on each. However, when observed through the lens of this research paper's topic, the more prominent factors could be foreign direct investment (in further text: FDI) and entrepreneurship, as explained by Achim (2017), Dreher & Schneider (2010), and Epaphra (2017). Of course, there are plenty of others, but for these two, the effect of corruption could arguably be the most obvious.

Many research papers propose the same idea – besides being morally wrong, corruption hinders economic growth ((e.g., Stigler 1970; Polinsky & Shavell 2000; Dreher & Schneider 2010; Achim 2017). However, the question remains: what actions are to be undertaken and would effectively stop corruption?

Inspired by the case of Singapore, which provided clear evidence that dealing with corruption is possible but takes dedication and time, the only question was whether this approach could be replicated. In other words, what are the fundamental determinants or measures that trigger lower corruption rates, and are high penalties the factor bearing the most impact?

In his work "Singapore's Success in Combating Corruption: Four Lessons for China," Jon Quah conducted an in-depth review of what worked for Singapore and why he believes this approach could be replicated, in this particular situation, in China. After providing a detailed review of all the laws, regulations, policies, and changes in Singapore, the ending remarks consisted of clear rules to follow. Those could also be deemed as the main pillars of corruption combatting, listed in a somewhat hierarchical order, are as follows (Quah J. 2016, 187-209):

- Political will is of critical importance.
- Having only one Anti-Corruption Authority (ACA) with a skilled and trained workforce and proper budgeting will always beat multiple ACAs.
- Enforcing the rules, regardless of an individual's status, is essential.
- Always solve the causes of corruption instead of exclusively following anti-corruption campaigns, which were proven ineffective over time.

Discussions regarding measures that could be put in place to increase compliance are very similar to those of reducing corruption. For instance, Newman et al. (2018) review the impact of tax knowledge on tax compliance among small and medium enterprises in a developing country. Authors turned their attention to examining whether education, more specifically, higher levels of tax knowledge, play an essential role in increasing compliance, again more specifically – tax compliance. This paper utilized mainly literature reviews and yielded exciting findings. Enhanced tax knowledge is not deemed enough to achieve the goal, at least not when high tax rates and corruption are not addressed. However, concluding remarks led authors to believe that introducing tax courses early on might positively encourage responsible individuals to act according to tax regulations. Politically unstable regimes, along with weak regulating institutions, will not directly influence compliance or corruption but will negatively affect judicial efficiency and regimes. This allows for an explicit assumption that any measures or regulations will be considered failures if the governing institutions display apparent inefficiency (Damania et al. 2004, 363-390).

The topic of combatting corruption with high penalties relies significantly on the enforcement of those penalties. This is a notion that was made evident through the case of Singapore. The question that naturally progresses is whether that is the only measure that effectively combats it in reality. On the other hand, the point of interest is determining whether high penalties affect lowering corruption rates.

Although there were many papers published (e.g., Becker 1968, Ehrlich 1996, Abay 2018, Marquette & Peiffer 2017) on the topic of how to prevent or at least start combating corruption and it could be argued that in the vast sea of those published works, there is no need for further research, given the fact that besides all that research, corruption holds a throne of an unconquerable systematic problem, provides enough proof that further research should be welcomed. This is where this paper analyses different factors that could potentially, individually or fused, provide a positive effect on lowering corruption rates in emerging markets. With that being said, this paper aims to combine the main findings from relevant research papers published on similar topics and define which actions seem to lead to lower corruption when approached from a broader perspective. These findings should be relevant for the business industry as corruption is recognized as one of the main factors that hinder economic development, i.e., economic growth.

To reach the objective of this research paper's topic, the research questions will be the following:

1. *RQ1: Do higher penalties lead to higher compliance (=lower corruption) in emerging markets?*
2. *RQ2: Can actions other than high penalties lead to higher compliance in emerging markets?*

The first research question directly targets discussing high penalties' influence on corruption rates. The latter challenges that topic and includes other actions that could be minor, equally, or even more influential in highly corrupt environments.

Relying on these research questions, in-depth research will be conducted, and hypotheses, discussed in more detail in section 3, shall be formed.

## **2. LITERATURE REVIEW**

The topics of corruption, compliance, and the relation between those two have been extensively studied over the last few decades. Based on those findings, further research has been done, and this section lays out the basis for additional exploration of the topic.

### **2.1. Compliance**

According to the Merriam-Webster dictionary, compliance is defined as the process of acting following desires, demands, proposals, or regimens as well as conforming in fulfillment of the official requirements (Merriam-Webster, 2022). The official definition of compliance is noticeably broad, which could arguably be relatively irrelevant when attempting to use it as a reference point or a basis for further research. However, even though arriving at a clear definition of the term compliance is near impossible, bearing in mind the versatility of the term and its applicability across different industries, pinpointing it to the business setting allows for an understandable depiction of its definition and scope.

For instance, Parker & Lehmann Nielsen (2011) reflected on two approaches to explaining and understanding compliance from the empirical research point of view. In this respect, one of the mainly used underlying theoretical models revolving around compliant behaviour in the business setting is the Objectivist Theory, which implies that human experience heavily relies on achieving the goal of pursuing personal happiness while respecting other humans.

The sources referenced in this paper have also enabled the general gathering of insights into compliance (Singh & Bussen, 2015), along with published works revolving around cases that dig deeper into the topic. One of those, for example, is a paper questioning whether the height of penalty for speeding correlates with an increase in compliant behaviour among individuals, which included a laboratory experiment that was supposed to reflect the field. In this case, researchers concluded that high uncertainty could lead to a lower probability of violating laws and, with that, higher compliance (DeAngelo & Charness 2012, 73-100).

A similar approach was undertaken by Abay & Kahsay (2018), which analyses the effect of traffic punishments in introducing high penalties and tests the effectiveness of implementing alternative instruments, especially ones that are not focused on the monetary aspect.

However, moving on from the papers that allow for a deeper understanding of the term compliance has led to exploring variables that could potentially influence compliant behaviour. In that regard, although the most

commonly mentioned topic concerning increasing compliance is the implementation of deterrence strategies, another often-recognized solution is introducing measures in connection with the police workforce. Numerous articles have covered the impact of police legitimacy, community policing, and even the introduction of body-worn cameras on compliant behaviour. Still, the results are mixed; some authors' research leads to the conclusion that there is a noticeable correlation between activities, including police involvement and increased compliant behaviour, but at the same time, other authors have concluded that the correlation between such variables is purely coincidental if it exists at all.

For example, Tankebe et al. (2016, 19) have researched the relationship between police legitimacy and the society's need to obey the police in the United States and Ghana. This paper is fascinating because it clearly shows the difference between developed and developing markets, particularly when it comes to the topic of police legitimacy and compliance. Through their research, the authors of this paper concluded that, in both countries, the association between police legitimacy and the general public's willingness to obey the police exists. However, the authors made somewhat of a distinction between willingness to obey and cooperate. In this regard, the association between the two researched variables is more evident in the United States, where the obligation to obey was closely intertwined with a willingness to cooperate. In Ghana, those two were not so closely affiliated. Besides that, the research outcome led to an undeniable deduction that the tested variables positively relate to one another.

Following up on a similar note, Tankebe (2019, 1403-1405) analysed the correlation between police legitimacy and willingness to cooperate in reporting corruption in Ghana. In this paper, the author relied on theoretical models of deterrence and collective action theories. The outcome of this research has proven the importance and valid applicability of both theoretical models. On the one hand, the author has proven that the deterrence model shapes an individual's willingness to cooperate. In contrast, the status of willingness itself is highly dependent on variables such as certainty of detection or severity of the punishment. On the other hand, the author has recognized the applicability of the collective action theory in that individuals are willing to cooperate based on their belief that other community members are willing to cooperate to the same extent.

Contrary to the abovementioned articles, Mendel et al. (2017, 11-12) examined the correlation between how the size of the police workforce might influence criminal behaviour. The study's results were mixed in that it was determined that the correlation between those two variables does exist. However, the risks of mergers are significantly high, implying that this might not always be a viable model to opt for. The authors mentioned that risks include loss of competence, disrupted relationships within the departments, and high costs of changes.

Since this aspect of the paper revolves around finding a correlation between the height of penalty for corruption and compliance, the underlying theoretical model is deterrence theory. This concept is not, by any means, new but

was introduced in the 18<sup>th</sup> century (DeAngelo & Charness, 2012, p. 74). Several authors set the beginnings and hence foundations of the deterrence model through published works on topics such as the economic approach to crime and punishment (Becker 1968, pp. 169-217), what the optimal enforcement of law holds (Stigler 1970, 526-536) or simply about the crime, punishment, and offenses (Ehrlich 1996, 43-67). Over time, the model was improved but pretty much held the main thought intact – the perceived properties of any punishment might deter a possible offender's decision to commit a particular offense.

As previously stated, analysing compliance from the business environment point of view allows for a clear understanding of all determinants affecting compliance.

The Objectivist Theory will be used as the underlying model to frame compliance comprehensibly, as it simply implies that human experience, altogether, heavily relies on achieving the goal of pursuing personal happiness while respecting other humans. This approach is shown in Figure 1.

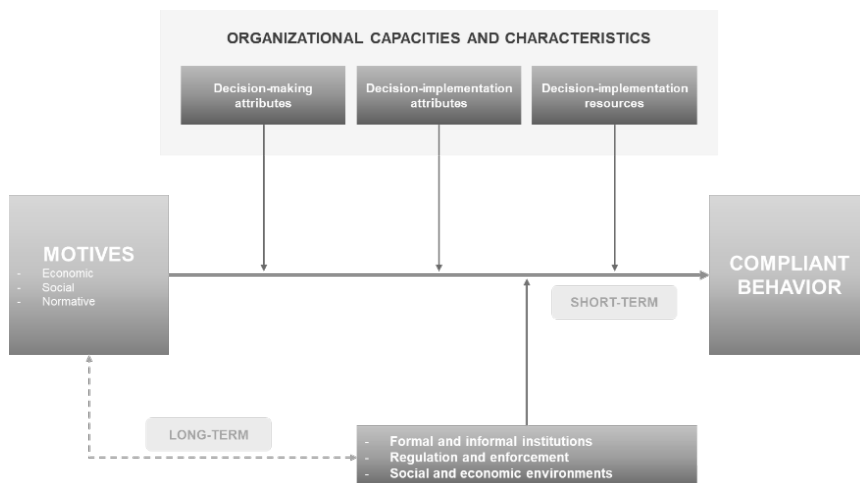


Figure 1 Holistic and Plural Model of Business Compliance

Source: (Parker & Lehmann Nielsen 2011, 5)

The authors suggested four main factors that help shape the explanation of compliance in the business industry – motives, organizational capacities and characteristics, regulation and enforcement, and social and economic environments. When other internal factors, such as regulation and enforcement, or other external factors, such as formal institutions and environment, are added to the equation, it is most likely that the effects will be long-lasting. In general, this model explains the variables that influence compliance and how to utilize this understanding for the conceptualization and application of specific measures

aiming to increase compliance. By introducing and applying the Objectivist Theory to this setting, it is possible to understand why each variable was brought into the equation. Motives, for starters, are understood as three-fold: economic, social, and normative. Economic or material motives tend to demonstrate the degree to which organizations are devoted to maximizing their economic state. Social motives demonstrate the degree to which organizations are committed to gaining respect or approval from other relevant players. Although some theorists gravitate toward blending economic and social motives, the authors believe that the need for social acceptance and approval sometimes might be more substantial than the desire to maximize profits. So some companies might also agree to bear economic losses to gain respect. Finally, normative motives lean into explaining the degree to which organizations are willing to obey set regulations just for the sake of it being morally wrong not to. These motives could, however, yield higher compliance exclusively if the organization has the proper means for achieving this increase. These means are constituted of having proper resources – both economic and labour, technical expertise, and many more. On the other hand, the organization's internal setup that focuses on the enforcement of the measures set in place to increase compliance, along with external factors, all contribute to reaching the success story (Parker & Lehmann Nielsen 2011, 9-25).

To conclude, internal motives, whatever they might be, do work in favour of increasing compliance in any organization. However, other factors such as organizational capacities and characteristics or other internal and external influences allow for better success. The main differentiating point between the influential factors is how compliance will be followed through. When adding the organizational capacities and characteristics to the motives as the means for achieving compliance, the results will be short-term. When other internal factors, such as regulation and enforcement, or other external factors, such as formal institutions and environment, are added to the equation, it is most likely that the effects will be long-lasting.

Discussions regarding measures that could be put in place to increase compliance are very similar to those of reducing corruption. This is why one of the most common topics when addressing compliance is deterrence theory, further discussed in the upcoming parts.

Some of the most prominent cases of analysing what could be done to increase compliance are concluded by researching tax compliance. For instance, Newman et al. (2018, 1-12) turned their attention to examining whether education, more specific – higher levels of tax knowledge, play an essential role in increasing compliance, again more specific – tax compliance. This paper utilized mainly literature reviews and yielded exciting findings. Enhanced tax knowledge is not deemed enough to achieve the goal, at least not when high tax rates and corruption are not addressed. However, concluding remarks led the authors to believe that introducing tax courses early on might positively encourage responsible individuals to act according to tax regulations.

Several other authors introduced a similar topic. In such papers, the focus was on tax compliance and understanding the motives behind non-compliant behaviour among taxpayers. Although the core topic is almost the same, the findings of this study lead to the conclusion that having an effective government in place, transparent tax systems, voice and accountability are the deciding factors when it comes to increased compliance (Nkundabanyanga et al. 2017, 931-957).

Other published works, however, relied on analysing the measures set in place to increase compliance but failed in doing so. Cross-country analysis allowed the authors of this article to draw conclusions and predictions. The end is that politically unstable regimes and weak regulating institutions will not directly influence compliance or corruption but will negatively affect judicial efficiency and regimes. This allows for an explicit assumption that any measures or regulations will be considered failures if the governing institutions display apparent inefficiency (Damania et al. 2004, 363-390).

## 2.2. Research gap

To explain why researching this particular topic holds scientific relevance, the recognized research gap will be discussed in this section. The research gap is whether imposing high penalties for committed offenses such as public corruption could be considered a plausible option for increasing levels of compliant behaviour or whether introducing other actions would help emerging markets reach that goal.

Polinsky and Shavell (2000, 73) listed several limitations of their published paper. Among them, one, in particular, is relevant for this paper – when analysing deterrence, the authors suggested conducting empirical analysis on law enforcement to unravel the deterrent effects of sanctions. According to them, this research should primarily be conducted in cases where the sanction for a committed offense is imprisonment, in which case effects of deterrence and imprisonment could be distinguished.

Picture and Riahi-Belkaoui (2006, 179) also defined their work's limitations. The one in which this paper fits in is finding a correlation between corruption and compliance in terms of analysing countries with differences on a cultural basis, i.e., cultural differences regarding corruption.

Mendel et al. (2017, 9) have mentioned the limitations of their research paper. They have emphasized the lack of literature analysing the relationship between increasing police workforce size and specific outcomes such as greater efficiency.

Since this aspect of the paper revolves around finding a correlation between the height of penalty for corruption and compliance, the underlying theoretical model is deterrence theory. This concept is not, by any means, new but was introduced in the 18th century (DeAngelo & Charness 2012, 74).

Several authors set the beginnings and hence foundations of the deterrence model through published works on topics such as the economic approach to crime



and punishment (Becker 1968, 169-217), what the optimal enforcement of law holds (Stigler 1970, 526-536) or simply about the crime, punishment, and offenses (Ehrlich 1996, 43-67). Over time, the model was improved but pretty much held the main thought intact – the perceived properties of any punishment might deter a possible offender's decision to commit a particular offense.

Continuing the deterrence model's applicability in analysing the correlation between penalties and compliance, Tankebe (2019, 1394-1396) outlines how deterrence can be perceived as an applicable model for testing the correlation between perceived penalties and compliance. He states that the severity of punishment, among other factors, is proven to be influential in one's decision-making process. The author also further elaborates, along with the severity of punishment, that certainty of detection positively influences compliance because it reduces the number of corrupt transactions occurring. This paper is just one more addition to the vast sea of published articles drawing a concrete line between the deterrence model and corruption or the deterrence model and compliance.

Usually, deterrence can be perceived from many different points of view. First, it can be analysed through both positive and negative incentives. On the other hand, it is possible to observe deterrence through differences in penalties in terms of whether the penalty in question is a fine or imprisonment. Finally, deterrence can either be influenced by the height of the penalty for a crime or the uncertainty about the penalty being imposed for that same crime (Polinsky & Shavell 2000, 52-57)

Another proof that the deterrence model finds its applicability in the context of examining the correlation between high penalties and compliance is a paper by Peltier-Rivest (2018, 553-559). In this article, the author explains what the corruption prevention model, according to his research, could be. The author clearly states that some effective deterrent measures would be laws and regulations prohibiting bribery and corruption and the fear of fines and criminal rulings. Peltier-Rivest has also stated that although increasing punishment might have a limited effect on increased compliance, increased perception of detection in fear of detection would most likely be enough to deter individuals from corrupt behaviour.

Contrary to the previously listed articles, some resources state that high penalties are not an effective deterrent measure. This is mainly based on the fact that this measure is perceived as being counterintuitive. Instead of lowering corruption, it lowers the regular audits, and either has no impact on corruption rates or increases corrupt behaviour in the worst scenario. Zhu (2012, 25-27) draws attention to the importance of enforcement of anti-corruption laws, including high penalties. The case of China demonstrates this notion very clearly by appointing a life sentence for committing corruption, but it remains one of the most corrupt countries. This example highlights the non-existent clear correlation between high penalties and low corruption levels and points to the relevance of proper law enforcement structures.

Similarly, Tan (2018, 492-493) draws comparable conclusions. Compared to the previously analysed article, which had its main focal point in corruption, this

article discusses the impact of high penalties as a deterring measure for money-laundering transactions. The article's author came to the before-stated conclusion based on the findings that not all violators are committing the offense grounded in a rational decision-making process but rather due to 'delusional optimism' or 'intuition,' where both factors, in turn, weaken the deterrent effects. Another critical observation in this article is the lack of proper and fair enforcement of the punishments, which also negatively influences the impact of deterrence and, much like in the previous example, weakens it ultimately.

However, exploring the interconnectedness of the variables of high penalties as a form of punishment for corrupt behaviour and compliance as a form of lower corruption rates has found its base in the deterrence model across many publications. As a result, this paper will also be built upon the assumption that individuals will be deterred from engaging in corrupt activities by introducing high penalties.

The applied theoretical model is collective action theory for further analysis of the correlation between other actions and compliance. The model was first developed by Olson (1965). The central argument of the collective action theory lies in the assumption that due to a free-rider problem, the interests of the minority will be disproportionately represented compared to those of the majority. These effects become more evident the more significant the group is. Put in simplest terms, if the community were only to award active members, the free-rider problem would be less likely to happen, while in bigger groups, less active members tend to bear the benefits of the more active ones.

Although the theory, after its introduction, found its application in various fields, studies that correlate this model with corruption became more prominent over time. It emerged almost despite the principal-agent theory, the most commonly used model for explaining corruption. After corruption was recognized as a social issue, using the principal-agent model exclusively was not a viable option, regardless of its undeniable applicability. In this article, the authors mentioned how in the application of either the principal-agent model or collective action theory, the most crucial factor is always omitted, and that is the fact that corruption, in many ways, poses a solution to many problems of the people, especially those found living in countries with weak governmental institutions (Marquette & Peiffer 2015, 2-7).

Marquette and Peiffer (2017, 509-510) have again drawn readers' attention to the fact that the two models in question – principal-agent theory and collective action theory, are not conflicted regarding understanding and helping with determining proper anti-corruption measures but are rather complementing each other. However, this time, the principal-agent theory was highlighted as a continuously misinterpreted model, and the conclusive remarks of the article, in general, led to the conclusion that the collective-action model cannot be a universally applied underlying theoretical model for exploring corruption.

An exciting twist to the previous article was a response by Persson et al. (2019). They criticized the former authors for what they called the aversion against

the collective action theory. Authors have reiterated the concept (Persson et al. 2019) and have listed numerous oversights in implementing the principal-agent theory advocated in the paper of Marquette and Peiffer. These include: perceiving corruption as a solution to anyone's problems because this concept is not viable in the long term, missing the point that the principal-agent model is not applicable in terms of systemic corruption, as well as the fact that the probability of implementation of anti-corruption reforms, under principal-agent theory, is extremely low because those who would be expected to implement it are usually those who are corrupt, i.e., those who benefit from corruption the most.

Tankebe (2019, 1399-1405) has also discussed how collective action theory serves as an excellent underlying model for research on corruption. The author tested the models that can be used as a model to be followed when the end goal is reducing corruption and, in this regard, has recognized collective action theory as something that will undeniably yield positive outcomes. He stated that willingness to cooperate with the police depends on many factors, out of which one is, simply put, the perception of one individual within a specific community that every other community member will also be willing to cooperate, leaving that individual not wanting to risk acting differently. This paper is one of many proofs of the fact that herd mentality plays a significant role in breaking commonly accepted issues.

Finally, as the principal agency fails to completely comprehend the issue of corruption as there are no principled principals, and there is a clear understanding that combatting corruption calls for a collective and coordinated approach, using the adapted version of the collective action theory might help with understanding what those actions could potentially be so that the fight against corruption becomes more achievable.

What, in the end, drives the decision to choose collective action theory as the underlying model for testing out the correlation between other actions and compliance are the findings from conducted literature research. 'Other actions' in question are those to be undertaken to try to realize a serene environment – educating to raise awareness of the fact that corruption is not something that should be normalized and a part of daily life, increasing wages so that corruption is not perceived as a mean for affording a stable life and increasing the size of police workforce so that every single society member is held accountable. All of these, when implemented correctly, would imply that combatting corruption starts with basics and can only happen when every single individual is involved.

### **3. METHODOLOGY**

The countries analysed are those from the MSCI classification published in 2020. The data collected refer to 2020.

The two hypotheses, accompanied by the null hypothesis, are directly derived from the two research questions discussed previously in this paper. The hypotheses are:

- *H1: Higher penalties lead to higher compliance in Emerging Markets.*
  - *H1<sub>0</sub>: Higher penalties do not lead to higher compliance in Emerging Markets.*
- *H2: Actions other than higher penalties also lead to higher compliance in Emerging Markets.*
  - *H2<sub>0</sub>: Actions other than higher penalties do not lead to higher compliance in Emerging Markets.*

To create a proper approach, the conceptualization of it will consist of two parts. One revolves around researching and analysing the correlation between the severity of penalties and compliance, while the other focuses on the correlation between other actions and compliance. In both cases, compliance is operationalized through corruption in the public sector.

The first hypothesis considers the following:

- The severity of penalties will be analysed through collected data on anti-corruption laws and regulations across countries from the target group. To arrive at quantifiable results, the duration of imprisonment assigned to engaging in corrupt behaviour across the countries from the target group will be the penalty considered.
- Compliance will be measured by collecting data on the target group's Corruption Perception Index (CPI) scores of countries.
- Collected data will be sorted and ranked, and the correlation test will be conducted using Spearman's Rank Correlation Test.
- The second part considers the following:
- Previously completed literature research has led to measuring other actions in three subcategories – size of the police workforce, height of salaries of government officials, and education index.
- Compliance will again be measured by collecting data on the CPI scores of countries from the target group.

Collected data for all three subcategories will be separately sorted and ranked, and the correlation tests will once more be conducted using Spearman's Rank Correlation Test.

This implies that the independent variables would be the severity of penalties on one hand and other actions on the other, which should influence the dependent variable – compliance. The illustration of the conceptual framework is to be found in Figure 2: Conceptual Framework Illustration below.

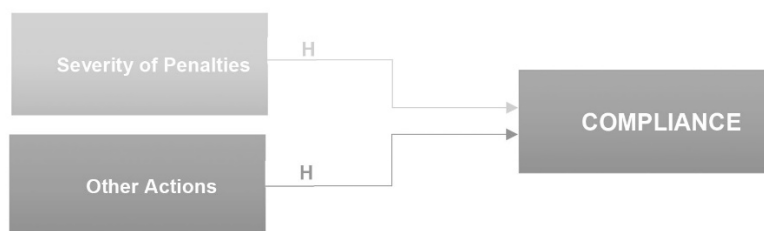


Figure 2 Conceptual Framework Illustration

Source: Own construction of the authors

The correlation between different variables in the setting of emerging markets is tested out on the target group of 27 countries, i.e., markets classified as emerging ones according to the MSCI classification published in 2022 (MSCI, 2022): Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Kuwait, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Qatar, Russia, Saudi Arabia, South Africa, South Korea, Taiwan, Thailand, Turkey, and United Arab Emirates.

To arrive at relevant research results, the measures for each variable needed to be determined:

1. Compliance will be measured by the CPI scores of countries from the target group. The CPI score is published by the organization Transparency International and deals with the issue of corruption. The CPI score can range from 0 to 100, and it determines the level of corruption in each country – the closer the country is to 0, the levels of corruption are higher, and the closer the country is to 100, the levels of corruption are lower (Transparency International, 2022). Scores for all countries in the sample group were derived from this source.
2. The severity of the penalty will be measured by collecting data on anti-corruption laws and regulations for committing public corruption in countries from the sample group and ranking it. Each country from the target group was graded and awarded “points” based on the total sum of the average value and all additions to the penalties. The higher the sum, the higher the penalty. Finally, all countries were ranked based on their sum of points. Countries with the highest penalties are those whose ranking is closest to the value 1.
3. Other actions will include researching the size of the police workforce, government, and defence average monthly salaries, and education index in all countries from the target group. The size of the Police Workforce is taken from each country's official Interpol webpage and expressed in terms of coverage per 100,000 people (Interpol, 2022).

4. Government and Defence Average Monthly Salaries will be considered by displaying the average monthly salaries of government officials, expressed in USD. Specifically, average salaries for the job title 'Federal Government Worker' will be considered for the analysis (SalaryExplorer, 2022).
5. Education Index is calculated in terms of mean years and expected years of schooling. In the case of this paper, the inequality-adjusted education index will be taken into consideration (UNDP, 2021).

After the data is collected for all twenty-seven countries for the sample group, their CPI scores will be recorded and ranked (from lowest to highest) to determine levels of compliance in each country. After that, the same process will be completed for the variable height of penalty and other actions. Finally, all data will be ranked. Spearman's correlation ranking test will be used as the underlying statistical model to determine whether a positive correlation exists between those variables (height of penalty – compliance; other actions – compliance).

Because in this paper, corruption is the offense in question and monetary penalties are most probably dependent on the severity of the committed offense, research will be conducted based on the imprisonment duration for each country in the sample group.

## 4. RESULTS

Spearman's Rank Correlation Test will be conducted to test the correlation between two sets of variables. This test is a non-parametric statistical test that analyses the strength at which two separate variables correlate. There are two main possibilities for calculating correlation via Spearman's Ranking Test:  $R_s$  value and a probability ( $p$ ) value (Barcelona Field Studies Centre, 2022).

To calculate the correlation between CPI ranks and the variable height of penalty, the first needed to be done is to quantify the data from the heights of penalties for corruption in countries from the target group. This was completed to be able to define the ranking of each country from the target group. The process of quantifying collected data on heights of penalties and CPI scores went as follows:

- The imprisonment duration expressed in years was recalculated into months. In the cases where the penalty was formulated as "up to X years" in the text or "<X years" in the summarized table, one month was used as the minimum value. On the other hand, in the case of countries appointing life imprisonment, 100 years, i.e., 1200 months, was calculated.
- To determine a single value of the imprisonment duration, the average of the minimal and maximal duration was calculated for each respective country.
- Additions to the penalty, such as fines, disqualifications, property losses, or confiscations, were added as 1 = included in the penalty and 0 = not in the penalty. The reasoning behind appointing only 1 point to penalties, fines, disqualification, and property loss or confiscation is that regardless

of how many points were assigned to each penalty, the total points would change equally. Furthermore, deciding to value one of those three types of penalties more than the other was avoided to refrain from introducing personal biases. What is meant by that is that the value of each penalty is perceived differently from one individual to another. Depending on the situation in which fined individual is found in a particular moment, they could perceive fines as worse compared to disqualification or property loss. In contrast, another individual could perceive property loss as the worst punishment for a crime. Exactly that led to the decision to take a 'binary' route and appoint 1 point to the penalty if it exists and 0 points if it does not exist.

- Each country from the target group was graded and awarded “points” based on the total sum of the average value and all additions to the penalties. The higher the sum, the higher the penalty.
- Finally, all countries were ranked based on their sum of points. Countries with the highest penalties are those whose ranking is closest to the value 1.

The outcome of this calculation is shown in Table 1.

Table 1

## Height of Penalty Ranking

COUNTRY		IMPRISONMENT DURATION (mths)		AVG <sup>1</sup>	FINE	DIS	PROPERTY LOSS/ CONF.	SUM OF POINTS	RANKING
		MIN	MAX						
1	Argentina	1	72	36,5	0	1	0	37,5	21
2	Brazil	1	96	48,5	1	0	0	49,5	19
3	Chile	1	60	30,5	1	0	0	31,5	25
4	China	1	120	60,5	1	0	0	61,5	16,5
5	Colombia	108	180	144	1	0	0	145	3
6	Czech Republic	1	144	72,5	1	1	1	75,5	12
7	Egypt	1	36	18,5	1	1	0	20,5	27
8	Greece	60	180	120	1	0	0	121	5,5
9	Hungary	1	120	60,5	0	0	0	60,5	18
10	India	6	60	33	1	0	0	34	23
11	Indonesia	12	60	36	1	0	0	37	22
12	Kuwait	1	120	60,5	1	0	0	61,5	16,5
13	Malaysia	1	240	120,5	1	0	0	121,5	4
14	Mexico	1	168	84,5	1	1	0	86,5	10
15	Pakistan	1	84	42,5	1	0	0	43,5	20
16	Peru	1	180	90,5	1	1	0	92,5	9
17	Philippines	96	144	120	1	0	0	121	5,5
18	Poland	6	144	75	1	0	0	76	11
19	Qatar	1	120	60,5	1	1	0	62,5	14
20	Russia	84	144	114	1	1	0	116	7
21	Saudi Arabia	1	120	60,5	1	1	0	62,5	14
22	South Africa	1	1200	600,5	1	0	0	601,5	1,5
23	South Korea	1	120	60,5	1	1	0	62,5	14
24	Taiwan	1	1200	600,5	1	0	0	601,5	1,5
25	Thailand	1	60	30,5	1	0	0	31,5	25
26	Turkey	48	144	96	0	1	0	97	8
27	UAE	1	60	30,5	0	0	1	31,5	25

From the table, it is understandable that South Africa and Taiwan are the countries with the highest ranking due to countries' anti-corruption legislation that penalizes corruption with life imprisonment and a fine in both cases. Likewise, the country with the lowest ranking is Egypt, where anti-corruption law penalizes corruption with imprisonment of up to three years, a fine, and a disqualification.

What followed is combining the data of CPI Scores and Height of Penalty Scores and ranking them. The combined data is seen in Table 2.

<sup>1</sup> Average imprisonment duration



Table 2

## Ranking of countries according to CPI Scores and Height of Penalty Scores

COUNTRY		CPI SCORE	RANKING	HEIGHT OF PENALTY	RANKING	D <sup>2</sup> (Squared difference between ranks)
1	Argentina	42	14	37,5	21	49
2	Brazil	38	19,5	49,5	19	0,25
3	Chile	67	2	31,5	25	529
4	China	42	14	61,5	16,5	6,25
5	Colombia	39	18	145	3	225
6	Czech Republic	54	7	75,5	12	25
7	Egypt	33	24	20,5	27	9
8	Greece	50	10	121	5,5	20,25
9	Hungary	44	11,5	60,5	18	42,25
10	India	40	16,5	34	23	42,25
11	Indonesia	37	21	37	22	1
12	Kuwait	42	14	61,5	16,5	6,25
13	Malaysia	51	9	121,5	4	25
14	Mexico	31	25,5	86,5	10	240,25
15	Pakistan	31	25,5	43,5	20	30,25
16	Peru	38	19,5	92,5	9	110,25
17	Philippines	34	23	121	5,5	306,25
18	Poland	56	6	76	11	25
19	Qatar	63	4	62,5	14	100
20	Russia	30	27	116	7	400
21	Saudi Arabia	53	8	62,5	14	36
22	South Africa	44	11,5	601,5	1,5	100
23	South Korea	61	5	62,5	14	81
24	Taiwan	65	3	601,5	1,5	2,25
25	Thailand	36	22	31,5	25	9
26	Turkey	40	16,5	97	8	72,25
27	UAE	71	1	31,5	25	576
D <sup>2</sup> SUM:						3069

In the case of testing the correlation between CPI scores and height of penalty, the following values were obtained:

Spearman Ranking Test:  $R_s$

$$\begin{array}{ll} 6\sum D^2 & 18414 \\ N(N^2-1) & 19656 \\ R & 0,063186813 \end{array}$$

Spearman Ranking Test: p-value

$$\begin{array}{ll} \text{Coefficient} & 0,060462275 \\ N & 27 \\ T \text{ Statistic} & 0,302865472 \\ DF & 25 \\ p \text{ Value} & 0,764498199 \end{array}$$

The rounded value of  $R_s$  is 0.06, which puts it on a scale between 0.00 and 0.19, implying that the correlation is very weak. The rounded value of p is 0.76,

which puts it on a scale of >0.1, implying that the correlation is weak to none. Based on calculated  $R_s$  and p values, it has been deduced that the correlation between CPI scores and the height of penalties is very weak.

As done in the previous case and again to test the correlation between the variables CPI score and size of the police workforce, collected data on the countries from the target group had to be combined in one table. In addition, data for the three countries were not available. These countries are Egypt, Saudi Arabia, and the United Arab Emirates. Due to data on the size of the police workforce not being available, they are excluded from the ranking table and correlation testing. Nonetheless, the remaining 24 countries displayed enough variability for excluding the three countries not to play a significant role in the final calculation. The combined data is seen in Table 3.

Table 3

Ranking of countries according to CPI score and size of the police workforce

COUNTRY	CPI SCORE	RANKING	POLICE WORKFORCE	RANKING	D <sup>2</sup> (Squared difference between ranks)	
1	Argentina	42	12	558	1	121
2	Brazil	38	17,5	282	15,5	4
3	Chile	67	1	282	15,5	210,25
4	China	42	12	120	24	144
5	Colombia	39	16	323	13	9
6	Czech Republic	54	6	385	7	1
7	Greece	50	8	452	5	9
8	Hungary	44	9,5	333	12	6,25
9	India	40	14,5	130	23	72,25
10	Indonesia	37	19	243	19	0
11	Kuwait	42	12	504	4	64
12	Malaysia	51	7	370	8	1
13	Mexico	31	22,5	366	9	182,25
14	Pakistan	31	22,5	207	20	6,25
15	Peru	38	17,5	352	10	56,25
16	Philippines	34	21	138	22	1
17	Poland	56	5	261	18	169
18	Qatar	63	3	435	6	9
19	Russia	30	24	546	2	484
20	South Africa	44	9,5	317	14	20,25
21	South Korea	61	4	195	21	289
22	Taiwan	65	2	273	17	225
23	Thailand	36	20	344	11	81
24	Turkey	40	15,5	538	3	156,25
D <sup>2</sup> SUM:					2321	

In the case of testing the correlation between CPI scores and height of penalty, the following values were obtained:

$$\begin{aligned}
 &\text{Spearman Ranking Test: } R_s \\
 &6\sum D^2 \qquad 13926 \\
 &N(N^2-1) \qquad 13800 \\
 &R \qquad -0,009130435
 \end{aligned}$$

## Spearman Ranking Test: p-value

Coefficient	-0,008911269
N	24
T Statistic	0,041799218
DF	22
p Value	0,967035799

The rounded value of  $R_s$  is -0.01, which puts it on a scale between 0.00 and 0.19, implying that the correlation is very weak. The rounded value of  $p$  is 0.97, which puts it on a scale of  $>0.1$ , implying that the correlation is weak to none. Based on calculated  $R_s$  and  $p$  values, it has been deduced that the correlation between CPI scores and the size of the police workforce is very weak.

To test the correlation between the variables CPI score and the height of government officials' salaries, collected data on the countries from the target group was combined. The combined data is seen in Table 4.

Table 4

Ranking of countries according to CPI score and the height of government officials' salaries

COUNTRY	CPI SCORE	RANKING	HEIGHT OF SALARY	RANKING	D <sup>2</sup> (Squared difference between ranks)	
1	Argentina	42	14	427,6	26	144
2	Brazil	38	19,5	1559,14	15	20,25
3	Chile	67	2	2204,12	11	81
4	China	42	14	4226,5	3	121
5	Colombia	39	18	1221,73	20	4
6	Czech Republic	54	7	2478,91	9	4
7	Egypt	33	24	590,04	24	0
8	Greece	50	10	2380,19	10	0
9	Hungary	44	11,5	1320,18	18	42,25
10	India	40	16,5	382,76	27	110,25
11	Indonesia	37	21	779,45	22	1
12	Kuwait	42	14	3854,95	4	100
13	Malaysia	51	9	1475,18	17	64
14	Mexico	31	25,5	1532,41	16	90,25
15	Pakistan	31	25,5	448,38	25	0,25
16	Peru	38	19,5	1612,73	14	30,25
17	Philippines	34	23	777,33	23	0
18	Poland	56	6	1678,11	13	49
19	Qatar	63	4	3817,63	5	1
20	Russia	30	27	1269,82	19	64
21	Saudi Arabia	53	8	3679,28	6	4
22	South Africa	44	11,5	1943,32	12	0,25
23	South Korea	61	5	2969,6	7	4
24	Taiwan	65	3	4239,16	2	1
25	Thailand	36	22	2706,15	8	196
26	Turkey	40	16,5	799,28	21	20,25
27	UAE	71	1	4900,36	1	0
D <sup>2</sup> SUM:					1152	

In the case of testing the correlation between CPI scores and height of penalty, the following values were obtained:

Spearman Ranking Test:  $R_s$

$6\sum D^2$	1176
$N(N^2-1)$	13800
R	0,914782609

Spearman Ranking Test: p-value

Coefficient	0,647922245
N	27
T Statistic	4,253096565
DF	25
p Value	0,000258068

The rounded value of  $R_s$  is 0.91, which puts it on a scale between 0.90 and 1.00, implying that the correlation is robust. The rounded value of p is 0.00, which puts it on a scale of  $<0.01$ , implying that the correlation is robust. Based on calculated  $R_s$  and p values, it has been deduced that the correlation between CPI scores and the height of government officials' salaries is robust.

Collected data on the countries from the target group was used to test the correlation between the variables CPI score and education index. Similar to the part where CPI ranks and the size of the police workforce were tested, one country had N/A, meaning not available or not applicable. This country is Taiwan, and due to unavailable data on the education index, it is not included in the ranking table or correlation testing. Still, the remaining 26 countries displayed enough variability so that the exclusion of Taiwan did not significantly alter the outcome. The combined data is seen in Table 5.

Table 5

## Ranking of countries according to CPI score and education index

COUNTRY	CPI SCORE	RANKING	EDUCATION INDEX	RANKING	D <sup>2</sup> (Squared difference between ranks)	
1	Argentina	42	13	0,804	3	100
2	Brazil	38	18,5	0,547	21	6,25
3	Chile	67	2	0,726	8	36
4	China	42	13	0,58	17	16
5	Colombia	39	17	0,555	20	9
6	Czech Republic	54	6	0,878	1	25
7	Egypt	33	23	0,383	24	1
8	Greece	50	9	0,755	7	4
9	Hungary	44	10,5	0,796	4	42,25
10	India	40	15,5	0,34	25	90,25
11	Indonesia	37	20	0,52	22	4
12	Kuwait	42	13	0,497	23	100
13	Malaysia	51	8	0,638	11	9
14	Mexico	31	24,5	0,574	18	42,25
15	Pakistan	31	24,5	0,227	26	2,25
16	Peru	38	18,5	0,614	12	42,25
17	Philippines	34	22	0,61	14	64
18	Poland	56	5	0,826	2	9
19	Qatar	63	3	0,581	16	169
20	Russia	30	26	0,789	5,5	420,25
21	Saudi Arabia	53	7	0,647	10	9
22	South Africa	44	10,5	0,599	15	20,25
23	South Korea	61	4	0,789	5,5	2,25
24	Thailand	36	21	0,557	19	4
25	Turkey	40	15,5	0,611	13	6,25
26	UAE	71	1	0,656	9	64
D <sup>2</sup> SUM:					1297,5	

In the case of testing the correlation between CPI scores and height of penalty, the following values were obtained:

Spearman Ranking Test:  $R_s$

$$\begin{aligned} 6\sum D^2 &= 37,5 \\ N(N^2-1) &= 13800 \\ R &= 0,997282609 \end{aligned}$$

Spearman Ranking Test: p-value

$$\begin{aligned} \text{Coefficient} &= 0,555727158 \\ N &= 26 \\ T \text{ Statistic} &= 3,274731086 \\ DF &= 24 \\ p \text{ Value} &= 0,003203286 \end{aligned}$$

The rounded value of  $R_s$  is 0.99, which puts it on a scale between 0.90 and 1.00, implying that the correlation is robust. The rounded value of p is 0.00, which

puts it on a scale of  $<0.01$ , implying that the correlation is robust. Based on calculated  $R_s$  and  $p$  values, it has been deduced that the correlation between CPI scores and the education index is robust.

## 5. DISCUSSION

The first hypothesis was formed based on the first research question of whether higher penalties lead to higher compliance, meaning lower corruption in emerging markets. Therefore, hypothesis number one was that higher penalties lead to higher compliance in emerging markets, while its accompanying null hypothesis was that higher penalties do not lead to higher compliance in emerging markets.

Quantitative empirical research explicitly testing the correlation between high penalties and compliance has concluded that the correlation between those two variables is very weak. This implies that the first hypothesis is disproved, and, in turn, the accompanying null hypothesis is accepted. Research on the correlation has backed the statement that higher penalties do not lead to higher compliance in emerging markets.

This outcome is highly consistent with the recent findings in the published articles on the impact of high penalties on lowering criminal behaviour, i.e., lower engagement in corrupt activities triggering lower corruption rates. Specifically mentioned in the literature research, authors Zhu (2012) and Tan (2018) have assumed precisely this outcome in two separately published articles. As mentioned, Zhu (2012) has addressed the issue of not finding a correlation between high penalties, mainly due to flawed enforcement systems. This could also hold relevance in this case, especially looking at the example of South Africa, according to the country's penal code, which appointed a life sentence for being involved in corrupt transactions or activities. Although the penalty, in terms of duration of imprisonment, is the highest possible, the country remains high in scale. Although it is somewhat difficult to believe that the threat of life imprisonment has almost no effect on the probability that one individual will decide to engage in corrupt activities, quantitative empirical research points out otherwise, which leaves much room for remaining doubtful of the proper enforcement of the punishments. However, on the other hand, Tan (2018) reflects on the case of Singapore's anti-money laundering incentives and, even here, does not recognize high penalties as a viable solution to deterring criminal activities. Even though the authors were led to a similar conclusion as Zhu (2012) made in her paper, the reasoning behind the final judgment leaned more into the psychology of violating laws. In this case, it was stated that those who violate laws are most commonly not acting purely relying on rational deduction but rather are acting on somewhat of an impulse. This is an exciting notion, although not easily tested. Regardless of the motive, this paper has once again theoretically proved that there could not be a clear line drawn between the introduction of high penalties as a deterrent measure and decreased corruption and, respectively, increased compliance.

Discussing the deterrence model as an underlying theory of this concept, it still cannot be disregarded entirely due to the lack of understanding of the clear cause behind the rejected hypothesis. If enforcement were to be the cause and the main issue, the deterrence model would remain accurate. It could be deduced that the feasible anti-corruption strategy is implementing deterrent measures. However, relying solely on the data obtained during the data collection process, this model needs to be ruled out when discussing the implementation of effective anti-corruption measures, implying that the findings of this paper are inconsistent with findings by authors such as Tankebe (2019) or Polinsky and Shavell (2000).

The second hypothesis was formed based on the second research question of whether actions other than high penalties also lead to higher compliance in emerging markets. Accordingly, hypothesis two was that actions other than higher penalties also lead to higher compliance in emerging markets. Its accompanying null hypothesis was that actions other than higher penalties do not lead to higher compliance in emerging markets.

Quantitative empirical research for the second hypothesis was conducted in three parts: testing the correlation between compliance against three variables – size of the police workforce, height of government officials' salaries, and education index.

Starting with the correlation between the size of the police workforce and compliance, quantitative empirical research concluded that the correlation between those two variables is very weak. Much like in the case of hypothesis number one, it is still technically unclear what causes led to the complete disproof of the existence of a correlation between these two variables. Whatever the causes, the findings are inconsistent with the authors Tankebe et al. (2016) and Mendel et al. (2017). As the first point, the main distinction lies in the fact that the size of the police workforce cannot be equal to police legitimacy – the variable in question in both cited papers. Furthermore, both sets of authors have recognized the positive impact of changes in the police workforce on corruption, while this paper has led to quite the opposite conclusion. This is most easily visible in the example of Chile, which has the most significant policy coverage out of all countries from the target group while still being high on the scale regarding how corrupt the country is.

The second tested correlation was between the heights of government officials' salaries. Empirical research on this topic has led to the conclusion that the correlation between the two tested variables is robust, which is highly consistent with the literature mentioned in the previous parts of this paper. One example is the article Cornell and Sundell published (2019). They drew attention to the importance of increasing the wages of public officials as an anti-corruption strategy, while the other example is the paper published by An and Kweon (2017). The findings are exciting, especially given that one of the conclusive remarks in that article was that increasing wages would have the same effect on reducing corruptive transactions as increasing the penalty for corruption by 1.5 units would. As mentioned, this is particularly interesting because these authors have recognized the efficiency of penalties as a deterrent in anti-corruption strategy so much that it

yields comparable results to increasing wages. However, as stated before, this paper has proved quite the opposite and found that penalties are not, by any means, considered to be an adequate measure for reducing corruption, while on the other hand, proving that increasing salaries is. Again, this could be the topic of enforcement of penalties on the one hand and incentivizing higher moral standards on the other.

The third and final tested correlation falling into the category of other actions was the one between the education index and compliance. Much like in the previous case, empirical research has proved the existence of a robust correlation between these two variables. This is also consistent with the analysed literature, specifically the work by authors Jetter et al. (2018) and Uslaner and Rothstein (2016). In both cases, authors recognized education as a measure that should be at the forefront of any anti-corruption strategy due to its proven efficiency. The results from the empirical research are highly consistent with these findings, especially with the former article, which acknowledges that better and more accessible education plays a significant role, especially in developing markets. The results of the empirical research also point to the fact that a better educational system is essential in raising awareness and building morale, positively affecting and somewhat incentivizing more compliant behaviour.

Finally, discussing the implications of the collective action theory, it can be claimed with certainty that this underlying model can be an excellent basis for developing anti-corruption strategies as it finds its applicability in the notion that fighting corruption is not just the job of one social stratum but requires the inclusion of many different classes across many different fields. This conclusion is consistent with the reviewed literature, especially the paper of Persson et al. (2012).

All of this research has led to the conclusion that the correlation between other actions and compliance exists. This suggests that the second hypothesis is partially proved, and its accompanying null hypothesis is rejected. Research on this type of correlation partially supports the statement that actions other than higher penalties also lead to higher compliance in emerging markets. The mentioned partition is brought about by formulating the hypothesis, specifically parts 'other than higher penalties' and 'also lead'. The first hypothesis was officially disproved, removing the applicability of 'other than higher penalties' and 'also lead' because higher penalties are proven not to influence corruption.

## 6. CONCLUSION

To determine, which actions are to be undertaken to implement improved anti-corruption strategies, this paper has tried to answer the never-ending question of what works and what does not. The results unanimously pointed to the direction of a collective-action theory, which, contrary to many opinions and although somewhat recently recognized for the topic of corruption, has indeed proven to be relevant. Although there has been and still is an ongoing debate on whether anti-corruption strategies, especially in emerging markets, should be rooted in the



principal-agent theory, the collective action theory, some combination of those two, or somewhere in between, this paper stands along the side of the latter and calls upon implementing measures that have a proven record of undeniable applicability. The final verdict of which measures are feasible is: placing the focus on the accessible and improved educational system along with increased wages of public officials. Both are believed to raise awareness and incentivize behaviour rooted in higher moral standards.

Much like any other paper, this one also comes with several limitations. First and foremost comes the process of quantifying penalties. This paper has relied exclusively on the duration of imprisonment as the main backbone of quantifying the severity of the penalties. Although this was done due to the lack of easily accessible data on the height of fines for countries from the target group, and the fact that in most cases, the height of the monetary penalty assigned to corruption greatly varied depending on the severity of the committed crime, it was challenging to come up with the solution that would adequately implement all of the data for the proper analysis. Another limitation is the topic of law enforcement. From the quantitative empirical research, it still could not be confirmed with confidence that the lack of proper law enforcement was not to blame for the rejection of the first hypothesis. This factor could not be considered or adequately included in the statistical tests due to the challenge of retrieving that type of data and quantifying it. This paper's third and final limitation is rooted in the defined 'other actions.' This aspect considered only three out of many possible measures, and it is possible and most likely probable that including more actions in the research would significantly alter the final results.

Recommended future research lies in the potential analysis of different approaches to quantifying the severity of penalties. More specifically, it would be interesting to see monetary penalties taking the place of imprisonment and to check whether the assumption that high penalties yield increased compliance or lower corruption will again be incorrect. The second topic to consider as possible future research can be concerning the enforcement of anti-corruption laws. It would be exciting to see how and if all these variables influence the outcome while investigating this particular topic. Another exciting aspect of enforcement would be seeing how this variable could be quantified and involved in statistical tests. Finally, the third topic for further exploration could be the analysis of actions classified as 'other actions' in this paper but not included in that category. These findings would build upon this paper and help answer universally applicable measures and feasible models.

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## POMAŽU LI JEDINO VIŠE KAZNE U POSTIZANJU SUKLADNOSTI NA ODABRANIM NOVIM TRŽIŠTIMA?

**Sažetak**

*Živjeti po pravilima borba je s kojom se suočavaju nova tržišta. Visoka korupcija koja utječe na ova nova tržišta znači nisku razinu sukladnog ponašanja koje se odražava tako što se „ne poštuju pravila utvrđena raznim zakonima i propisima“. Cilj je ovoga rada utvrditi može li se određivanje visokih kazni za počinjene prekršaje poput korupcije smatrati prihvatljivom opcijom za povećanje razine sukladnog ponašanja ili bi uvođenje drugih radnji pomoglo novim tržištima da postignu taj cilj. Ove dvije hipoteze provjeravaju se kvantitativnom metodom na uzorku od dviju zemalja koje su u skupini novih tržišta (među njima su i sljedeće europske zemlje: Češka, Grčka, Mađarska i Poljska) primjenom neparometrijskog statističkog testa da bi se ustanovilo postoji li korelacija između visokih kazni za javnu korupciju i sukladnog ponašanja te, s druge strane, između drugih radnji i sukladnog ponašanja. Rezultati ovog istraživanja upućuju na činjenicu da iako povećanje kazni nije prihvatljiva opcija, podizanje svijesti i poticanje antikorupcijskih radnji na temelju drugih aktivnosti, poput boljeg obrazovanja i većih plaća javnih društvenika, predstavlja izvrstan potencijal za početak borbe s korupcijom na novim tržištima i otvaranje njihovih vrata za uspješan ekonomski razvoj.*

**Ključne riječi:** *odvrćanje, teorija kolektivne akcije, korupcija, kazne, sukladnost.*

**JEL klasifikacija:** *C12, C14, D73, K42, O10.*