Analysis of the effect of corruption prevention on private investment at the district/city level in Indonesia

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Abstract: Several previous studies have shown that there are differences in the effect of corruption prevention on private investment. Corruption eradication by the KPK is expected to have a positive and significant effect on investors' decisions when investing in Indonesia. This research studied the long-term effects of corruption prevention on accumulated private investment at the regional level, using cross-sectional data analysis from 507 districts and cities between 2018-2020. The test was conducted using multiple linear regression with the independent variable being the Monitoring Center for Prevention (MCP) as the corruption prevention index. Using White Robust estimator, the study results prove that corruption prevention has long-term positive and significant effects on overall accumulated investment at the district and city levels. The MCP score of a region was greater than other regions for three years, therefore the accumulated investment was greater. These results encourage an increase of urgency when mainstreaming corruption prevention, proving it to be the right choice for investment in Indonesia. To enable local governments to be involved in corruption eradication, the government is expected to provide sustainable local incentive funds (DID).

Keywords: MCP, Corruption Prevention, Private Investment, Cross-Sectional Data Analysis


Introduction

Indonesia faces a major corruption emergency in the regions. The implementation of regional autonomy has accelerated corruption levels. Data on the handling of corruption cases by the KPK shows that from 2010 to 2019, corruption cases at the regional level have continually increased. Massive corruption practices have an impact on the quality and efficiency of public services, low investment flows to regions and ultimately raise barriers for economic growth (de Asis, 2000). One of the primary impacts is investors' perception that corruption in Indonesia is a major barrier for investment (Schwab, 2017).

Indonesia has a special institution to eradicate corruption called the Corruption Eradication Commission (KPK). Generally, the corruption in Indonesia is comparable to the six forms of corruption in other countries: bribery, fraud, embezzlement, extortion, favouritism and nepotism. Corruption eradication performed by the KPK is also aligned with the government’s development vision, namely to increase investment and facilitate business investment.

The KPK has developed a mechanism for coordinating and monitoring corruption prevention at provincial, district and city levels. Among local governments, this mechanism is known as the Monitoring Center for Prevention (MCP), which focuses on corruption prevention in eight areas vulnerable to regional corruption. These are: Regional Budget (APBD) planning and budgeting, procurement of goods and services (PBJ), one-stop integrated licensing (PTSP), improving the capability of the government’s internal supervisory apparatus (APIP), management of state civil apparatus (ASN), optimising the regional revenues, regional asset management and village fund management. The MCP is an instrument for local governments (Pemda) to improve their performance in corruption prevention in their respective regions. It is believed that this effort
could be more beneficial and have an impact on the community at a local level (Asis, 2000) and on investors who will invest their capital.

Based on investment data from the Ministry of Investment and MCP data from the KPK, there is a trend and a correlation between MCP scores and investments in several districts and cities in Indonesia. In some regions, MCP scores had an upward trend, meaning that investment had increased. Conversely, when a region's MCP score decreased, so did the investment. The investment referred in this study is the accumulated investment in long-term capital goods. This research only provides data from three years, namely 2018-2020. Therefore, to provide long-term effects and expectations, investments from the 2018-2020 period are summed. Meanwhile, MCP scores and other variables were measured using the mean method. The mean method in statistics is used for making natural variations in repetitive data look like real changes (Barnett et al., 2005). It occurs when an extremely large or small measurement tends to be followed by a measurement that is closer to the mean.

There are no specific studies that examine the effect of corruption prevention on private investment in Indonesia. Previous research mostly focussed on several countries which were dominated by the use of six governance indices developed by (Kaufmann et al., 2009), one of which is corruption prevention (control of corruption). This research predominantly showed that corruption prevention has a significant positive impact on investment (Aysan et al., 2007; Globerman et al., 2006; Hayat, 2019; Mengistu & Adhikary, 2011). Research by Globerman et al. (2006), shows that the effect of corruption prevention on investment in developing countries is more significant than in developed countries due to the more marginal effects of governance. The more developed a country is, the lower the influence of governance on investment. However, research by Peres et al. (2018) shows the opposite result; that corruption prevention in developing countries has no effect on investment. This could be because of the low efforts to prevent corruption and the low implementation of the rule of law in developing countries.

These conflicting research results make this an interesting area of study. The inherent diversity of each country necessitates the conducting of research focused specifically on Indonesia at district and city levels. Moreover, it is known that research which specifically examines the effect of corruption prevention on private investment at district and city levels in Indonesia has never been conducted. Efforts to prevent corruption at the regional level have been monitored through the MCP. It is predicted that efforts to prevent corruption by local governments will have greater impacts because local governments are considered to have a better understanding on regional characteristics and issues.

**Methods**

This study used secondary data from 507 districts and cities in Indonesia, except for DKI Jakarta Province because the existing cities and districts in this region only perform administrative functions. The dependent variable is investment and the primary independent variable is corruption prevention. Another independent variable is gross regional domestic product (GRDP) per capita. Labour factors including the number of workers and the quality of the workforce are determined as the control variable.

According to Pindyck and Rubinfeld (2018), based on the theory of the firm, a company's basic purpose is to optimise profits. The theory of the firm as a production function, in which firms maximize profit (Williamson, 2002). The theory holds that the overall nature of companies is to maximize profits meaning to create as much of a gap between revenue and costs. The company optimises its demand for capital by minimising costs, which is an important part of the theory of the firm. Investment in this research is defined as the accumulated investment for the 2018-2020 period for each region. The demand for capital and cost minimisation will be outlined in the next section of this article.

Prevention of corruption is the main independent variable in this study. The corruption prevention index is a proxy for corruption prevention which is the MCP scores, sourced from the KPK. This research is the first study that used the MCP scores as a proxy for corruption prevention. Corruption, corruption prevention and the MCP will be defined in the next section of this article.
Regional economic output is a factor influencing investment decisions. Investors have a rationale that attractiveness and macroeconomic potential are considered as ideal market size that can support investment objectives. Market size is usually related to economic potential. The commonly used market size proxy is Gross Regional Domestic Product (GRDP) per capita because it reflects income per person in each region.

In this research, the labour factor is the control variable on investment. The labour factor uses two variables: the workforce and the education quality of the workforce. The main reason for foreign investors expanding abroad is the availability of cheap labour that lowers their production costs when compared to their home countries (Dunning & Lundan, 2008). The workforce has been accepted as one positive factor affecting investment, especially in developing countries (Nguyen, 2020). The workforce variable is a proxy for labor force. According to Badan Pusat Statistik (2021) a workforce is people of working age (15 years and above) who work or who have had a job but are temporarily unemployed.

The large availability of quality human resources makes it easier for a country to absorb new products or ideas that have been created elsewhere (Nelson & Phelps, 1965). The differences in educational level or human resources between countries causes differences in the population’s capacity. Furthermore, foreign investors are motivated to supply their capital to countries with better quality human resources. The labour or education quality of the local human resources (HR) is proxied by the average length of schooling (RLS).

**Demand for Capital and Cost Minimisation**

In order to achieve business objectives and be able to continuously compete in a competitive economy, every company needs to increase their capital through investment. An increase in investment results in a demand for capital. Demand for capital is the amount that entrepreneurs want to invest, i.e. the amount needed by entrepreneurs to buy capital goods such as tools, factories, machinery, equipment and other necessities used to produce goods and services. The company optimises the demand for capital by minimising costs, as stated in the theory of the firm. Pindyck and Rubinfeld (2018) focuses on using labour (L) and capital (K) to make the analysis simple. Thus, the cost minimisation function is written as follows:

\[ C = wL + rK \]

which is subject to constraint: \[ Q = F(K, L) \]

Lagrange function is used to overcome this constraint, as follows:

\[ L = wL + rK - \lambda [F(K, L) - q0] \]

The next step is to make a decrease (first order condition) to get the minimum conditions, as follows:

\[ \frac{\partial L}{\partial K} = r - \lambda L = 0 \]
\[ \frac{\partial L}{\partial L} = w - \lambda K = 0 \]
\[ \frac{\partial L}{\partial \lambda} = Q - KL = 0 \]

By substituting equation (4) and equation (5), we obtain:

\[ K = \frac{w}{r} L \]

After substituting equation (6) and equation (7), then:

\[ Q = KL \Rightarrow Q = K \left( \frac{r}{w} \right) K \Rightarrow Q = \frac{r}{w} K \]
\[ Qw = rK^2 \Rightarrow K^2 = Qw/r \]

thus, the demand for K to minimise costs is written as follows:

\[ Kd = \sqrt{\frac{Qw}{r}} \]
In practice, to plan and run a business, investors are faced with the problem of unofficial or informal fees, in addition to the determined official fees. Corruption takes the form of bribery, extortion and illegal gratuity included in informal costs that are capitalised on by investors to affect their competitiveness. If the symbol for corruption is \( \chi \), the corruption fee is \( \xi \) and the corruption prevention index is \( \Theta \), then the production function is:

\[
Y = \chi^{1-\Theta} KL
\]

with cost function:

\[
C = wL + rK + \xi \sqrt{K}
\]

Equations (9) and (10) above are derived as follows:

\[
L = wL + rK + \xi \chi + \lambda (Y - (\chi^{1-\Theta} KL)]
L = wL + rK + \xi \chi + Y\lambda - \chi^{1-\Theta} K\lambda
\]

\[
\frac{\partial L}{\partial K} = w - \chi^{1-\Theta} K\lambda = 0 \Rightarrow \lambda = w/(\chi^{1-\Theta} K)
\]

\[
\frac{\partial L}{\partial L} = r - \chi^{1-\Theta} L\lambda = 0 \Rightarrow \lambda = r/(\chi^{1-\Theta} L)
\]

\[
\frac{\partial L}{\partial \lambda} = Y - \chi^{1-\Theta} KL = 0 \Rightarrow Y = \chi^{1-\Theta} K[(r/w)K] \Rightarrow Y = \chi^{1-\Theta} (r/w)K^2
\]

\[
K^2 = \frac{Yw}{\chi^{1-\Theta} r} \Rightarrow K^d = \frac{\sqrt{Yw}}{\chi^{1-\Theta} r}
\]

Thus

\[
\frac{\partial K}{\partial \Theta} = \frac{\sqrt{Yw}}{r} \cdot \frac{(1-\Theta)}{2} \cdot \ln \chi
\]

where, if \( \frac{\partial K}{\partial \Theta} > 0 \), then the higher corruption prevention index (MCP), the higher amount of investments accumulated into capital (\( K \)). However, if the result is \( \frac{\partial K}{\partial \Theta} < 0 \), then the higher corruption prevention index (MCP), the lower amount of investments accumulated into capital (\( K \)).

**Corruption and Corruption Prevention**

In general, corruption is an abuse of power for personal gain (Transparency International, 2009). However, the meaning of corruption in economic growth and investment terms is ambiguous. One group believes that corruption can streamline businesses (corruption as the grease of the wheel), whilst another views corruption as an obstacle for economic growth and investment (corruption as the sand of the wheel).

The first group is driven by Huntington, 2006; and Leff (1964), who essentially state that corruption serves as speed money for business actors when obtaining complicated licensing or administrative services through civil servants or state officials. The second group argues that countries with high corruption levels have a negative impact on growth, which is also supported by Murphy et al. (1991). According to Mauro (1995), corruption causes a decline in growth, partially because corruption in the form of bribes is considered a tax by business actors, but because of its closed nature and uncertainty, it results in reduced investment incentives. According to Dzhusashev (2009), corruption affects investment because it increases uncertainty and reduces productivity. Uncertainty requires additional costs for the return on investment, thus, corruption raises real interest rates and leads to lower demand for investment.

According to Dzhusashev (2009), corruption affects economic growth through a direct impact on investment. Research by Zhao et al. (2003) shows that the effect of corruption on investment changes over time and shows a U-shaped relationship, with an assumption that commitments and actions to prevent corruption are executed consistently and institutionally. Corruption hinders business actors from investing, resulting in a decline in investment flow. This downward curve can be overcome by efforts to prevent corruption.
According to Azfar (2007), agency theory is effective when controlling corruption. The theory uses the point of view of government and community, where the community is the principal and the government is the agent that administers governance. The agent has direct access and more information than the principal. These problems cause the emergence of asymmetric information which results in corrupt practices by agent persons. Given these problems, mechanism monitoring is important to control corruption. Klitgaard (1988) argues that accountability is an important element to prevent and suppress corruption. According to Camargo (2011), five components are required to achieve an accountable relationship in public governance: delegation, financing, enforcement, information on performance, and monitoring. The principal-agent relationship to achieve accountability is shown in the Figure 1.

Corruption prevention is a part of governance institution (Kaufmann et al., 2009) to measure the quality of governance institution in a country. Governance institutions create order and reduce uncertainty in economic activity (North, 1991). Uncertainty increases unofficial or informal fees which are accumulated as transaction costs because business actors must prepare an extra budget for their business operations. According to the view of neoclassical economics, an efficient market requires the absence of transaction costs. When the transaction cost is significant, governance institution becomes important (North, 1992). Investment is elastic to the transaction cost of investment (Mengistu & Adhikary, 2011) which means that investment tends to flow to countries where investors have an expectation for their business continuity (going concern) and get optimal returns.

**Corruption Prevention Index (MCP)**

The Indonesian government has established MCP scores as a corruption prevention index. The MCP aims to realise accountability in local governments by optimising a five-component relationship as outlined by Camargo (2011). Currently, the MCP describes corruption prevention in eight areas vulnerable to corruption at regional level: regional budget (APBD) planning and budgeting, procurement of goods and services (PBJ), one-stop integrated licensing (licensing and non-licensing), internal supervisory apparatus by APIP, management of state civil apparatus (ASN), optimising regional revenues, regional asset management and village fund management. Region vulnerability is indicated from data on case handling at the KPK between 2017-2021, where around 75% of corruption cases at regional level occurred in corruption-vulnerable regions. The 2021 data goes to the end of November 2021.

The MCP measures the corruption prevention progress achieved by each regional government (Pemda). Each indicator has its own weight and assessment. MCP scores range from 0 to 100, where the closer to 100, the better the corruption prevention program is. To ensure regional governments (Pemda) meet these indicators and sub-indicators, the KPK issues MCP guidelines every year. The KPK has established a team to verify the fulfilment of indicators and sub-indicators because the MCP is evidence-based. Verification processes were carried out directly in the field, but mostly by checking the data and documents that had been uploaded electronically to
the MCP application. The resulting MCP scores are for all Provincial, Regency and City Governments throughout Indonesia.

Table 1. Handling of Corruption Cases and Relationship with MCP

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regional Budget (APBD) Planning and Budgeting</td>
<td></td>
<td>22</td>
<td>65</td>
<td>30</td>
<td>17</td>
<td>48</td>
<td>182</td>
</tr>
<tr>
<td>2.</td>
<td>Procurement of goods and services</td>
<td></td>
<td>29</td>
<td>47</td>
<td>52</td>
<td>58</td>
<td>30</td>
<td>216</td>
</tr>
<tr>
<td>3.</td>
<td>One-Stop Service/ Licensing</td>
<td></td>
<td>14</td>
<td>22</td>
<td>18</td>
<td>6</td>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>4.</td>
<td>Management of state civil apparatus (ASN)</td>
<td></td>
<td>8</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>5.</td>
<td>Optimisation of Regional/ Tax Related Revenue</td>
<td></td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Regional Asset Management</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7.</td>
<td>Village Fund Management</td>
<td></td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>APIP Enforcement</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9.</td>
<td>Etc</td>
<td></td>
<td>43</td>
<td>58</td>
<td>34</td>
<td>10</td>
<td>19</td>
<td>164</td>
</tr>
<tr>
<td></td>
<td>Total Amount</td>
<td></td>
<td>120</td>
<td>199</td>
<td>145</td>
<td>91</td>
<td>101</td>
<td>656</td>
</tr>
</tbody>
</table>

Source: KPK (2021), processed data

The KPK has intensively socialised the MCP to business actors and business associations, both nationally and internationally. Socialisation to national business actors is performed through National Chamber or Commerce (KADIN) and various sectoral business associations. Socialisation to international business actors is performed through KPK participation in various international corruption eradication groups and various international forums attended by the KPK. The KPK even facilitated the establishment of regional advocacy committees as a coordination forum between regulators (Pemda) and business actors. This forum is optimised to enforce corruption prevention in the private sector by socialising efforts to prevent corruption in the regions that can be monitored through the MCP.

Investor awareness of governance urgency is increasing. The results of a survey conducted by PriceWaterhouse & Cooper (PWC) in September 2021 to 325 global investors showed that governance factor, together with environmental and social factors (Environment, Social and Governance/ESG), are the primary concerns of investors (PriceWaterhouseCoopers, 2022).

Types and Sources of Data

The data used in this research is secondary data, i.e data sourced from third parties. This research analyses the long-term effects of corruption prevention on private investment at district/city level in Indonesia. Because investments are accumulated into long-term capitals (K), yet the available data is only for a three-year period, the investment in this research is the accumulated investment, and cross-sectional data analysis is used to indicate expectations and any long-term effects of corruption prevention on investment.

Table 2. Source of Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Data</th>
<th>Source of Data</th>
<th>Unit</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Realisation</td>
<td>Domestic investment (PMDN) and foreign direct investment (PMA)</td>
<td>Ministry of Investment</td>
<td>Billion</td>
<td></td>
</tr>
<tr>
<td>Corruption Prevention</td>
<td>Corruption Prevention Index</td>
<td>KPK</td>
<td>Index</td>
<td>+</td>
</tr>
<tr>
<td>GRDP per capita</td>
<td>GRDP per capita</td>
<td>Central Bureau of Statistics (BPS)</td>
<td>Thousand</td>
<td>+</td>
</tr>
<tr>
<td>Labour</td>
<td>Workforce</td>
<td>Central Bureau of Statistics</td>
<td>Rupiah</td>
<td>People</td>
</tr>
<tr>
<td>Education</td>
<td>Average Length of Schooling (RLS)</td>
<td>Central Bureau of Statistics</td>
<td>Year</td>
<td>+</td>
</tr>
</tbody>
</table>

Research Model

In general, to examine the effect of corruption prevention on private investment at district/city level in Indonesia, the following models are used for empirical analysis:
\[ \ln IT_i = \beta_0 + \beta_1 \text{MCP}_i + \beta_2 \ln \text{GRDP}_i + \beta_3 \ln \text{WF}_i + \beta_4 \ln \text{Education}_i + \varepsilon_i \]

where:

Dependent Variable:
- \( IT \): Private investment using 2010 constant prices

Variabel Bebas (Independent):
- \( \text{MCP} \): Corruption Prevention Index in districts/cities
- \( \text{GRDP} \): Total gross regional domestic product per capita using 2010 constant prices

Control Variable:
- \( \text{WF} \): Total workforce
- \( \text{Education} \): Average length of schooling (RLS)
- \( i \): District/city \( i \) in Indonesia
- \( t \): time \( t \)
- \( \beta_0 \): Constant parameters
- \( \beta_1 - \beta_4 \): Estimated slope parameter
- \( \varepsilon \): Error

Variable Operational Definition

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable Name</th>
<th>Operational Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Investment</td>
<td>Is the sum of private investments (accumulated investment) in the 2018-2020 period by using 2010 constant prices. Summing is for eliminating any variation in data in the middle and for describing the long-term effects of the investment.</td>
</tr>
<tr>
<td>2.</td>
<td>Corruption Prevention Index (MCP)</td>
<td>Is the sum of MCP scores between 2018-2020 divided by three or by calculating the mean. Mean method in statistics is used to make natural variations in repetitive data look like real changes (Barnett. et. al., 2005).</td>
</tr>
<tr>
<td>3.</td>
<td>GRDP per capita</td>
<td>GRDP per capita is the average income earned by each citizen in one year in a district or city. This variable is the sum of GRDP per capita in 2018-2020 by using the 2010 constant price which is then divided by three (mean).</td>
</tr>
<tr>
<td>4.</td>
<td>Workforce</td>
<td>Is a proxy for the labour force which is calculated based on the percentage of the population aged 15 years and above included in the labor force category, by the total population aged 15 years and above. This variable is the sum of labor force between 2018-2020 which is then divided by three (mean).</td>
</tr>
<tr>
<td>5.</td>
<td>Education (RLS)</td>
<td>RLS is the number of schooling years passed by the population sourced from BPS data. This variable is the sum of labor force between 2018-2020 which is then divided by three (mean).</td>
</tr>
</tbody>
</table>

Results and Discussion

Regression Results

Regression method is used to test the effect of the independent variable on the dependent variable. The test results are shown in the Table 4.

The estimation results indicate a significant positive effect between Corruption Prevention Index (MCP) variables, which is a proxy for corruption prevention in regional governments (Pemda), and private investment at district or city level in Indonesia. Variables of GRDP per capita, labour force and RLS also show positive and significant influences on investment in the regions.
Table 4. Model Estimation Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>P&gt; [t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP</td>
<td>0.0396996</td>
<td>0.007</td>
</tr>
<tr>
<td>LnGDRP</td>
<td>1.114158</td>
<td>0.001</td>
</tr>
<tr>
<td>LnWork Force</td>
<td>1.626872</td>
<td>0.000</td>
</tr>
<tr>
<td>LnRLS</td>
<td>9.772427</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>-35.42222</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Prob > F = 0.0000
Adj R-squared = 0.4505

Source: Calculated

Based on the results of testing using the white test method, it is indicated that there is a heteroscedasticity problem in which the model should be homoscedastic. To solve this, estimation is made using White Robust estimator. The result of estimation using White Robust estimator can be seen in Table 5.

Table 5. Results of White Robust Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>P&gt; [t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP</td>
<td>0.0396996</td>
<td>0.015</td>
</tr>
<tr>
<td>LnPDRB</td>
<td>1.114158</td>
<td>0.000</td>
</tr>
<tr>
<td>LnWork Force</td>
<td>1.626872</td>
<td>0.000</td>
</tr>
<tr>
<td>LnRLS</td>
<td>9.772427</td>
<td>0.000</td>
</tr>
<tr>
<td>Constant</td>
<td>-35.42222</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Prob > F = 0.0000
Adj R-squared = 0.4548

Source: Calculated

By comparing Table 4 and Table 5, the above results show that there is almost no difference in relationship direction between the independent and dependent variables. Particularly for the MCP variable, which is the focus of the research, there is no change in the relationship direction or its significance. There is only a slight change in the MCP variable, which previously had a significance level of alpha (α) 1%, becoming a significance level of α 5%. With that level of significance, the MCP variable is concluded to have a significant effect on the investment variable.

Discussion

The results of estimation using White Robust method indicate a positive and significant effect between the Corruption Prevention Index (MCP) variable, which is a proxy for corruption prevention in regional governments, and private investment at district or city level in Indonesia. The coefficient shows a figure of 0.0397, which means that a 1-point increase in MCP scores has effects on the incoming investment of 0.0397%.

For GRDP per capita, the labour force and the average length of schooling show results that are not much different from the results of previous studies. GRDP per capita, labor force and average length of schooling have a positive and significant effect on investment at a confidence level of 99%. The GRDP coefficient shows a Figure of 1.114. This means that an increase in GRDP per capita significantly affects investment, where a 1% increase in GRDP per capita increases investment by 1.114%. These results are in accordance with the initial hypothesis and support the previous studies Mengistu and Adhikary, (2011); Peres et al. (2018).

The labour force and the average length of schooling also has significant effect on investment. A 1% increase in the number of workers creates an increase of 1.627% on investment. Meanwhile, a 1% increase in the average length of schooling creates an increase of 9.772% on investment in districts/cities in Indonesia. These results are in line with the initial hypothesis and with the previous studies related to the workforce conducted by (Dunning, 1994) and (Nguyen, 2020), as well as research related to the human resources quality by Nelson dan Phelps (1965).

The corruption prevention index (MCP) published by the KPK is the primary variable in this research. Based on the research results, corruption prevention has significant positive effects on
private investment in the regions. These results support the findings of previous studies conducted by Aysan et al. (2007); Globerman et al. (2006); Mengistu and Adhikary (2011), which found that there is a positive and significant correlation between efforts to prevent corruption and private investment. This research shows that investors consider efforts to prevent corruption carried out by regional governments (Pemda) because the benefits and impacts are more felt (de Asis, 2000). Regional governments are viewed to better understand the conditions and challenges of their respective regions related to the efforts to control corruption practices. Regional governments are expected to make efforts to prevent corruption in a more systematic manner and for the long term (Zhao et al., 2003), given that corrupt behaviour and practices have lasted for a long time.

Improvement of governance which focus on eight corruption-prone areas is reflected in MCP scores. High MCP scores in the long term are confirmed to have a positive and significant impact on efforts to develop the economy through investment. High MCP scores will affect investors’ perceptions that the government is seriously making efforts to suppress corruption practices. This is in line with a survey conducted by the World Economic Forum (Schwab, 2017), which concluded that corruption is ranked first out of 16 factors inhibiting investment in Indonesia. The implementation of systemic coordination and monitoring and prevention of corruption by the KPK is expected to improve the quality of governance, which will consequently improve corruption prevention.

The government must support efforts to improve corruption prevention in the regions through regional incentive funds (DID) policy. Policy Supports through incentive funds have been proven to be more effective in driving regional governments to improve corruption prevention according to the rewards and punishments mechanism for each performance achievement (Abidin, 2015; Ahdityana, 2009). Since 2020, the KPK has proposed that the Ministry of Finance provide DID for corruption prevention to 34 regional governments. The Ministry of Finance has budgeted IDR 317 billion, or only 2.3% of DID limit. In its 2022 budget, the KPK proposed 62 local governments receive DID for corruption prevention. However, only 20 regional governments are in line to receive DID, and the amount of DID received is smaller compared to 2021 by IDR 135 billion. The primary obstacle is the minimum DID budget limit for corruption prevention provided by the government. In order to further motivate regional governments to further improve corruption prevention quality in their respective regions, DID should be provided as a more systemic and sustainable policy alternative. The most obvious impact would be the increased perception of investors on business certainty in the regions, which in turn will increase investment in regions that are deemed to be good in terms of corruption prevention.

**Conclusion**

Based on the analysis outlined in the previous section, several conclusions can be drawn as follows: First, Long-term coordination and monitoring of corruption prevention performed by the KPK has had a positive and significant effect on private investment in Indonesia. The KPK, as a special institution mandated to eradicate and prevent corruption, has established a corruption prevention and monitoring system called the Monitoring Center for Prevention (MCP), which produces a corruption prevention index. When the MCP score of a region was greater than other regions for three years, the accumulated investment was also greater. The MCP describes the efforts to prevent corruption that are planned and implemented by Regional Government (Pemda). Investors, as economic agents, get more relevant and useful information related to efforts to prevent corruption in the regions as a basis for making investment decisions in each of these regions; Second, Regional economic factors that indicate the market size represented by GRDP per capita are still an important consideration for investors when making their investment decisions; and Third, The labour force factor also plays a significant role in influencing investors to invest in a region. The availability of sufficient and qualified labourers has a positive and significant impact. The research results show that the average length of schooling, which is a proxy for the human resources quality, has a very significant effect on private investment. It shows that
labourers with better education and skills are increasingly sought after by investors to meet their company’s needs.

**Policy Recommendations and Suggestions**

Based on the research results, the author submits several policy recommendations, as follows: **First**, that the government select regional incentive funds (DID) in a better way by using MCP performance indicators to enable each regional government to improve its performance. Local governments that receive DID should use these funds to strengthen corruption prevention institutionalisation in a more structured, systematic and comprehensive manner; **Second**, that the government design and implement more specific policies towards regions with low average years of schooling (RLS). Eastern Indonesia regions (Papua and West Papua) with relatively low education levels but with great economic potential should be primarily focused; and **Third**, that given the importance of conducting a study on investment inflows at regional levels, the Ministry of Investment/BKPM should always check/verify investment data to the regions on a regular basis to ensure the data accuracy.

**Research Limitations**

This research still has various limitations that need to be improved in the future, namely: the independent variables used are only limited to 2018-2020 period because the KPK only announced the corruption prevention index (MCP) in 2018. In addition, the control variables used are still limited to regional economic factors, namely GRDP per capita and labour force factors (labour force and education quality), given the limited data on other factors, namely infrastructure, security, and others.

**References**


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