

## ***Extended Abstract***

### ***Purpose***

Innovation is one of the most important factors affecting economic growth. On the other hand, economic corruption affects important changes, including innovation, which can be positive or negative depending on the economic conditions of the government. The purpose of this article is to investigate the impact of corruption on innovation in Asia with high and low corruption for the period of 2008-2022. During the review period based on the classification of Transparency International, 15 countries Singapore, Hong Kong, Japan, Bhutan, Taiwan, United Arab Emirates, occupied Palestine, South Korea, Brunei, Qatar, Georgia, Saudi Arabia, Jordan, Malaysia and Armenia are classified as less corrupt and other Asians as more corrupt. The results of some studies state that corruption is an obstacle to growth and innovation, while others consider it as a booster of innovation, and corruption has a positive relationship with innovation, which can remove hard obstacles for capital. Help to establish and strengthen innovation. Therefore, it can be important to investigate whether corruption leads to improved innovation in Asian countries with high and low corruption. This study tests the hypothesis that corruption enhances innovation or that it slows down innovation.

### ***Methodology***

According to the theoretical foundations, in order to investigate the impact of corruption on innovation, the following model, which is taken from the studies of Al-Balushi (2020), Zakari, Vincent Tavi and Raphael (2022), has been used.

$$IN_{it} = \beta_i + \beta_1 corp_{it} + \beta_2 pop_{it} + \beta_3 hc_{it} + \beta_4 gdp_{it} + \beta_5 trade_{it} + \beta_6 nat_{it} + \mu_{it}$$

IN indicates the number of patents registered as a substitute for innovation, the information of which is collected from the intellectual property organization (Yolka, 2004). Corp represents corruption. pop the population of the country (indicating the size of the country), gdp indicating the gross domestic product (at constant 2015 prices), *trade* indicating the openness of trade, nat indicating the rent of natural resources, hc the human capital index (number of university graduates) required information. The research was extracted from the World Bank and Transparency International.

### ***Finding***

To check the significance of the variables. Due to the cross-sectional dependence between them, the mean test of boys was used, and the results show that the variables are maximum in the first order difference. Also, according to the results of the Kao test, the co-accumulation between the variables is confirmed and the model can be estimated without worrying about false regression. The results of the fixed effects test show that it is not possible to reject the hypothesis that the coefficients for all years are equal to zero, so there is no need for time fixed effects in this research and the Chow test is performed only with spatial effects. accepted According to the results of Limer and Hausman's F test, estimating the model in the form of panel data and using the fixed effects method will have a more appropriate fit.

The findings show that corruption has a negative effect on innovation in countries with low corruption (coefficient -0.4417) and a slight positive effect on innovation (coefficient 0.0391) in countries with high corruption. The negative impact of corruption on innovation in countries with low corruption can be expressed through the misallocation of resources. Reducing corruption in countries with low levels of corruption leads to the improvement of innovation in these countries. Gross domestic product has a positive and significant effect on innovation in both groups of countries, but the intensity of its effect on innovation is greater in countries with low corruption than in countries with high corruption.

The effect of population on corruption is positive in countries with less corruption and negative in countries with more corruption. The existence of a larger population provides the necessary potential for creating creativity and innovation, but its quality and capabilities, as well as creating a context for the flourishing of talents, are important. The results indicate the positive and significant impact of the abundance of natural resources on innovation in both groups of countries, but the intensity of its impact is greater in countries with less corruption. In these countries, suitable fields have been provided with more of these resources.

The intensity of the impact of trade liberalization on innovation in countries with less corruption with a coefficient of 0.2416 is greater than this effect in countries with high corruption with a coefficient of 0.1915. Commercial liberalization in countries with less corruption has made innovative entrepreneurs in these countries have more opportunities to invest and expand the market and sell more products. According to the findings of the model, human capital has an impact on innovation, which, like most of the research variables, the intensity of its influence in countries with less corruption (coefficient 0.2691), is greater than the intensity of influence in countries with more corruption (0.0124). is Due to the higher quality of human resources in countries with less corruption and the availability of more competition in these countries, the impact of human capital on innovation is greater than in countries with more corruption.

### ***Conclusion***

The results of the research showed that corruption has increased the possibility of innovation in countries with high corruption, and the main reason for its positive effect is the lack of infrastructure suitable for innovation, the complexity and length of the bureaucratic process in these countries, and in other words Another is the low institutional quality of market operators in this field. Therefore, in line with the reduction of corruption, governments should consider effective policies to correct the harsh conditions of the market, which, in addition to aligning the laws with the support of these activities, will also reduce long administrative bureaucracies and provide the necessary legal support for entrepreneurship and innovation. can be done. It seems that in countries with a high degree of corruption, due to the quality of official and informal institutions in them and the lack of necessary legal and support infrastructures, paying bribes and circumventing many laws still slows down innovation-related activities.