The Trend of Unemployment and Crime Index during COVID-19 Pandemic in Malaysia

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ABSTRACT

The COVID-19 pandemic has caused the number of unemployed to increase in Malaysia and the issue of unemployment has become a social problem that has always been positively linked to criminal activity. However, the crime index in Malaysia showed a decrease over the period of the Movement Control Order (MCO). Therefore, this study aims to explore this issue using secondary data taken from various sources such as journals, books, proceedings, and press reports. The results of the study found that the crime index decreased even though the number of unemployed increased because it was in line with the theory of crime opportunity. As the community needs to stay at home during the MCO period, the chances of committing index crime are low because the home as well as property are monitored as well as individuals are not exposed to violent crime. However, the domino effect is non -index crime is reported to increase due to the stress of life that makes the individual is motivated to commit non-index crime. The results of the analysis of this study are expected to help the government, especially the Department of Social Welfare to be more efficient by helping and supporting the victims of non-index crime. In addition, the results of this study are also expected to provide an explanation to the community on the question of why the unemployment rate is negatively related to index crime as well as remove the negative impression of the report given by the Royal Malaysian Police (RMP). However, the results of this study are only a preliminary analysis, and it is suggested that empirical studies can be conducted to support the results of this analysis.

Keywords: COVID-19, Crime index, Malaysia, Non-crime Index, Unemployment

1. INTRODUCTION

Unemployment is one of the macroeconomic problems that need to be addressed by each country that represents the ability of the economy to create jobs for the people. Unemployment is defined by the International Labour Organisation (ILO) as referring to individuals who can work and actively seek employment but are unable to find employment. Generally, unemployment is commonly viewed as one of the factors that can reduce society well-being. This is because unemployment can cause a person to lose their source of income as well as can motivate

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individuals to commit social problems such as committing crimes. There are various factors that contribute to unemployment problem such as the economic downturn or unexpected event such as COVID-19 diseases that result in a decrease in demand and supply for goods. Consequently, manufacturers or firms will lay off workers to reduce the cost of production.

In Malaysia, crime index can be categorised into violent and property crimes (Amin et al., 2014; Usman et al., 2012). It refers to the criminal cases reported with sufficient regularity and adequate significance to be meaningful as an index to the crime situation (Sidhu, 2005). Meanwhile, non-index crime are crimes related to drugs, corruption, environment, and other crimes such as such domestic violence and child abuse. Crime is viewed as social disease that can hinder the aspirations of Malaysia to achieve the status of a developed country by 2030. Figure 1 shows the statistics of crime index, violent crime, and property crime cases in Malaysia from year 2016 to 2020, the data shows a decreasing trend of crime index. The total crime index shows a decreasing trend in the figures from 112,355 cases in 2016 to 65,623 cases in 2020. The decreasing trend also can be seen in the violent and property crime from year 2016 to year 2020.
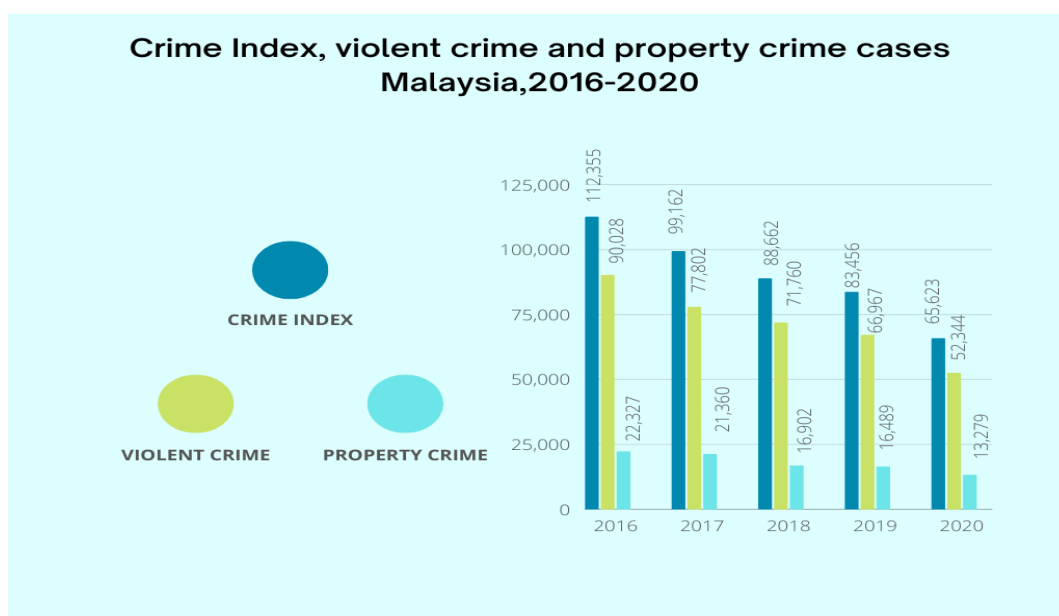

Figure 1. The Crime Index, Violent Crime, and Property Crime Cases in Malaysia 2016 - 2020 (Source: Department of Statistics Malaysia)

Although Malaysia is still dealing with COVID-19 issues, the data shows that the number of crimes decreased by 23 percent in 2019 (Bernama, 2021). However, despite of decreasing rate of crime index, the trend of unemployment rate has significantly increased due to the pandemic COVID-19. Based on the situation, the unemployment and crime index have shown a negative relationship which is contrary to the common findings of previous studies on the relationship between unemployment and crime, which is predicted to be a direct relationship. Apart from that, Table 1 shows the Global Peace Index (GPI) report for the year 2016 to 2021. It reveals that Malaysia recorded an improving position as the most peaceful country in the world from year 2016 to 2019. However, as MCO has been implemented, Malaysia was ranked the 20th most peaceful country in the world in 2020 compared to year 2019.

Table 1 Malaysia's Position in the Malaysian Peace Index 2016-2021 (Source: Global Security Index Report 2021)

Year	Global Safety Index	Global Safety rank
2021	1.515	23
2020	1.525	20
2019	1.529	16
2018	1.619	25
2017	1.637	29
2016	1.648	30

Therefore, this study has been motivated by the occurrence of the COVID-19 pandemic that led to the implementation of MCO as the main cause of increasing unemployment rate. The COVID-19 pandemic that began at the end of 2019 had affected economies, businesses, and communities around the world including Malaysia. It also had interrupted education system as schools and universities were forced to shut down (Mahamed Ali et al., 2022). In Malaysia, the national economic sector such as the service sector is most affected by this pandemic (Shaari, Masnan, Alias, & Rahim, 2021). The service sector, especially businesses involving transportation, tourism, and hospitality, has declined sharply due to closures and restrictions on the movement of people from one country to another. The adverse effect is that many local workers working in this sector have made the unemployment rate in Malaysia increase in the period 2019 to 2020. However, index crime has been reported to decline during the period of this MCO. Therefore, an analysis is needed to explain this issue. The findings can also benefit the Malaysian Enforcement Ministries and agencies such as the Ministry of Home Affairs, RMP, Malaysian Prison Department, and Ministry of Human Resources to reinforce crime prevention policy related to unemployment that can combat crime. The next section will discuss the literature and explain this issue by discussing the situation of the unemployment rate during the MCO period and its impact on crime in Malaysia.

2. LITERATURE REVIEW

This section of this literature discusses about the related crime theories and past studies on the relationship of unemployment and crime.

2.1 Crime Theories

Crime theories are widely debated by criminologists from various fields including sociology, economics, psychology and etcetera. However, this study is interested into two crime theories that are expected to explain the relationship between unemployment and crime during the occurrence of this COVID-19 pandemic. The two theories are called as the motivational crime theory pioneered by Gary S. Becker (1968) and the opportunity crime theory introduced by Cohen and Felson (1979).

2.1.1 Motivational Crime Theory - Economic Crime Model

Becker (1968) has analysed criminal activity from an economic lens which focuses more on criminal behaviour. In the economic crime model Becker explains that the offender is a rational individual to maximise utility who makes comparisons between the costs and benefits of crime. Using the concept of an economic approach to crime, Becker (1968) has stated that crime is considered a type of employment, even if it is illegal. Becker's idea of crime is that people will commit criminal activity when the cost of committing criminal activity is lower than its benefits.

This means that if the benefits derived from committing the criminal activity are more lucrative than the risk of being arrested, then the individual will choose to commit the crime. The benefits of committing a crime can be classified as gain in money or psychological gain (non-financially motivated crime). Hence, financial gain is more popular than psychological gain and this causes the number of property crime cases exceeds violent crime cases.

2.1.2 Opportunity Crime Theory - Routine Activity Theory

The effects of crime opportunity are based on theory from the field of sociology. This theory differs from motivational crime theory in that it focuses more on the characteristics of crime and not on criminal behaviour (Cohen & Felson, 1979). Cohen and Felson's sociological theoretical approach are different with the economic approach to crime because their theories are rational actors who take advantage of opportunities. However, this is a complementary theory to the theory of motivational crime. In this sense, the element of opportunity plays an important role in emphasising routine activities. It focuses on the study of crime as an incident rather than on criminal behaviour.

This opportunity crime theory is also known as routine activity theory. Cohen and Felson (1979) showed that structural changes in routine activity patterns can influence crime rates because of the inclusion of the following three elements as shown in the Figure 2: (1) motivation to commit crime, (2) presence of opportunities/targets to commit crime, and (3) the absence of capable guardianship to prevent crime.

Figure 2. Routine Activity Theory in Crime (Source: Choo, 2011; as cited in Samonas, 2014)

2.2 Empirical Studies

Most criminologists observe unemployment as a proxy for economic conditions influencing criminal activity. This is also a commonly used proxy for business cycles (Sameem & Sylwester, 2018). Majority of studies state that unemployment is positively related to crime due to lost sources of income and stress. Plausibly, the relationship between economic situation factors and crime rates explains that economic recessions lead to higher crime rates. On the other hand, economic growth will lower the rate of criminal activity. However, the past findings still do not show clear evidence of this relationship.

Unemployment is considered one of the leading causes of crime in both developed and developing countries (Abdul Hamid & Habibullah, 2008). However, the effect of unemployment on crime depends on the type of crime, where unemployment has a more dominant effect on property crime than violent crime. Many studies use unemployment as one of the determinants of crime (e.g., Abdul Hamid, Habibullah, & Mohd Noor, 2013; Ghani, 2017; Janko & Popli, 2015; Lobonţ 2017). However, the findings for the unemployment-crime relationship differ according to crime type, methodology, and proxies used by the researcher.

Previous studies have shown that there are two effects of unemployment on criminal activity. First, the economic approach to crime by Becker (1968) sees criminal motivation explaining that unemployment is positively related to criminal activity because loss or lack of income has been the motivation for them to commit crime. According to Ehrlich (1973), his study also found a positive link between crime and unemployment. The study emphasises that employment is an important indicator of the opportunity to earn a legitimate income. If there is an increase in the unemployment rate, then that means many individuals will tend to commit crimes. Moreover, Kassem and Audi (2019) examined the impact of unemployment, population density and amount of remittances, industrialisation on crime rate among the districts of Punjab, Pakistan. They used Johansen cointegration method by using data from all thirty-five districts of Punjab for the year 2018. They found that unemployment and population density have a positive relationship with crime rate among the districts of Punjab, Pakistan. On the other hand, an increase in unemployment will reduce criminal activity because there will be less opportunities to commit criminal activities. This inverse relationship between unemployment and crime means that when people are unemployed, they prefer to stay at home and, as a result, they are less likely to become victims of crime which in turn will reduce rates of property crime and violent crime.

The influence of unemployment on crime varies depending on the type of crime, with property crime having a greater impact than violent crime. However, according to the types of crimes, economic techniques, and proxies employed in earlier studies, the conclusions for unemployment-crime relationships are inconsistent. For example, Saridakis and Spengler (2012) used a regional dataset from 1991 to 1998 experimentally evaluated for developed countries to examine the relationship between crime, deterrence, and unemployment in Greece. They employed the Generalised Method of Moments (GMM) estimator on dynamic panel data models. Their findings revealed that unemployment can significantly increase the property crime. For violent crimes, however, unemployment is found to be generally insignificant. On the other hand, Janko and Popli (2015) examined the relationship between unemployment and crime rates using national and regional Canadian data to test for short-run and long-run dynamics. Their findings indicated that there is no evidence of a long-run relationship between crime and unemployment. However, there is some evidence of a significant short-run negative association between chosen property crime and unemployment, supporting the opportunity theory. Besides, Imran, Hosen and Chowdhury (2018) used time series data of USA over the period from 1965 to 2016 that applied autoregressive distributed lag approach to identify the effect of poverty on crime. They revealed that unemployment and GDP exhibit neither long-run nor short-run relationship with property crime.

Edmark (2005) investigated the link between unemployment and crime in Sweden between 1988 and 1999, when the labour market was highly unpredictable. His results suggested that unemployment has a strong and considerable impact on some property crimes. However, Sameem and Sylwester (2018) explored the correlation between unemployment and crime by using data from the United States from 1990 to 2013, discovered evidence of a link between unemployment and property crime. For violent crime, there was a similar pattern, but the results were statistically weaker. In short, previous research typically only found that there is a positive relationship between property crime and unemployment and weak effect of unemployment on violent crime. Recently, Schleimer et al. (2022) employed negative binomial regression models

and parametric g-computation by using data for 16 US cities from January 2018 to July 2020. They estimated the association between severe changes in unemployment during the coronavirus pandemic and violent and acquisitive crime. Their findings showed that no relationship between unemployment and violent crime, including severe assault. They suggested that the sharp rise in unemployment during the pandemic may have contributed to increases in property crime, but not other crime. However, to the best of our knowledge, the study on the trend of unemployment and crime index during the COVID-19 pandemic in Malaysia is rarely discussed.

3. UNEMPLOYMENT RATE DURING THE COVID-19 PANDEMIC IN MALAYSIA

High unemployment rate is a major problem for a country to achieve sustainable economic growth because it indicates a waste of human resources. As COVID-19 outbreak began in December 2019, there was a severe increase in the unemployment rate and the highest unemployment rate in Malaysia as it has been recorded as the highest unemployment rate in Malaysia when the Malaysian government announced the implementation of the MC0 starting March 18, 2020. The implementation of the MCO vastly affected the employment sectors in Malaysia. This is due to many job sectors have ceased operations immediately to curb COVID-19 outbreak.
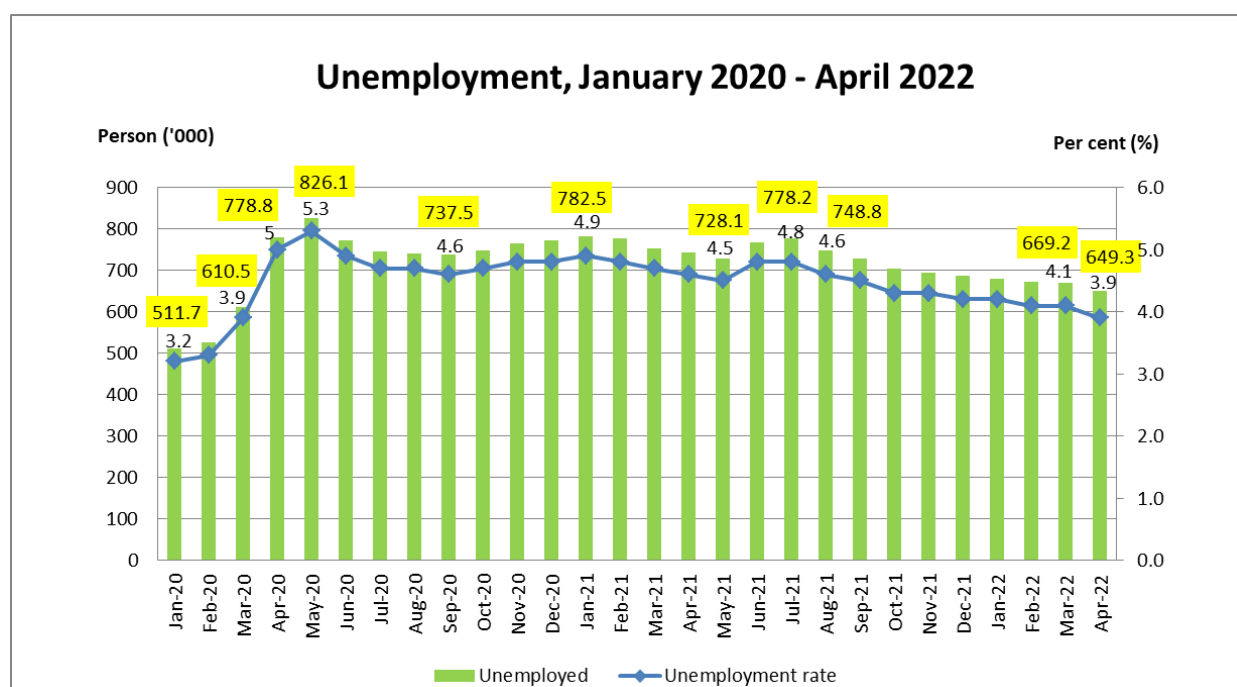

Figure 3: Total of Unemployed Person and Unemployment Rate in Malaysia, January 2020 - April 2022 (Source: Department of Statistics Malaysia)

Based on Figure 3, the unemployment rate in Malaysia was sharply increased starting from April 2020 which was 5.0% and it continued to increase to 5.3% in May 2020 amounted of the total unemployed person from 778,800 persons in the previous month to 826,100 persons. However, by September 2020, the unemployment rate showed a decline to 4.6%. Although the trend of the unemployment rate shows a decline until March 2022, the situation is still worrying as the unemployment rate still stands at more than 4%. According to the ILO, a country with an unemployment rate of 4% or less, shows that the country has achieved full employment. Entering April 2022, the unemployment rate began to decline to 3.9%, making the total unemployed drop to 649.3 thousand compared to the same month by 2020, the total unemployed was 778.8 thousand. This is the first time the unemployment rate has been below 4% since COVID-19 pandemic. In line with Malaysia's transition phase to endemic by April 2022, the reopening of

international borders earlier in the month has strengthened the country's economic activities. Therefore, the labour market is expected to remain resilient in the coming months.

The implementation of MCO caused many companies facing difficulties in covering high expenditure costs. Although there are sectors that are given exemptions to operate during the implementation of the MCO, but the adverse impact is still faced by the sectors because they must comply with standard operating procedures (SOP) that involved high costs. This situation has forced many companies or businesses decided to reduce employees. Besides, many companies that were declared bankrupt had to lay off all employees because they could no longer afford to continue operating. The low-income group are the most affected by the issue of unemployment during this pandemic COVID-19. Many workers were forced to take unpaid leave for several months, in which some of them confronted with their salaries cut by 20 to 50 percent and some of them lost their livelihoods. Meanwhile, those who are self-employed must cope with the need to pay the debts of suppliers and rent for premises as well as fulfil the responsibility of retaining employees. In short, unemployment not only can affect economic, social and political issues but also affects the welfare of the people and the harmony of society in a country. It is an urgent need to control the unemployment rate because the unemployed persons will feel strain and thus motivate them to commit immoral activities such as committing crime activities.

4. UNEMPLOYMENT AND CRIME DURING THE COVID-19 PANDEMIC IN MALAYSIA

Based on the previous studies, various socio-economic factors have been studied in influencing crimes in Malaysia and most of the findings found that unemployment is one of the prominent socioeconomic factors that influence crime rates. Although the crime index decreased during the implementation of the MCO, but other crimes still occur such as domestic violence and cyber-crime which is becoming alarming. The issue of unemployment can lead to the problem of emotional stress which affects mental health. This situation will automatically cause a person to be a motivated offender. Moreover, unemployment will cause economic a reduction in national output. The standard of living of the people is also declining as it is measured by using per capita income. As per capita income is low, the living standards of the population are also low. Thus, it will create the social problems. Therefore, it is a worrying situation to all parties, especially the Malaysian government in boosting the economic growth.

Since the implementation of the MCO on March 18, 2020, the presence thousands of enforcement personnel or everywhere across the country is like 'scary' criminals. The existence of hundreds of roadblocks has made it difficult for criminals to move freely. The positive effect of this situation is the decrease in crime index, but the emergence of non-index crime was found to increase such as incest, child pornography, domestic violence, and suicide (Ibrahim, Mohd Iskandar & Razali, 2021). Similarly, the number of commercial crime cases also recorded an increase during COVID-19 (Bernama, 2021). This is because commercial crimes do not have to be face to face, for example scams and loan scams that can be made via a phone call or online. Undeniably, criminal activities occur because many people are desperate to obtain money to survive due to losing their source of income. The emotional effects after being laid off is frustrating, leading to choosing the wrong way by committing a crime to reduce strain. Besides, this situation also gave a short -term negative impact on the labour market and can create a group of individuals known as 'career criminals' who earn income through crime (Suhaimi, 2020). This means worsening opportunities in the employment sector make criminal activity becomes more attractive such as committing cybercrime. He also stated that cybercrime with fraud on the internet increased by 33 percent during the economic crisis of 2008 to 2009.

Furthermore, the trend of crime today is similar to the trend of crime during the past economic crisis in 2008 to 2009, but with a worrying of cyber security threats. Besides, the dumping of the unemployed persons who are computer-savvy attempt to commit cyber-attacks easily. The

findings of the previous study reveal that unemployment can have both positive and negative relationship with crime. However, it can be concluded that the situation in MCO is in line with the theory of opportunity crime. Although the number of unemployed persons increased during the pandemic, the crime index was seen to decline. This is because when the community needs to stay at home during the MCO period, the chances of committing index crimes i.e., property crimes and violent crimes are low because their property are monitored, and individuals are not easily exposed to violent crimes. However, non -index crime is reported to increase because the strain during the pandemic has forced the individual to commit non-index crime to earn money to continue living.

5. CONCLUSION AND POLICY IMPLICATIONS

This study investigates the trend of unemployment and the trend of crime rate in Malaysia during the period of MCO. It is noted that the implementation of the MCO had interrupted the national economy, including the increase in unemployment particularly in the tourism sector. Many empirical studies have proven that when unemployment increases, this will cause the crime rate also to increase because when people lose their jobs, then they lose their source of income. Therefore, to ensure their survival, they had to commit crimes such as robbery and theft.

However, the investigation of this study found that although the unemployment rate increased but the crime index decreased in Malaysia during the MCO period. This is because when MCO was implemented and many places were tightly controlled by authorities such as RELA, policemen and armies. The action taken by Malaysian government successfully reduced opportunities for criminal to commit crimes. However, the non-crime index such as child abuse and domestic violence increased during the MCO period. The findings of this study prove that the tighten control from the authorities needs to be strengthened to reduce the crimes. Apart from that, unemployment incentives also need to be channelled more effectively to prevent those who suffer income loses become motivated to commit crimes.

Nevertheless, the government's continuous effort to combat crime through reducing unemployment should be beefed up. Thus, supply-side policies may play a critical role. This study suggests that the Malaysian government uses supply-side policies to build resilience and boost productivity growth, such as giving subsidies or imposing partial business taxes as incentives to producers and entrepreneurs to enhance firms' and businesses' production. As such, unemployment can be reduced as there are more job opportunities, and finally crime can also be nipped in the bud. Apart from that, community policing is also important to protect the community from any type of crimes owing to unemployment (an increase in the number of unemployed people).

Like other studies, this study also has its weaknesses and shortcomings. One of the shortcomings is this study focuses only on the crime index without focusing on types of property and violent crimes such as theft, murder, and rape. Therefore, future studies are suggested to investigate the trend of other types of crime that may show an increase over the period of MCO.

REFERENCES

Abdul Hamid, B., & Habibullah, M. S. (2008). Crime and Income Inequality: The Case of Malaysia. *Munich Personal RePEc Archive*, *3*(46733), 6–25.

Abdul Hamid, B., Habibullah, M. S., & Mohd Noor, Z. (2013). Crime And Its Socio-Macroeconomics Determinants: A Panel-Error-Correction Cointegration Analysis. *Jurnal Ekonomi Malaysia*, *47*(2), 13–24.

Amin, M., Rahim, M., & Ayu, G. (2014). A Trend Analysis of Violent Crimes in Malaysia. *Health and the Environment Journal*, *5*(2), 41–56.

Becker, G. S. (1968). Crime and Punishment : An Economic Approach Author (s): Gary S . Becker Published by : The University of Chicago Press Stable URL : https://www.jstor.org/stable/1830482 Crime and Punishment : An Economic Approach. *The University of Chicago Press*, *76*(2), 169–217.

Bernama. (2021). Kes Jenayah Turun 23 Peratus. *Harian Metro*. Retrieved from https://www.hmetro.com.my/mutakhir/2020/11/642701/kes-jenayah-turun-23-peratus

Cohen, L. E., & Felson, M. (1979). Social Change and Crime Rate Trends: A Routine Activity Approach. *American Sociological Review*, *44*(4), 588. https://doi.org/10.2307/2094589

Edmark, K. (2005). Unemployment and Crime: Is There a Connection? Scandinavian Journal of Economics, 107(2), 353–373. https://doi.org/10.1111/j.1467-9442.2005.00412.x

Ehrlich, I. (1973). Participation in Illegitimate Activities: A Theoretical and Empirical Investigation. *Journal of Political Economy*, *81*, 521–565.

Ghani, Z. A. (2017). A Comparative Study of Urban Crime Between Malaysia and Nigeria. *Journal of Urban Management*, *6*(1), 19–29. https://doi.org/10.1016/j.jum.2017.03.001

Ibrahim, Mohd Iskandar, Razali, S. A. (2021). Kawalan Perangi COVID-19 Pengaruhi Trend Jenayah. *Berita Harian Online*. Retrieved from https://www.bharian.com.my/berita/nasional/2021/03/799997/Kawalan-Perangi-COVID-19-Pengaruhi-Trend-Jenayah

Imran, M., Hosen, M., & Chowdhury, M. A. F. (2018). Does Poverty Lead to Crime? Evidence from the United States of America. *International Journal of Social Economics*. Vol. 45 No. 10, pp. 1424-1438. https://doi.org/10.1108/IJSE-04-2017-0167

Janko, Z., & Popli, G. (2015). Examining the Link Between Crime and Unemployment: A Time-Series Analysis for Canada. *Applied Economics*, *47*(37), 4007–4019. https://doi.org/10.1080/00036846.2015.1023942

Kassem, M. Ali, A. and Audi, M. (2019). Unemployment Rate, Population Density and Crime Rate in Punjab (Pakistan): An Empirical Analysis. Bulletin of Business and Economics, 8(2), 92-104.

Lobonţ, O.-R. R., Nicolescu, A.-C. C., Moldovan, N.-C. C., & Kuloğlu, A. (2017). The Effect of Socioeconomic Factors on Crime Rates in Romania: A Macro-Level Analysis. *Economic Research-Ekonomska Istrazivanja* , *30*(1), 91–111. https://doi.org/10.1080/1331677X.2017.1305790

Mahamed Ali, F., Abdul Karim, N., Samsudin, A., Hamid, M., & Izwan Mohd Zaki, M. (2022). Understanding Students' Online Learning Readiness towards Skill-based Hospitality Courses. ESTEEM Journal of Social Sciences and Humanities, 6(1), 63–78. https://ejssh.uitm.edu.my

Sameem, S., & Sylwester, K. (2018). Crime During the Business Cycle: Urban–Rural Differences. *Applied Economics*, *50*(22), 2500–2508. https://doi.org/10.1080/00036846.2017.1400653

Samonas, S. (2014). *Spyridon Samonas Conference Item [eg . keynote lecture, etc .]. April 2013*.

Saridakis, G., & Spengler, H. (2012). Crime, Deterrence and Unemployment in Greece: A Panel Data Approach. *Social Science Journal*, *49*(2), 167–174. https://doi.org/10.1016/j.soscij.2011.08.005

Shaari, M. S., Masnan, F., Alias, N. S., & Rahim, R. T. A. (2021). How Does COVID-19 Affect Economy, Business and Society in Malaysia? *AIP Conference Proceedings*, *2339*. https://doi.org/10.1063/5.0044603

Schleimer, J. P., Pear, V. A., McCort, C. D., Shev, A. B., De Biasi, A., Tomsich, E., ... & Wintemute, G. J. (2022). Unemployment and Crime in US Cities During the Coronavirus Pandemic. *Journal of Urban Health*, *99*(1), 82-91.

Sidhu, A. S. A. (2005). The Rise of Crime in Malaysia: An Academic and Statistical Analysis. *Journal of the Kuala Lumpur. Royal Malaysia Police College*, *4*, 1–28. http://rmpckl.rmp.gov.my/Journal/BI/riseofcrime.pdf

Suhaimi, afifah. (2020). Waspada Wabak "Penjenayah Kerjaya." *Berita Harian Online*. Retrieved from https://www.bharian.com.my/rencana/komentar/2020/06/703921/waspada-wabak-penjenayah-kerjaya

Usman, U., Yakubu, M., & Bello, A. . (2012). An Investigation on the Rate of Crime in Sokoto State Using Principal Component Analysis. *Nigerian Journal of Basic and Applied Science*, *20*(2), 152–160.