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Evolution and determinants of contemporary crime

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***Abstract*— The aim of this paper is to analyze the evolution and determinants of contemporary crime in the context of the dynamic social, economic, and technological changes occurring in the 21st century. The starting point is the assumption that crime is a complex social phenomenon whose nature and intensity are constantly changing under the influence of globalization, digitalization, and crisis events such as the COVID-19 pandemic. The main research problem is to answer the question of which factors most significantly influence the scale and structure of contemporary crime, and how its nature is changing in the face of technological development and global social transformation. The research hypothesis assumes that the evolution of crime is decisively influenced by economic, technological, and cultural factors, which shape both the motivations of perpetrators and the effectiveness of prevention and control systems. The study utilizes qualitative and quantitative analysis methods, including analysis of statistical data from the Police and the Ministry of Justice, a review of scientific literature, and case studies. The obtained results indicate that contemporary crime increasingly takes the form of cybercrime, economic crime, and cross-border crimes, and its dynamics strongly correlate with the level of technological development and social inequality. The final conclusion is that understanding the evolution of crime requires an interdisciplinary approach, combining social, economic, and technological analysis. Only a comprehensive study of the determinants of this phenomenon can provide the basis for effective criminal policy and modern internal security strategies.**

Keywords— crime, covid 19 pandemic, cybercrime

I. INTRODUCTION

Crime is a social phenomenon that has accompanied humanity since the dawn of time, yet its forms, dynamics, and scale are constantly changing. Along with civilizational development, technological progress, and globalization, the manner in which crimes are committed, their motivations, and the structure of perpetrators are also evolving. Contemporary crime increasingly transcends national borders, takes on a transnational character, and increasingly utilizes the opportunities offered by digital technologies. As a result, traditional approaches to combating crime require transformation and adaptation to new socioeconomic realities. The evolution of crime is inextricably linked to globalization processes, the development of the digital economy, and changes in social structure. Currently, we are observing a growing importance of economic crime, cybercrime, organized crime, and hybrid phenomena that combine elements of various forms of criminal activity.

New technologies, such as the internet, artificial intelligence, and cryptocurrencies, open up new avenues for perpetrators, while simultaneously posing significant challenges for law enforcement and the justice system. The COVID-19 pandemic, which has been used in recent years to shape social crime, has been a key factor. Sanitary restrictions, network coverage, and the network's reach into the border zone accessible via the internet, financial fraud, and abuses related to the capture of

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personal data, have all contributed to the pandemic's impact on the level and structure of crime. The pandemic has also highlighted the extent to which external concepts—social, economic, and regulatory—can reveal the level and structure of crime. The aim of this study is to analyze the evolution of crime phenomena and identify its key determinants in contemporary socioeconomic conditions. The work aims to understand how economic, technological, political, and cultural concepts influence the level and forms of crime in the 21st century. Attention will also be paid to the significance of crime during the COVID-19 outbreak and the new importance of technology in the development of exposed crime and cybercrime. The subject matter addressed has significant cognitive and practical implications. Understanding the mechanisms of crime evolution is essential for designing effective preventive strategies, internal security policies, and law enforcement actions. Contemporary criminal threats require an interdisciplinary approach, combining knowledge from sociology, criminology, economics, information technology, and law.

The scope of this work includes a theoretical analysis of the concept of crime, its types and forms, a discussion of the factors influencing its development, and a characterization of contemporary trends in this area. Particular attention is paid to the changes in crime observed in recent years, which reflect global civilizational transformations and the growing interdependence between technology and public safety.

II. Definition, types and forms af crime

Crime, as a concept in criminology, is understood as a set of events referred to as offenses. A crime is defined as an act prohibited by law under penalty, which may be classified as a crime or misdemeanor that is unlawful, culpable, and socially harmful to a greater degree than insignificant (Journal of Laws 2022, item 1138).

Crime, or rather its extent, depends largely on the approach being taken. It can be divided into actual crime, ascertained crime, disclosed crime, and adjudicated crime. Actual crime is characterized by the fact that neither its extent nor structure is known, but rather represents the totality of acts committed at a given time in a given area. Ascertained crime, on the other hand, is the totality of acts identified during preparatory proceedings. Disclosed crime, like the previous ones, also represents the totality of acts about which law enforcement agencies obtained information and based on which proceedings were initiated. In this case, not all acts are classified as crimes. An example would be stolen property whose value does not exceed 1/4 of the minimum wage; such an act is then classified as a misdemeanor. The last of the above-mentioned crimes is a criminal conviction; this also represents the totality of acts confirmed as a result of court proceedings (Hołyst B. 2022, p. 107).

Identified crimes, the number of which, according to statistics based on Brunon Hołyst's publication, changed from 1,082,057 to 873,245 in the years 2008-2014 relative to all crimes. The largest decline was recorded in 2014, as this number decreased by as much as 18% compared to the previous year, which is truly shocking, as from 2008 to 2011 it increased year by year by an average of 2.33%. In the structure of crimes, criminal offenses should deserve significant attention, accounting for just over 70% of recorded incidents. For a closer comparison, economic crimes accounted for nearly 10% and road traffic crimes nearly 20% of the total (Hołyst B. 2022, p. 141).

According to an analysis conducted based on the collected data, 2011 is considered the most dangerous year among those mentioned above, while, as noted above, significantly fewer crimes were recorded in 2014, which represents a significant improvement in safety. Over the seven years analyzed, the number of criminal offenses decreased by as much as 20%, and the number of traffic offenses also significantly decreased by nearly 50%. Only economic crimes saw a 19.2% increase. The statistical decline in crimes was also noticeable in the following year, 2015, which decreased by 9% compared to 2014, or 833,281 (Hołyst B. 2022, p. 142).

Criminal networks traffic a range of drugs, from so-called soft drugs, including cannabis, to hard drugs, such as cocaine, heroin, and methamphetamine. As international borders become increasingly porous, global abuse and availability of drugs are becoming increasingly common. Growers, producers, couriers, suppliers, and dealers participate in this international trade. A sad fact is the growing interest in drugs among minors, who are not fully aware of the consequences of using or trafficking drugs. It affects almost all member states, undermining political and economic stability, ruining individual lives, and harming communities. End users and addicts are often victims of a powerful and manipulative business (Hołyst B. 2022, p. 325).

Cybercrime is any criminal activity involving a computer, network, or networked device. Although most cybercriminals use cybercrimes to generate profit, some are committed against computers or devices to directly damage or disable them. Others use computers or networks to spread malware, illegal information, images, or other materials. Some cybercrimes do both—that is, they attack computers to infect them with a computer virus, which then spreads to other machines and sometimes entire networks (Suchorzewska A. 2021, p. 166).

The primary impact of cybercrime is financial. Cybercrime can encompass a wide variety of for-profit criminal activities, including ransomware attacks, email and internet fraud, and identity fraud, as well as attempts to steal financial, credit card, or other payment card data. Cybercrime is considered one of the top threats in 2020. Its exact scale is not known, but according to estimates, in 2030, losses related to cyberattacks could amount to as much as 0.9% of global GDP (Worona J. Warsaw 2020, p. 140).

In the Penal Code, cybercrime is regulated in Article 287 of the Penal Code, which states: "§ 1. "Whoever, in order to gain financial gain or cause harm to another person, without authorization, affects the automatic processing, collection, or transmission of computer data, or changes, deletes, or introduces a new record of computer data, shall be subject to a penalty of imprisonment from 3 months to 5 years." § 2. "In cases of lesser significance, the perpetrator shall be subject to a fine, restriction of liberty, or imprisonment for up to one year." § 3. "If the fraud was committed to the detriment of a close relative, prosecution shall occur at the request of the injured party"(https://statystyka.policja.pl/st/kodeks-karny/przestepstwa-przeciwko-16/63977,Oszustwo-komputerowe-art-287.html).

Economic fraud is a financial crime in which perpetrators use various fraudulent methods to obtain financial benefits, often at the expense of companies, financial institutions, or other economic entities. These crimes can encompass various areas, such as forgery, tax fraud, money laundering, and economic abuse (Hołyst B. 2022, p. 359). Article 286 of the Penal Code refers to this form of crime and describes that "§ 1. Whoever, in order to gain a material benefit, causes another person to disadvantageously dispose of their own or someone else's property by misleading them, or by taking advantage of their error or inability to properly understand the action undertaken, shall be subject to the penalty of imprisonment for a term of between 6 months and 8 years. § 2. The same penalty shall be imposed on anyone who demands a material benefit in exchange for the return of unlawfully taken property. § 3. In lesser cases, the perpetrator shall be subject to a fine, restriction of liberty or imprisonment for up to 2 years. § 4. If the act specified in § 1-3 was committed to the detriment of a next of kin, the prosecution shall occur at the request of the injured party" (https://statystyka.policja.pl/st/kodeks-karny/przestepstwa-przeciwko-16/63976,Oszustwo-art-286.html).

Crime can vary by region, city, or neighborhood. Analyzing changes in crime at the local level can reveal geographic patterns that can be helpful in implementing targeted actions at a specific location. The first crime analyses and maps appeared as early as the 19th century. This demonstrated the uneven distribution of crime across the study area, especially when analyzing violent and property crime. Maps were created manually, which was labor-intensive and time-consuming. As a result, large-scale analysis or interpretation of crime data was impossible. In modern times, a Geographic Information System (GIS) is used to perform more detailed analysis. Its role is to enter, collect, process, manage, and visualize geographic data, which is then used to conduct multi-dimensional analyses.

(https://kolo.kryminologii.wpia.uj.edu.pl/documents/43996636/106870298/Geografia-przest%C4%99pczo%C5%9Bci.pdf)

III. Crime during the COVID-19 pandemic

In the face of the global COVID-19 pandemic, the entire world faced an extraordinary challenge. The pandemic triggered not only a health crisis but also a social and economic one. In the hours before the legal stay-at-home order was introduced and in the first few weeks that followed, it was important to note the changes that impacted society and crime (Długosz P. 2021, p. 9).As people around the world returned from hectic and stressful journeys to stock up on food and other essentials, they closed their doors behind them. Their biological and physiological conditions remained little changed, nor did the labels assigned to them by society, friends, and family (Cybulska A, Pankowski K. 2021, pp. 1-3).

With the introduction of the lockdown, many places were closed, which hampered crime, including drug-related crime. Although it temporarily curbed criminal activity, it didn't last long. Burglaries at homes under construction, and elsewhere, increased. In 2020, 3,000 more burglaries and car thefts were recorded than in the previous year. Criminals began to exploit the pandemic, which greatly facilitated economic crime. For example, 175,000 more economic crimes were recorded in 2020 than in 2019. The pandemic contributed to remote work, which led to more online purchases, and it was here that people forced by the pandemic to shop online fell victim most often (Hołyst B. 2022, p. 147). In 2020, the number of fights and assaults dropped significantly, by nearly 21%. In 2019, 4,066 were recorded, while in 2020, 3,229. In the category of the seven most troublesome crimes for citizens, a 3.04% drop was recorded, with 236,722 recorded in 2019 and 229,505 in 2020 (https://gazeta.policja.pl/997/archiwum-1/2021/numer-2-022021/199495,Rok-2020-w-liczbach.html).

The pandemic period has significantly changed interpersonal relationships. Constantly staying at home without the ability to leave has intensified aggression towards household members. This behavior often combined with alcohol abuse, further contributing to aggression. However, the increase in homicides has been shocking. In 2020, 656 homicides were recorded, which was 125 more than in the pre-pandemic year of 2019. Research shows that prolonged emotional stress leads to more violent release during arguments. Fearing stigmatization, people are afraid to seek advice or help from a psychiatrist or psychologist, which leads to the escalation of emotional problems. Retreating to alcohol is a very common consequence of escalating problems, leading to disorders and, consequently, sometimes even to murder (Hołyst B. 2022, p. 148).

Poverty and inequality didn't disappear or increase immediately. However, there were things that did change—society became more disorganized, and social influences and relationships were suddenly cut off, diminished, or otherwise altered. Tension, stress, and anomie likely increased significantly as many people became anxious about the future (both financially and physically) and separated from family and friends they couldn't physically visit. (Gambin M., Zawadzki B. 2022, p. 292). Moreover, punitive responses to crime (i.e., deterrence) have been slowed or ceased altogether as courts have been closed, police have been encouraged to limit contact with the public, and thousands of prisoners have been released early. Because crime has been declining at such a significant rate, and many of the factors often attributed to crime remain unchanged or, in some cases, increase or decrease in the opposite direction of what many believe to be the driving force of crime, many criminological theories seem to have difficulty explaining the sudden and widespread change (Ostaszewski P., Klimczak J., Włodarczyk-Madejska J. 2021, p. 21).

IV. FACTORS INFLUENCING CRIME

Poverty and crime have a complex and often controversial relationship. While it is increasingly accepted that poverty does not cause crime, there is still considerable evidence linking the two. A lack of resources for basic necessities, combined with a lack of opportunities for social and economic advancement, creates a breeding ground for criminal activity. These individuals have very poor life prospects because they are born into disadvantaged circumstances, meaning their chances of achieving success in life are very limited. As a result, they turn to crime because they feel it is the only way out of their difficult circumstances. A lack of education plays a significant role in this situation. Low levels of education are associated with a wide range of negative outcomes, including poverty and unemployment. People without a high school diploma are more likely to engage in criminal activity than people with higher education (Pływaczewski E., Redo S., Guzik-Makaruk E., Laskowska K., Filipkowski W., Glińska E. Jurgielewicz-Delegacz E., Perkowska M. 2019, p. 417).

Another explanation is that less affluent people have a so-called culture of poverty, meaning they lack the values and attitudes that would enable them to succeed in legal economic areas. This culture of poverty instills in poor people values and attitudes that can help them easily succeed in illegal areas. Using this theory of the culture of poverty, it becomes obvious that poor people rarely think about real means of survival, and crime is the easiest option for them (Stefaniuk M., Pieniążek A, 2021, p. 295).

There are social factors that explain the relationship between poverty and crime. Poor, low-income people live in poorer neighborhoods. These neighborhoods have more criminals than wealthier neighborhoods, meaning these poor people see more criminals and criminal activity in their daily lives, thus becoming desensitized to crime. This desensitization makes them more susceptible to criminal influences and they commit crimes more often than people living in wealthier neighborhoods and not exposed to criminal activity (Golinowska S. 2018, p. 83). The family environment is an important element shaping an individual's attitudes, values, and behaviors. Family plays a crucial role in the socialization process, introducing individuals to society and transmitting norms and values. However, the characteristics of the family environment can significantly influence an individual's development and propensity to engage in crime.

When family ties are strong and the environment fosters emotional support, individuals typically develop a healthy sense of identity and security. Emotional stability within the family, ensured by acceptance, understanding, and mutual care, fosters positive social relationships. In such a context, individuals have a greater chance of developing appropriate social skills and coping skills, which may reduce the risk of engaging in crime (Hołyst B. 2016, p. 343).On the other hand, family breakdown, conflict, and lack of stability and support can create an unhealthy environment, predisposing individuals to behavioral problems, including a tendency toward crime. Children and adolescents raised in an atmosphere of tension, aggression, or neglect often experience difficulties establishing healthy social relationships. The lack of positive behavioral role models can lead to rebellion or a search for acceptance and identity in inappropriate social environments (Pływaczewski E., Redo S., Guzik-Makaruk E., Laskowska K., Filipkowski W., Glińska E. Jurgielewicz-Delegacz E., Perkowska M. 2019, p. 342).

Furthermore, the influence of family on criminality may be related to the parenting model adopted. Parents who fail to establish clear boundaries, shape appropriate values, and teach responsibility can contribute to the formation of negative attitudes in their children. Negative patterns of behaviour, especially if tolerated in the family, may influence the development of aggressiveness or intolerance, which in turn increases the risk of involvement in crime (Hołyst B. 2022, p. 436). The complex connections between drugs, alcohol, violence, and criminal behavior are no surprise. Statistics repeatedly confirm the strong link between substance abuse and crime, some of which is violent. Of course, drug abuse and drinking can also lead to aggressive behavior that goes unreported and never reaches the criminal justice system (Jakubczyk A. 2017 pp. 9-10). Alcohol and drug abuse can lead to criminal behavior and can be used as a coping mechanism by individuals with a history of crime. In other words, they are interconnected, but this does not mean that there are no solutions to the problem of drug-related crime and violence (Hołyst B. 2022, p. 1469). Because alcohol is legal and readily available, it has a particularly strong link to crime and violence. Forty percent of all modern crimes are alcohol-related, and approximately 37 percent of incarcerated offenders report drinking at the time of their arrest. In fact, alcohol has been found to be more often associated with violent crimes (murder, rape, assault, spousal abuse, and child abuse) than any other illegal drug. In approximately half of all murders and assaults, it was found that the perpetrator, the victim, or both parties had been drinking (Dajanowicz-Piesiecka D., Jurgielewicz-Delegacz E., Pływaczewski E. W. 2022, p. 357).

Alcohol is also a major factor in violence between people who know each other. About two-thirds of victims attacked by a current or former spouse or significant other reported alcohol involvement, compared to only 31 percent of victims of violence by strangers (Wielec M. 2022, p. 361).

Society's growing reliance on information technology raises concerns about vulnerabilities in cyberspace and the "dark side" of computer networks. The development of digital operations in legal markets is a key driver of economic development. However, because markets and trade themselves have always attracted criminals seeking to profit from illegal activities, digital networks have become a key enabler of cybercrime, both in terms of committing traditional crimes on the Internet and the development of new types of computer misuse (Pływaczewski E., Redo S., Guzik-Makaruk E., Laskowska K., Filipkowski W., Glińska E. Jurgielewicz-Delegacz E., Perkowska M. 2019, p. 512). Cybercrime is evolving in tandem with the way society uses digital networks, responding to every development in the legal sector and introducing new approaches to committing crimes. Over the last decade, it has undergone a transformation from fragmented acts undertaken by individuals to increasingly sophisticated and highly professionalized activity. Furthermore, cybercrime is believed to be evolving into a rapidly growing illegal industry in which criminal activity is conducted through professional networks as part of a long-term, sustainable business (Pływaczewski E., Redo S., Guzik-Makaruk E., Laskowska K., Filipkowski W., Glińska E. Jurgielewicz-Delegacz E., Perkowska M. 2019, p. 516).

V. CONCLUSIONS

An analysis of the evolution and determinants of contemporary crime clearly demonstrates that it is a dynamic, multidimensional phenomenon, closely linked to processes occurring in society, the economy, and technology. Over recent decades, crime has undergone a profound transformation – both in scale and structure. Traditional forms such as theft, robbery, and crimes against life and limb are giving way to more complex forms of criminal activity, including cybercrime, economic crime, financial crime, and cross-border crime. Contemporary criminal threats are becoming increasingly organized, specialized, and difficult to detect, requiring a new approach to countering them at the national and international levels. The research verified the hypothesis that the evolution of crime is determined primarily by economic, technological, and social factors. Growing social inequality, migration, unemployment, the development of the digital economy, and the widespread availability of the internet create conditions conducive to the emergence of new forms of crime. In turn, increasing digitization and the development of information technology, while bringing numerous benefits, also generate new areas for criminal activity that are difficult to control using traditional criminal law tools.

The COVID-19 pandemic was a particularly significant period that highlighted the impact of external factors on crime patterns. It saw a significant increase in cybercrime, financial fraud, and abuses related to online trading. The pandemic demonstrated that both perpetrators' motivations and law enforcement agencies' methods of operation change in crisis situations, requiring greater flexibility in the security system and better coordination between institutions. The analyses also indicate that contemporary crime requires an interdisciplinary research approach. Criminology or sociology alone cannot fully explain the complexity of the phenomenon – it is necessary to combine knowledge from the fields of law, economics, psychology, computer science, and security sciences. Only such an approach allows for a comprehensive understanding of the mechanisms shaping criminal behavior and allows for the design of effective preventive measures.

The study's conclusions point to the need for further improvement of criminal policy, the development of prevention systems, and the implementation of modern analytical tools to support law enforcement agencies. Raising public awareness of the threats resulting from technological development and globalization is also crucial. Combating crime in the modern world cannot be limited to reacting to committed crimes – it should be based on prevention, education, and the use of modern technologies in the service of public safety. In summary, contemporary crime reflects the civilizational and economic changes taking place in the modern world. Its evolution demonstrates that there is no universal model for counteracting crime; instead, strategies must be continually adapted to changing social and technological realities. The results of the conducted analyses confirm that effective crime control requires the integration of actions at the local, national, and international levels, grounded in solid scientific and technological foundations. Only then will it be possible to ensure lasting security and social stability in the 21st century.

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