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2024

Online at https://mpra.ub.uni-muenchen.de/121566/
MPRA Paper No. 121566, posted 26 Jul 2024 09:02 UTC

Financial inclusion, financial crime and fraud detection

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Abstract

The objective of this article is to discuss the role of financial inclusion in combating financial crime. It was found that financial crime is a challenge in society. Financial crime is any action or omission that leads to unlawful or illegal financial dealings. Many countries are seeking ways to combat financial crime. Many ideas have been considered on how to combat financial crime. Financial inclusion is a possible solution for combating financial crime. Financial inclusion involves granting access to basic formal financial services to all segments of society. I show that financial inclusion makes the work of investigators easier by leaving an audit trail whenever financial crime is committed in the formal financial system. It helps investigators to detect fraud or financial crime that has occurred in the formal financial system.

Keywords: financial inclusion, financial crime, fraud detection.

July 2024

To cite: Ozili, P. K. (2024). Financial Inclusion, Financial Crime, and Fraud Detection. In *Safeguarding Financial Data in the Digital Age* (pp. 1-13). IGI Global.

https://doi.org/10.4018/979-8-3693-3633-5.ch001

1. Introduction

The aim of this chapter is to discuss the role of financial inclusion in combating financial crime and for fraud detection.

Financial crime is any action or omission that leads to unlawful or illegal financial dealings (Pickett and Pickett, 2002). Financial crime is a challenge in many countries. Financial crime takes many different forms ranging from corporate financial crime, private financial crime, and public sector financial crime (Nerenberg, 2000; Michel, 2008). Financial crime affects a country – its economy, citizens, government, institutions and social well-being. Some effects of persistent financial crime are that (i) it undermines legitimate and lawful financial dealings, (ii) it undermines the integrity of the financial system; (iii) it gives the impression that existing institutions are weak, (iv) it leads to loss of lives, (v) it leads to market distortion, (vi) it leads to loss of reputation, and (vii) it leads to loss of means of livelihood (Amara and Khlif, 2018; Ozili, 2020b; Ozili, 2015).

Many efforts have been made to combat financial crime in society. These efforts include anti-money laundering efforts, increasing financial disclosures, increasing financial transparency and fraud detection using forensic accounting tools. The literature has examined how these efforts can be used to combat financial crime and to detect fraud (see, for example, Ozili, 2015; Abdallah, Maarof and Zainal, 2016; Pourhabibi et al, 2020; Ozili and Mhlanga, 2024). However, the existing research has not considered the role of financial inclusion in combating financial crime. To date, there are no discussions in the existing literature about the role of financial inclusion in combating financial crime or for fraud detection.

Financial inclusion is very important for society (2023). Financial inclusion helps to improve wellbeing by ensuring that everyone has access to the most basic financial services (Zins and Weill, 2016; Ozili, 2021a). Once access to basic financial services is granted, people will leave an audit trail whenever they make financial transactions using formal channels. The audit trail may be used to track and identify both lawful and unlawful financial dealings in the formal financial system. The audit trail can also be used to detect financial crime. Despite the potential for financial inclusion to contribute to fraud detection and to combat crime, existing studies have not explored how financial inclusion can support efforts to combat financial crime and to assist in fraud detection efforts.

This study adds to the financial crime literature by proposing another strategy that may be used to combat financial crime. Financial inclusion is identified as a potential strategy that can be used by governments to combat financial crime. This chapter also adds to the financial inclusion literature that analyse some consequences of financial inclusion. The present study reveals that financial inclusion may have consequences for financial crime as it can expose financial crime, thereby making it a useful strategy for fraud detection.

The remaining sections of this chapter is categorized in the following way. The related literature is discussed in section 2. The discussion section is presented in section 3. Also, the ways through which financial inclusion can contribute to fraud detection and reduction in financial crime is discussed in section 3.1. The concluding remarks are presented in section 4.

2. Literature review

Existing research on financial crime has investigated the effect, consequence and mitigation of financial crime. For example, Achim et al. (2021) examined how technology affects financial crime. They analysed 185 countries from 2012 to 2015 and found that there are more financial crimes in low-income countries than in high income countries, and the use of technology reduced financial crime. Abdullah and Said (2019) examined whether having a risk committee in a company mitigates financial crime. They found that having a stand-alone risk committee has an impact on the incidence of financial crime in a company. They conclude that companies need a stand-alone risk committee to enable them combat corporate financial crime. Reid (2018) showed that online financial crime is a challenge to society, it affects the ability of humans to interact with each other online, it affects societal trust, and reduces trust in public institutions. Achim and Borlea (2020) identified some determinants of financial crime which are the need to avoid tax, quality of corporate governance and banking system soundness.

Other studies focused on fraud detection methods. Raj and Portia (2011) emphasized that banks need to adopt efficient fraud detection systems to minimize credit card losses. They suggest some techniques that may be used by banks to minimize fraud which include machine learning, artificial intelligence (AI), data mining, among others. West and Bhattacharya (2016) argue that traditional methods of fraud detection are time consuming, expensive and inaccurate, and there is a need to shift to automated processes using statistical and computational methods particularly data mining methods. In a different study, Bierstaker, Brody and Pacini (2006) showed that system firewalls, protection against virus, password breaches, and periodic review of internal control systems are methods that may be used to combat fraud.

Recent research has also investigated some solutions that financial inclusion offer to society. For instance, Le, Chuc and Taghizadeh-Hesary (2019) investigate the developments in financial inclusion in Asia over the 2004 to 2016 period. They found that financial inclusion is essential for financial sustainability in Asia, implying that financially inclusive societies are financially sustainable.

Ozili et al (2023) undertook a review of the post-2016 literature and found that increase in financial inclusion is associated with increase in economic growth, and the major channel through which this happens is through greater financial intermediation which translates to increase in

economic output. Younas, Qureshi and Al-Faryan (2022) examined how financial inclusion impacts economic growth in developing economies and found that high levels of financial inclusion are related to improvements in economic growth. Erlando, Riyanto and Masakazu (2020) analyzed the benefit of financial inclusion for economic growth, poverty alleviation and income inequality. They analyse the case of Eastern Indonesia and found that financial inclusion seems to increase economic growth and increase income inequality. Ahmad et al (2021) examined the likely effect of digital financial inclusion and human capital on China's provincial economic growth. They found that economic growth in the provinces improved after the adoption of digital financial services. Therefore, they recommend that policymakers should consider upgrading their digital financial inclusion efforts to achieve growth outcomes.

Omar and Inaba (2020) examined how financial inclusion affects poverty reduction and income inequality in developing countries from 2004 to 2016. They found that income inequality and poverty is reduced in countries that have greater levels of financial inclusion. Therefore, they conclude that countries should accelerate financial inclusion for the good of poor people. Koomson, Villano and Hadley (2020) examine how financial inclusion affects poverty in Ghana using the Ghana Living Standards Survey in 2016/17. They found that greater financial inclusion reduced the probability of being poor by 27 percent, and it reduced poverty among female-headed households. Tran et al (2022) investigate the effect of financial inclusion on multidimensional poverty in Vietnam and observed that greater financial inclusion reduces multidimensional poverty. In a related study, Nsiah et al (2021) investigate the case of sub-Saharan Africa and found that financial inclusion leads to poverty reduction.

Ozili (2021b) investigated whether high levels of financial inclusion might increase financial risk in the financial sector. It was found that higher account ownership increased financial sector risk by increasing the stock of high nonperforming loan and cost inefficiency in the financial sector of developed and transition economies. The author also found that financial risk was reduced in developed countries when there is greater use of debit and credit cards, and digital finance products. Wang and Luo (2022) examined whether financial inclusion affects bank stability in 36 emerging economies. They found that banks are more stable in financially inclusive countries and the main channels through which this happens are the cost, funding and risk channels.

Ajide (2020) investigated the role of financial inclusion on entrepreneurship in 13 African countries and observed that entrepreneurship improved significantly in financially inclusive African countries. Yang, Huang and Gao (2022) investigate how digital financial inclusion might affect female entrepreneurship and showed that the welfare of women entrepreneurs improved greatly when they used digital financial services for their business activities. Meanwhile, Sakyi-Nyarko, Ahmad and Green (2022) found that financial inclusion increased the financial resilience

of households regardless of gender or locality. Niankara and Muqattash (2020) assessed how financial inclusion affects borrowing and saving decisions in the United States and the United Arab Emirates in the year 2014. They found that the US had greater financial inclusion than the UAE, and US consumers were 31.4% more likely to save using formal channels than their UAE counterparts.

Li, Dong and Dong (2022) examined the impact of financial inclusion on the development for renewable energy in China. They analysed the data using system GMM technique and found that high levels of financial inclusion increased the development of renewable energy in China. Wang et al (2022) investigate how financial inclusion might affect green economic efficiency in cities in China from 2011 to 2015. They found that greater financial inclusion increased green economic efficiency. Du et al (2022) examined how financial inclusion and human capital affect environmental quality of emerging nations from 2004 to 2019. They found that financial inclusion significantly improved environmental quality by decreasing CO_2 emission.

Existing research also examined the consequences of financial inclusion. For instance, Le, Le and Taghizadeh-Hesary (2020) investigate the effect of financial inclusion on CO_2 emissions in Asian countries and found that financial inclusion led to greater CO_2 emissions. Ozili (2023) showed that financial inclusion efforts can lead to financial inclusion washing – a situation where promoters of financial inclusion deliberately overstate their support for financial inclusion. Dong et al (2022) investigated the impact of energy efficiency on the financial inclusion-CO_2 nexus in China. They found that greater financial inclusion did not reduce carbon emission in China. Ozili and Adamu (2021) investigate the relationship between financial inclusion and bank non-performing loans and loan loss provisions in 48 countries. They found an inverse relationship between financial inclusion and bank non-performing loans. Zakaria (2023) showed that despite the rapid advancement in digital financial services for financial inclusion, such advancement has led to a rise in digital finance risks and these risks are not mitigated due to presence of poor regulatory frameworks. Sun et al (2023) examined the effect of digital finance on corporate financial fraud. They used panel data of A-share listed corporations in China from 2011 to 2020. They found that widespread usage of digital finance reduces corporate financial fraud. The authors recommend the extensive usage of digital finance in Chinese corporations to curb financial fraud. Barik and Lenka (2023) examined the impact of financial inclusion on corruption control in some upper-middle and lower-middle income countries. They used cross-country annual data from 2004 to 2018 and found that financial inclusion does not reduce corruption in upper-middle income while high levels of financial inclusion reduce corruption in lower-middle-income.

3. Discussion section

3.1. Financial inclusion for fraud detection and reduction in financial crime

Below are some ways in which financial inclusion can help to detect fraud and to reduce financial crime.

3.1.1. Financial inclusion leaves behind an audit trail that is useful for fraud detection.

Financial inclusion can help to combat financial crime by leaving behind an audit trail. Banks are the most common agents of financial inclusion (Ozili, 2021a; Hannig and Jansen, 2010). They can use their systems to provide an audit trail of financial transactions that are deemed suspicious and hand it over to investigators when investigators request for such information (Singleton and Singleton, 2007). An audit trail is often presented in the account statements linked to suspicious transactions (Power, 2021; Flowerday and Von Solms, 2005). When there is full financial inclusion in society, financial institutions will be able to provide an audit trail for every transaction that takes place in the financial system. This will make it easier for forensic investigators to investigate and detect fraud. The investigators will be able to use the audit trail to link suspicious transactions to a person or entity and determine whether an actual financial crime has taken place. In contrast, when there is little financial inclusion in a society, financial institutions will not be able to provide an audit trail for every transaction that takes place in the financial ecosystem. As a result, financial institutions will not be able to provide audit trail for most transactions, making it very difficult for forensic investigators to investigate fraud. The investigators will have to find another way to detect fraud.

3.1.2. Financial inclusion reduces the size of the informal economy and reduces financial crime.

Financial inclusion can help to combat financial crime by reducing or shrinking the size of the informal economy – which is the unregulated, untaxed and unmonitored segment of the economy (Rasanayagam, 2011). Large volume of cash-based transactions take place in the informal economy. Many of such transactions are the proceeds of crime such as extortion, discriminatory lending by loan sharks and financial theft (Maguire, 1993; Tomal and Johnson, 2008; Neef, 2002). One way to curb financial crime in the informal sector is to reduce the size of the informal sector through extensive financial inclusion efforts. This can be done by undertaking an extensive financial inclusion program that bring all individuals and small businesses into the formal financial system. This will reduce the use of informal financial services that expose people to corruption and illegal financial dealings. High levels of financial inclusion can reduce the size of the informal sector and significantly reduce financial crime that occurs in the informal economy. When there are high levels of financial inclusion, individuals and small businesses will reduce their use of cash and increase their use of digital payments or bank transfers. This will

reduce the need to patronize informal economy agents such as loan sharks or unlicensed money lenders that dominate the informal economy.

3.1.3. Financial inclusion curbs tax evasion

Tax evasion generally refers to using illegal means to avoid tax payment (Slemrod, 2007; Ozili, 2020a). Financial inclusion also helps to curb tax evasion in some ways. Taxes can be paid more easily where there is high level of financial inclusion. This is because taxes can be paid electronically or through bank transfers to the tax authorities and such tax payments leave behind an audit trail that can be audited, evaluated and re-evaluated for the purpose of determining whether tax evasion has taken place which constitutes financial crime. The implication is that tax evasion will become less rampant in societies that have high levels of financial inclusion. Meanwhile, in societies where the level of financial inclusion is very low, tax evasion would be more rampant because taxes will be paid in cash, and it create many opportunities for tax evasion. In such societies, the cash payment of taxes does not leave behind an audit trail that can used to justify payment of taxes especially when the tax authorities are in doubt that an entity has made tax payments.

3.1.4. Use legislation to enforce financial inclusion to assist in fraud detection.

Existing studies show that countries can use legislation to enforce financial inclusion in specific activities or sectors (Ozili, 2021c). One way in which financial inclusion can help to combat financial crime is by using legislation to enforce financial inclusion in specific activities or sectors of the economy. For example, in the real estate sector, a country can pass a law that ban individuals, private corporations and government entities from paying property rent in cash and require them to make rent payments through bank transfers. The advantage of this approach is that it will compel people to own a bank account which leads to financial inclusion, and it will ensure that all property rent payments made into bank accounts can be traced to the sender and the recipient. This can assist investigators in dealing with reported cases of property rent fraud. This is one example of how legislation can be used to enforce financial inclusion and support fraud detection efforts. Although the above scenario applies to the case of property rent, such legislation can also be applied to other activities and sectors of the economy such as extraction and mining, education and entertainment. This idea of using legislation to enforce compulsory financial inclusion for people in the specific sectors will help investigators to trace lawful and unlawful financial transactions in the specific sectors so that fraudulent activities in such sectors can be easily traced and detected so that the perpetrators can be found and dealt with.

4. Conclusion

The rise in financial crime is a challenge in any society. The first step in combating financial crime is to detect whether financial crime has taken. This chapter assessed the role of financial inclusion in combating financial crime. It was argued that high levels of financial inclusion will ensure that criminals leave behind an audit trail that is useful for fraud detection and for the detection of financial crime. It was also argued that legislation can accelerate financial inclusion in order to assist the authorities in fraud detection activities. It was also argued that high levels of financial inclusion would shrink the size of the informal sector and reduce financial crime. It was also argued that high levels of financial inclusion may curb tax evasion.

The implication is that financial inclusion achieves many purposes. It not only improves individual welfare; it also makes the work of investigators easier by leaving behind an audit trail whenever financial crime is committed in the formal financial system. Therefore, policy makers should intensify their efforts to achieve high levels of financial inclusion to assist investigators in uncovering financial crime in the financial system. Notwithstanding, policymakers seeking to use financial inclusion as a strategy to combat crime should be mindful of the **increasing adoption of digital financial services and the potential vulnerabilities associated with financial inclusion can also be highlighted by the author to enhance the importance of implementing secure and inclusive digital platforms.**

The limitation of the study is that it did not examine the role of big data in financial inclusion and fraud detection. It also did not examine how to uncover fraud in the informal sector. The study also did not consider how artificial intelligence and financial inclusion can assist in fraud detection.

Future research can investigate how to uncover fraud in the informal economy. Future research should also investigate whether big data can assist in detecting financial crime. Future studies can also examine whether demand-side or supply-side financial inclusion play a greater role for detecting financial crime.

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