



Corruption in banks: A bibliometric review and agenda

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ABSTRACT

This paper is a bibliometric review of 819 articles, between 1969 and 2019, on corruption in banks. We identified six research streams: (1) the determinants of banks' lending corruption; (2) the impact of corruption on banks' lending and operational risk; (3) the impact of bank corruption on firms; (4) the impact of political connections on bank corruption; (5) the impact of corporate governance and regulations on bank corruption; and (6) the manipulation of the inter-bank offered rate. We recommend an anti-corruption architecture system and an extension in theoretical frameworks related to corruption in banks. We propose 20 future research questions.

1. Introduction

Corruption exists despite efforts by national and international controlling bodies (including central banks, agencies, OECD conventions, and the IMF). Corruption results in poverty, greed, unemployment, weak institutions, and non-enforcement of law. According to Global Witness Organization¹ corrupt businesspeople, government officials, dictators, warlords, and other criminals always need a bank to hide and lander their looted money. Consequently, banks and other financial institutions play a key role in hiding illegal money. Banks' poor corporate governance (Srivastav and Hagendorff, 2015; Nguyen et al., 2017), incompetent bank officials (Nguyen et al., 2014), and the involvement of banks in corrupt activities has resulted in the bankruptcy of financial institutions in the past, such as Bear Stearns, Lehman Brothers, and Washington Mutual. Bank scandals have led to investigations and research into corruption in banks by regulatory bodies and academic researchers, respectively. As a result, a considerable amount of literature has been compiled on corruption related to banks or financial institutions over the last 50 years (see Fig. 1). This literature is scattered across numerous areas and types of corruption (see Table 1 for synonyms of corruption) and needs to be analyzed through a systematic, in-depth, and quali-quantitative fashion.

To capture the richness of literature on corruption in banks, we employ bibliometric citation analysis (Zhang et al., 2019; Helbing, 2019; Bahoo et al., 2019a) and content analysis (Vigne et al., 2017; Garner et al., 2016; Bahoo et al., 2018) to analyze 819 articles for the 50 years from 1969 to 2019. This review is unique and addresses the following questions: (1) What are the key

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¹ Chairman Gooch— "gotten gains don't disappear by themselves, those with suspect money to hide, need a bank (financial institutions) that won't ask awkward questions; a lawyer to help them find loopholes and skirt laws (tax havens), and a legal smokescreen (offshore financial centers) so they can get it out of the country it came from (Corruption & Money Laundering, 2019).

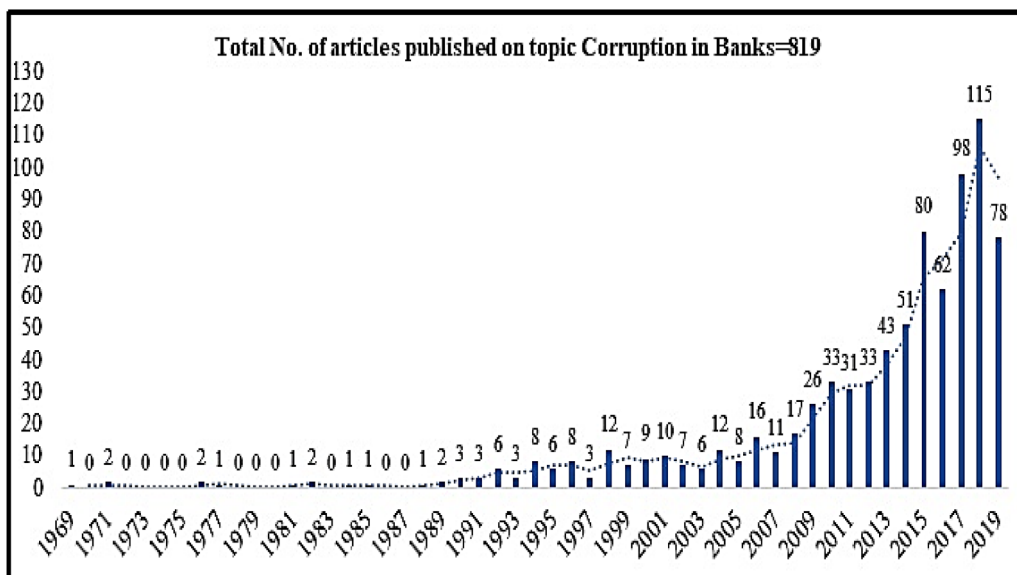


Fig. 1. Growth of literature. The HistCite software is used to present per year publications.

Table 1

Key methodological terminologies.

<i>(i) Key methodological terms</i>					
Terms	Explanation/Details				
Co-citation analysis	Co-citation means that other articles cite an article because they belong to the same concept or topic.				
Cartography analysis	This analysis is based on the repetition of keywords in the articles.				
HistCite software	This software accepts only ISI WOS citation data as input and provides several types of results.				
VOSviewer software	This software accepts citation data of ISI WOS and Scopus as input files and provides several outputs.				
<i>(ii) Key Patterns of HistCite Software (HistCite - Glossary, 2018)</i>					
P _{CORB}	Number of articles published on topic; corruption in banks				
TLC	Total Local Citations mean how many times an article is cited by other articles in a sample of study; in our case sample of articles for bibliometrics analysis consists of 819 articles.				
TGC	Total global citations represent how many times an article is cited by other articles, which are available on the entire ISI WOS database.				
TLC/t	Total local citations per year means the average citations per year.				
TGC/t	Total global citations per year means the average citations per year.				
<i>(iii) Sample Selection Process (article searched from ISI Web of Knowledge through a combination of words with corruption)</i>					
Keywords for corruption	Search in combination with words		Keywords for Corruption	Search in combination with words	
	Bank or Banks or Banking	Financial institutions or financial institutions		Bank or banks or banking	Financial institutions or financial institutions
Corruption	276	32	Misconduct	33	10
Bribe	1	1	Misrepresentation	7	1
Bribery	43	6	Wrongdoing	11	0
Fraud	157	58	Falsification	7	0
Crime	82	39	Criminal	90	24
Manipulation	104	13	Manipulating	19	5
Extortion	7	5	Abuse	37	11
Initial Sample	(Applied following filters: <i>(i) article category</i> ; economics, business finance, business, management, law, and ethics, <i>(ii) search filters</i> ; topic (search keywords in title, abstract or author keywords), <i>(iii) paper type and language</i> : articles and English)				1106
Final Sample	for Bibliometrics Analysis (Screening of irrelevant by reading titles and abstracts)				819

Note: The table shows details about key methodological terms, software's key terms, sample selection process, and searches technique.

research streams in the literature on corruption in banks? (2) What are the influential aspects of literature, such as journals, institutions, countries, authors, articles, and networks among them? (3) What are the relevant future research questions? Through this qualitative and quantitative review and analysis, we identified six research streams (see Fig. 6) and summarized the data sources, methods, and content of key papers (Tables 4 and 5). In addition, we identified influential journals, countries, institutions, authors, key research areas, articles/topics, and networks among them (Tables 2 and 3 and Figs. 2–5). Finally, Table 6 presents 20 thought-

Table 2
Influential aspects of literature.

Influential journals		TLC		Name of journals ²		Influential countries		Influential institutions		Influential authors	
Rank	Name of journals ¹			Country ³	P _{CORB}	Country ³	P _{CORB}	Institutions ⁴	P _{CORB}	Authors ⁵	TGC
1	Journal of financial economics	71	American criminal law review	USA	29	USA	262	World Bank	17	Demirguc-Kunt Asli	811
2	Journal of banking & finance	22	Journal of business ethics	UK	25	UK	109	New York University	11	Maksimovic Vojislav	752
3	Journal of finance	21	Banking law journal	Peoples R China	24	Peoples R China	50	NBER ⁶	10	Beck Thorsten	617
4	Journal of business ethics	20	Journal of banking & finance	Australia	21	Australia	43	University of Chicago	8	Laeven Luc	405
5	Journal of comparative economics	16	Journal of operational risk	Canada	12	Canada	36	University of Essex	8	Claessens Stijn	360
6	Journal of international business studies	14	Journal of financial economics	France	11	France	30	University of Michigan	8	Feijen Erik	360
7	Journal of operational risk	13	Journal of financial stability	Germany	11	Germany	23	University of Sheffield	8	Dinc I.Sarder	268
8	Banking law journal	11	Journal of comparative economics	Italy	10	Italy	20	CEPR ⁷	7	Graham John R	239
9	Journal of international money and finance	10	Bulletin of Indonesian economic studies	Spain	8	Spain	16	Indiana University	7	Li Si	239
10	Journal of monetary economics	9	Journal of money laundering control	Taiwan	7	Taiwan	15	Top of Form Australian National University	6	Qiu Jiaping	239

Note: The table shows the ranking of top 10 journals, countries, institutions, and authors. The HistCite software is used to create the rankings. 1 = ranking of journals sorted based on TLC. 2, 3, 4 = rankings of journals, countries, and institutions sorted based on P_{CORB}. 5 = ranking of authors based on TGC. For details of TLC, TGC, and P_{CORB}, see Table 1. The abbreviations are 6 = National Bureau of Economic Research, USA, 7 = center of Economic Policy Research, UK.

Table 3
Influential articles.

Rank	Influential articles/Topics ¹ based on TLC/t		Influential articles/Topics ² based on TGC/t			
	Author (s) and Year	TLC	TLC/t	Author (s) and Year	TGC	TGC/t
1	(Barth et al., 2009)	26	2.36	(Beck et al., 2005)	558	37.2
2	(Chen et al., 2013)	13	1.86	(Claessens et al., 2008)	360	30
3	(Houston et al., 2011)	15	1.67	(Graham et al., 2008)	239	19.92
4	(Beck et al., 2005)	20	1.33	(Ayyagari et al., 2010)	194	19.4
5	(Zheng et al., 2013)	8	1.14	(Dinc, 2005)	268	17.87
6	(Park, 2012)	8	1	(Barth et al., 2009)	116	10.55
7	(McConnell, 2013)	7	1	(Allen et al., 2012)	56	7
8	(Akins et al., 2017)	3	1	(Abrantes-Metz et al., 2012)	56	6.63
9	(Fungáčová et al., 2015)	4	0.8	(Cornett et al., 2010)	64	6.4
10	(Weill, 2011a)	6	0.67	(Zheng et al., 2013)	43	6.14

Note: This table represents the 10 most influential articles/topics. 1 = The influential articles/topics are sorted based on TLC/t. 2 = And based on criteria of minimum TGC/t. For details about TGC/t and TLC/t, see Table 1.

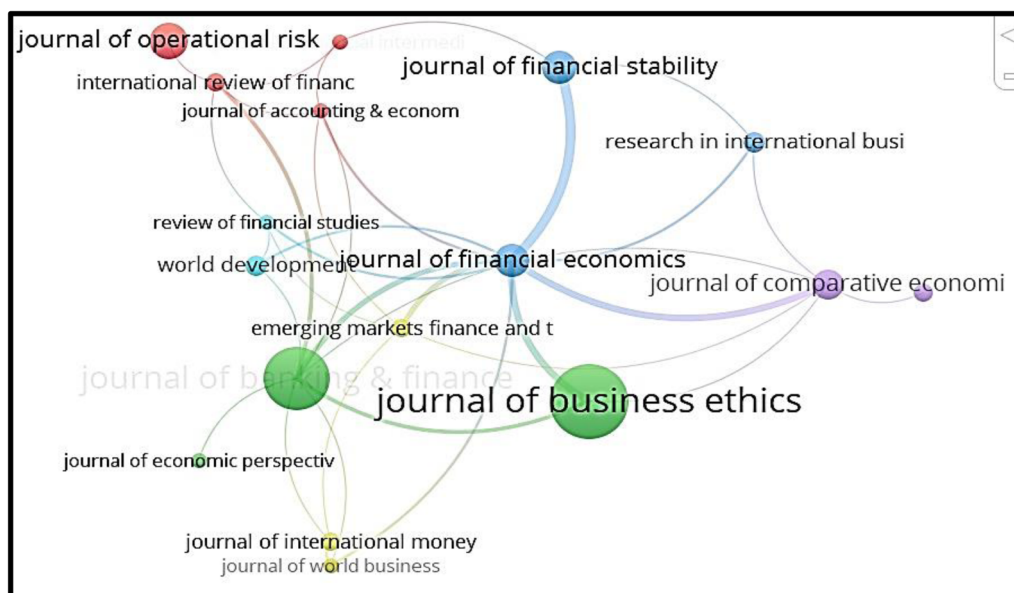


Fig. 2. Citation network among journals. The VOSviewer software is used create network.

provoking future research questions.

2. Method

The method used in this paper consists of bibliometric citation analysis and content analysis. We performed the following tests under bibliometrics citation analysis (using HistCite and VOSviewer software): (1) citation analysis, (2) co-citation analysis, (3) citation network analysis, and (4) cartography analysis by following the [Paltrinieri et al. \(2019\)](#) and [Zamore et al. \(2018\)](#). Furthermore, we applied traditional content analysis to explore the content of articles ([French and Vigne, 2019](#); [Carter et al., 2017](#); [F. Ahmed, Bahoo, and Ayub, 2019](#)). The HistCite and VOSviewer software accepts bibliometric data as input and provides several key findings as output. The HistCite software only deals with the data of ISI Web of Knowledge (ISI WOK), and VOSviewer deals with ISI WOK and Scopus. The HistCite software only deals with the data of ISI Web of Knowledge (ISI WOK), and VOSviewer deals with ISI WOK and Scopus. [Table 1](#) explains in detail the key terms of bibliometrics analysis, key software terms, the keywords selection process, and search techniques.

To conduct a bibliometric analysis of literature on corruption in banks, we selected a database of ISI WOK as high-quality journals are listed on it. In our search process, we used 17 keywords for corruption in combination with words like *banks*, *bank*, *banking*, *financial institutions*, and *financial institution* to cover the complete literature on the topic (see [Table 1](#)). This search produced 1106 articles. In the next step, we reviewed all article titles and abstracts to exclude irrelevant articles and eventually found a sample of 819 articles between 1969 and 2019. [Fig. 1](#) shows the number of articles published by year in the literature on corruption in banks. A sharp growth trend since 2008 indicates a substantial increase in research on corruption in banks due to the bankruptcy scandals of American banking companies, such as Bear Stearns, Lehman Brothers, and Washington Mutual. We explain the key findings in the

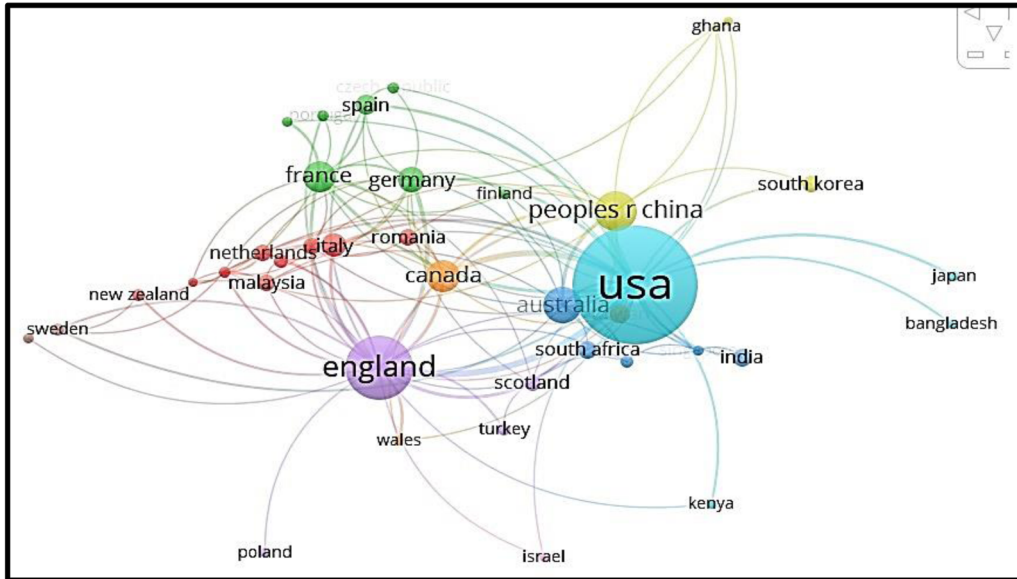


Fig. 3. Citation network among author's countries of origin. The VOSviewer software is used create network.

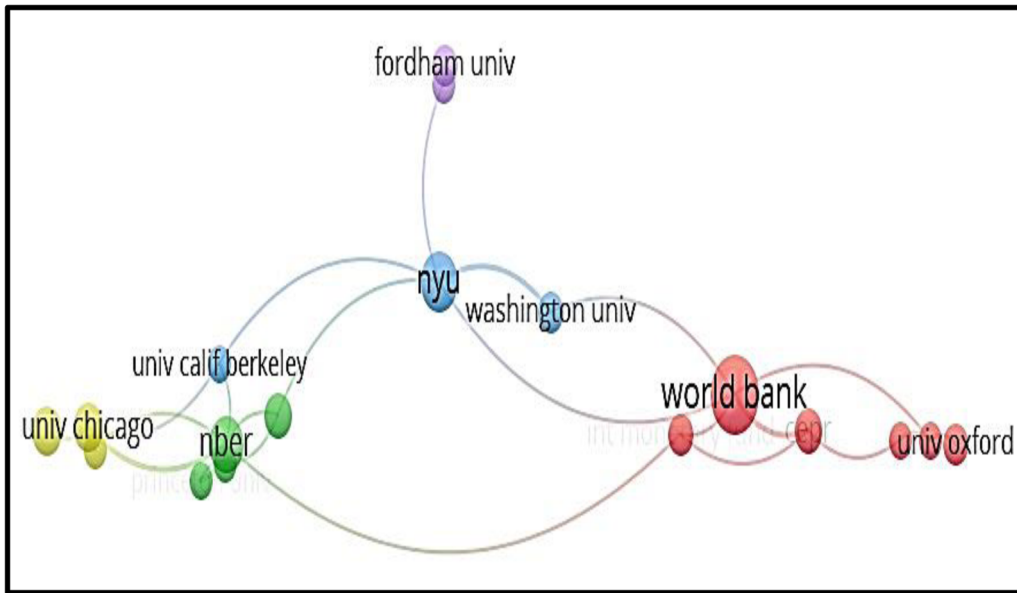


Fig. 4. Citation network among author's institutional affiliations. The VOSviewer software is used create network.

next section.

3. Results

3.1. Influential aspects of literature

3.1.1. Key journals distribution and networks

The HistCite and VOSviewer software packages were used to identify the journal distribution and networks. We ranked the top 10-journals into two categories: first, those publishing a higher number of papers on the topic, and second, those having a higher number of citations, as given in Table 2. In both rankings, the finance journals have the highest number of citations and publications on the topic. Also, a few of the pertinent topics were found in law journals. Surprisingly, only one journal in the field of international business falls into the category of having the highest citations. It would seem that the phenomenon of corruption is a critical management issue in banks, which is overlooked by management and business journal. Furthermore, from what we have shown in

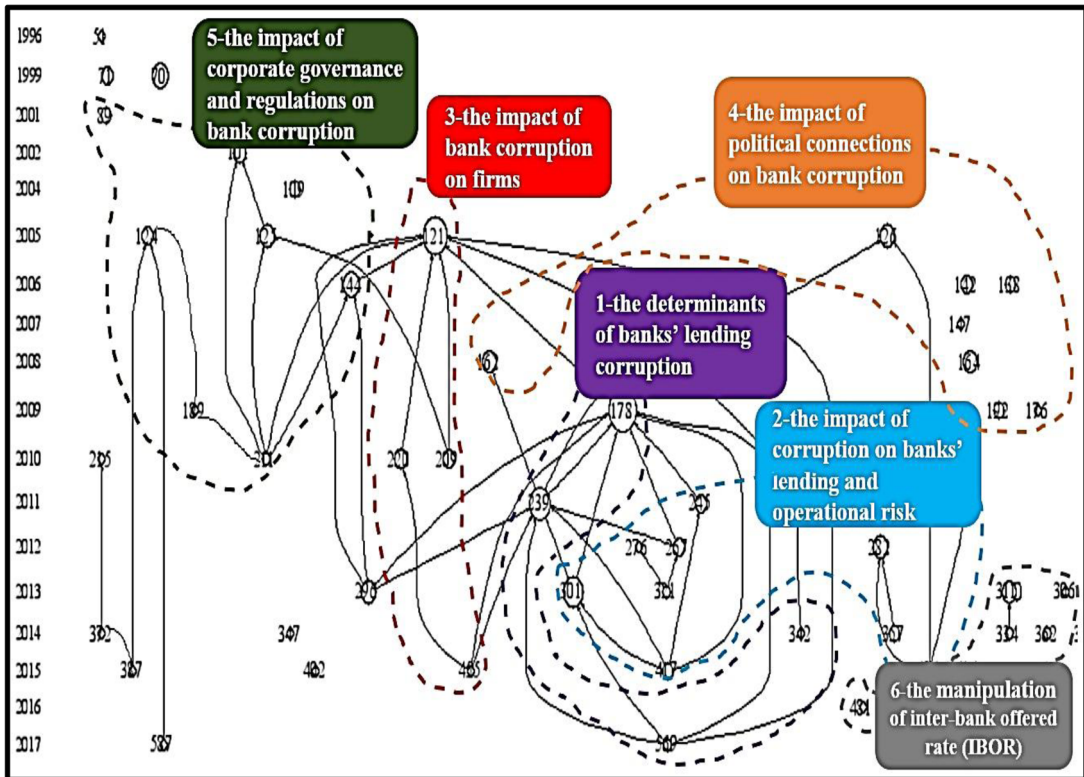


Fig. 6. Identification of research streams. The streams are identified through co-citation analysis by using HistCite Software.

3.2. Co-citation mapping: identification of research streams and synthesis

We identified research streams in literature by applying bibliometrics citation analysis and content analysis (Bahoo et al., 2019b; Ahmed, Bahoo, Aslam, & Qureshi, 2019). We applied the following two steps in identifying streams. First, we used HistCite software to apply co-citation analysis that created citation mapping, as given in Fig. 6. The mapping is the result of 56 top-cited articles in the relevant literature. Second, we conducted a traditional detailed content analysis of these 56 articles (Jia, Popova, Simkins, & Emma Wang, 2019; Bahoo et al., 2019). As a result of our quali-qualitative analyses, we have identified the following six research streams in the literature: (1) the determinants of banks' lending corruption, (2) the impact of corruption on banks' lending and operational risk, (3) the impact of bank corruption on firms, (4) the impact of political connections on bank corruption, (5) the impact of corporate governance and regulations on bank corruption, and (6) the manipulation of the inter-bank offered rate (IBOR).

The six above identified streams are interlinked with each other. The key determinants of bank lending corruption are cultural factors (Zheng et al., 2013), state media ownership (Houston et al., 2011), state ownership of banks (Laeven, 2001), and borrower and lender competition (Barth et al., 2009). The political connections also impact the bank lending decision and result in high corruption (Claessens et al., 2008; Chen et al., 2017). The bank lending corruption effects the credit and operational risk of banks and results in an increase in non-performing loans (Fiordelisi et al., 2014; Chen et al., 2015). The negative effect of bank lending corruption is high in developing countries with weak institutions, poor governance, and weak democracy (Boudriga et al., 2009). Corruption in banks also impacts the firm's growth (Beck et al., 2005) and access to finance (Qi and Ongena, 2019) negatively in emerging and developing countries. Moreover, corruption and misconduct in banks leads to manipulation of the LIBOR rate by bank officials, which was even present in the case of the Lehman Brothers bankruptcy scandal (Fouquau and Spieser, 2015). Finally, the literature is concerned about the elimination of corruption and misconduct by bank officials through strong corporate governance (Nguyen et al., 2019, 2016) and supervision (Beck et al., 2006).

Beyond this, the data sources, methods, and content of these 56 key articles that create citation mapping are summarized in Tables 4 and 5, respectively. The summary of key articles shows that the literature on corruption in banks has developed in multiple directions. However, the third stream (*the effect of corruption on firms*) and fourth stream (*the effect of political connections on bank corruption*) have yet to be developed in the literature relating to emerging and developing countries. Based on the findings, we suggest that there is a need for more research on corruption with respect to the emerging and least developed countries.

Table 4
Data sources and methods of key papers.

(i) Data Sources	Date Source	Reference
Measurement of Corruption		
Bank Lending Corruption	World Bank Enterprise Survey on Corruption in 2000.	(Barth et al., 2009; Houston et al., 2011; Beck et al., 2006; Zheng et al., 2013; Weill, 2011a; Akins et al., 2017; Beck et al., 2005)
Firm offers bribery to banks officials for lending	Hand-collected data on extra-expenses as a gift from firm reports.	(Chen et al., 2013)
Corruption perception index	Transparency International (TI)	(Park, 2012; Weill, 2011a; Petrou and Thanos, 2014; Chen et al., 2015)
Sub-index of corruption	World Economic Forum	(Park, 2012)
Corporate misreporting (fraud) data	U.S. General Accounting Office (GAO)	(Graham et al., 2008)
Corruption survey in 2000	Transparency International and Information for Democracy Foundation for Russia.	(Weill, 2011b)
Corruption index of the World Bank	World Bank's Governance Indicators (WGI)	(Weill, 2011a; Chen et al., 2015)
Corruption Index	International Country Risk Guide (ICRG) Ratings	(Petrou and Thanos, 2014; Beck et al., 2005)
Corruption freedom score	Heritage Foundation's Corruption Freedom score	(Petrou and Thanos, 2014)
Bribery to bank official	BEEPS databases	(Fungáčová et al., 2015)
Reputational events about banks	ALGO OpData™ database	(Fiordelisi et al., 2014)
Bank official corruption in lending	World Bank Investment Climate Survey in China	(Ayyagari et al., 2010)
Operational risk events (including fraud and others.)	FIRST Database	(Wang and Hsu, 2013)
(ii) Methods		
Method		
Regression analysis (OLS)		(Barth et al., 2009; Houston et al., 2011; Chen et al., 2013; Ding, 2005; Park, 2012; Zheng et al., 2013; Graham et al., 2008; Weill, 2011b, 2011a; Chen et al., 2015; Beck et al., 2005; Ayyagari et al., 2010)
Panel regression analysis		(Claessens et al., 2008; Fungáčová et al., 2015; Chen et al., 2015; Wang and Hsu, 2013; Qi and Ongena, 2019)
Probit model		(Barth et al., 2009; Houston et al., 2011)
Multiple structural breaks	(Monticini and Thornton, 2013)	
Threshold regression mode	(Fouquau and Spiesser, 2015)	
Bivariate probit model estimation	(Nguyen et al., 2016)	
Univariate analysis	(Chen et al., 2017)	

Note: The table shows the data sources and methods applied by key papers that create citation mapping.

Table 5
Summary of key papers.

Author (s)	Sample	RQs/Purpose	Findings
Stream 1: The determinants of bank's lending corruption			
(Barth et al., 2009)	• 9000 large, medium and small size firms from 80 countries	• What is the effect of borrower and lender competition as well as information sharing via credit bureaus/registries on corruption in bank lending?	• Banking competition and information sharing both reduce lending corruption. • Information sharing also helps enhance the positive effect of competition in curtailing lending corruption.
(Houston et al., 2011)	• 5000 firms across 59 countries	• What is the effect of state media ownership and concentration on corruption in bank lending?	• State ownership of media has a higher impact on bank lending corruption. • Media concentration also increases corruption directly and indirectly. • The links between media structure and corruption are more pronounced when the borrowing firm is privately owned.
(Zheng et al., 2013)	• 3835 firms across 3 countries	• What is the effect of the national culture, and collectivism on corruption in bank lending?	• Firms domiciled in collectivist countries perceive a higher level of lending corruption than firms domiciled in individual countries. • The link between collectivism a lending corruption cannot be explained by the role of the government in the economy, political connections, biased responses from disgruntled borrowers, or relationship lending.
(Akins et al., 2017)	• 3600 firms from 44 countries.	• What is the effect of timely loan-loss recognition by banks on lending corruption?	• Timely loan loss recognition constrains lending corruption because it increases the likelihood of problem loans being uncovered earlier. • Timely loan loss recognition is less associated with reduced corruption in countries where there is significant government ownership in the banking system and deposit insurance scheme.
Stream 2: The impact of corruption on the bank's lending and operational risk			
(Chen et al., 2013)	• Chinese Banks' lending • 1082 firms from 31 Chinese provinces	• What is the effect of bribery on bank lending in China?	• Bribery enables large loans for firms, even with high performance. • Only four big banks offer loans to high-performing large firms. • Remaining, all banks offer loans to small firms after getting bribery.
(Park, 2012)	• 76 countries during the period of 2002–2004.	• What are the effects of corruption on the banking sector and economic growth?	• Corruption significantly aggravates the problems with bad loans in the banking sector. • Corruption lowers economic growth by allocating bank funds to bad projects instead of good ones.
(Graham et al., 2008)	• 800 US public companies from 1997–2002.	• What is the effect of corporate restatement (fraud) on the bank loan spread? • How does the bank deal with these firms?	• Loans initiated after restatement have significantly higher spreads, shorter maturities, higher likelihood of being secured, and more covenant restrictions than loans initiated before reinstatement.
(Weill, 2011b)	• Country-level analysis of Russia	• How does corruption impact bank lending?	• Corruption impacts the bank lending to the households and firms, not to the government in Russia.
(Weill, 2011a)	• 80 countries analyzed	• What is the effect of corruption on bank lending?	• Bank-level estimations show that the detrimental effect of corruption is reduced when bank risk aversion increases, sometimes leading at times to situations wherein corruption fosters bank lending. • The overall effect of corruption is to hamper bank lending; it can alleviate a firm's financing obstacles.
(Petrou and Thanos, 2014)	• 131 bank entries in 40 host countries	• What is the effect of corruption on foreign bank market entries (capital invested and share of equity)?	• A U-shaped relationship has been found providing evidence that the “grabbing hand” view exists at low to moderate levels of corruption and supports the “helping hand” view at high levels of corruption. • Besides, market-seeking motives are found to have a positive moderating effect on this relationship.
(Fungáčová et al., 2015)	• 665,000 companies from 14 Central and Eastern European countries	• What is the effect of bribery to bank officials on the bank debt of firms?	• Bribery is positively related to firms' total bank debt ratios, which provides evidence that bribing bank officials facilitates firms' access to bank loans. • This impact varies with the maturity of the bank debt, as bribery contributes to higher short-term bank debt ratios, but lower long-term bank debt ratios. • Institutional quality moderates the relation between bribery and firms' bank debt ratios.
(Fiordelisi et al., 2014)	• USA and European 136 Bank from 1994 to 2008	• What is the impact of reputational loss (fraud, etc.) on operational risk for the bank?	• Substantial reputational losses occur following announcements of 'pure' operational losses. • The event of 'fraud' generates the greatest

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Table 5 (continued)

Author (s)	Sample	RQs/Purpose	Findings
(Chen et al., 2015)	• 1200 banks in 35 countries from 2000 to 2012	• What is the impact of corruption on bank risk-taking in emerging markets?	reputational damage. • The loss is higher in Europe than in North America. • Higher levels of corruption increase the risk-taking behavior of banks, in favor of the “sand the wheel” view in the corruption–development nexus. • The indirect effects of corruption with monetary policy on banks’ risk-taking behavior is more pronounced with the increasing severity of corruption.
(Laeven, 2001)	• Russian firms	• What is the effect of bank ownership on insider lending?	• The model explains why insider loans are often made to borrowing firms that are also large shareholders of the bank. • The Russian firms and banks engaged in insider lending based on loan volume.
Stream 3: The impact of bank corruption on firms			
(Beck et al., 2005)	• 4000 firms from 54 countries	• What is the effect of financial, legal, and corruption problems on firm growth? • How does the corruption of financial intermediaries affect firms?	• Smallest firms face most constraints. • Financial and institutional development weakens the constraining effects of financial, legal, and corruption obstacles. • The corruption of bank officials constrains firm growth.
(Ayyagari et al., 2010)	• 2400 Chinese firms •	• Which has more effect on firm growth: formal or informal finance in China? • How does bank corruption affect this relationship?	• A smaller number of firms utilize formal bank loans in China. • Bank financing has a positive effect on growth compared to informal financing. • However, the bank corruption in lending may have a different effect on firm performance.
(Qi and Ongena, 2019)	• Multiple firms	• What is the effect of bank corruption (receiving bribery from firms) on firms’ growth and access to finance?	• Bank corruption hinders firm access to finance and growth.
Stream 4: The impact of political connections on bank corruption			
(Claessens et al., 2008)	• 216 Brazilians firms from 1998 to 2002.	• What effect does campaign finance on the return of the firms? • How does bank finance work during the election campaigns?	• Firms that provided contributions to (elected) federal deputies experienced higher stock returns than firms that did not provide contributions around the 1998 and 2002 elections. • Contributing firms increased their bank financing relative to others, indicating that access to bank finance is an important channel through which political connections operate.
(Dinç, 2005)	• 36 countries	• What effect does the ownership (government or private) of a bank have on the volume of lending during elections (politics) in emerging markets?	• Government-owned banks increase their lending in election years relative to private banks. • The increase is 11 percent in government-owned banks’ portfolios during election days.
(Chen et al., 2017)	• Chinese initial public offerings (IPOs) from 2006 to 2011.	• How do politically connected banks behave in relation to IPOs in China?	• Politically connected banks receive approval from the Chinese Securities Regulatory Commission (CSRC) to act as underwriters more easily than politically unconnected ones. • Politically connected banks charge a high commission, but there is no difference between the underpricing of IPOs.
Stream 5: The impact of corporate governance and regulations on bank corruption			
(Beck et al., 2006)	• 2500 firms across 37 countries	• What is the effect of bank supervisory policy on bank lending?	• A traditional approach to bank supervision, which involves empowering official supervisory agencies to monitor, discipline, and influence banks directly, does not improve the integrity of bank lending. • Empowering private monitoring of banks by forcing banks to disclose accurate information to the private sector tends to lower the degree to which corruption of bank officials is an obstacle to firms raising external finance.
(Wang and Hsu, 2013)	• Banks between 1996 and 2010	• What is the impact of the board composition on the operational risk events of the bank, such as corruption, fraud, client, product, and business practices?	• Board composition is negatively related to banks’ operational risk events. • More adverse boards hinder monitoring. • However, having a higher number of independent directors reduces the chance of fraud in the banks.
(Huang and Wei, 2003)	• Developing countries	• What is the effect of weak institutions (corruption) on formulating the monetary policymaking institutions?	• The pegged exchange rate, or dollarization, while sometimes prescribed as a solution to the credibility problem, is typically not appropriate for countries with poor institutions. • There is doubt regarding the notion that a low

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Table 5 (continued)

Author (s)	Sample	RQs/Purpose	Findings
(Bagus and Howden, 2009) (Nguyen et al., 2016)	<ul style="list-style-type: none"> American Banking system US Banks 	<ul style="list-style-type: none"> Analysis of mismatch between loan and deposit maturities. Is the board able to prevent corruption in banks? 	<ul style="list-style-type: none"> inflationary framework can induce governments to improve public institutions. The mismatch between loan and deposit maturities is not fraud but is risky for banks. Board monitoring increases the likelihood that misconduct is detected, increases the penalties imposed on the CEO, and alleviates shareholder wealth losses following the detection of misconduct by regulators.
Stream 6: The manipulation of the IBOR (McConnell, 2013)	<ul style="list-style-type: none"> Analysis of three banks: Barclays, UBS, and Royal Bank of Scotland Barclays and UBS Banks 	<ul style="list-style-type: none"> Analysis of manipulation of the London interbank offered rate (LIBOR) by a bank official. What is the effect of underreporting LIBOR? 	<ul style="list-style-type: none"> LIBOR submitters and brokers manipulate it for their benefits, which increases bank operational risk.
(Monticini and Thornton, 2013)	<ul style="list-style-type: none"> Barclays and UBS Banks 	<ul style="list-style-type: none"> What is the effect of underreporting LIBOR? 	<ul style="list-style-type: none"> (i) Several banks were fined due to under-reporting of LIBOR rates. (ii) Barclays and UBS Banks are among these banks. (iii) LOBOR rate affects the bank default risk rate.
(Duffie and Stein, 2015)	<ul style="list-style-type: none"> Analysis of LIBOR and IBOR 	<ul style="list-style-type: none"> How can the manipulation of LIBOR and other IBORs be controlled? 	<ul style="list-style-type: none"> The Financial Stability Board issued a report on how to control the manipulation of the LIBOR and other IBORs by the banks. The authors discussed that report in detail.
(Fouquau and Spieser, 2015)	<ul style="list-style-type: none"> Several bank and LIBOR 	<ul style="list-style-type: none"> Analysis of the LIBOR manipulation by banks and their relationship with economic events. 	<ul style="list-style-type: none"> The FSA published a report in September 2012 about bank LIBOR manipulation. The author identified the events of manipulation of LIBOR during significant economic events, namely Lehman Brothers' bankruptcy or central banks' decisions.

Note: The table shows a summary of key papers that create citation mapping.

4. Future research agenda

We adopted a four-step method to identify a future research agenda by using bibliometrics and content analyses (Bahoo et al., 2019b). First, we reviewed 56 top-cited articles that create a citation map. Second, we reviewed all the trending and influential articles during the last seven years (2013 to 2019). Third, we reviewed the remaining articles in our sample of study to avoid top citation bias. Fourth, we converted the potential research agenda into research questions and excluded those questions that had already been investigated by researchers. This systematic process resulted in the 20 future research questions listed in Table 6. Through in-depth quali-quantitative review, we recommend a need to establish an anti-corruption architecture system and extension of existing management theoretical frameworks by considering corruption in banks as a managerial issue.

5. Conclusion

Corruption is one of the major challenges to the growth of the economic and financial system globally. It negatively impacts the world economy and societies when banks or financial institutions are involved in corrupt activities. Hence, corruption in banks is a managerial and business issue beyond the only subject of technical finance. There may be a need to consider establishing a better organizational anti-corruption architecture system within banks. The academic researchers and journals from finance, management, and international business should consider developing and publishing more on theoretical frameworks to explain the corruption in banks. Further, we propose a policy recommendation that developed economies and controlling bodies start funding research projects and anti-corruption conventions in developing countries to overcome the problem of money laundry and terrorism financing through banks. This paper is an attempt to summarize the literature on corruption in banks. A possible limitation of this study concerns the bibliometric analysis of only ISI WOK. We recommend applying bibliometric analysis on other databases, such as Scopus or Google Scholar, subject to the availability of software.

CRedit authorship contribution statement

Salman Bahoo: Conceptualization, Methodology, Software, Data curation, Writing - original draft, Visualization, Investigation, Supervision, Software, Validation, Writing - review & editing.

Table 6
Future research agenda.

Sr. No	Reference	Research Questions/Explanation
1	(Weill, 2011a)	Is there any theoretical framework that exists to explain the relationship between corruption and bank lending? Is there any need to formulate a theoretical framework?
2	(Petrou and Thanos, 2014)	How does corruption impact bank entry in foreign markets?###Is there any need to measure corruption through a survey at the firm and government level instead of using traditional indexes?
3	(Fungáčová et al., 2015)	Is bribery for bank lending to firms beneficial for economic development through the channel of a higher bank debt ratio?
4	(Akins et al., 2017)	What are the effects of bank and regulatory bodies' timely loan loss recognition on the efficiency of firms' investment strategies and how does it lead to economic development?
5	(Feng et al., 2019)	What is the effect of government intervention on bank lending in micro-finance institutions, and how does it impact the small browser and SMEs' access to finance and performance?
6	(Haß et al., 2019)	What is the effect of state ownership of banks on banks' lending decisions and corruption?
7	(Haß et al., 2019)	What is the effect of corruption in bank lending when the borrower and lender both are state-owned companies on economic growth and development?
8	(Azim and Kluvers, 2019)	How can organizational anti-corruption architecture system be applied to developing, emerging, and developed economies? Are multiple theoretical frameworks required for different economies?
9	(Azim and Kluvers, 2019)	Does the organizational anti-corruption architecture system moderate the effect of weak institutions and organizational environment on malfeasant organizational behavior?
10	(Sethi et al., 2017)	What is the impact of the component business units in large financial institutions on the quality of CSR reporting, scope, and independence of assurance providers?
11	(Qi & Ongena, 2018)	What are the effects of the foreign bank entry on banking lending corruption and anti-corruption campaigns in developing, emerging, and developed countries?
12	(Dheera-Aumpon, 2019)	How can the institutional collectivism and teamwork cultural among national and foreign banks official be used to overcome corruption in banks?
13	(Alraheb et al., 2019)	What is the effect on institutional environment and national level governance on corruption in the banking sector? Does a strong institution help overcome the problem of corruption?
14	(Toader et al., 2017).	Does strong corporate governance mediate the impact of national corruption on bank stability in developing countries?
15	(Chen et al., 2018)	How do the connected political CEOs of the private banks affect banks' lending decisions and bank stability in developing, emerging, and developed countries, and how does institutional quality moderate this relationship?
16	(Gozgor, 2018).	What is the effect of political risk components (that is, the rule of law, control on corruption) on domestic credit in developed countries?
17	(Köster and Pelster, 2017)	What are the motives of misconduct by management and board in banks, and what could be preventive measures other than financial penalties?
18	(Tajaddini and Gholipour, 2016)	What are the effects of national and individual cultural factors on the mortgage default rate in developing, emerging and developed countries?
19	(Venard and Hanafi, 2007)	What effect do financial intuitions (banks) have on economic development, and how does the level of corruption negatively moderate this effect?
20	(Repousis et al., 2019)	What mechanisms and structures are needed in banks to eliminate the different fraud risk channels such as mobile banking, international banking, and online shopping?

Note: The table shows 20 future research questions.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.frl.2020.101499](https://doi.org/10.1016/j.frl.2020.101499).

References

- Abrantes-Metz, R.M., Kraten, M., Metz, A.D., Seow, G.S., 2012. LIBOR manipulation? *J. Bank. Finance* 36 (1), 136–150.
- Ahmed, F., Bahoo, S., Ayub, A., 2019. Accountability, governance, and structure of non-profit organizations: evidence from Ghana, South Africa, and Zimbabwe. *New Horizons* 13 (2), 19–36.
- Ahmed, F., Bahoo, S., Aslam, S., Qureshi, M.A., 2019. Meta-analysis on American Presidential Election-2016 and American Stock Market. *Estudios de Economia Aplicada* 38 (1), 1–7.
- Akins, B., Dou, Y., Ng, J., 2017. Corruption in Bank lending: the role of timely loan loss recognition. *J. Account. Econ.* 63 (2–3), 454–478.
- Allen, F., Chakrabarti, R., De, S., Qian, J.Q.J., Qian, M., 2012. Financing firms in India. *J. Financ. Intermed.* 21 (3), 409–445.
- Alraheb, T.H., Nicolas, C., Tarazi, A., 2019. Institutional environment and bank capital ratios. *J. Financ. Stab.* 43, 1–24.
- Ayyagari, M., Demirgüç-Kunt, A., Maksimovic, V., 2010. Formal versus informal finance: evidence from China. *Rev. Financial Studies* 23 (8), 3048–3097.
- Azim, M.I., Kluvers, R., 2019. Resisting corruption in Grameen Bank. *J. Bus. Ethics* 156 (3), 591–604.
- Bagus, P., Howden, D., 2009. The legitimacy of loan maturity mismatching: a risky, but not fraudulent, undertaking. *J. Bus. Ethics* 90 (3), 399–406.
- Bahoo, S., Alon, I., Paltrinieri, A., 2019a. Sovereign wealth funds: past, present, future. *Int. Rev. Financ. Anal.* <https://doi.org/10.1016/j.irfa.2019.101418>. (in Press).
- Bahoo, S., Alon, I., Paltrinieri, A., 2019b. Corruption in international business: a review and research agenda. *Int. Bus. Rev.* <https://doi.org/10.1016/j.ibusrev.2019.101660>. (in Press).
- Bahoo, S., Hassan, M.K., Paltrinieri, A., Khan, A., 2019. A model of the islamic sovereign wealth fund. *Islamic Econ. Stud.* 27 (1), 2–22.
- Bahoo, S., Saeed, S., Iqbal, M.J., Nawaz, S., 2018. Role of china-pakistan economic corridor in pakistan's trade, investment, energy, infrastructure, and stock market. *J. Independent Stud. Res.-Manag., Soc. Sci. Econ.* 16 (1), 63–84.
- Barth, J.R., Lin, C., Lin, P., Song, F.M., 2009. Corruption in bank lending to firms: cross-country micro evidence on the beneficial role of competition and information sharing. *J. Financ. Econ.* 91 (3), 361–388.
- Beck, T., Demirgüç-Kunt, A., Levine, R., 2006. Bank supervision and corruption in lending. *J. Monetary Econ.* 53 (8), 2131–2163.
- Beck, T., Demirgüç-Kunt, A., Maksimovic, V., 2005. Financial and legal constraints to growth: does firm size matter. *J. Financ.* 60 (1), 137–177.

- Boudrija, A., Taktak, N.B., Jellouli, S., 2009. Banking supervision and nonperforming loans: a cross-country analysis. *J. Financ. Econ. Policy* 1 (4), 286–318.
- Carter, D.A., Rogers, D.A., Simkins, B.J., Treanor, S.D., 2017. A review of the literature on commodity risk management. *J. Commod. Markets* 8, 1–17.
- Chen, D., Guan, Y., Zhang, T., Zhao, G., 2017. Political connection of financial intermediaries: evidence from China's ipo market. *J. Bank. Financ.* 76, 15–31.
- Chen, H.-K., Liao, Y.-C., Lin, C.-Y., Yen, J.-F., 2018. The effect of the political connections of government bank ceos on bank performance during the financial crisis. *J. Financ. Stab.* 36, 130–143.
- Chen, M., Jeon, B.N., Wang, R., Wu, J., 2015. Corruption and bank risk-taking: evidence from emerging economies. *Emerg. Markets Rev.* 24, 122–148.
- Chen, Y., Liu, M., Su, J., 2013. Greasing the wheels of bank lending: evidence from private firms in china. *J. Bank. Financ.* 37 (7), 2533–2545.
- Claessens, S., Feijen, E., Laeven, L., 2008. Political connections and preferential access to finance: the role of campaign contributions. *J. Financ. Econ.* 88 (3), 554–580.
- Cornett, M.M., Guo, L., Khaksari, S., Tehrani, H., 2010. The impact of state ownership on performance differences in privately-owned versus state-owned banks: an international comparison. *J. Financ. Intermediat.* 19 (1), 74–94.
- Corruption and Money Laundering. (2019). Chairman Gooch from Global Witness Organization, Retrieved from <https://www.globalwitness.org/en/campaigns/corruption-and-money-laundering/#more>.
- Dheera-Aumpon, S., 2019. Collectivism and connected lending. *Res. Int. Bus. Financ.* 48, 258–270.
- Dinç, I.S., 2005. Politicians and banks: political influences on government-owned banks in emerging markets. *J. Financ. Econ.* 77 (2), 453–479.
- Duffie, D., Stein, J.C., 2015. Reforming LiBor and other financial market benchmarks. *J. Econ. Perspect.* 29 (2), 191–212.
- Feng, L., Fu, T., Kutun, A.M., 2019. Can government intervention be both a curse and a blessing? evidence from China's finance sector. *Int. Rev. Financ. Anal.* 61 (October 2018), 71–81.
- Fiordelisi, F., Soana, M.G., Schwizer, P., 2014. Reputational losses and operational risk in banking. *Eur. J. Financ.* 20 (2), 105–124.
- Fouquau, J., Spieser, P.K., 2015. Statistical evidence about libor manipulation: a “Sherlock Holmes” investigation. *J. Bank. Financ.* 50, 632–643.
- French, D., Vigne, S., 2019. The causes and consequences of household financial strain: a systematic review. *Int. Rev. Financ. Anal.* 62, 150–156.
- Fungáčová, Z., Kochanová, A., Weill, L., 2015. Does money buy credit? firm-level evidence on bribery and bank debt. *World Dev.* 68, 308–322.
- Garner, J., Humphrey, P.R., Simkins, B., 2016. The business of sport and the sport of business: a review of the compensation literature in finance and sports. *Int. Rev. Financ. Anal.* 47, 197–204.
- Gozgor, G., 2018. Determinants of the domestic credits in developing economies: the role of political risks. *Res. Int. Bus. Financ.* 46, 430–443.
- Graham, J.R., Li, S., Qiu, J., 2008. Corporate misreporting and bank loan contracting. *J. Financ. Econ.* 89 (1), 44–61.
- Haß, L.H., Vergauwe, S., Zhang, Z., 2019. State-ownership and bank loan contracting: evidence from corporate fraud. *Eur. J. Financ.* 25 (6), 550–567.
- Helbing, P., 2019. A review on ipo withdrawal. *Int. Rev. Financ. Anal.* 200–208.
- HistCite Glossary. (2018). *HistCite Glossary*. Retrieved from: <http://www.public.asu.edu/~majansse/ihdp/glossary.html>.
- Houston, J.F., Lin, C., Ma, Y., 2011. Media ownership, concentration, and corruption in bank lending. *J. Financ. Econ.* 100 (2), 326–350.
- Huang, H., Wei, S.-J., 2003. Monetary policies for developing countries: the role of corruption. *J. Int. Econ.* 70 (1), 239–252.
- Jia, Y., Popova, I., Simkins, B., Emma Wang, Q., 2019. Second and Higher Moments of Fundamentals: A Literature Review. *European Financial Management* <https://doi.org/10.1111/eufm.12215>.
- Köster, H., Pelster, M., 2017. Financial penalties and bank performance. *J. Bank. Financ.* 79, 57–73.
- Laeven, L., 2001. Insider lending and bank ownership: the case of Russia. *J. Compar. Econ.* 29 (2), 207–229.
- McConnell, P.J., 2013. Systemic operational risk – the libor manipulation scandal. *J. Oper. Risk* 8 (3), 59–99.
- Monticini, A., Thornton, D.L., 2013. The effect of underreporting on libor rates. *J. Macroecon.* 37 (1), 345–348.
- Nguyen, D.D.L., Hagendorff, J., Eshraghi, A., 2014. Which executive characteristics create value in banking? Evidence from appointment announcements. *Corp Govern.* 23 (2), 112–128.
- Nguyen, D.D., Hagendorff, J., Eshraghi, A., 2016. Can bank boards prevent misconduct. *Rev. Financ.* 20 (1), 1–36.
- Nguyen, D.D., Hagendorff, J., Eshraghi, A., 2017. Does a ceo's cultural heritage affect performance under competitive pressure. *Rev. Financ. Stud.* 31 (1), 97–141.
- Nguyen, D.D., Nguyen, L., Sila, V., 2019. Does corporate culture affect bank risk-taking? evidence from loan-level data. *Br. J. Manag.* 30 (1), 106–133.
- Paltrinieri, A., Hassan, M.K., Bahoo, S., Khan, A., 2019. A bibliometric review of Sukuk literature. *Int. Rev. Econ. Financ.* <https://doi.org/10.1016/j.iref.2019.04.004>. (In Press).
- Park, J., 2012. Corruption, soundness of the banking sector, and economic growth: a cross-country study. *J. Int. Money Financ.* 31 (5), 907–929.
- Petrou, A.P., Thanos, I.C., 2014. The “Grabbing Hand” Or The “Helping Hand” view of corruption: evidence from bank foreign market entries. *J. World Bus.* 49 (3), 444–454.
- Qi, S., Ongena, S., 2019. Will money talk? firm bribery and credit access. *Financ. Manag.* 48 (1), 117–157.
- Repousis, S., Lois, P., Veli, V., 2019. An investigation of the fraud risk and fraud scheme methods in Greek commercial banks. *J. Money Laundering Control* 22 (1), 53–61.
- Sethi, S.P., Martell, T.F., Demir, M., 2017. An Evaluation of the quality of corporate social responsibility reports by some of the world's largest financial institutions. *J. Bus. Ethics* 140 (4), 787–805.
- Srivastav, A., Hagendorff, J., 2015. Corporate governance and bank risk-taking. *Corp. Govern.* 24 (3), 334–345.
- Tajaddini, R., Gholipour, H.F., 2016. National culture and default on mortgages. *Int. Rev. Financ.* 17 (1), 107–133.
- Toader, T., Onofrei, M., Popescu, A.-I., Andrieş, A.M., 2017. Corruption and banking stability: evidence from emerging economies. *Emerg. Markets Financ. Trade* 54 (3), 591–617.
- Venard, B., Hanafi, M., 2007. Organizational isomorphism and corruption in financial institutions: empirical research in emerging countries. *J. Bus. Ethics* 81 (2), 481–498.
- Vigne, S.A., Lucey, B.M., O'Connor, F.A., Yarovaya, L., 2017. The financial economics of white precious metals — a survey. *Int. Rev. Financ. Anal.* 52, 292–308.
- Wang, T., Hsu, C., 2013. Board composition and operational risk events of financial institutions. *J. Bank. Financ.* 37 (6), 2042–2051.
- Weill, L., 2011a. Does corruption hamper bank lending? macro and micro evidence. *Empir. Econ.* 41 (1), 25–42.
- Weill, L., 2011b. How corruption affects bank lending in Russia. *Econ. Syst.* 35 (2), 230–243.
- Zamore, S., Ohene Djan, K., Alon, I., Hobdari, B., 2018. Credit risk research: review and agenda. *Emerg. Markets Financ. Trade* 54 (4), 811–835.
- Zhang, D., Zhang, Z., Managi, S., 2019. A bibliometric analysis on green finance: current status, development, and future directions. *Financ. Res. Lett.* 29 (January), 425–430.
- Zheng, X., Ghoul, S.El, Guedhami, O., Kwok, C.C.Y., 2013. Collectivism and corruption in bank lending. *J. Int. Bus. Stud.* 44 (4), 363–390.

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