Sustainability and Banking Performance: A Systematic Literature Review

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ABSTRACT

Bank industry are currently being more attentive towards the topic of sustainability. In respond to that, researchers are also actively studying any topic related banks and sustainability. Few systematic reviews have been carried out on the sustainability and bank performance for both Islamic and conventional banks. Much of the focus are either on how sustainability can be implemented in banking or focus only for conventional banking. The present article set out to understand the meaning behind sustainable banking and to analyse the effect and relationship between sustainability and banking performance between Islamic and conventional bank performance. Hence, the present study conducted a systematic literature review on the sustainability and banking performance. The present study was guided by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol. This study selected article using two main database which is Scopus and Web of Science (WoS) that identified 30 supporting articles. Further review of these article resulted in four sustainability mechanism that affected bank performance and measured in three categories: positive, not significant and negative.

Keywords: Sustainable banking; Green banking; Ethical banking; Corporate social responsibility; Sustainable development goals; bank performance.

INTRODUCTION

There is a growing interest towards sustainability from different sector recently and it includes banking sector. Sustainability measured from three different elements which are economy, social and governance. Sustainability generally focusses on achieving the aim to fulfill the current needs without being neglected to the chance of future generation's need. Sustainability in banking is a terminological jungle which include many topics and it could be either become challenging or opportunities. The concern of sustainability in banking has been divided into three factors which is environmental, social and governance **(Nájera-Sánchez, 2019)**. According to **(Nájera-Sánchez, 2019)**, these three factors are often not being deals simultaneously and agreed by **(Amina Buallay, 2020)**, as the authors stated that the study in those topics were limited as it discusses more on environmental issue than social and governance issue. The concern of social, economic and environment also mostly related with corporate social responsibility (CSR). CSR is an important element and a key instrument of the concept of society's sustainable development declared by international organizations such World Bank **(T. A. Vasileva, 2013)**. Therefore, many parts of this review have used the term CSR to discuss about sustainability. The term sustainable banking also has been referred to ethical banking. Ethical banking has the same meaning as sustainable banking due to the same concern which is the involvement of environmental improvement, promotion of welfare,

creation of opportunities and establishment of equality for public and utilities **(Bijan Bidabad,2016)**. Furthermore, the behavior of being ethical itself will gain stakeholders believe and trust, then will lead to bank's sustainable performance **(Tuan Azma Fatiema Tuan Ibrahim,2018)**.

Therefore, by applying the concept in banking business, the bank's management itself, need to consider the possibilities to suffered loss as they need to be selected to their customer to suit with the sustainability goals. They will select only the customer that conducted a business that fit to their goals. These will limit their potential customer and indirectly affected the bank's performance. But then, in one of the interview sessions of Bernama with the Chairman of Bursa Malaysia, Tan Sri Abdul Wahid Omar said that, in line with the shift in policies towards ensuring sustainable development, sustainable and responsible investment (SRI) is also expected to help expand the reach of Islamic finance. It is contradicted with the authors expectation. Therefore, this review aims to investigate the relationship between sustainability and bank performance for both Islamic and conventional bank. To ensure that the review able to achieve the objective, the authors develop research question:

RQ1: What is the theory and practice of sustainability in Islamic and conventional banking?

RQ2: How is the theoretical relationship between sustainability and Islamic & conventional bank performance?

RQ3: How is the empirical relationship between sustainability and Islamic & conventional bank performance?

METHODOLOGY

This study aims to achieve the objective and answered all the research question by using the approach of qualitative with the technique of Systematic Literature Review (SLR). This review was guided by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), it is an evidence-based minimum set of items which aimed is to help author and mostly benefits more on healthcare intervention. However, it can also be used as a basis of reporting reviews of other types of research. The PRISMA in this review consists of the three-phase flow diagram. The next section will discuss on the searching strategy which consists of three main sub-process namely identification, screening (inclusion and exclusion criteria), eligibility and included article. There are three main processes in the systematic searching strategies process namely: identification, screening, and eligibility.

Identification involves the process of searching any synonym used thesaurus, related terms, term used from previous research and keyword suggested by experts for the search string formation. The aim is to provide variety of options to obtained more related search results for review. The keyword is developed based on the research question. The full search string was restricted on Boolean operator, phrase searching, truncation and wild card on two main databases platform which is Scopus and Web of Science (WOS). The keyword used namely sustainable banking and bank performance and were runs against the title in Scopus and topic in WoS. The searching process from the database mentioned retrieve 354 articles.

Table 1: The Search String

Database	Keyword used
Scopus	(TITLE-ABS-KEY((*"sustainab* bank*"* OR *"green bank*"* OR *"social bank*"* OR *"ethic* bank*"* OR ((*"corporate social responsibility"* OR *"csr"* OR *"csr perform*"* OR *"csr reporting"* OR *"sustainable development goals"* OR *"SDG"*) AND *"bank*"*)) AND (*"bank* perform*"* OR *"bank* achievement"* OR *"bank* efficien*"* OR *"bank* financial perform*"* OR *"bank* size*"* OR *"bank* perform* measure*"* OR *"bank* perform* metric*"* OR *"bank* key perform* metric*"* OR *"bank* productivit*"* OR *"bank* KPI*"* OR *"bank* kpi*"* OR *"bank* key performance indicator*"*))
WoS	(TS= (("sustainab* bank*" OR "green bank*" OR "social bank*" OR "ethic* bank*" OR (("corporate social responsibility" OR "csr" OR "csr perform*" OR "csr reporting" OR "sustainable development goals" OR "SDG") AND "bank*")) AND ("bank* perform*" OR "bank* achievement" OR "bank* efficien*" OR "bank* financial perform*" OR "bank* size*" OR "bank* perform* measure*" OR "bank* perform* metric*" OR "bank* key perform* metric*" OR "bank* productivit*" OR "bank* KPI*" OR "bank* kpi*" OR "bank* key performance indicator*")))

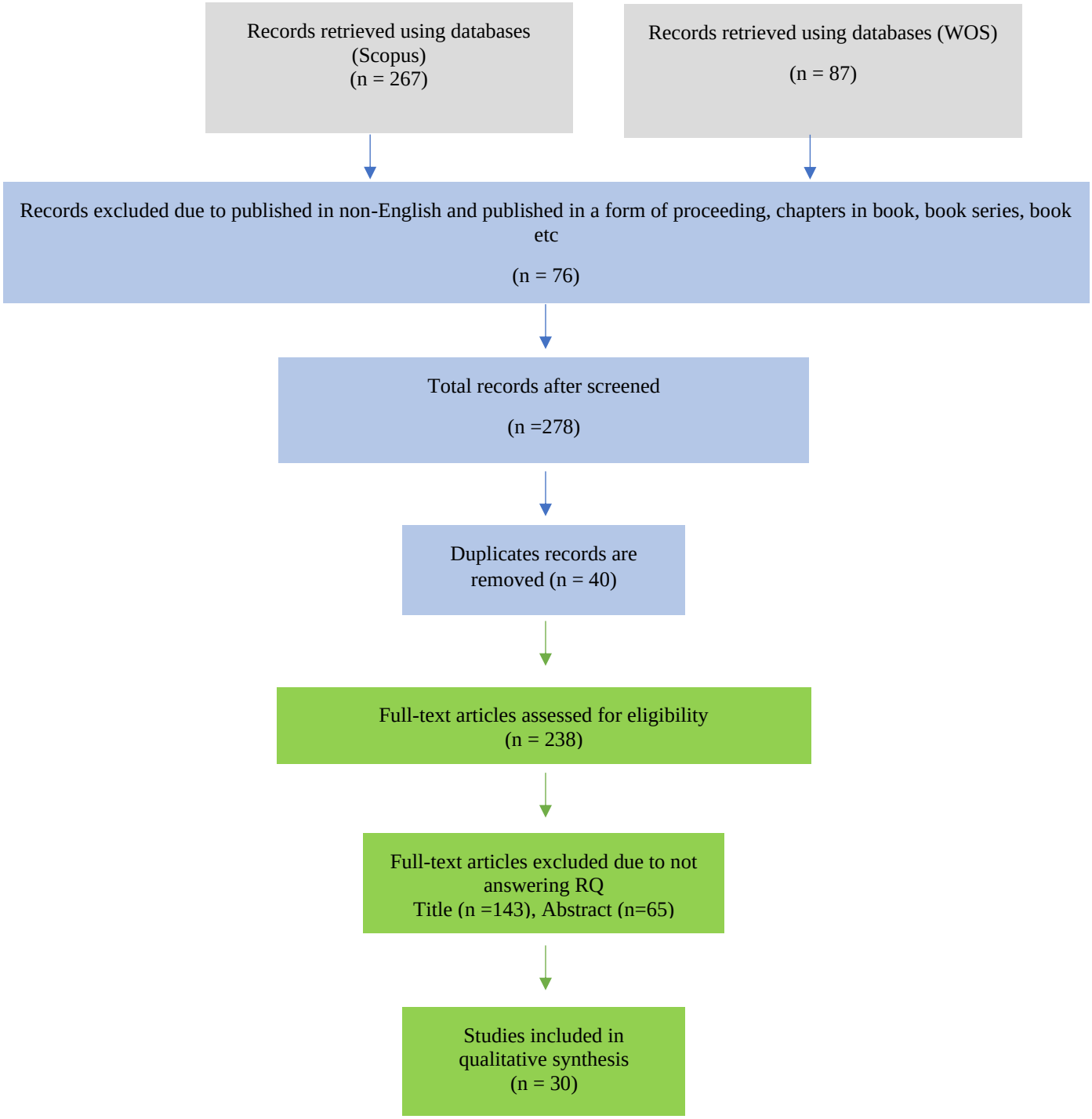
The next process screening filtered all the 354 articles from the result of identification in both Scopus and WOS databases. It is done automatically based on the sorting function available in the database, limit to function. To ensure the quality review, only articles publish in article and journal in final publication stage are included. In addition, the selected articles are only in English language to avoid confusion in understanding. This process has excluded 76 articles because did not meet the standard criteria that has been set and remove 40 duplicate articles. The remaining 238 articles were used for the next stage in the process of eligibility.

Table 2: The Inclusion and Exclusion Criteria

Criteria	**Eligibility**	**Exclusion**
Literature type	Article, Journal	Non indexed journals, Systematic literature review journals, chapter in book, conference proceeding
Publication stage	Final	Article in press
Language	English	Non-English

Eligibility is the third process where the remaining 238 articles have manually been chosen to ensure that all the article that has gone through screening process meets the criteria. This was done by reading thoroughly on the title and abstract of the articles. This process then resulted on excluded 143 unrelated articles based on titles and 65 unrelated articles based on abstract. Overall, there were only 30 selected articles.

Figure 1- Flow Diagram of Systematic Searching Process



FINDINGS & DISCUSSIONS

Background of Selected Articles

From the results, author indicate all 30 selected articles with the respective codes from 1 to 30. Table 3 shows the number of papers classified by publication years. I observe that the publication of these papers begins in 2013 and that the years having the most publications are between 2018 and 2021, with around 77% of the papers. This analysis confirms that the literature on this subject is relatively recent.

Table 3: Papers Classified by Publication Years

Publication years	Record count	% Of 30
2021	24,29	6.67%
2020	1,3,4,12	13.33%
2019	5,11	6.67%
2018	6	3.33%
2017	10,23	6.67%
2016	13	3.33%
2015		
2014		
2013		

Source: Web of Science (WoS)

Publication years	Record count	% Of 30
2021	27,28,30	10.00%
2020	8,9,16,20,25	16.67%
2019	18,22,26	10.00%
2018	2,17,21	10.00%
2017		
2016		
2015	14,15,19	10.00%
2014		
2013	7	3.33%

Source: Scopus

Table 4 shows the number of papers (from among the sample of 30 papers that we summarize in this systematic review) classified by the published journal. In addition, the JCR-2018 and SJR-2019 impact ratings Q1, Q2, Q3 and Q4 indicate the respective quartiles in which the journal is ranked with respect to the total number of journals belonging to the same category. All journals belong to the different type of journals.

Table 4: Papers Classified by Publish Journals.

	Source titles	Record count	% of 30	2021 JCR Index	2021 SJR Index
1	MEASURING BUSINESS EXCELLENCE	1	3.33%	/	0.42 (Q2)
2	THUNDERBIRD INTERNATIONAL BUSINESS REVIEW	1	3.33%	/	0.63 (Q1)
3	MDPI	4	13.33%	/	0.8 (Q1)
4	COMPETITIVENESS REVIEW: AN INTERNATIONAL BUSINESS JOURNAL	1	3.33%	/	0.51 (Q2)
5	COMPETITIVENESS REVIEW: AN INTERNATIONAL BUSINESS JOURNAL	1	3.33%	/	0.82 (Q1)
6	JOURNAL OF ISLAMIC ACCOUNTING AND BUSINESS RESEARCH	1	3.33%	/	0.36 (Q2)
7	JOURNAL OF BANKING AND FINANCE	1	3.33%	3.539 (Q2)	1.47 (Q1)
8	FINANCIAL INNOVATION	2	6.67%	6.793 (Q1)	0.94 (Q1)
9	PACIFIC BUSINESS REVIEW INTERNATIONAL	1	3.33%	/	/
10	AL-SHAJARAH	1	3.33%	/	0.12 (Q3)
11	ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH	1	3.33%	5.19 (Q2)	0.83 (Q1)
12	SPRINGER SCIENCE+BUSINESS MEDIA NEW YORK	1	3.33%	/	/
13	CORPORATE OWNERSHIP AND CONTROL	2	6.67%	/	NA
14	INTERNATIONAL JOURNAL OF MECHANICAL ENGINEERING AND TECHNOLOGY	1	3.33%	/	NA
15	MANAGEMENT SCIENCE LETTERS	1	3.33%	/	NA
16	ECONOMICS & SOCIOLOGY	1	3.33%	/	0.48 (Q2)
17	E A M: EKONOMIE A MANAGEMENT	1	3.33%	1.422 (Q3)	0.31 (Q2)
18	PRAGUE ECONOMIC PAPERS	1	3.33%	0.797 (Q4)	0.23 (Q3)
19	JOURNAL OF SUSTAINABLE FINANCE & INVESTMENT	2	6.67%	/	0.64 (Q1)
20	JOURNAL OF ASIAN FINANCE, ECONOMICS AND BUSINESS	3	10.00%	/	NA
21	JOURNAL OF ISLAMIC MARKETING	1	3.33%	/	0.55 (Q2)
22	JOURNAL OF CLEANER PRODUCTION	1	3.33%	11.072 (Q1)	1.92 (Q1)

As can be seen, of the 22 journals listed, 6 are indexed in the JCR index and of these, 2 (2) are in the first (second) quartile of their category. Except for two journals, the rest belongs to the SJC Scimago index. Of the 16 journals indexed in SJR, 8 (6) are in the first (second) quartile. The rest,4 categorised as NA means that the article is not yet assigned quartile.

In addition, Table 5 shows the number of papers (among the sample of the 30 papers that author summarize in this systematic review) by country sample. The papers are identified by numerical codes, from 1 to 30, following the list indicated in the list of references.

Table 5: Papers Classified by Country Sample

Country	Papers			No of papers
Single country sample	**Conventional**	**Islamic**	**Both**	**19**
Bangladesh			2,3,26	3
Malaysia		6,11		2
US	8			1
Sub-Saharan Africa	9			1
India	10,17			2
China	12			1
Egypt			15	1
Pakistan			16	1
Bahrain			18	1
Czech Republic	19			1
Ecuador	20			1
Romania	22			1
Indonesia		25		1
Jordan	27			1
Vietnamese	28			1
Multi country sample	**Conventional**	**Islamic**	**Both**	**11**
Middle East & North Africa (MENA) region	1,24			2
Develop & Developing Country			4	1
Emerging country	5			1
22 countries	7,13			2
16 Transition countries of the former Soviet Union and Central and Eastern Europe	14			1
Central and Eastern European Countries (CEEC)	21			1
Multiple country	23			1
Multiple region (Asia, Mena, Africa, Europe, North America, South America)	29			1
European	30			1

The author observes that around 63% of papers (19/30) analyse one single-country study. Among them, 37% (7/19) are from the Bangladesh (16%), Malaysia (11%) and India (11%). There are also paper that analyse U.S, Sub Saharan Africa, China, Egypt, Pakistan, Bahrain, Czech Republic, Ecuador, Romania, Indonesia, Jordan and Vietnam. The remaining 37% (11/30) of papers use a multinational sample that allows comparisons to be made on the effect of sustainable banking for different institutional settings. Among the multi-country sample papers, 18% (2/11) use a sample of companies from Middle East & North Africa (MENA) region and from 22 different countries mentioned in articles, 9% (1/11) each, from 16 transition countries of the former Soviet Union, from Central and Eastern Europe countries, multiple region (Asia, Mena, Africa, Europe, North America, South America) and from European, respectively. However, 27% (3/11) of the multinational studies, despite having a multinational sample, do not look at differences among settings with 33% (1/3) each.

Table 6: Papers Classified by Theory Applied

Theory	Papers			No of papers
	Conventional	**Islamic**	**Both**	
Neoclassical theory	1,9		4	**3**
Agency theory	1,28,29,30		4,2	**6**
Legitimacy theory	28		3	**2**
Philanthropic model		6		**1**
Stakeholder theory	8,12,28,29,30	11,25	15,16,18	**10**
Social exchange theory	29		18	**2**
Shareholder theory	29			**1**
Political-economy theory	29			**1**
Resources based view	30			**1**
Resources dependence theory	30			**1**

No theory discussed: 5,7,10,13,14,17,19,20,21,22,23,24,26,27

Table 6 above shows the number of papers (among the sample of the 30 papers that author summarize in this systematic review) by theory. The papers are identified by numerical codes, from 1 to 30, following the list indicated in the list of references. Most of the discussed article, applied stakeholder theory in the discussion, 10 articles and followed by agency theory, six articles. Stakeholder theory argues that a firm should maximize value for stakeholders and not just shareholders. While agency theory focuses more on relationship where one delegates authority of decision making to the others.

Table 7 shows the papers on the relationship between sustainability and banking performance by methodology employed. This table shows the number of papers (among the sample of the 30 papers that author summarize in this systematic review) grouped by the type of methodology they consider in their analysis, focusing on the endogeneity problem. The papers are identified by numerical codes, from 1 to 30, following the list indicated in the list of references.

Table 7: Papers Classified by Methodology Used

Econometric technique	Papers			No of papers
	Conventional	**Islamic**	**Both**	**30**
Linear model	1,12,17,20	25	4	6
Panel data method				
Fixed effect	1,21,24,30	11	3,16	7
Random effect	1,21,23,24,27,30	11	16	8
Pooling OLS	1	11	16	3
IV-GMM	1		4	2
Bootstrapping			3	1
OLS regression	8,10,21,28		4	5
Linear multiple regression	20	6	2,4,15	5
Difference GMM	5			1
System GMM	5			1
Two stage system GMM	9			1

Heckman's two step method	7	1
Ordered Probit regression	13	1
Estimated generalized propensity score	13	1
Data envelopment Analysis	21	1
Stochastic frontier	14	1
Pearson correlation index	22	1
Normality	29	1
Stationarity	29	1
Collinearity	29	1
Autocorrelation	29	1
Heteroscedasticity	29	1

Author finds in table 7 that the use of linear model by 20%, panel data method of fixed effect 23% and random effect 27%, OLS regression 17% and linear multiple regression 17% are the predominant technique, that were used in this systematic review. In addition, 10% (3/30) of the papers use pooling OLS of panel data method and 7% (2/30) of papers use IV-GMM. The remaining paper in this systematic review use techniques that aim to address selection bias such as bootstrapping 3% (1/30) of the papers, difference GMM 3% (1/30) of the papers, system GMM 3% (1/30) of the papers, two stage system GMM 3% (1/30) of the papers, Heckman's two step method 3% (1/30) of the papers, ordered probit regression 3% (1/30) of the papers, estimated generalized propensity score 3% (1/30) of the papers, data envelopment analysis 3% (1/30) of the papers, stochastic frontier 3% (1/30) of the papers, Pearson correlation index 3% (1/30) of the papers, normality 3% (1/30) of the papers, collinearity 3% (1/30) of the papers, autocorrelation 3% (1/30) of the papers and heteroscedasticity 3% (1/30) of the papers.
These results shows that the effect of sustainability on bank performance varies depending on what variables used by previous researcher to measure bank performance. That conclude why some banks have positive, negative, and not significant performance.

Table 8 shows the number of papers (among the sample of the 30 papers that summarize in this systematic review) analyse each sustainability mechanism, distributed in four panels depending on Environmental, Social & corporate governance (ESG) (Panel A), Environmental (Panel B), Social (Panel C) and corporate governance (Panel D). The papers are identified by numerical codes, from 1 to 30, following the list indicated in the list of references.

Table 8: Papers classified by sustainability mechanism

Sustainability variable (X)	**Papers**			**No. of papers**
	Conventional	**Islamic**	**Both**	
Panel A: Environmental, Social & corporate governance (ESG)	**1,4,8,12,13,15,16,19,22,24,29,30**			**12**
ESG Index Score	1,4,12,24,29,30			6
CSR INDEX / SCORE	8,13,19,22		15, 16	6
Panel B: Environmental	**2,3,5,9,10,12,18,21,26**			**9**
Green compliance index			2	1

Environmental performance	5		18	2
Environmental score	12			1
CSR measurement instrument (Environment)	10			1
Social-environmental performance (Environment)	21			1
Energy efficiency improvement	9			1
Social sustainability, Environmental sustainability and green products and services			3	1
Green banking performance			26	1

Panel C: Social	**3,5,6,10,11,14,17,20,21,23,25,27,28**			**13**
Social performance	5			1
Social score	12			1
CSR measurement instrument-community, HR management, others	10			1
Social-environmental performance (social)	21			1
Zakat disclosure index		6,25		2
Charity disclosure index		6		1
Zakat contribution		11		1
CSR initiative	20			1
Ethical banking		23		1
Social sustainability, Environmental sustainability and green products and services			3	1
CSR disclosure index	27,28	25		3
CSR index / score	14			1
CSR expenditure	17			1
Panel D: Governance	**5,7**			**2**
Corporate governance performance	5			1
CSR INDEX / SCORE	7			1

Panel A: Environmental, Social & Corporate governance (ESG)
ESG index score

ESG index score were measured by giving out one point for every criterion or indicator fulfilled on the list. It is usually done by an experienced based on the information collected from annual reports and websites, public sources and could be through direct contact with the firms. From the reviewed article, the scoring was measured by using environmental, social, and corporate governance as one criterion or indicator to awarded score. This panel consists of two sub panel. The results of ESG index score were mentioned only in the paper highlighting the conventional banking.

Panel B: Environmental

The next variable using in the article is categorized as environmental, which consists of several sub-panel: green compliance index, environmental performance, environmental score, CSR measurement instrument (environment), social-environmental performance (environment), energy efficiency improvement and social sustainability, environmental sustainability and green product and services. All these sub-panels were focusing on the effect of environmental which is within sustainability, to banking performance. The results of environmental variable were including in papers highlighting the conventional banks and both conventional banks and Islamic bank.

Panel C: Social

Social as one of the variables of sustainability in this article encompasses on the topic community involvement, human empowerment, customer welfare, Islamic social finance, social responsibility, human right, labour right, social environment and social ethical. All of these were discussed in the sub-panel mentioned in the table including in papers highlighting all banks: conventional banks, Islamic banks and both conventional and Islamic banks.

Panel D: Governance

Governance context in the article were explained as the organisation's code of conduct, rules, and regulation to monitor and ensure whether the executives and board members are compatible with the interest of the stakeholders in the emerging market banks. This panel involve two sub panel.

Included also bank performance measures in table 9. This table shows the number of papers (from among the sample of the 30 papers that we summarize in this systematic review) by bank performance measure used. The papers are identified by numerical codes, from 1 to 30, following the list indicated in the list of references.

Table 9: Banks performance measure

Bank performance measure	**Papers**			**No of papers**
	Conventional	**Islamic**	**Both**	
Return on asset (ROA)	1,5,7,8,9,10,12,13,14,17,19,20,21,22,23,24,27,28,29,30	6,11,25	2,3,4,15,16	**28**
Return on Equity (ROE)	1,5,7,12,13,14,17,19,20,21,22,23,24,27,28,29,30	11,25	3,4,15,16	**23**
Tobin's Q	1,8,24,27,29,30		4	**7**
Total asset (TA)			3	**1**
Net Profit After Tax (NPAT)	17		3	**2**
Net interest income	7,13			**2**
Non-interest income	7,13			**2**
Non-performing loan	7,13			**2**
Operating profit		11		**1**
Net interest margin	19,28		15	**3**
Earnings per share (EPS)	17			**1**
Nominal Interes Margin Profit (NIMP)	12			**1**

Financial performance		18	**1**
Capital adequacy	19		**1**
Net profit per employee	19		**1**
Stock return	24,30		**2**
Market stock price	27		**1**

In this section, author provide a brief review of the bank performance measurement. It is important to consider that the differences in results may also be due to the different method used to approximate bank performance. Most of the literature that explores the bank sustainability effect on bank performance use return on asset (ROA) as a proxy for banking performance. As author observe, this variable is used by vast majority of the papers included in this systematic review which is 93% (28/30), that is because these papers use quantitative method while the other two last paper use qualitative method which explain why ROA not included.

The second most widely measure used to approximate bank performance is the return on equity (ROE). This variable measures the ability of a firm to generate profits from its shareholders investment in the company or as discussed, bank. As can be seen in the table, the percentage of papers that works with these variables amount to 77% of the papers (23/30).

The third most used variable is the Tobin's Q. As noted in (Amina Buallay S. M.-A., 2019)**,** (Amina Buallay S. M., 2020) and (Bolton, 2020)**,** Tobin's Q were used to measure bank performance and results indicated that Tobin's Q is less sensitive to the performance of ESG when compared to the ROA and ROE. As table 8 shows, 23% (7/30) of the papers included in this review use it. 10% (3/30) of the papers also include net interest margin to measure bank performance.

Other works have similar 7% of the papers (2/30) that were used in this review. Net profit after tax (NPAT) is used as a criterion variable and indicator that address the link between sustainability performance and financial performance in the banking sector. The variable was used for both India and Bangladesh banks. Net interest income, non-interest income and non-performing loan were used by the same author, in two different articles of (Meng-Wen Wu C.-H. S., 2013) and (Meng-Wen Wu C.-H. S.-H., 2016)**.** Approximately with the application of Tobin's Q, stock return was used to measure market performance and it reflects the change in the stock price over the analysed period. In their review, all measure shows the relationship between CSR and FP varies depending on the types of measurement used.

Another measure used contribute each 3% of the papers (1/30). The bank size was measure through total asset in which (Olaf Weber, 2020) mentioned that it can predict the sustainability performance of banks. (Romzie Rosman, 2019) in his article include operating profit over risk weighted average asset as one of the profitability measurements to directly measure the relationship of impact of zakat (which is component of CSR) with Islamic banks. Earnings per share were used to find out whether it has relationship with the CSR and nominal interest margin profit was used to measure market base performance. (Jiří Paulík, 2015) include capital adequacy and net profit per employee together with major measurement in his review. He stated that capital adequacy measures the bank's ability to use its own and supplementary resources in relation to the risk asset structure, selected off-balance sheet assets and the market rise. It is important factor for the banks in case economy encountered with financial problems, while net profit per employee used to completes profitability ratios and represents the parameter with the ability to compare economic entities of various size. Market stock price on the other hand was linked to CSR expenditure to motivate investor to invest in company as market stock return may give long-term profitability as it had a positive, but not statistically significant as stated by the previous author.

In the following section, the author analyses the effect of sustainability components and bank performance. In the table 10 shows the effect of sustainability on bank performance analysed in the literature, as well as the total number of papers (from among the sample of the 30 papers that authors summarize in this systematic review) that find each effect which is positive, non-significant (NS) and negative on the bank performance. The papers are divided into quantitative and qualitative paper then identified by numerical codes, from 1 to 30, indicated in the list of references.

Table 10: Sustainability Components and Banks Performance

Mechanism	Effect	
ROA	positive	1,7,8,10,12,20,6 (zakat),2,16,25(zakat),24
	NS	5,13,17,21,22,6 (charity),11,23,3,25(CSR D),28
	negative	4,9,14,19,15,27,29,30
ROE	positive	1,5,7,12,13,14,19,20,15,16,27,24
	NS	17,21,22,11,23,3,25(CSR and zakat),28,30
	negative	4,29
TOBIN'S Q	positive	8
	NS	30
	negative	1,4,16,24,27,29
TA	positive	3
	NS	
	negative	
NPAT	positive	
	NS	17
	negative	
Net interest income	positive	7
	NS	
	negative	13
Non-interest income	positive	7,13
	NS	
	negative	
Non-performing loans	positive	13
	NS	
	negative	7
Operating profit	positive	11,15
	NS	
	negative	
Net interest margin	positive	19,28
	NS	
	negative	
Earnings per share (EPS)	positive	
	NS	17
	negative	
	positive	

Nominal Interes Margin Profit (NIMP)	NS	12
	negative	
Capital adequacy	positive	
	NS	
	negative	19
Net profit per employee	positive	19
	NS	
	negative	
Stock return	positive	24
	NS	
	negative	
Market stock price	positive	27
	NS	30
	negative	

Mechanism	**Effect**	**Conventional bank**	**Islamic bank**	**Both**
Financial performance	managerial authorities in the targeted banks in Bahrain have been getting positive influence towards financial performance through involving in socially responsible activities		18	
Green performance	None of the banks fully meet the green or sustainable policy requirements. However, the Islamic banks are ahead in preserving faith, intellect and wealth circulation			26

Table 11 shows the effect of sustainable banking on banking performance. Panel A shows the number of papers (among the sample of the 30 papers that author summarize in this systematic review) grouped by the type of bank they consider in their analysis, distinguishing between Islamic, conventional and both. Panel B display for each type of bank performance mechanism, showing the information from those articles that focus on conventional bank, Islamic bank or both. The results are mentioned as increase, decrease, and non-significant effect. The papers are identified by numerical codes, from 1 to 30 indicated in the list of references.

Table 11 (Types of Banks)
Panel A: Number of Papers By Bank Types

Type of bank	**Papers**	**No of papers**
Conventional	1,5,7,8,9,10,12,13,14,17,19,20,21,22,23,24,27,28,29,30	20
Islamic	6,11,25	3
Both	2,3,4,15,16,18,26	7

Table 11 (Relationship between sustainability and bank performance)- Quantitative table
Panel B: Conventional bank vs Islamic bank vs Both

Mechanism	Effect	Conventional bank		Islamic bank		Both	
ROA	positive	1,7,8,10,14,20, 24,25	15	6 (zakat)	3	2,16	5
	NS	5,13,17,21,22, 23,25,28		6 (Charity),11		3	
	negative	9,14,19,27,29				4,15	
ROE	positive	1,5,7,12,13,14, 19,20,24,27	12		1	15,16	4
	NS	17,21,22,23,25 ,28		11,		3	
	negative	29				4	
TOBIN'S Q	positive	8	2		0		0
	NS						
	negative	1,24,27,29				4,16	
TA	positive		0		0	3	1
	NS						
	negative						
NPAT	positive		1		0		0
	NS	17					
	negative						
Net interest income	positive	7	2		0		0
	NS						
	negative	13					
Non-interest income	positive	7,13	2		0		0
	NS						
	negative						
Non-performing loans	positive	13	2		0		0
	NS						
	negative	7					
Operating profit	positive		0	11	1		0
	NS						
	negative						
Net interest margin	positive	19,28	1		0	15	0
	NS						
	negative						
Earnings per share (EPS)	positive		1		0		0
	NS	17					
	negative						
Nominal Interes Margin Profit (NIMP)	positive		1		0		0
	NS	12					
	negative						
	positive		1		0		0

Capital adequacy	NS						
	negative	19					
Net profit per employee	positive	19	1		0		0
	NS						
	negative						
Stock return	positive	24					
	NS						
	negative						
Market stock price	positive						
	NS						
	negative						

Table 11: Effect of Sustainability on Bank Performance (Qualitative Table)

Mechanism	Effect	Conventional bank		Islamic bank		Both	
Financial performance	managerial authorities in the targeted banks in Bahrain have been getting positive influence towards financial performance through involving in socially responsible activities		**0**	18	1		**0**
Green performance	None of the banks fully meet the green sustainable policy requirements. However, the Islamic banks are ahead in preserving faith, Intellect and wealth circulation.					26	1

None of the banks fully meet the green or sustainable policy requirements. However, the Islamic banks are ahead in preserving faith, intellect and wealth circulation

From table 10, the author points out the empirical effect of sustainability that turns out either positive, negative, or non-significant in banking performance in general. The results then summarize in table 11 with additional category that give explanation in depth for table 10. Therefore, we can see in panel A of table 11, the empirical papers (quantitative) and theory papers (qualitative) grouped by the bank types. 67% (20/30) of the paper study conventional banks, 10% (3/30) Islamic banks, and 23% (7/30) both types of banks. In panel B of table 11, we also can see in detail that the elements of sustainability in the articles have mixed effect on bank performance when using the three dominant indicator which is ROA, ROE, and Tobin's Q. This result show inconsistency and will turn out to be more challenging for the next researchers to offer alternative test instead of using the same indicator. From the author observation, the results are biased as each bank does not have the same revenue and the same expenses. The previous author mentioned that sustainability panel and ROA have positive correlation, that means when bank engaged in sustainability sub-panel and incurred high cost, the revenue will also increase even more. Means when the results contradicted with the statements, the author noticed that it partly because it involved the non-financial aspect such as

social and environmental aspects. That applied also for ROE, Tobin's Q and other bank's performance measure. Then generally in authors opinion, sustainability and bank performance have significant positive correlation, which means when one is increased or decreased, another follows the same directions. Therefore, next researcher could smaller the scope in term of the level of the bank's financial.

CONCLUSION

This review has highlighted the relationship of sustainability and bank performance for both Islamic and conventional banking. Within Islamic banking areas, relationship between sustainability and bank performance seems in early stage as it recorded only in term of charity and zakat in income statement. This also could be due to the limited sources of article which does not focus more on sustainability in Islamic banking or lack interpretation from the author. While conventional bank contributes useful information regarding sustainability. Based on the systematic reviews performed, authors have identified that in terms of theory, there is not many differences, because the idea of sustainability is a long-term solution for either conventional or Islamic bank. Both use sustainability as a platform to perform and achieve profit without neglecting future needs and rights, in which generally Islam also promotes serve mankind if it is not contradicted with shariah. In practice, the author noticed that differences of sustainability in conventional and Islamic banking lies in the report of distribution of zakat and the action of giving out charity. Theoretically, the author noticed that most of the discussed article apply stakeholder theory, which means the positive result in bank performance also influenced by how banks manage the relationship between people who have stake in the organization. Empirically, sustainability and bank performance are related to each other, but the result were mixed. The review suggests several recommendations for future studies. First, more qualitative studies are needed to offer detailed explanation on sustainability practice in the worldwide banking and second, to have more research done on sustainability and bank performance that specifically mentioned Islamic banks.

REFERENCES

Amina Buallay, S. M. (2020). Sustainability Reporting And Bank Performance After Financial Crisis Evidence From Developed And Developing Countries. *Competitiveness Review: An International Business Journal*.

Amina Buallay, S. M.-A. (2019). Sustainability Reporting And Performance Of Mena Banks: Is There A Trade-Off? *Measuring Business Excellence*.

Amina Mohamed Buallay, M. A. (2021). Sustainability Reporting In Banking And Financial Services Sector: A Regional Analysis. *Journal Of Sustainable Finance & Investment*.

Ana Belen Tulcanaza-Prieto, H. S. (2020). Relationship Among Csr Initiatives And Financial And Non-Financial Corporate Performance In The Ecuadorian Banking Environment. *Mdpi*.

Bolton, B. (2020). Internal Vs. External Corporate Social Responsibility At U.S. Banks. *International Journal Of Financial Studies*.

Dulcenombre Madrid Galdeano, U. A. (2019). Financial Performance And Corporate Social Responsibility In The Banking Sector Of Bahrain: Can Engagement Moderate? *Management Science Letters*.

Hafez, H. M. (2015). Corporate Social Responsibility And Financial Performance: An Empirical Study On Egyptian Banks. *Corporate Ownership And Control*.

Hayrol Azril Mohamed Shaffril, N. A. (2020). Systematic Literature Review On Adaptation Towards Climate Change Impacts Among Indigenous People In The Asia Pacific Regions. *Journal Of Cleaner Production*.

Jiří Paulík, M. S. (2015). Application Of The Csr Measuring Model In Commercial Bank In Relation To Their Financial Performance. *Economics & Sociology*.

Justyna Fijałkowska, B. Z.-D. (2018). Corporate Social-Environmental Performance Versus Financial Performance Of Banks In Central And Eastern European Countries. *Mdpi*.

Kashfia Sharmeen, R. H. (2018). Underpinning The Benefits Of Green Banking: A Comparative Study Between Islamic And Conventional Banks In Bangladesh. *Thunderbird International Business Review*, 1-10.

Khurshid Djalilov, T. V. (2015). Corporate Social Responsibility And Bank Performance In Transition Countries. *Corporate Ownership And Control*.

Krisztina Szegedi, Y. K. (2020). Corporate Social Responsibility And Financial Performance: Evidence From Pakistani Listed Banks. *Mdpi*.

Laura Ballester, A. G.-U. (2020). The Role Of Internal Corporate Governance Mechanisms On Default Risk: A Systematic Review For Different Institutional Settings. *International Business And Finance*.

Meng-Wen Wu, C.-H. S. (2013). Corporate Social Responsibility In The Banking Industry: Motives And Financial Performance. *Journal Of Banking And Finance*.

Meng-Wen Wu, C.-H. S.-H. (2016). Application Of Multi-Level Matching Between Financial Performance And Corporate Social Responsibility In The Banking Industry. *Springer Science+Business Media New York*.

Mohammad Hassan Shakil, N. M. (2019). Do Environmental, Social And Governance Performance Affect, The Financial Performance Of Banks? A Cross-Country Study Of Emerging Market Banks. *Management Of Environmental Quality*.

Oana Marina Batae, V. D. (2021). The Relationship Between Environmental, Social, And Financial Performance In The Banking Sector: A European Study. *Journal Of Cleaner Production*.

Olaf Weber, R. K. (2020). Corporate Sustainability In Bangladeshi Banks: Proactive Or Reactive Ethical Behavior? *Mdpi*.

Philip Kofi Adom, F. A.-M.-M. (2020). Degree Of Financialization And Energy Efficiency In Sub-Saharan Africa: Do Institutions Matter? *Financial Innovation*.

Quoc Thinh Tran, T. D. (2021). Relationship Between Profitability And Corporate Social Responsibility Disclosure: Evidence From Vietnamese Listed Banks. *Journal Of Asian Finance, Economics And Business*.

R. El Khoury, N. N. (2021). Esg And Financial Performance Of Banks In The Menat Region: Concavity–Convexity Patterns. *Journal Of Sustainable Finance & Investment*.

Radek Halamka, P. T. (2017). The Effect Of Ethics On Banks' Financial Performance. *Prague Economic Papers*.

Raza Ali Tunio, R. H. (2020). The Relationship Between Corporate Social Responsibility Disclosures And Financial Performance: A Mediating Role Of Employee Productivity. *Environmental Science And Pollution Research*.

Robiatul Auliyah, B. B. (2020). Ethical Values Reflected On Zakat And Csr: Indonesian Sharia Banking Financial Performance. *Journal Of Asian Finance, Economics And Business*.

Romzie Rosman, R. H. (2019). The Impact Of Zakat Contribution On The Financial Performance Of Islamic Banks In Malaysia. *Al-Shajarah*.

Sakhr M. Bani-Khaled, A. R.-D.-O. (2021). Relationship Between Corporate Social Responsibility Expenditures And Performance In Jordanian Commercial Banks. *Journal Of Asian Finance, Economics And Business*.

Shafat Maqbool, P. M. (2017). An Empirical Examination Of The Relationship Between Corporate Social Responsibility And Profitability: Evidence From Indian Commercial Banks. *Pacific Business Review International*.

Taslima Julia, S. K. (2019). Exploring Green Banking Performance Of Islamic Banks Vs Conventional Banks In Bangladesh Based On Maqasid Shariah Framework. *Journal Of Islamic Marketing*.

Tuan Azma Fatiema Tuan Ibrahim, H. A. (2020). Ethical Values And Bank Performance: Evidence From Financial Institutions In Malaysia. *Journal Of Islamic Accounting And Business Research*.

V. Priyadarshini, D. S. (2018). Does Corporate Social Responsibility Expenditure Influence Banks Financial Performance? – Evidence From Selected Private Sector Banks In India. *International Journal Of Mechanical Engineering And Technology* .

Vasile Dinu, M. B. (2019). The Corporate Social Responsibility Of The Romanian Banking System. *E A M: Ekonomie A Management*.