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Does COV-19 Affect the Level of Resilience in Systemic Banking? A Sample Pressure of COV-19 on (5) Banks from France, Denmark, Japan, Netherlands, India

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Abstract

Purpose: To identify the stress of the COV-19 and its shocks on its credit in a sample of a group of individual banks.

Methodology: Quantities case study had been explained in the conduct of the research and collecting main data to measure the effect of cov-19 on the system in the bank and its performance as its turned into a systematic banking crisis using SPSS test for (5) banks .

Findings: Some of the findings of the study are: 1) With these explaining for the systems of different banks after cov-19, we find cov-19 played a main role in breaking the protection of banking system. 2) No comprehensive or integrated financial treaty on the understanding of banking sector's resilience.

Keywords: banking system, cov-19, resilience

1. Introduction

1.1 Introduce the Problem

This problem important as Cov-19 affect the main player at the banking sector, it updated the policy and the trend in the banks, the banking facing many challenges. the study relate to previous work in the area as it measures efficiency, profitability ,liquidity, investment and solvency so it is a new trend as it focused on its impact which affected the economy, finance and management of the banks for examples in France, Denmark, Japan, Netherland and India.

The primary hypotheses that the cov-19 affect the level of resilience at banks, the secondary hypotheses that the cov-19 affect the financial ratio of efficiency, profitability, liquidity, investment and solvency.

The objectives of the study is determined impact of cov-19 on the resilience of banks and explain the different cases from five countries. The practical implications of the study in comparing the five banks at five different countries in France, Denmark, Japan, India and Netherlands,

1.2 The Importance of the Problem

The importance of the problem in explaining the effect of cov-19 on the financial situation and the resilience of banks with a new methodology to compare the five banks at five different countries in France, Denmark, Japan, India and Netherlands.

1.3 Literature Review

Siska (2021) Analyze the impact of cov-19 on solvency (CAR), profitability (ROA and NIM), efficiency (OEOI), liquidity (LDR), and risk profile (NPL), using data July 2019-Feb 2020. This study finding that there was a significant difference in term of profitability, efficiency, liquidity and credit risk but the level of solvency wasn't a significantly different, the overall performance on healthy level, the suggestion to monitor, the resilience in the coming year.

David (2020), after cov-19 some banks face lessons with negative effect on capital, the ability for paying its obligation in very limited that can take a place in the balance sheet, at the short run the failure appeared in the income statement then the expectation of loss at the balance sheet in loss in loans that increase the loss revenues

bank switching different accounting standard called current credit losses (CECL).

Waseso (2021) explained the negative impact on the activity and the financial side and the level of profit after decreasing and there was a need to restructure the credit, it using the economic value added and market value added method. TBK The experienced functions, the instable of economic value added but the company still proceeded an economic value added at positive ration.

The literature gap was at measuring the impact of cov-19 on the samples of five different banks, the researchers will fill such a gap by highlight the percentages of efficiency, profitability, investment, liquidity and solvency to measure the impact on cov-19 on the system of each bank.

1.4 State Hypotheses

Examine the relation between the effects of different pre-pandemic banking sector resilience to cov-19 by using a sample of five banks in five countries.

2. Methodology

2.1 Participant (Subject) Characteristics

The analysis depended on the individual evaluation of the financial reports of the five banks, it is the Characteristics of the developing the ratio of the economic and financial activity at the annual reports of the banks

2.2 Sampling Procedures

A systematic sampling plan was used; the percentage of the sample approached that participated in five banks; the locations in which the data were collected in France, Denmark, Switzerland, Japan and India.

2.2.1 Sample Size

Along with the description of subjects, the size of the sample and number of 5 banks was explained condition to measures the financial performance.

2.2.2 Research Design

The research design in using a mean and Std. Deviation to measures the ratio of efficiency, profitability, liquidity, investment and solvency.

3. Results

3.1 An Economic Evaluation

Table 1. The effect of cov-19 on inflation and GDP growth rate

(Millions EUR)

Bank name	Inflation before	Inflation after	GDP growth before	GDP growth after
France “banque de france”(1)	+0.5%	1.5	-8.2	0.70
Denmark “Danske bank”(2)	0.7	1.04	-3.7	-2.1
Reserve bank of India	6.2	5.57	-8.0	3.2
Japan post bank	2.86	0.1	2.1	5.2
Netherlands NWB bank	5.6	3.4	2.09	3.8

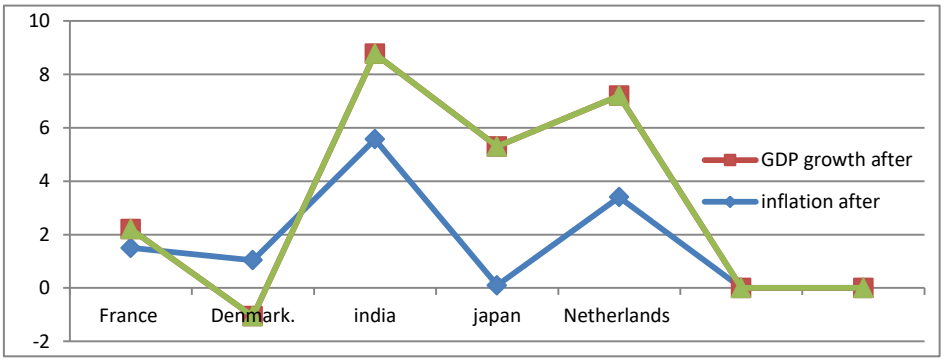

Figure 1. The effect of cov-19 on inflation and GDP growth rate

Table 2. The effect of cov-19 on profit and expenditure

(Millions EUR)

Bank name	Expenditure after	Expenditure before	Change%	Net profit after (millions) 2020	Net profit before (millions) 2019	Change %
France " banque de france"(1)	912	915	-0.3	3846	2190	+75.61%
Denmark " Danske bank"(2)	3779	3657	+3.3	4511	15068	-70.06%
Reserve bank of India	0.393	1.065	-63.06	1.539	1.724	-10.7
Japan post bank	12005	10970	9.43	2201	1892	16.33
Netherlands NWB bank	54	49	10.2	81	95	-14.7

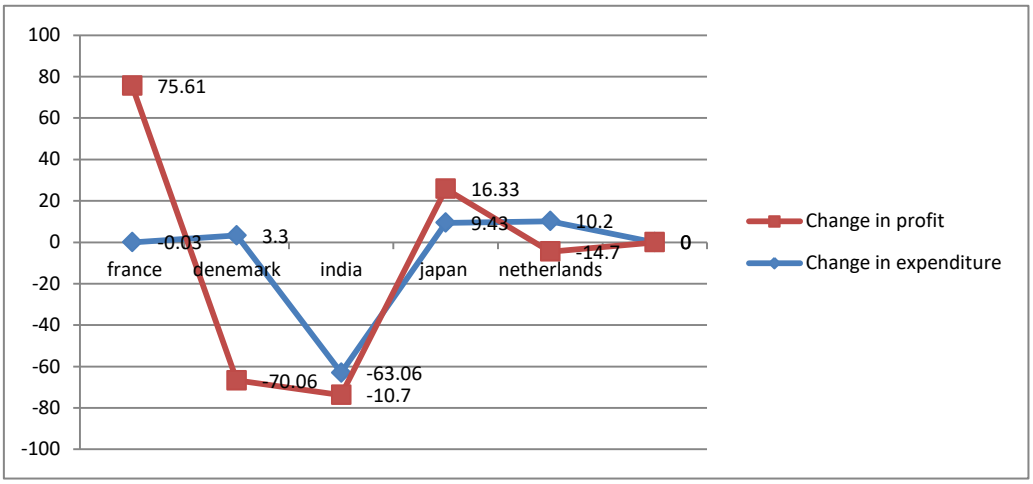

Figure 2. The effect of cov-19 on the net expenditure of " banque de france"

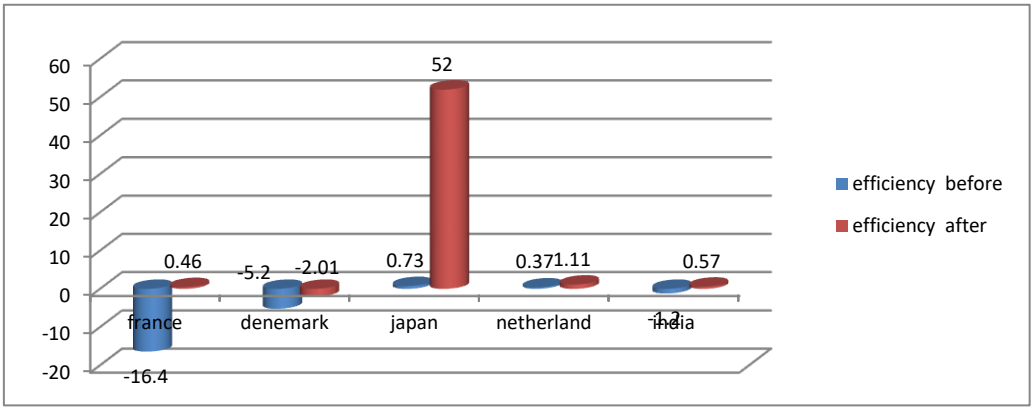

Figure 3. The efficiency of the economy for five banks before-after cov-19

The efficiency of the economy at the five banks reflect a unique case of Japan as an exception of the five county as the very low inflation rate with the successful effort of the macro policy maker, the negative effect of the case in France at the bad situation as the country suffer from the negative indicator before cov-19 then the case after cov-19 improved but with limit recovery, the case at Denmark was worth as the indicator still negative but with little improve after cov-19 but still negative, at India improved from negative to positive but the case of Netherlands is much better as little develop.

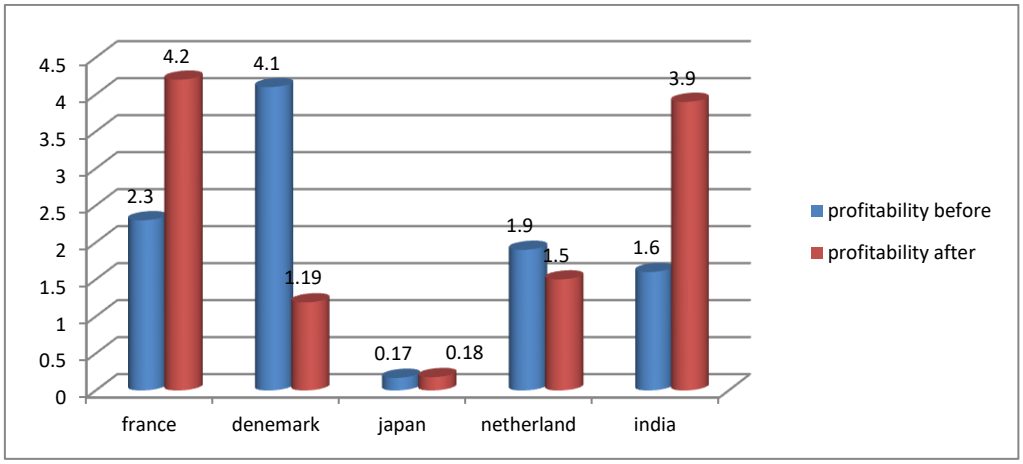

Figure 4. The profitability of the five banks before-after cov-19

The profitability at the five banks was different but the same situation at the Denmark and Netherlands as the cov-19 affect the profitability so, it was decreased at both of them, with a little rate of increase at the Japan, at the other side France and India succeeded in getting a profit with unexpected increasing with a high level of profit although the effect of cov-19, that was a result of the successful policy.

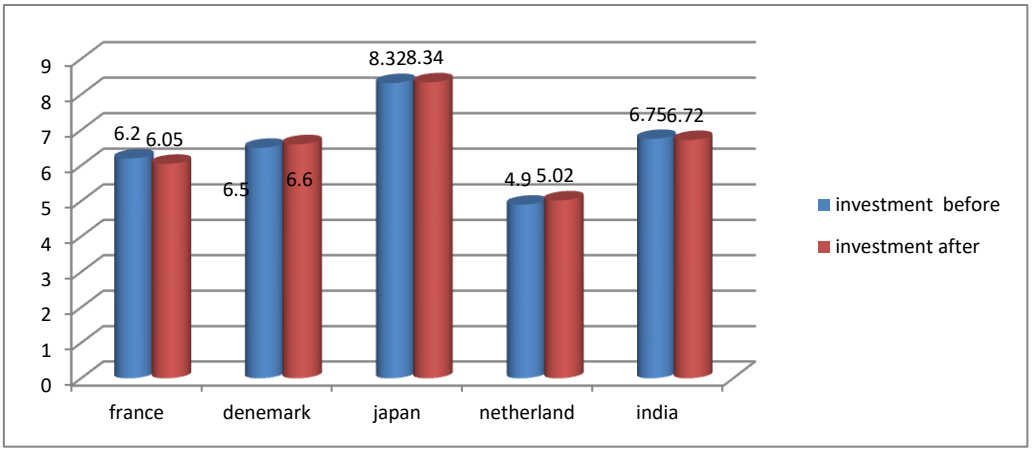

Figure 5. The investment of the five banks before-after cov-19

All the five banks keep the priority for the investment and keep it at nearly the same level after cov-19, but the top for Japan then India and Denmark, the same for France with a little decease but high investment value then Netherlands**.**

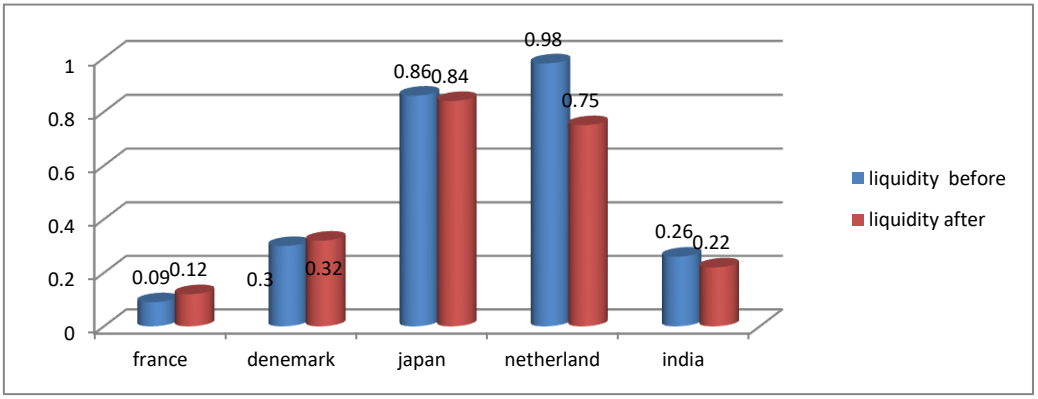

Figure 6. The liquidity of the five banks before-after cov-19

The liquidity was high at Japan and Netherlands and it was very low at France, but for the effect of cov-19 , the high effect appeared at Netherlands with a singly impact , but France succeeded in providing a liquidity after cov-19 so there was no liquidity problem although it was the lowest country according to keeping the liquidity with high value.

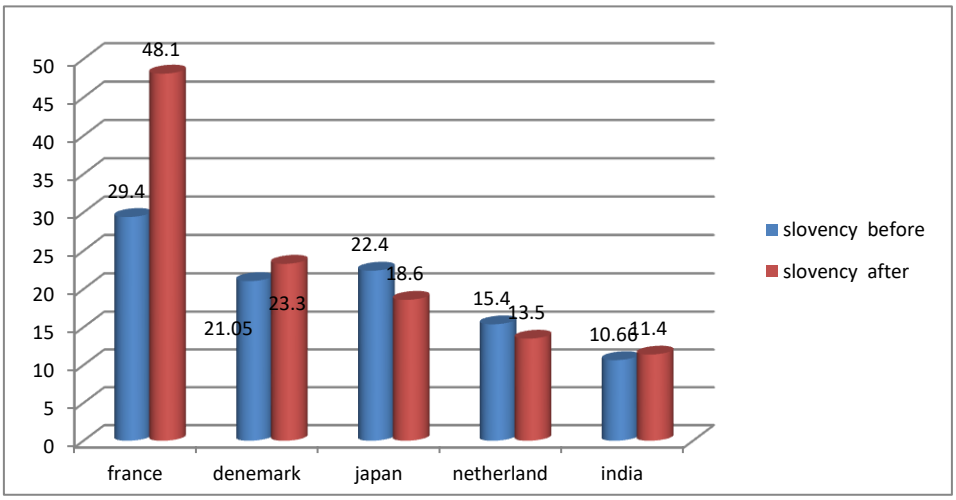

Figure 7. The solvency of the five banks before-after cov-19

The solvency at the four countries “Denmark and Japan, Netherlands and India” was very under control but the special case in France with the best level of solvency after cov-19 that affect the resilience of the bank, for more details both of Japan and Netherlands the solvency decreased but increase at Denmark and India.

3.1.1 The Indicators Around the Five Countries Help or Against the Resilience in Banking

For France

The main monetary policy in increasing the participation in the projects of European region and support the role of central bank to help its position in the market, the flexibility of crisis management under Basel III were concerned the main financial activity in the banking system and the coordination between the European and national authority.

The recommendation in setting a strategy plan for a wide range of services offering for 500.000 customers benefiting from the services of the bank ,the total outstanding microcredit in France 2 billion, the decline in the net income for activities to 6.417 million in 2020.

more training for employees it should target the majority as it is expected to be modified in the plan of bank to exceed the percentages of 80% as it was effective at the 2019 at 85.4% and in 2020 with 91.1% and increase the share of woman in the high position in the bank as the women empowerment will support the bank in the crises it was only 27.7% in 2019 then it increased in 2020 to be 30.4 then the target plan to be 30% should be updated to be more than that percentages.

For Denmark

The sustainable finance for covering 102 billion DKK and started a plan for training to face the risk for 95% of its employee, helping customer in cov-19 crisis to provide liquidity of 100 billion DKK.

The recommendation in minimizing the negative effect on the equity of shareholders to increase the percentage from 2.6 % in2020 to return to 9.6% as the value in 2019 and solve the problems of credit losses of cov19 but the stable of the level of income was reflected in progress in business and the plan for 2023 to be more efficient targeted better way of working to affect 4000 employee across the bank, the cov-19 affect the policy of divided of the net profit , the recommendation to be 40-60 percentages of the total profit.

For India

The policy makers succeeded in measuring liquidity/ funding for lending up to 16 trillion dollars and 15.3% of GDP, it provided a support of 8.0% of 2020-2021 nominal GDP, the GDP was unexpected , the improving for investment and public transfers for GDP with strong pickup of external demand. The monetary policy reduced the policy repo rate 115 basis points, monetary transmission witnessed an improvement and surplus in liquidity conditions.

For Japan

we recommended to increase the number of banks that benefit from the free of fees across the country to be more than 11 banks and prepare a plan to increase the total number of ATMs to exceed 31.900, the improving for its future plan of the increasing of the balance of risk assets to 91.1 trillion yen with investment 4.2 trillion yen.

The training plan was revising the correspondence courses to develop the human resources, and increase the participant of women to be more than 25% as the men standing at 75% in July 2021.

For Netherlands

The limited loss of credit as the government grantee the credit portfolio, but the operating costs increased to be 42 million EUR with 15 million increased as a result of the cov-19 pandemic the adaption of the interest with limit the interest reduction for corporate income tax it is was lower than 8%.

We recommend to increase the total bonds outstanding to be 59.8 billion as the bond issued in 2020 was 13.7 billion EUR, keeping the highest credit ratings AAA/Aaa, the fifth on the list of the safest banks in the world.

3.2 Statistic Evaluation Using SPSS

3.2.1 Financial Stability and Solvency

Table 3. List of variables

Variable	Type of Variables	Proxies	Code	Measurement
Profitability	Dependent	Profitability	P/E	Profit /Expenditure
Efficiency	Dependent	Efficiency	P/GDP	GDP Growth / inflation
Investments	Dependent	Solvency	INV	Logarithm of Total Assets
Financial Stability		Liquidity	ROA	Net Income after tax/Total Assets
		Solvency	LEV	Total Liabilities/Total Equity
Covid-19	Independent	(Dummy)	AS	1 or 0

Table 4. Measuring the level of resilience of the five bank

	Variable	Minimum	Maximum	Mean	Std. Deviation
France	**profitability**	1.5000	4.20000	2.34	1.09225
Banque de France	**efficiency**	0.4600	1.13000	0.94	0.27359
	Investments	5.9300	6.24000	6.0576	0.11362
	Liquidity	0.0700	0.39000	0.1506	0.13514
	Solvency	0.7000	1.30000	0.86	0.2507
Denmark	**profitability**	0.8000	4.10000	1.718	1.36734
Danske bank	**efficiency**	2.0100	9.60000	3.9	3.21684
	Investments	6.5400	6.61000	6.5638	0.0315
	Liquidity	0.2500	0.32000	0.276	0.03209
	Solvency	0.1100	0.23000	0.2	0.05099
Japan	**profitability**	0.1700	3.50000	1.65	1.64308
post bank	**efficiency**	0.3000	5.20000	1.558	2.05415
	Investments	8.3200	8.47000	8.4148	0.07173
	Liquidity	0.6000	0.86000	0.704	0.13353
	Solvency	0.1800	0.22000	0.192	0.01643
Netherland	**profitability**	1.5000	6.10000	3.92	2.11234
(NWB)	**efficiency**	0.3700	2.30000	1.476	0.80096
	Investments	4.9200	5.03000	4.9704	0.04228
	Liquidity	1.4600	2.22000	1.802	0.33154
	Solvency	0.1400	0.62000	0.386	0.22131
India	**profitability**	1.6000	10.50000	7	4.02492
Reserve bank of India	**efficiency**	0.5700	4.50000	2.434	1.59712
	Investments	4.5200	6.76000	5.5887	1.10718
	Liquidity	0.1800	0.27000	0.222	0.04266
	Solvency	4.8900	8.45000	6.538	1.56935

3.2.2 Descriptive Statistics for the Study Variables

This part of the study presents descriptive statistics for the independent and dependent study variables in order to obtain general readings or descriptions of data and how it is organized, categorized and summarized as well present it clearly in the form of a table. Where the descriptive statistics includes measures of central tendency (arithmetic mean), and measures of dispersion (standard deviation, lowest value and highest value), as shown in the previous table.

Paired Samples T-Test				
Pair	Description	Correlation	t	Sig. (2-tailed)
Pair 1	profitability	-0.705	4.078	0.527
Pair 2	efficiency	-0.035	0.377	0.731
Pair 3	Investments	0.987	-3.904	0.630
Pair 4	Liquidity	0.573	-1.498	0.023*
Pair 5	Solvency	-0.556	0.964	0.406

4. Discussion

The discussion of this study, as shown in Table 2, indicate that there are significant differences in the performance of Commercial Conventional Banks before and after Covid-19 in term of liquidity, where the p-value of 0.023is less than 0.05. Meanwhile, there is no significant difference in the profitability, efficiency, investment and solvency of banks before and after Covid-19, with a p-value for each performance indicator is greater than 0.05.

Despite major gaps in performance before and after Covid-19, Commercial Conventional Banks' profitability remained healthy in 2020, this was partially due to banks' resorting, at a time of economic crises, to making unprecedented allocations as a precautionary measure, out of potential fears of increasing defaults of some sectors borrowing from banks, which is what banks have turned to as a result of the repercussions of the Corona virus.

Also, bank efficiency appears to have still at a stable level due to the trend towards electronic banking and also the precautionary measures.

Furthermore, poor demand and business activities haven't operated normally since the covid-19 have had an impact on credit distribution. This indicates that the bank's funding side is strong while its lending side is limited, indicating that the bank's Investments conditions are in a fairly healthy range. Also, the bank's Solvency conditions are in a fairly healthy range.

While there is a significant difference at the 0.05 level of liquidity before and after Covid-19, this is due to the fact that central banks provided additional liquidity to the financial system, including through open market operations. Central banks have reactivated programs used during the global financial crisis and launched a range of new, large-scale programs, including the purchase of riskier assets such as corporate bonds. By intervening in these markets as "buyers of last resort" and helping them contain the upward pressures on the cost of credit, they ensure that credit continues to be available at a reasonable price to the household and corporate sectors.

5. Conclusion

The policy implemented was in evaluating the cases of the five banks. The article measured the five banks through five indicators: First, the efficiency of the economy for the five banks. The efficiency of the economy at Japan was very impressing as an exception of the five countries with very low inflation rate with the highest efficiency.

Second, the profitability with a high rate for France and India with a small scale of increase at Japan, but for the Denmark and Netherlands it need to set a new structure for the policy of both to increase the profitability. Third, the investment and all five banks set it at the highest priority. Fourth, the liquidity was affected at Netherlands but France increased the liquidity after cov-19 although its value was the lowest. Fifth, the solvency at France increased sharply, but the little increase for both Denmark and India.

The literature gap in the comparing between different countries as France, Denmark, India, Japan and Netherlands with vary economy and accounting indicators, and the researchers tried to fill the gap by discussing the way that every bank deal with the cov-19 and its financial rates displayed the ability to resilience after the crises**.**

Conflict of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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