Investigating the relationship between social responsibility and financial performance, financial stability and financial inclusion of banks admitted to the Tehran Stock Exchange

Akram Seyfideli[1], Omid FarhadTouski[2]

A B S T R A C T

Corporate social responsibility is a strategic decision whereby committed organizations can help solve environmental and social issues with the aim of positively affecting people outside the organization. The importance of financial and non-financial performance of companies is an undeniable issue for organizations as well as social responsibility. Based on this, this article examines the effect of corporate social responsibility on financial performance, participation or financial inclusion and financial stability of banks admitted to the Tehran Stock Exchange during the period 2015 to 2022. The results show that social responsibility has a significant effect on all three dependent variables, so that the ratio of tax to total assets has a positive effect on financial performance (return on assets, return on equity, and net profit margin) and a negative effect on the financial inclusion of banks. The effect of the ratio of the number of employees to total assets also has a negative effect on financial performance, financial stability and financial inclusion.

[1] Accounting master's student, Khorramabad Branch, Islamic Azad University, Khorramabad, Iran; Email Address;akram671393@gmail.com

[2] Assistant Professor Department of Accounting, Khorramabad Branch, Islamic Azad University, Khorramabad, Iran (Corresponding Author); O.tosski@khoiau.ac.ir;

1. Introduction

Corporate social responsibility (CSR) is a strategic decision whereby committed organizations can help solve environmental and social issues with the aim of positively influencing people outside the organization. The importance of financial and non-financial performance of companies such as social responsibility for organizations is an undeniable issue. While traditional finance emphasizes the theory of corporate profit maximization, the corporate social responsibility approach introduces a modern and stakeholder concept of organizations (Paltrinieri et al., 2020).

The traditional view of companies states that the main responsibility of every company is to maximize the wealth of shareholders, and activities related to social responsibility are not the responsibility of business organizations, but the responsibility of society and individuals. From this point of view, any activity that does not contribute to the profitability of the company should be eliminated. In contrast, the modern view believes that the responsibility of any organization is not only to meet economic expectations, but also to participate in humanitarian and moral activities, because businesses are part of society. Margolis et al. (2009) state that corporate social responsibility gives the company a competitive advantage by increasing financial strength, and in other words, social responsibility has a positive effect on financial performance (FP), which is also related to the stakeholder theory. In addition, from the point of view of stakeholder theory, the success of a company depends on the management's relationship with all stakeholders. Companies with high social responsibility manage agency problems by providing more profits to shareholders. Wibisono (2007) states that corporate social responsibility should be considered as an investment tool and not as a cost. Hence, business organizations are expected to spend more on social responsibility activities. However, unlike developed countries, emerging countries such as Iran are behind in social responsibility practices.

In developed economies, in addition to economic and profit-related activities, companies also deal with training, workplaces, and building relationships with customers. Companies report social responsibility information to achieve financial and non-financial returns. Financial performance can be reflected in better financial performance, financial stability (FS), financial inclusion (FI) and better access to financial resources due to a positive attitude towards the organization. However, in developing countries such as Iran, the impact of social responsibility investment does not seem to have a clear impact on performance.

Financial participation or inclusion is another important goal of financial sector organizations. Studies on financial inclusion are limited. Some studies in this field show that financial inclusion helps to close the gap between rich and poor and social stability (Raddatz, 2006). Also, by using financial participation, users can access more financial services. Hahn and Maleki (2013) also state that financial participation provides a path to financial stability, as more bank deposits are expected to increase the stability of the banking sector. Therefore, financial participation helps to increase economic growth and reduce poverty.

Financial stability at the macro level has been considered since the past. Recently, researchers have found that the financial stability of a country depends on stable financial companies. Since the banking sector plays an important role in financing and development activities and acts as an intermediary between depositors and borrowers, their social responsibility contributes to the bottom line of banks through the integration of social and environmental concerns as well as corporate performance. Therefore, social responsibility can lead to long-term stability in the financial sector. Many companies have turned to CSR activities after realizing that companies that engage in CSR are more resilient and have a much longer lifespan than those that do not invest in CSR activities.

Some previous studies show the social responsibility of companies and its effect on profitability. But there are very few articles available in the field of emerging markets, especially in terms of financial participation and financial stability. Therefore, to fill this gap, this study tries to determine the impact of corporate social responsibility on the profitability of the banking sector, as well as financial participation and financial stability in banks admitted to the Tehran Stock Exchange.

2. Literature review and developent of hypothesis
2.1 The relationship between corporate social responsibility and financial performance

Corporate social responsibility has been a common research area in the finance literature for decades. Many past studies have investigated the effect of corporate social responsibility on company performance. However, it should be noted that although the effect of corporate social responsibility on profitability has been positive in most studies, some studies also show an inverse relationship between corporate social responsibility and profitability.

Flammer (2013) investigated the reaction of shareholders to the company's participation in social responsibility activities and showed that there is a positive relationship between the company's social responsibility and their financial performance. It also showed that stakeholders respond positively to environmentally friendly initiatives. Sheikh (2019) also shows that if there are high levels of competition, corporate social responsibility has a positive effect on company value. Torgesa et al. (2012) showed the effect of corporate social responsibility on financial performance in small and medium-sized companies and showed that social responsibility has a positive effect on financial performance. Legitimacy theory is probably the oldest and most widespread practical mechanism for revealing corporate social responsibility activities and its disclosure methods (Wilmshurst & Frost, 2000). This theory is proposed because organizations demonstrate their legitimacy through satisfactory disclosure of their initiatives and activities. In relation to social responsibility studies, legitimacy theory is not distinct from stakeholder theory because they overlap and are inseparable in political economy conclusions (Sinclair, 2001). According to legitimacy theory, Owigbeh and Owadial (2011) suggest that any business that operates in a society must follow the social contract because it is necessary for the survival and growth of the business. Patten (1992) believes that there is a positive correlation between the disclosure of social responsibility practices and the legitimacy of an organization, which shows that the more companies participate in social responsibility, the more legitimacy they will gain. Contrary to the previously mentioned studies, Oyewomi et al. (2018) in the study of the relationship between corporate social responsibility and their financial performance in the banking industry showed that social responsibility has a negative effect on the financial performance of banks.

Therefore, studies and results related to the relationship between corporate social responsibility and their financial performance are different and do not show the same results. Therefore, it seems necessary to examine the relationship between social responsibility and financial performance of companies in Iran.

H1: there is a significant relationship between social responsibility and financial performance of banks.

H1a: There is a significant relationship between the ratio of employees to total assets and the return on assets of banks.

H1b: There is a significant relationship between the ratio of tax to total assets and the return on assets of banks.

H1c: There is a significant relationship between the ratio of employees to total assets and return on equity of banks.

H1d: There is a significant relationship between the ratio of tax to total assets and return on equity of banks.

H1e: There is a significant relationship between the ratio of employees to total assets and the net profit margin of banks.

H1f: There is a significant relationship between the ratio of tax to total assets and the net profit margin of banks.

2.2 The relationship between social responsibility and financial stability of banks

In the financial literature, financial stability as a macroeconomic indicator evaluates the financial performance of a country. For example, Cholet and Sandwidi (2018) studied the relationship between social responsibility and financial risk (as a proxy for financial stability) to investigate the financial stability of the banking sector and showed that the positive social performance of a company reduces their financial risk. . Also, Jin et al. (2017), using the social capital index as a measure of social responsibility, investigated the relationship between social responsibility and bank stability and showed that banks with more social capital are less prone to failure and have fewer financial problems. According to Lev et al. (2010), companies that are more involved in social and charity affairs will have higher future earnings. Therefore, they state that economic performance is enhanced by the social and philanthropic activities of companies.

H2: there is a significant relationship between social responsibility and financial stability of banks.

H2a: There is a significant relationship between the ratio of employees to total assets and financial stability of banks.

H2b: There is a significant relationship between the ratio of tax to total assets and the financial stability of banks.

2.3 The relationship between social activities and financial participation

Limited studies have been conducted on financial participation and social responsibility of companies. Regarding financial participation, Kim et al (2018) investigated the relationship between financial participation and economic growth and showed that there is a positive relationship between financial participation and economic growth. Haldar et al. (2016) also believe that there is a positive relationship between financial participation practices and corporate social responsibility. Also, they state that usually commercial banks are more active in the field of social responsibility and provide better financial participation as compared to state banks. Also, van der Van Der Werff et al. (2013) show that high support from the government and financial institutions increases the levels of financial participation.

H3: there is a significant relationship between social responsibility and financial inclusion of banks.

H3a: There is a significant relationship between the ratio of employees to total assets and the financial inclusion of banks.

H3b: There is a significant relationship between the ratio of tax to total assets and the financial inclusion of banks.

3. Data and methodology

In terms of purpose, this research is considered as applied research, because the purpose of this research is to develop applied knowledge in a specific field, and in terms of method, it is a descriptive research based on regression analysis, in which, from the method of combined data analysis and integration has been used Also, this research is one of the correlational researches, because in it the correlation between the variables is analyzed according to the objectives of the research.

3.1 Data and sample collection

The statistical population of the research includes the banks admitted to the Tehran Stock Exchange during the period from 2015 to 2022. The required data is also collected from Rahvard Navin software and published reports of the Securities and Exchange Organization. The analysis of research data was done using Eviews software at a significance level of 95%.

3.2 Methodology
3.2.1 Research design (Eorical model)
In order to test the research hypotheses, the following models have been used:

$$ROA_{it} = \alpha + \beta_1 EINT_{it} + \beta_2 TAX_{it} + \beta_3 Size_{it}$$
$$ROE_{it} = \alpha + \beta_1 EINT_{it} + \beta_2 TAX_{it} + \beta_3 LEV_{it} + \beta_4 Size_{it}$$
$$NPM_{it} = \alpha + \beta_1 EINT_{it} + \beta_2 TAX_{it} + \beta_3 Size_{it}$$
$$FS_{it} = \alpha + \beta_1 EINT_{it} + \beta_2 TAX_{it} + \beta_3 LEV_{it} + \beta_4 Size_{it}$$
$$FI_{it} = \alpha + \beta_1 EINT_{it} + \beta_2 TAX_{it} + \beta_3 LEV_{it}$$

3.2.2 Measurment of variables
Dependent variables:
Financial Performance (FP): Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) are used to measure financial performance. Return on assets is calculated by dividing net profit by total assets. Return on equity is calculated by dividing equity by total assets. And the net profit margin is also obtained by dividing net profit by sales (Ramzan e al., 2021). Financial stability (FS): According to the study of Ramadan et al. (2021), financial stability is calculated through the following formula:

$$FI = \frac{\dfrac{ROA + Equity}{Assests}}{Standard\ Deviation\ (ROA)}$$

In which, ROA is return on assets, Equity, equity and Standard Deviation (ROA) is the standard deviation of return on assets.
Financial participation (FI): According to the study of Ramadan et al. (2021), financial participation is obtained by calculating the number of bank branches per 100,000 population.
Independent variables:
Corporate social responsibility: In order to investigate the role of corporate social responsibility, according to the study of Nikkar and Yousefi (2018), two indicators of the ratio of the number of employees to total assets and the ratio of taxes to total assets have been used. The ratio of employees of companies shows the level of social responsibility of companies in creating employment and reducing the unemployment rate. In other words, the ratio of employees shows the social responsibility of companies regarding people in society (Lanis & Richardson, 2015).

And the tax ratio shows the amount of tax paid by companies and their tax evasion. In other words, this index shows the extent to which companies are responsible for social issues (Nikkar & Yousefi, 2018).
Control variables:
Financial leverage (Lev): Financial leverage is calculated by dividing total liabilities by total assets (Ramzan e al ., 2021).
Company size (Size): The company size variable is also obtained by calculating the logarithm of the company's total assets (Ramzan e al ., 2021).
4. Emprical resultts
4.1 Description statistics
In the table below, first, the data and variables of the research are displayed in a descriptive manner. The results of this table show that the average variables of return on assets, return on equity, net profit margin, financial stability, financial inclusion, ratio of employees to assets, ratio of taxes to assets, financial leverage and the size of banks are equal to 0.69, 9.28 respectively. , 284.56, 0.09, 0.89, 0.02, 0.001, 0.93 and 8.61. Also, the standard deviation shows the amount of data dispersion of each variable from the average.

Table 1- Descriptive statistics of variables

Variable	return on assets	Return on equity	Net profit margin	Financial stability	Financial inclusion	Staff ratio	Tax ratio	Financial leverage	Bank size
average	0/69	9/28	284/56	0/09	0/89	0/02	0/001	0/93	8/61
Max	4/62	148/19	18955/36	0/26	7/28	0/09	0/010	1/05	9/65
minimal	-4/73	-88/49	-190/44	-0/04	0/01	0/0002	0/00	0/77	7/33
Standard deviation	1/57	27/65	2264/25	0/06	1/25	0/02	0/002	0/05	0/56

4.2 Inferential statistics

In order to determine whether the data is pooled or paneled, Pagan Brush test was used, the results of which are shown in the table below. The following table shows that in models 2, 3, and 5, the null hypothesis that the data is aggregated is not rejected and the data are aggregated. Also, in models 1 and 4, due to the probability of the test statistic, which is less than 0.05, the data are tabular. Therefore, to determine random or fixed effects, the Hausman test should be used. If the probability of the Hausman test statistic is greater than 0.05, the data will be of the random effects type, and if the probability of the statistic is less than 0.05, the data will be of the fixed effects type.

Table 2- Results of Broush Pagan (LM) test

Model	Test statistics	Statistical probability	Result
1	20/21	0/00	panel
2	2/10	0/15	Pooled
3	0/04	0/84	Pooled
4	67/17	0/00	panel
5	0/44	0/51	Pooled

4.3 Multiple liner regression results
- The first and secon

Table 3- The results of testing the first and second hypotheses

Result	Statistical probability t	t statistic	Coefficient	independent variable	dependent variable
acceptance	٠,٠٠	3/43	-10/55	Staff ratio	return on assets
acceptance	٠,٠٠	5/47	245/41	Tax ratio	
acceptance	٠,٠٠	-5/79	-0/79	Size	
R2 = 0.61			Hausman test =14/60(٠,٠٠)		
Adjusted R^{2}٠,٠٠ =			F-statistic = 10.40		
Durbin Watson =1/75			Prob(F-statistic)٠,٠٠ =		
Model estimation using fixed effects model (with time SUR weighting)					

According to the F statistic table and its probability is less than 0.05, it shows that the whole regression model is significant. According to the value of Durbin Watson's statistic, which is equal to 1.75 and is in the range of 1.5 to 2.5, so there is no autocorrelation in the model. Also, the value of the coefficient of determination (R2) also shows that 61% of the changes in the asset return variable are explained by the variables of employee ratio, tax ratio and bank size.

The first hypothesis:

In the first hypothesis of the research, the effect of the ratio of the number of employees to the total assets on the asset returns of the banks accepted in the Tehran Stock Exchange has been investigated. There is this argument that companies or banks that have more employees have fulfilled their social responsibility towards the society at a higher level due to the creation of more employment in the society. In addition, according to theoretical foundations, corporate social responsibility has a positive effect on asset returns. According to the presented results, the probability of the effect of the ratio of the number of employees to total assets on asset return is equal to zero and less than 0.05, therefore, the assumption of the effect of the ratio of the number of employees to total assets on asset return is accepted at the 5% error level.

Also, according to the coefficient obtained (-10.55), it can be said that the decrease in the ratio of the number of employees to total assets has increased the return on assets of banks. In other words, it can be claimed that the ratio of the number of employees to the total assets has a negative and significant effect on the results of the estimation of the first model to investigate the first and second hypotheses of the research as described in the table below.

It has asset returns, so the first hypothesis of the research is confirmed at the confidence level of 95%.

The second hypothesis:

In this hypothesis, the effect of the ratio of tax to total assets on the return on assets in banks admitted to the Tehran Stock Exchange has been investigated. There is this argument that companies or banks that pay more taxes play a greater role in creating the welfare of the society. Therefore, companies that pay more taxes fulfill their social responsibility towards society at a higher level. In addition, according to the theoretical foundations of social responsibility, it has a positive effect on asset returns. According to the presented results, the probability of the effect of the ratio of tax to total assets on asset return is equal to zero and less than 0.05, so the second hypothesis of the research is accepted at the 5% error level. Also, according to the coefficient obtained (245.41), it can be said that the increase in the ratio of tax on total assets has increased the return on assets of banks. In other words, the ratio of tax to total assets has a positive and significant effect on asset returns. Therefore, the second hypothesis of the research is confirmed at the 95% confidence level. In addition, in this model, the effect of bank size on assets has also been significant. So that the increase in the size of the bank has caused a decrease in the return on assets of the banks. In other words, smaller banks will earn more financial interest and have a higher return on assets.

- The third and fourth hypothesis

Table 4- The results of testing the third and fourth hypotheses

Result	The probability of the t statistic	t statistic	Coefficient	independent variable	dependent variable
acceptance	0/001	-3/29	-147/44	Staff ratio	Return on equity
acceptance	0/01	2/85	1776/70	Tax ratio	
rejection	0/26	-1/13	-2/50	size	
rejection	0/09	1/70	35/55	Financial leverage	
R2 = 0.25			Durbin Watson =1/91		
Adjusted R2 = 0.22					
Model estimation using integrated ordinary least squares model (with temporal SUR weighting)					

According to the table, the Durbin Watson statistic value is equal to 1.91 and is in the range of 1.5 to 2.5, so there is no autocorrelation in the model and the entire regression model is accepted. Also, the coefficient of determination (R^2) also shows that 25% of the changes in the return on equity variable are explained by the variables of employee ratio, tax ratio, size and financial leverage.

The third hypothesis:

In the third hypothesis of the research, the effect of the ratio of the number of employees to the total assets on the return on equity in banks admitted to the Tehran Stock Exchange has been investigated. According to the obtained results, the probability of the effect of the ratio of the number of employees to total assets on the return on equity is equal to zero and less than 0.05, so the assumption of the effect of the ratio of the number of employees to total assets on the return on equity is 5 error level. The percentage is accepted. Also, the variable coefficient of the ratio of the number of employees to assets (-147.44) shows that the decrease in the ratio of the number of employees to total assets has increased the return on equity. In other words, the ratio of the number of employees to the total assets has a negative and significant effect on the return on equity, so the third hypothesis of the research is also confirmed at the 95% confidence level.

The fourth hypothesis:

In this hypothesis, the effect of the ratio of tax to total assets on the return on shareholders' equity in banks admitted to the Tehran Stock Exchange has been investigated. The results of the second model of the research show that according to the probability value related to the variable ratio of tax to total assets which is equal to 0.01 and less than 0.05, therefore the fourth hypothesis of the research that there is a significant relationship between the ratio of tax to total assets and return Equity is accepted at the 5% error level. Also, due to the variable coefficient of the ratio of tax to total assets, which is equal to 1776.70, therefore, increasing the ratio of tax to total assets has increased the return on equity. In other words, the ratio of tax to total assets has a positive and significant effect on the return on equity, and the fourth hypothesis of the research is confirmed at the 95% confidence level.

In addition, the results of the estimation of the second model show that the effect of bank size and bank financial leverage on return on equity was not significant.

- The fifth and sixth hypotheses

According to the table, the Durbin Watson statistic value is equal to 2.42 and is in the range of 1.5 to 2.5, so there is no autocorrelation in the model and the entire regression model is accepted. Also, the coefficient of determination (R^2) also shows that 10% of the changes in the net profit margin variable are explained by the variables of employee ratio, tax ratio, and size.

The fifth hypothesis:

The fifth hypothesis of the research evaluates the relationship between the ratio of the number of employees to the total assets and the net profit margin in banks admitted to the Tehran Stock Exchange. The results of the examination of the fifth hypothesis show that according to the probability value related to the variable of the ratio of the number of employees to the total assets on the net profit margin, it is equal to zero and less than 0.05, therefore, the assumption of the effect of the ratio of the number of employees to the total assets on the net profit margin in An error level of 5% is accepted.

Also, the variable coefficient of the ratio of the number of employees to assets (-147.44) shows that the decrease in the ratio of the number of employees to total assets has increased the net profit margin. In other words, the ratio of the number of employees to the total assets has a negative and significant effect on the net profit margin, so the third hypothesis of the research is also confirmed at the 95% confidence level.

The results of the estimation of the third model to examine the fifth and sixth hypothesis of the research are as described in the following table.

Table 5- The results of testing the fifth and sixth hypotheses

Result	The probability of the t statistic	t statistic	Coefficient	independent variable	dependent variable
acceptance	0/03	-2/23	-1632/23	Staff ratio	Net profit margin
acceptance	0/01	-2/78	19507	Tax ratio	
acceptance	0/00	2/92	20/05	Size	
R2 = 0.10 Adjusted R2 = 0.07			Durbin Watson =2/42		
Model estimation using integrated ordinary least squares model (with temporal SUR weighting)					

The sixth hypothesis:

In this hypothesis, the effect of the ratio of tax to total assets on the net profit margin in banks admitted to the Tehran Stock Exchange has been investigated. The results of the estimation of the third model of the research show that according to the probability value related to the variable ratio of tax to total assets which is equal to 0.01 and less than 0.05, therefore, the sixth hypothesis of the research that there is a significant relationship between the ratio of tax to total assets and The net profit margin is accepted at the error level of 5%. Also, due to the variable coefficient of the ratio of tax to total assets, which is positive, therefore, the reduction of the ratio of tax to total assets has increased the net profit margin. In other words, the ratio of tax to total assets has a positive and significant effect on the net profit margin, and the sixth hypothesis of the research is confirmed at the 95% confidence level.

In addition, the results of the estimation of the third model show that the effect of bank size on net profit margin was positive and significant.

- The seventh and eighth hypothesis

The results of the estimation of the fourth model to examine the seventh and eighth hypothesis of the research are as described in the following table

Table 6- The results of testing the seventh and eighth hypotheses

Result	The probability of the t statistic	t statistic	Coefficient	independent variable	dependent variable
acceptance	0.04	-2/08	-0/32	Staff ratio	Financial stability
rejection	0/53	-0/63	-0/91	Tax ratio	
rejection	0/16	-1/42	-0/02	Size	
acceptance	0/00	-11/83	-1/04	Financial leverage	
R^2 = 0/81			Hausman test = 0.29 (0.99)		
Adjusted R2 = 0.80			F-statistic = 71/24		
Durbin Watson =1/62			Prob(F-statistic) = 0.00		
Model estimation using integrated ordinary least squares model (with cross-sectional weighting)					

According to the table, the value of Durbin-Watson's statistic is 1.69, which is in the range of 1.5 to 2.5, and the value of F-statistic and its probability is less than 0.05, so there is no autocorrelation in the model and the whole regression model is accepted. . Also, the coefficient of determination (R2) shows that 81% of the changes in the financial stability

variable are explained by the variables of employee ratio, tax ratio, size and financial leverage.

The seventh hypothesis:

In this hypothesis, the effect of the ratio of the number of employees to the total assets on the financial stability of banks admitted to the Tehran Stock Exchange has been investigated. The results of the investigation of this hypothesis indicate that according to the variable probability of the ratio of the number of employees to total assets, which is less than 0.05, as well as its coefficient, which is negative, therefore, the relationship between the ratio of employees to assets and financial stability is significant at the 5% error level. And it is reversed. In other words, the ratio of the number of employees to total assets has a negative and significant effect on financial stability, so the seventh hypothesis of the research is also confirmed at the 95% confidence level.

The eighth hypothesis:

The eighth hypothesis of the research examines the effect of the ratio of tax to total assets on the financial stability of banks admitted to the Tehran Stock Exchange. The results show that according to the probability value related to the variable of tax to total assets ratio, which is equal to 0.53 and more than 0.05, therefore, the existence of a significant relationship between the tax to total assets ratio and financial stability is not accepted at the 5% error level. Therefore, the sixth research hypothesis that there is a significant relationship between the ratio of tax to total assets and financial stability is rejected at the 95% confidence level.

In addition, the results of the estimation of the fourth model show that the effect of bank size on financial stability is not significant. Also, the effect of financial leverage on financial stability has been confirmed at the 95% confidence level. This means that banks with loans with tangible assets have a lower return on assets.

- The ninth and Tenth hypothesis

The results of the estimation of the fifth model to examine the ninth and tenth hypotheses of the research are as described in the following table.

Table 7- The results of testing the ninth and tenth hypotheses

Result	The probability of the t statistic	t statistic	Coefficient	independent variable	dependent variable
acceptance	٠,٠٠	-8.09	-17/23	Staff ratio	Financial inclusion
acceptance	٠,٠٠	-4.26	-138/65	Tax ratio	
acceptance	٠,٠٠	-11/83	-1/04	Financial leverage	
R2 = 0.50 Adjusted R2 = 0.49			Durbin Watson = 1.49		
Model estimation using integrated ordinary least squares model (with temporal SUR weighting)					

According to the table, the value of Durbin-Watson's statistic is 1.49, which is close to the range of 1.5 to 2.5, so it can be said that there is no autocorrelation in the model and the entire regression model is accepted. Also, the value of the coefficient of determination (R2) also shows that 50% of the changes in the financial inclusion variable are explained by the variables of employee ratio, tax ratio and financial leverage.

The ninth hypothesis

The ninth hypothesis has been investigated the effect of the ratio of the number of employees to the total assets on the financial inclusion of banks admitted to the Tehran Stock Exchange. The results of the research of the ninth hypothesis show that according to the variable

probability of the ratio of the number of employees to assets, which is less than 0.05, the relationship between the ratio of employees to total assets and financial inclusion is significant at the level of 5% error, also considering its coefficient, which is negative. is, therefore, the relationship between the ratio of employees to assets is inverse. In other words, the ratio of the number of employees to total assets has a negative and significant effect on financial inclusion, so the ninth hypothesis of the research is also confirmed at the 95% confidence level.

Tenth hypothesis:

Finally, the 10th hypothesis that has investigated the effect of the ratio of tax to total assets on the financial inclusion of banks admitted to the Tehran Stock Exchange shows that, according to the probability value of the variable of the ratio of tax to total assets, which is less than 0.05 , the relationship between the ratio of tax to total assets and financial inclusion is significant at the 5% error level, and according to the variable coefficient of the ratio of tax to assets, this relationship is negative. Therefore, the tenth hypothesis of the research that there is a significant relationship between the ratio of tax to total assets and financial inclusion is confirmed at the 95% confidence level.

In addition, the results of the estimation of the fifth model show that at the 95% confidence level, the effect of financial leverage on financial inclusion is negative and significant.

5. Conclusion, implication, suggestion and limitation

This study investigated the effect of social responsibility of banks on financial performance, financial stability and financial inclusion in the banking sector in Iran during 8 years from 2015 to 2015. The findings of this research show a significant relationship between social responsibility and the performance of banks, so that their activity has a negative effect on financial performance from the aspect of creating employment, but their activity has a positive effect on their financial performance from the aspect of paying taxes.   In   other words, these findings show that activities related to social responsibility in terms of paying taxes and paying attention to social issues create a positive perception in the minds of potential customers, which helps to attract them and ultimately leads to an increase in the financial performance of banks. These findings are in accordance with the studies of Ramadan et al. (2021), Ji and Hassan (2016), Roert et al. (2016), Fu and Shen (2015), Ofori et al. (2014).

But the activities related to creating employment and reducing unemployment of banks have had a negative impact on their financial performance. One of the reasons for this is the law of diminishing returns. According to this law, if other factors are constant and only the amount of labor force changes, with the increase of labor force, production or output will increase first. But after it reaches its maximum, the increase of the labor force will not only not increase the total production but will also decrease its amount. Therefore, the reason for the negative relationship between the ratio of employees to total assets and asset return can be stated in the law of diminishing returns.

Also, the results show that banks' spending on social responsibility activities in terms of creating employment and reducing the unemployment rate leads to a decrease in their financial stability. These results are contrary to the studies of Ramadan et al. (2021) and Cholet and Sandwidi (2018).

In addition, the results show a negative relationship between financial inclusion initiatives and social responsibility, which means that as banks invest in social responsibility initiatives, their financial inclusion in terms of number of branches decreases. One of the main reasons for this is the expansion of mobile banking and internet banking services and its ease of use. In other words, for better access and providing more services to customers, instead of expanding branches, banks expand and improve the quality of mobile banking and Internet banking

services. These results are also contrary to the studies of Haldar et al. (2016) and van der Van Der Werff et al. (2013).

This study shows that banks should emphasize social responsibility activities to increase profitability and market performance. In this regard, the central bank and other regulatory bodies should encourage banks in this direction. The government should encourage banks to engage in social responsibility activities, especially in underprivileged communities, and increase social justice in these areas by increasing financial inclusion. Regulatory bodies should also regularly monitor the stability of banks and encourage socially responsible activities by providing various rewards and certificates to socially responsible banks.

In addition, investors should check social responsibility reports before investing in banks' stocks to ensure the improvement of society and achieve higher returns.

References

- Chollet, P., & Sandwidi, B. W. (2018). CSR engagement and financial risk: A virtuous circle? International evidence. Global Finance Journal, 38, 65-81.
- Flammer, C. (2013). Corporate social responsibility and shareholder reaction: The environmental awareness of investors. Academy of Management Journal, 56(3), 758-781.
- Fu, Y. J., & Shen, J. Q. (2015). Correlation analysis between corporate social responsibility and financial performance of Chinese food-processing enterprises. Advance Journal of Food Science and Technology, 7(11), 850-856.
- Haldar, P. K., Rahman, S. M., Mia, M., Ahmed, F., & Bashawir, A. (2016). Assessing the role of corporate social responsibility practices of commercial banks in enhancing financial inclusion: a study on banking sector in Bangladesh. International Journal of Economics and Financial Issues, 6(4), 1778-1783.
- Han, R., & Melecky, M. (2013). Financial inclusion for financial stability: Access to bank deposits and the growth of deposits in the global financial crisis. World bank policy research working paper, (6577).
- Jie, C. T., & Hasan, N. A. M. (2016). Determinants of corporate social responsibility (CSR) and intrinsic job motivation. Malaysian Journal of Social Sciences and Humanities (MJSSH), 1(2), 25-35.
- Jin, J. Y., Kanagaretnam, K., Lobo, G. J., & Mathieu, R. (2017). Social capital and bank stability. Journal of Financial Stability, 32, 99-114.
- Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. Research in International Business and Finance, 43, 1-14.
- Lanis, R., & Richardson, G. (2015). Is corporate social responsibility performance associated with tax avoidance?. Journal of Business Ethics, 127(2), 439-457.
- Lev, B., Petrovits, C., & Radhakrishnan, S. (2010). Is doing good good for you? How corporate charitable contributions enhance revenue growth. Strategic management journal, 31(2), 182-200.
- Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2009). Does it pay to be good... and does it matter? A meta-analysis of the relationship between corporate social and financial performance. And does it matter.
- Nikkar, Javad and Yousefi, Maryam. (2018). The impact of quantitative indicators of corporate social responsibility on the fluctuations of financial and economic performance in companies listed on the Tehran Stock Exchange. Accounting and Social Interest, 9(1), 160-180.
- Ofori, D. F., S-Darko, M. D., & Nyuur, R. B. (2014). Corporate social responsibility and financial performance: Fact or fiction? A look at Ghanaian banks. Acta Commercii, 14(1), 1-11.

- Oyewumi, O. R., Ogunmeru, O. A., & Oboh, C. S. (2018). Investment in corporate social responsibility, disclosure practices, and financial performance of banks in Nigeria. Future Business Journal, 4(2), 195-205.
- Paltrinieri, A., Dreassi, A., Migliavacca, M., & Piserà, S. (2020). Islamic finance development and banking ESG scores: Evidence from a cross-country analysis. Research in International Business and Finance, 51, 101100.
- Patten, D. M. (1992). Intra-industry environmental disclosures in response to the Alaskan oil spill: a note on legitimacy theory. Accounting, organizations and Society, 17(5), 471-475.
- Raddatz, C. (2006). Liquidity needs and vulnerability to financial underdevelopment. Journal of financial economics, 80(3), 677-722.
- Ramzan, M., Amin, M., & Abbas, M. (2021). How does corporate social responsibility affect financial performance, financial stability, and financial inclusion in the banking sector? Evidence from Pakistan. Research in International Business and Finance, 55, 101314.
- Reverte, C., Gomez-Melero, E., & Cegarra-Navarro, J. G. (2016). The influence of corporate social responsibility practices on organizational performance: evidence from Eco-Responsible Spanish firms. Journal of Cleaner Production, 112, 2870-2884.
- Sheikh, S. (2019). Corporate social responsibility and firm leverage: The impact of market competition. Research in International Business and Finance, 48, 496-510.
- Sinclair, T. J. (2001). The infrastructure of global governance: Quasi-regulatory mechanisms and the new global finance. Global Governance, 7, 441.
- Torugsa, N. A., O'Donohue, W., & Hecker, R. (2012). Capabilities, proactive CSR and financial performance in SMEs: Empirical evidence from an Australian manufacturing industry sector. Journal of business ethics, 109(4), 483-500.
- Uwuigbe, U., & Uadiale, O. M. (2011). Intellectual capital and business performance: evidence from Nigeria. Interdisciplinary Journal of Research in Business, 1, 49-56.
- Van Der Werff, A. D., Hogarth, J. M., & Peach, N. D. (2013). A cross-country analysis of financial inclusion within the OECD. Consumer Interest Annual, 59, 1-12.
- Wibisono, Y. (2007). Membedah konsep & aplikasi CSR: corporate social responsibility. Fascho Pub.
- Wilmshurst, T. D., & Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. Accounting, Auditing & Accountability Journal.