# Employee Financing Diversity and Corporate Social Responsibility Impact on Sustain Competitive Advantages in Sustainable Firm Performance

# Muhammad Naveed Jamil<sup>1</sup>\* <sup>(1)</sup> | Abdul Rasheed<sup>2</sup> | Teguh Budiman<sup>3</sup> | Mahmoona Mahmood<sup>4</sup>

<sup>1</sup>Institute of Business Administration, Khwaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, Punjab, Pakistan

<sup>2</sup>Institute of Business Administration, Khwaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, Punjab, Pakistan

<sup>3</sup>Universitas Pasundan, Faculty of Economics and Business, Bandung, Indonesia

<sup>4</sup>Sciences Superior University, Department of Business and Management, RYK Campus, Lahore, Pakistan

\*Correspondence to: Muhammad Naveed Jamil, Institute of Business Administration, Khwaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, Punjab, Pakistan E-mail: mnaveedknp@gmail.com

Abstract: This study aims to examine the impact of Employee Financing Diversity and Corporate Social Responsibility on the firm performance. The study analyzes data from 300 Non-Financial Firms listed on the Pakistan Stock Exchange covering the period from 2011 to 2020, adding more literature in this field. The panel data methodology is used for estimation. Panel data includes a cross-sectional study with time series observation analysis. The empirical results indicate that Employee Financing Diversity and Corporate Social Responsibility enhance firm value, assets, growth, and profit and build firm trust and loyalty with the customer. The results showed that Tobin's Q and ROA performance is more favorable and sustainable with Employee Financing Diversity and CSR model better and sustainable value produced within account base performance of ROA and ROE while firm size high significant and important all the time showing in all models. The recommendation and implication are clear that the role of Employee Financing Diversity and Corporate Social Responsibility are significant value in boosting the firm production and enhancing sustainable firm performance. It builds up the firm association with employees, customers, as well as investors.

**Keywords:** employee financing diversity, corporate social responsibility, firm liquidity-age-size, sustainable firm performance.

Article info: Received 26 March 2023 | revised 15 May 2023 | accepted 19 August 2023

**Recommended citation:** Jamil, M. N., Rasheed, A., Budiman, T., & Mahmood, M. (2023). Employee Financing Diversity and Corporate Social Responsibility Impact on Sustain Competitive Advantages in Sustainable Firm Performance. *Indonesian Journal of Sustainability Accounting and Management*, 7(2), 445–459. https://doi.org/10.28992/ijsam.v7i2.756

# INTRODUCTION

Employee Financing Diversity is truly a new emerging concept. The role of Employee Financing Diversity as a major contributor in performance of every firm has expanded in context of Pakistani firms to seek competition over the local markets as well as compete globally. CSR activities and utilization of man-powers with all their



skills and attributes has a significant effect in enhancing growth and productivity. An organization performs better even in a small volume when he utilizes its human finance in an efficient manner as Employee Financing Diversity is major contributors in enhancing profitability than others indicators and provides a chance to sustain and compete in international markets. Employee Financing Diversity (EFD) can be broadly called as utilization of human mind, which provides some value to the organization. Literature review influence the research of overall CSR impact on sustainable firm performance, market segments and review the business policies (Kamal & Ali, 2022). Xu & Li (2019) studies Chinese firm markets and concluded that Employee Financing Diversity efficiency has significant relationship with strategic growth of the firms. Based on this study, he observes that Employee Financing Diversity has a great ability to enhance sustainable firm performance in an efficient manner. Policy makers and Stakeholders give more weight age to the performance through its annual and financial statements as it is linked with financial performance and success (Himmah, 2018). Market index is considered as indicators of Sustainable firm performance with its better intangible asset (Love & Kraatz, 2017), which in turn gives value to the firm and increases its assets (e.g., economic or financial assets). It determines perceptions that a firm has best resources of interest with perceived outcomes of better probability. Employee Financing Diversity has concerning firm sustainable performance (Shah et al., 2021). Corporate social responsibility disclosure was no impact on Quality and Quantity and firm values (Musah et al., 2022). Meanwhile, CSR activities were a positive and highly significant impact on corporate development (Binh, 2022). Intangible resources of Organizations i.e., Employee Financing Diversity and CSR improve the sustainable competitive advantage and performance of firms in emerging countries, employee finance and CSR indirectly impact on outcome of firm (Khan et al., 2019). Another intangible asset is consumer response to CSR with trust on product and services have positive significance. Consumers to CSR were negative effect on self-serving attributions lead to enhance performance of firm (Gyver & SeTin, 2022). Green Human resource management was a significant impact on environmental management of firm toward green behaviors and attitude of employees emphasize on employees corporate responsibility (Priyashantha & Priyangaa, 2022). Corporate social and Carbon emission eco-friendly (Green environment) environment was essential for firm and employees health (Jamil & Rasheed, 2023a). Latest study on corporate social environment was indicating high positive significant effect on firm sustainability. Finance diversity in shape of social finance was tangible assets of firm that have positive impact on outcome of firms (Jamil & Rasheed, 2023b).

Corporate social responsibility has significant and positive impact on firm sustainable performance a study based on Indonesia stock market list firms (Novitasari et al., 2023). A study of Nigeria focus on manufacturing sector that indicate CSR has statistically substantial association with firm outcome, market index value, customer and employees satisfaction (Narayanan et al., 2023). Third-sector firms have achieved competitive advantage in world due to multiple social-humanitarian activities (Cabrera-Luján et al., 2023). Accelerated depreciation policy and CSR performance were improving the investor and employees finance that leads the firm sustainable performance (Zhao & Peng, 2023). Corporate social responsibility enhances the firm credibility and firm performance (Baruah & Panda, 2022). The importance of the company's market index cannot be ignored as it compels the institutions to give awards to the reputed firms. Fortune Magazine is a renowned magazine who issue the list of best reputed firms of America's Most Admired Company (AMAC) since 1984 (Lee & Roh, 2012). A good market index is always demanded after a long journey and efforts in front of its shareholders. Good financial performance paves the way for stakeholders to gain trust and believe that the company is performing efficiently. (Stabryła, 2012), observed that found that corporate governance along with Employee Financing

Diversity effect more to increase the value of the firm. Firms have a multiple resources, defined systems, firm structure, and unique policies for gaining more profits from available resources to sustain in the business markets. Latest study provide detail investigation on CSR impact on sustainable firm performance; Leverage on Assets, firm age and size of 296 firms data used by researcher (Jamil et al., 2022b). Corporate social behavior positive influence on sustainable firm performance and Employee Financing Diversity immaterial resource of firm enhance sustainable firm performance (Jamil et al., 2022a).

There are paradoxical relationship between work diversity and organizational performance (Mukhtar et al., 2022). Shareholders play a key role as motivational indicators they observe financial statements with due vigilance for making their decisions. The purpose of this study manifests Employee Financing Diversity and the Firm Performance in the presence of availability of resources and growth opportunities. This research is supportive and will be helpful to understand the firms' Employee Financing Diversity and its relationship with sustainability in every aspect. In Pakistan most of the research was conducted on individual sectors but this study encompasses all the non-financial firms of Pakistan. Further, various studies were conducted using a single performances measures but this study has utilized both accounting or marketing based performance variables to observes in depth cross examination of performances measures. This study has following main objectives; "To observe the effect of Employee Financing Diversity and corporate social responsibility on sustainable firm performance".

This perspective suggests that there exist a significant relationship between sustainable firm performance and Employee Financing Diversity's counterparts. Sardo & Serrasqueiro (2017) in his research finds that Employee Financing Diversity is a major contributor in increasing sustainable firm performance and market index. By analyzing the sub components of Employee Financing Diversity and its efficiencies, HFE efficiency has precedence over the other two efficiencies. These two efficiencies were major source of enhancing market index. Nadeem et al. (2017) observed that Employee Financing Diversity has a significant effect on profit, growth and market index. (Sandu & Ianole, 2016) observed the economic performance is enhanced by its market index. This suggests that shareholder get all the valuable information of the company while taking their wise decision regarding investment to gain much profit as a whole. Many studies were conducted in Pakistan to analyze the casual relationship of Employee Financing Diversity and market index which will in turn effect the growth of a firm, effect of dividend on performance by using leverage. This study was conducted in Pakistan (Ali et al., 2015). CSR activities create supportive networks relations in form of social and employee finance, edge competitive advantage, promote sustainable firm performance (Saeed & Arshad, 2012). CSR activities have supportive and sufficient for direct communication with clients. Developed countries demonstrate financial success with adoption of CSR operations. CSR efficiency enhance Foreign, private and employees finance significant and impact on sustainable firm performance (Pallathadka & Pallathadka, 2020). This study was conducted on cement sector using data from 2001-2006. (Raithel & Schwaiger, 2015) observed that a good market index usually brings abnormal growth and returns in the long run. Previous literature manifests that Employee Financing Diversity has competitive advantage (Mention & Bontis, 2013; Muhammad & Ismail, 2009; Mondal & Ghosh, 2012). Firm managers give importance to corporate market index as most important and valuable asset of the organizations and also researcher gives more weight to the market index i.e. (Sánchez et al., 2012; Lee & Roh, 2012; and Sánchez & Morales de Vega, 2018).

Firm Finance diversity efforts lead to improved firm sustainable performance and market index value (Foster et al., 2023). Firm sustainable performance is significantly affected by its Employee Financing Diversity.

The literature demonstrates the beneficial effects of Employee Financing Diversity and its supporting elements on the sustainable performance of the non-financial sector. This relationship with Sustainable firm performance has been studied by numerous academics. Multiple regressions were used to establish the association between Employee Financing Diversity and the performance in banks (Scott & Perez-Diaz, 2021). Xu & Li (2019) observed that company success as evaluated by financial and non-financial performance was the variables which perform better than other variables. The research discovered a connection between each of the three Employee Financing Diversity counterparts. Additionally, all three aspects of Employee Financing Diversity showed a connection between them and organizational effectiveness, financial performance, and non-financial performance (Nadeem et al., 2017). Mondal & Ghosh (2012) indicated that although not all components of Employee Financing Diversity contribute to banks' performance, Employee Financing Diversity still has a significant impact on banks' performance and helps keep banks competitive with one another. Similarly Shehzad et al. (2014) conducted a Malaysian study that supports this assumption in the sustainable performance of the Islamic banking in Malaysia. Mention & Bontis (2013) observed the study's findings; human finance among the Employee Financing Diversity components has a more substantial association with banking sector performance. A good market index also gives businesses, Employee Financing Diversity, a competitive edge since it makes it easier for them to access valuable, rare, and hard-to-find resources. This puts the business in a position to have repeat business, talented workers, suppliers that are confident and have access to the Employee Financing Diversity (Raithel & Schwaiger, 2015).

Employee Financing Diversity, corporate responsibility and sustainable firm performance conclude that good corporate responsibility practice increase the firm efficiency, corporate social responsibility of secure investor rights and strengthen investor climates that promote economic sustainable performance. Valuable assets for firm were investment and Employee Financing Diversity which enhance the firm value, competitive advantages and sustainable firm performance. Employee Financing Diversity was growth the firm business and increases the financial potential of firms. The role of Employee Financing Diversity improve the sustainable firm performance with combination of corporate Responsibility leads to promote economic growth of country (Mardan et al., 2021). CSR and employee friendly environment have significant impact on firm sustainable performance. Employee Financing Diversity (human finance) enhances the firm outcomes (Jamil & Rasheed, 2023a). Social prospective of CSR desires the firms to enhance their competitive advantage and increase socially oriented organizations edge of profitability and sustainable performance in emerging Asian markets (Saeed et al., 2023). Strong web marketing on CSR have positive impact on financial performance ROA, ROE and market base performance (Thottoli & Thomas, 2023). Manufacturing firms have adverse impact on environment, firms engaged environmental CSR and emphasize Employee Financing Diversity that support factor for business sustainability (Li et al., 2023).

The company's market index refers to how its stakeholders view it generally. This impression is based on the company's historical financial statements and its position in relation to its rivals. Although there has been some debate over the connection between business market index and sustainable performance, the positive relationship is more frequently the outcome than the adverse one (Shapiro, 1982; Graham & Bansal, 2007). They contend that a company's market index influences motivation through the creation of favorable attitudes toward the product. In the end, company market index has a favorable impact on sustainable performance. Roberts & Dowling (2002) illustrates how a company's market index can affect its financial sustainable performance in the past, and how its current market index can affect how well it performs financially in the future.

# **METHODS**

The Employee Financing Diversity and CSR have a greater impact on the sustainable firm performance. In this study, we employed data of 300 non-financial firms of 291 for employee financing diversify and 267 for CSR finalized analysis listed in PSX during 2011-2020. This study starts with the complete universe of all non-financial firms listed in PSX but we exclude firms as DE-listed, merged and demerge, defaults, new listing of initial public offerings and firms having incomplete information of all required variables. The data of firms have been hand-collected from annual reports published on company's websites and PSX Data Stream.

For variables measurement explores empirical literature and methodology. As Dependent variables sustainable firm performance is measured through two methods; market based as Tobin's Q and accounting based measures used as return on assets (ROA) and return on equity (ROE).

Tobin's Q (TQ): It is calculated through formula

Tobin 
$$Q_{it} = \frac{\left(MIE_{i,t} + BVD_{i,t}\right)}{\left(BVTA_{i,t}\right)}$$

Where MIE represents market index of equity, BVD represents the book value of debt and BVTA represents book value of total assets.

TQ = Firm Index Value

MIE = Market Index Equity Outstanding Shares \* Share Price

BVD = Book Value of Debt = Total Debt

BVTA = Book Value of Total Assets = Total assets

It is used by Long et al. (2002) and Arifeen et al. (2014) on their study. The ROA ratio is calculated as follows:

$$ROA_{it} = \frac{\left( Net \; Income_{i,t} \right)}{\left( Total \; Asset_{i,t} \right)} \quad ROE_{it} = \frac{\left( Net \; Income_{i,t} \right)}{\left( Total \; Share \; Equity_{i,t} \right)}$$

Independent variable of Social value is contribution per share (SCV) as index for CSR. We calculated social contribution value (SCV) by using resulting formula (Javeed & Lefen, 2019):

$$\mathsf{CSR} = \mathsf{EPS} + \frac{\mathsf{Taxes}\;\mathsf{Paid} + \mathsf{Social}\;\mathsf{Exp} + \mathsf{Int}.\mathsf{Exp} + \mathsf{Emp.Welfare}\;\mathsf{Exp} - \mathsf{Social}\;\mathsf{Cost}}{\mathsf{No}\;\mathsf{of}\;\mathsf{Shares}\;\mathsf{Outstanding}}$$

Employee Financing Diversity (independent variable) can be measured using VAIC method as used by (Celenza & Rossi, 2014; Singh et al., 2016). Value added measure can be (operating profit + employee cost + depreciation + amortization) and employee finance can measure (total assets – total liabilities), as total cost invested on employees is indicator of human finance, value added – human finance will be structural finance of the firm. While

Human Finance Efficiency = VA / HF

Structural Finance Efficiency = SF / VA

Finance Employed Efficiency = VA / FE

Employee Financing Diversity = HFE + SFE + FEE

Control variables of Size is equal to the natural logarithm of total assets (Pattiruhu & Paais, 2020; Krisnawati, 2019), Age is calculated as (Muritala, 2012; Hunjra et al., 2014) and Liquidity which is calculated by dividing current assets to current liabilities to the total assets of the company at the end of the fiscal year (Rumasukun et al., 2020; Marjohan & Arsid, 2020).

Firm 
$$Size_{it} = log (Total Assets_{i,t})$$
  
Firm  $Age_{it} = (Current Year - Year of Incorporation)_{it}$   
 $Liquidity_{it} = \frac{Current Asset_{i,t}}{Current Liabilities_{i,t}}$ 

# **Market Based Performance Measure**

$$FP(Tobin'sQ_{i,t}) = \alpha_{i,t} + \beta_1 HFE_{i,t} + \beta_2 SFE_{i,t} + \beta_3 FEE_{i,t} + \beta_4 Liquidity_{i,t} + \beta_5 Firm\_Size_{i,t} + \beta_6 Firm\_Age_{i,t} + \epsilon_{i,t}$$

$$FP(Tobin'sQ_{i,t}) = \alpha_{i,t} + \beta_1 CSR + \beta_2 Liquidity_{i,t} + \beta_3 Firm\_Size_{i,t} + \beta_4 Firm\_Age_{i,t} + \epsilon_{i,t}$$

# **Accounting Based Performance Measures**

$$FP(ROA, ROE_{i,t}) = \alpha_{i,t} + \beta_1 HFE_{i,t} + \beta_2 SFE_{i,t} + \beta_3 FEE_{i,t} + \beta_4 Liquidity_{i,t} + \beta_5 Firm\_Size_{i,t} + \beta_6 Firm\_Age_{i,t} + \epsilon_{i,t}$$

$$FP(ROA, ROE_{i,t}) = \alpha_{i,t} + \beta_1 CSR + \beta_2 Liquidity_{i,t} + \beta_3 Firm\_Size_{i,t} + \beta_4 Firm\_Age_{i,t} + \epsilon_{i,t}$$

Where  $\alpha$ , is constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ ,  $\beta_5$ ,  $\beta_6$  are coefficients of variables. We apply the Descriptive statistics, Hypothesis Testing (Arellano & Bond, 1991; Blundell & Bond, 1998). Simple Regression analysis is used.

# **RESULTS AND DISCUSSION**

The descriptive statistics of each dependent and independent variable utilized in this investigation are explained in Table 1. The study's independent variables include Employee Financing Diversity mean Structural Finance efficiency (SFE) 0.7, Human Finance efficiency (HFE) 6.3, Finance employee efficiency (FEE) 0.9, CSR 80.4 and Standard Deviation SFE 6.2, HEC 44.6, FEE 8.8, CSR 177.9. Control variable mean of firm liquidity 2.2, age 40.5, and size 6.7, and standard deviation firm liquidity 9.7, age 55.6, and size 0.8 showing ability of influence and the potential of impact on firm performance dependent variable mean TQ 1.7, ROE 0.1, ROA 0.01 and standard deviation TQ 3.5, ROE 10.5, ROA 0.2. The probability of all the variables show result of 0.000 which determines that all the variables have no relationship. The results of this study are subjective, consistent and in line with (Hammond, 1996).

					•					
Variable	TQ	ROE	ROA	SFE	HFE	FEE	CSR	LIQUIDITY	AGE	SIZE
Mean	1.7	0.1	0.0	0.7	6.3	0.9	80.4	2.2	40.5	6.7
Median	1.0	0.1	0.0	0.6	2.3	0.3	31.5	1.1	34.0	6.7
Maximum	75.5	434.1	1.6	305.3	2194.5	302.0	3064.1	316.8	951.0	8.9
Minimum	0.1	-319.0	-4.2	-54.2	-130.9	-82.6	-14.0	-4.8	2.0	3.8
Std. Dev.	3.5	10.5	0.2	6.2	44.6	8.8	177.9	9.7	55.6	0.8
Skewness	12.2	13.8	-9.0	41.1	41.3	21.9	7.2	21.3	14.9	-0.1
Kurtosis	189.9	1292.1	222.2	2042.0	1995.3	642.9	85.0	561.0	242.3	3.3

**Table 1 Descriptive Statistics** 

Table 2 Items Correlation

Variable	TQ	ROE	ROA	SFE	HFE	FEE	CSR	LIQUIDITY	SIZE	AGE
TQ	1.000	0.005	0.066	0.007	0.026	0.019	0.026	0.014	-0.098	-0.007
ROE	0.005	1.000	0.002	0.004	-0.001	-0.007	-0.002	-0.001	0.034	0.008
ROA	0.066	0.002	1.000	-0.051	0.017	-0.004	0.022	-0.012	0.091	-0.053
SFE	0.007	0.004	-0.051	1.000	0.003	0.002	0.002	-0.002	0.035	0.003
HFE	0.026	-0.001	0.017	0.003	1.000	0.090	0.001	0.016	-0.047	-0.027
FEE	0.019	-0.007	-0.104	0.002	0.090	1.000	0.010	-0.004	-0.053	-0.017
CSR	0.026	-0.002	0.002	0.010	0.070	0.020	1.000	0.013	0.008	0.025
LIQUIDITY	0.014	-0.001	-0.012	-0.002	0.016	-0.004	0.013	1.000	-0.027	-0.012
SIZE	-0.098	0.034	0.091	0.035	-0.047	-0.053	0.208	-0.127	1.000	0.018
AGE	-0.007	0.008	-0.053	0.003	-0.027	-0.017	0.125	-0.012	0.018	1.000

The correlating value Market Base Tobin's Q is between Structure Finance Efficiency (SFE) 0.07, Human Finance Efficiency (HFE) 0.026, Finance Employee Efficiency (FEE) 0.019, CSR 0.26, Liquidity 0.014, Size 0.098 and Age 0.007; ROE account base correlating between SFE 0.004, HFE 0.001, FEE 0.007, CSR 0.002, Liquidity 0.001, Size 0.034 and Age 0.008; ROA account base correlating between SFE 0.051, HFE 0.017, FEE 0.004, CSR 0.022, Liquidity 0.012, Size 0.091 and Age 0.053 that less than 0.5 its showing that there exists some correlation between them. All other variables show no correlation as their value is more than 0.5 (Table 2).

Table 3 Regression analysis of Market and Account based performance through Employee Financing Diversity and CSR effects

Employee Financing Diversity Model	Market Base	Account Asset Base	Account Equity Base	CSR Model	Market Base	Account Asset Base	Account Equity Base
SFE	0.0039 0.366	-0.0014 -2.95***	0.0053 0.1701	CSR	0.0007	0.0008	-0.0005
HFE	0.0022 1.5074	0.0008 1.2828	-0.0001 -0.0329	CSIN	1.881*	5.61***	-0.4271
FEE	0.0107 1.4333	-0.001 -5.65***	-0.0079 -0.3559				
LIQUIDITY	0.0088 1.3168	-0.0002 -0.7517	-0.0020 -0.1024		0.9048 6.61***	-0.0397 -7.35***	0.0719 0.1685
AGE	0.0003 0.2845	-0.0001 -3.66***	0.0009 0.2715		-0.0004 -0.1104	-0.0003 -2.292**	0.0189 1.4300
SIZE	0.2350 19.07***	0.0065 11.56***	0.0188 0.5101		o.o667 5·25***	0.0044 8.82***	-0 <b>.</b> 0370 -0 <b>.</b> 9364
R-squared	-0.01	0.03	0.01		0.01	0.04	0.01
Adjusted R-squared	-0.01	0.03	0.01		0.01	0.04	0.01
Sum squared resid	35948.69	75.11	322409.10		32963.91	51.54	320324.00
Log likelihood	-7778.19	1188.11	-10965.68		-7143.87	1481.28	-10179.55
Observation	2906	2906	2906		2670	2670	2670

Table 3 Regression depicts that market and account base performance is determined through individual determinants of Employee Financing Diversity Models and CSR Model. The results of ROA model shows Structure Finance Efficiency (SFE) and Finance Employee Efficiency (FEE) are showing more significant results than Human Finance Efficiency (HFE) as the value is less than 0.005 while SFE, HFE and FEE are showing insignificant results with Tobin's q and ROE models. The value of Size also implies the significant results with Tobin's q and ROA which also confirms our hypothesis. The value of Liquidity shows insignificant result with sustainable firm performance. The value of age showing significant results with ROA model sustainable firm performance and age of firm has no relationship with Tobin's q and ROE models sustainable firm performance. CSR has highly significant 0.005 found with Tobin's q and ROA models; liquidity and firm size high significant 0.005. While ROE model; Liquidity, age, and size has not significant result. R square usually ranges from 0 to 1. CSR model result more significant as Employee Financing Diversity that Mean CSR more influencing factor for sustainable firm performance as compare to Employee Financing Diversity, while value and importance of Employee Financing Diversity never overlook.

Table 4 GMM analysis of Market and Account based performance through Employee Financing Diversity and CSR effects

Employee Financing Diversity Model	Market Base	Account Asset Base	Account Equity Base	CSR Model	Market Base	Account Asset Base	Account Equity Base
SFE	0.005 3.2***	-0.0011 -5.6***	-0.0005 -0.1105	CSR	0.0007	0.0008	-0.0005
HFE	0.0021 1.1166	0.0009 0.8761	0.0005 0.7817	CSIT	1.881*	5.61***	-0.4271
FEE	0.0100 1.2192	-0.0009 -0.6970	-0.0052 -0.8986				
LIQUIDITY	0.0055 1.6166	-0.0004 -0.0094	0.0007 0.2578		0.9048 6.6***	-0.0397 -7 <b>·</b> 35 <b>***</b>	0.0719 0.1685
AGE	0.0008 1.2748	-0.0002 -3.9***	-0.0004 -0.2963		-0.0004 -0.1104	-0.0004 -2.292**	0.0189 1.4300
SIZE	0.2070 16.49***	0.0072 8.87***	0.0048 0.1618		0.0667 5.25***	0.0044 8.82***	-0.0370 -0.9364
R-squared	-0.01	0.02	0.01		0.01	0.04	0.01
Adjusted R-squared	-0.02	0.02	0.01		0.01	0.04	0.01
Sum squared resid	36042.80	75.44	322492.70		32963.91	51.54	320324.00
J-statistic	3.2081*	24.47	3.15		24.03***	13.31***	4.260**
Observation	2906	2906	2906		2670	2670	2670

Table 4 GMM depicts that market and account base performance is determined through individual determinants of Employee Financing Diversity Models and CSR Model. The results of Tobin's Q model shows Structure Finance Efficiency (SFE) and firm Size are highly significant as and ROA model HFE, firm age and Size high significant result, While SFE, HFE and FEE, liquidity, firm age and size are showing insignificant results with ROE model. CSR has highly significant 0.005 found with Tobin's q and ROA models; liquidity and firm size high significant 0.005. While ROE model; SFE, HFE, FEE, Liquidity, age, and size has not significant result. R square

usually ranges from 0 to 1. CSR model result more significant as Employee Financing Diversity that Mean CSR more influencing factor for sustainable firm performance as compare to Employee Financing Diversity, while value and importance of Employee Financing Diversity never overlook.

Table 5 Robust analysis of Market and Account based performance through Employee Financing Diversity and CSR effects

Employee Financing Diversity Model	Market Base	Account Asset Base	Account Equity Base	CSR Model	Market Base	Account Asset Base	Account Equity Base
SFE	0.0050 3.44***	-0.001 -4.66***	0.0460 92.95***	CSR	-0.0003	0.0007	0.0003
HFE	o.ooo8 3·99***	0.0004 11.90***	-0.0003 -0.0551	CSIT	-0.7130	8.11***	1.848*
FEE	0.0064 6.28***	-0.0012 -7.10***	-0.0003 -0.9755				
LIQUIDITY	-0.0047 -5.11***	0.0002 1.6374	-0.0008 -2.564*		0.6197 37.76***	-0.0914 -29***	-0.0030 -0.4601
AGE	0.0002 1.657*	-0.0001 -6.10***	0.0002 4.27***		0.0008 1.657*	-0.0004 -4.6***	-0.0002 -1.3280
SIZE	0.1468 86.71***	0.0061 20.64***	0.0127 22.02***		0.0380 25.00***	0.0065 22.4***	0.0084 13.77***
Robust Statistics							
R-squared	0.01	0.02	0.02		0.05	0.01	0.01
Rw-squared	0.05	0.07	0.11		0.29	0.01	0.03
Akaike info criterion	4665.91	4059.65	4629.88		4457.52	0.01	4252.87
Deviance	975.19	20.26	106.61		715.09	0.01	101.19
Rn-squared statistic	12544***	750***	10378***		16644***	0.06***	1372***
Adjusted R-squared	0.01	0.02	0.02		0.05	0.07	0.01
Adjust Rw-squared	0.04	0.06	0.10		0.29	0.22	0.03
Schwarz criterion	4705.03	4096.23	4668.59		4483.42	3419.83	4278.22
Scale	0.46	0.07	0.15		0.40	0.07	0.15
Non-robust Statistics							
Mean dependent var	1.69	0.03	0.12		1.67	0.03	0.11
S.E. of regression	3.58	0.16	10.55		3.58	0.14	10.97
S.D. dependent var	3.50	0.16	10.54		3.53	0.14	10.96
Sum squared resid	37182.95	76.02	322614.10		34137.96	53.33	320586.70

Table 5 Robust depicts that market and account base performance is determined through individual determinants of Employee Financing Diversity Models and CSR Model. Robust test indicate the validity and sustainability of results. The results of Tobin's Q and ROA models show highly significant of variables instead of liquidity at ROA. While SFE, liquidity, firm age and size are showing significant and HFE and FEE insignificant results with ROE model. CSR has more favorable and significant found with Account base ROA and ROE

models; liquidity and firm age significant with Tobin's Q and ROA. While firm size high significant showing in all models. Above models results indicated Tobin's Q and ROA performance is more favorable and sustainable with Employee Financing Diversity and CSR model better and sustainable results produce within account base performance ROA and ROE.

The findings showed many international researches in past mentioned Employees Finance diversity and CSR impact on firm performance. Similar studies done in past, Firm Finance diversity positive efforts improved firm sustainable performance and market index value (Foster et al., 2023). CSR enhances the firm credibility and firm performance (Baruah & Panda, 2022). Australian stock exchange list firm base study indicate Employee finance and CSR are associated with improved the firm sustainable (ROA and ROE) financial and (Tobin's Q) market performance (Aslam et al., 2018). Finally results revealed that Employee Financing Diversity and CSR enhances the firm value and sustainability.

# CONCLUSION

The firm value has considered greater importance than physical and intangible source of finance. For instance, In-tangible assets, Employee Financing Diversity and CSR have played a major role to estimate the performance of firm, however recent studies suggested that Employee Financing Diversity and CSR has always remain the backbone of sustainable firm performance as in its absence, firm can never achieve its benchmark and ultimate goal. Through various measurement tools, this relationship has been investigated in miscellaneous countries. our investigation conclude and results indicated Tobin's Q and ROA performance is more favorable and sustainable with Employee Financing Diversity and CSR model better and sustainable results produce within account base performance ROA and ROE, firm size high significant and important all the time showing in all models. This examination looks at the practical suggestions of Employee Financing Diversity and CSR in Pakistani firms. The sustainable firm performance value shows that on average the firms are performing better having better usage of Employee Financing Diversity. The Firms who have Employee Financing Diversity, and actively involve CSR; well-trained, qualified, technical and professional staffs perform better than those firms who don't have better Employee Financing Diversity and don't follow CSR practice and equipped with latest technology. Employee Financing Diversity and CSR are equally important for sustainable firm performance, its produce more and better results when both are apply toghter in firm. This Study can add more literature in Research and the Firms can take guidance by using this study and enhance their finance by managing their Employee Financing Diversity and CSR to achieve and maintain good Market index and better sustainable financial performance. This study shows that sustainable firm performance like Employee Financing Diversity and CSR have positive and significant impact on Tobin's Q, ROA, and ROE sustainable firm performance of non-financial companies of Pakistan. It means that those companies who give more importance to the Employee Financing Diversity and CSR will enhance their profitability and gain competitive advantage in the market of Pakistan. Main point firms need to be more focus for sustainable performance and profitability. First; Employee Financing Diversity and CSR have shown a positive effect on the profitability as well as performance of the company. It signifies that in order to enhance profitability, managers have to provide proper training to employees to make them skillful. They must select the right person for the right job to gain maximum benefits. Second; the findings of Employee Financing Diversity and CSR have shown positively significant effect on company financial performance, recommending the requirement of improvement in financial performance. The objective is to be proficient by providing the personnel's with modern technology and provide them a new business strategies for better quality of their work and having a proper chain of command in the organizations. Third; The results demonstrate that Employee

Financing Diversity and CSR have positively significant impact on financial performance. The sustainable firm performance contributes incredibly in increasing the profitability of the non-financial organizations of Pakistan. They have to focus on maintaining the association between employee capabilities and customer satisfaction; employee must have aptitudes, information and capabilities to assist customer requirements effectively. The findings of the study provide suggestions for academics, managers and policymakers for taking better financial decision. It also provides directions how the firm can use Employee Financing Diversity, CSR and its counterparts efficiently to enhance its sustainable firm performance. This study investigate the impact of Employee Financing Diversity and CSR on sustainable firm performance, while other variables such as Financial Leverage, dividend policy, industry and technology etc. can also be taken as variables to add further literature to Pakistan market. The Data was used between years 2011-2020. It can be extended for 20 years to have a more insight on the topic which can provide valuable information for all the stakeholders. Future research can used various variables such as earnings persistence, asset turn over, Return on investment and other Financial and market ratios.

#### **ORCID**

Muhammad Naveed Jamil https://orcid.org/0000-0001-6692-9275

# REFERENCES

- Ali, A., Jan, F. A., & Atta, M. (2015). The Impact of Dividend Policy on Firm Performance under High or Low Leverage; Evidence from Pakistan. *Journal of Management Info*, 2(4), 16–24. https://doi.org/10.31580/jmi. v8i1.48
- Arifeen, N., Mudassir, H., Kazmi, S., Mubeen, M., Latif, M. S., & Waqar A. (2014). Measuring Business Performance: Comparison of Financial, Non Financial and Qualitative Indicators. European Journal of Business and Management 6(4), 38–45. http://dx.doi.org/10.2139/ssrn.2373145
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, 58(2), 277–297.
- Aslam, S., Ahmad, M., Amin, S., Usman, M., & Arif, S. (2018). The impact of corporate governance and intellectual capital on firm's performance and corporate social responsibility disclosure. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 12(1), 283–308.
- Baruah, L., & Panda, N. (2022). Corporate Social Responsibility and Reputation: A Study on Top 100 Companies Operating in India. *Indonesian Journal of Sustainability Accounting and Management*, 6(2), 264–277. https://doi.org/10.28992/ijsam.v6i2.407
- Binh, D. T. T., & Huong, L. T. T. (2022). Corporate Social Responsibility and Firm Performance: Evidence from Vietnamese Listed Companies. *Indonesian Journal of Sustainability Accounting and Management*, 6(1), 34–49. https://doi.org/10.28992/ijsam.v6i1.500
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of econometrics*, 87(1), 115–143. https://doi.org/10.1016/S0304-4076(98)00009-8
- Cabrera-Luján, S. L., Sánchez-Lima, D. J., Guevara-Flores, S. A., Millones-Liza, D. Y., García-Salirrosas, E. E., & Villar-Guevara, M. (2023). Impact of Corporate Social Responsibility, Business Ethics and Corporate Reputation on the Retention of Users of Third-Sector Institutions. *Sustainability*, 15(3), 1781. https://doi.org/10.3390/su15031781

- Celenza, D., & Rossi, F. (2014). Intellectual capital and performance of listed companies: empirical evidence from Italy. *Measuring Business Excellence*, 18(1), 22–35. https://doi.org/10.1108/MBE-10-2013-0054
- Foster, B. P., Manikas, A. S., & Kroes, J. R. (2023). Which diversity measures best capture public company value?. Corporate Social Responsibility and Environmental Management, 30(1), 236–247. https://doi.org/10.1002/csr.2351
- Graham, M. E., & Bansal, P. (2007). Consumers' willingness to pay for corporate reputation: the context of airline companies. *Corporate reputation review*, 10(3), 189–200. http://dx.doi.org/10.1057/palgrave.crr.1550052
- Gyver, S. D., & SeTin, S. (2022). Effect of Attributions on Consumer Response to CSR Efforts with Consumer Trust as the Moderator. Indonesian Journal of Sustainability Accounting and Management, 6(2), 239–249. https://doi.org/10.28992/ijsam.v6i2.522
- Hammond, K. R. (1996). Human judgement and social policy: Irreducible uncertainty, inevitable error, unavoidable injustice. Oxford University Press.
- Himmah, E. F. (2018). An Analysis of The Effect of Earnings Persistence, Good Corpoarate Governance, and Accrual Component to Earnings Quality on Banking in Indonesia In 2011-2015. *Jurnal Riset Akuntansi Dan Bisnis Airlangga*, 3(1). Available at: https://e-journal.unair.ac.id/jraba/article/view/46058/24911
- Hunjra, A. I., Ijaz, M. S., Chani, D., Irfan, M. I., Hassan, S. U., & Mustafa, U. (2014). Impact of dividend policy, earning per share, return on equity, profit after tax on stock prices. *International Journal of Economics and Empirical Research*, 2(3), 109–115. Available at: https://mpra.ub.uni-muenchen.de/60793/1/MPRA paper 60793.pdf
- Jamil, M. N., & Rasheed, A. (2023a). Corporate Social Environment and Carbon Dioxide emissions Reduction impact on Organizational Performance; mediator role of Social Capital. *Journal of Environmental Science and Economics*, 2(1), 17–24. https://doi.org/10.56556/jescae.v2i1.427
- Jamil, M. N., & Rasheed, A. (2023b). How does Corporate Social Environment contribute to firm sustainability: mediator role of Social Capital. *Journal on Innovation and Sustainability RISUS*, 14(1), 77-86. https://doi.org/10.23925/2179-3565.2023v14i1p77-86
- Jamil, M. N., Rasheed, A., & Mukhtar, Z. (2022a). Corporate Social Responsibility impacts sustainable organizational growth (firm performance): An empirical analysis of Pakistan stock exchange-listed firms. *Journal of Environmental Science and Economics*, 1(2), 34–40. http://dx.doi.org/10.5281/zenodo.6245428
- Jamil, M. N., Rasheed, A., Saadh, M. J., & Mukhtar, Z. (2022b). Corporate Social Behavior impact on firm health; mediator role of Human Capital. *Neuroquantology*, 20(11), 6684–6694. http://dx.doi.org/10.13140/RG.2.2.29096.75521
- Javeed, S. A., & Lefen, L. (2019). An analysis of corporate social responsibility and firm performance with moderating effects of CEO power and ownership structure: A case study of the manufacturing sector of Pakistan. Sustainability, 11(1), 248. https://doi.org/10.3390/su11010248
- Kamal, A., & Ali, F. (2022). Corporate Social Responsibility On Firm Performance: A Systematic Literature Review And Future Direction. *Revista Espanola de Documentacion Cientifica*, 17(1), 30–39. Available at: https://redc.revistas-csic.com/index.php/Jorunal/article/download/134/100
- Khan, S. Z., Yang, Q., & Waheed, A. (2019). Investment in intangible resources and capabilities spurs sustainable competitive advantage and firm performance. Corporate Social Responsibility and Environmental Management, 26(2), 285–295. http://dx.doi.org/10.1002/csr.1678
- Krisnawati, Y. (2019). The Effect of Islamic Corporate Social Responsibility, Shariah Compliance, Company Size and Sharia Supervisory Board on Profitability of Sharia Commercial Banks in Indonesia. *International Journal of Public Budgeting, Accounting and Finance*, 2(2), 1–14.

- Lee, J., & Roh, J. J. (2012). Revisiting corporate reputation and firm performance link. *Benchmarking: An International Journal*, 19(4/5), 649–664. https://doi.org/10.1108/14635771211258061
- Li, W., Bhutto, M. Y., Waris, I., & Hu, T. (2023). The Nexus between Environmental Corporate Social Responsibility, Green Intellectual Capital and Green Innovation towards Business Sustainability: An Empirical Analysis of Chinese Automobile Manufacturing Firms. *International Journal of Environmental Research and Public Health*, 20(3), 1851. https://doi.org/10.3390/ijerph20031851
- Long, C. P., Burton, R. M., & Cardinal, L. B. (2002). Three controls are better than one: A computational model of complex control systems. *Computational & Mathematical Organization Theory, 8*(3), 197–220. http://dx.doi.org/10.1023/A:1020767513183
- Love, E. G., & Kraatz, M. S. (2017). Failed stakeholder exchanges and corporate reputation: The case of earnings misses. Academy of Management Journal, 60(3), 880-903. https://doi.org/10.5465/amj.2010.0968
- Mardan, F. N., Che-Adam, N., & Abdullah, Z. (2021). Intellectual Capital as a Moderating Effect between Corporate Governance, and Firm Performance: A Conceptual Review. *Universal Journal of Accounting and Finance* 9(6), 1470–1477 http://dx.doi.org/10.13189/ujaf.2021.090623
- Marjohan, M., & Arsid, N. (2020). The Effect Analysis Toward Liquidity, Leverage On The Cost Efficiency Of Chemical Companies And The Impact On The Financial Performance Of The Company. *Systematic Reviews in Pharmacy, 11*(11), 318–327. https://dx.doi.org/10.31838/srp.2020.11.47
- Mention, A. L., & Bontis, N. (2013). Intellectual capital and performance within the banking sector of Luxembourg and Belgium. *Journal of intellectual capital*, 14(2), 286–309. https://doi.org/10.1108/14691931311323896
- Mondal, A., & Ghosh, S. K. (2012). Intellectual capital and financial performance of Indian banks. *Journal of intellectual capital*, 13(4), 515–530. https://doi.org/10.1108/14691931211276115
- Muhammad, N. M. N., & Ismail, M. K. A. (2009). Intellectual capital efficiency and firm's performance: Study on Malaysian financial sectors. *International journal of economics and finance*, 1(2), 206–212. https://doi.org/10.5539/ijef.v1n2p206
- Mukhtar, Z., Kazmi, S. M. A., Muhammad, W., Jamil, M. N., & Javed, K. (2022). The Effect of Employee Diversity on Organizational Performance in Textile Industry. *Journal of Policy Research*, 8(3), 307–314. https://doi.org/10.5281/zenodo.7296215
- Muritala, T. A. (2012). An empirical analysis of capital structure on firms' performance in Nigeria. *International Journal of Advances in Management and Economics*, 1(5), 116–124. Available at: https://www.managementjournal.info/index.php/IJAME/article/download/214/207
- Musah, A., Abdulai, M., Okyere, B., Padi, A., Chettri, N., Kabra, K. C., & Rani, N. (2022). Corporate Social Responsibility Disclosure Quality and Quantity and Its Effect on Firm Value in Ghana. *Indonesian Journal of Sustainability Accounting and Management*, 6(1), 1-12. https://doi.org/10.28992/ijsam.v6i1.462
- Nadeem, M., Gan, C., & Nguyen, C. (2017). Does intellectual capital efficiency improve firm performance in BRICS economies? A dynamic panel estimation. *Measuring Business Excellence*, 21(1), 65–85. http://dx.doi. org/10.1108/MBE-12-2015-0055
- Narayanan, S., Ab Rahim, H., Haque, R., bin S Senathirajah, A. R., & bin Omar Din, F. M. (2023). Empirical Study On The Effects Of Corporate Social Responsibility On Organizational Performance In The Manufacturing Sector: A Case Study On Nigeria: Flour Mills Nigeria Plc. RES MILITARIS, 13(2), 1246–1265. Available at: https://resmilitaris.net/index.php/resmilitaris/article/view/2407/1989
- Novitasari, M., Wijaya, A. L., Agustin, N. M., Gunardi, A., & Dana, L. P. (2023). Corporate social responsibility and firm performance: Green supply chain management as a mediating variable. *Corporate Social Responsibility and Environmental Management*, 30(1), 267-276. http://dx.doi.org/10.1002/csr.2353

- Pallathadka, H., & Pallathadka, L. K. (2020). The impact of social responsibility on organizational performance. European Journal of Molecular & Clinical Medicine, 7(11), 8288–8304.
- Pattiruhu, J. R., & Paais, M. (2020). Effect of liquidity, profitability, leverage, and firm size on dividend policy. The Journal of Asian Finance, Economics, and Business, 7(10), 35–42. https://doi.org/10.13106/jafeb.2020.vol7. no10.035
- Priyashantha, K. G., & Priyangaa, Y. (2022). Impact of Green Human Resource Management on Employee Green Behavior: The Mediating Role of Green Attitude. Indonesian Journal of Sustainability Accounting and Management, 6(2), 378–389. https://doi.org/10.28992/ijsam.v6i2.674
- Raithel, S., & Schwaiger, M. (2015). The effects of corporate reputation perceptions of the general public on shareholder value. *Strategic management journal*, 36(6), 945–956. https://doi.org/10.1002/smj.2248
- Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. Strategic management journal, 23(12), 1077–1093. https://doi.org/10.1002/smj.274
- Rumasukun, M. R., Noch, M. Y., Pattiasina, V., Ikhsan, A., & Batilmurik, R. W. (2020). Structural Model of Company Stock Return in Basic and Chemical Industries: Impact of Profitability, Market Value, Liquidity and Leverage. *Journal of Talent Development and Excellence*, 12(2s), 3118–3129.
- Saeed, A., Alnori, F., & Yaqoob, G. (2023). Corporate Social Responsibility, Industry Concentration, and Firm Performance: Evidence from Emerging Asian Economies. Research in International Business and Finance, 64, 101864. https://doi.org/10.1016/j.ribaf.2022.101864
- Saeed, M. M, & Arshad, F. (2012). Corporate social responsibility as a source of competitive advantage: The mediating role of social capital and reputational capital. *Journal of Database Marketing & Customer Strategy Management*, 19, 219-232. https://doi.org/10.1057/dbm.2012.19
- Sánchez, J. L. F., Sotorrío, L. L., & Díez, E. B. (2012). Can corporate reputation protect companies' value? Spanish evidence of the 2007 financial crash. *Corporate Reputation Review, 15*(4), 228–239. https://doi.org/10.1057/crr.2012.13
- Sánchez, M. G., & Morales de Vega, M. E. (2018). Corporate reputation and firms' performance: Evidence from Spain. Corporate Social Responsibility and Environmental Management, 25(6), 1231–1245. https://doi.org/10.1002/csr.1634
- Sandu, M., & Ianole, R. (2016). What Really Matters for a Good Corporate Reputation? a Structural Equation Modelling View. *Journal of Social and Economic Statistics*, 5(2), 16–32.
- Sardo, F., & Serrasqueiro, Z. (2017). A European empirical study of the relationship between firms' intellectual capital, financial performance and market value. *Journal of Intellectual Capital*, 18, 771–788. https://doi.org/10.1108/JIC-10-2016-0105
- Scott, L., & Perez-Diaz, M. (2021). Strategic Leadership: Building Collaboration in the Establishment of Ethnic Studies Courses in Texas. In Challenges to Integrating Diversity, Equity, and Inclusion Programs in Organizations (pp. 215-229). IGI Global. http://dx.doi.org/10.4018/978-1-7998-4093-0.ch014
- Shah, S. Q. A., Lai, F.-W., Shad, M. K., Konečná, Z., Goni, F. A., Chofreh, A. G., & Klemeš, J. J. (2021). The inclusion of intellectual capital into the green board committee to enhance firm performance. *Sustainability,* 13(19), 10849. https://doi.org/10.3390/su131910849
- Shapiro, C. (1982). Consumer information, product quality, and seller reputation. *The Bell Journal of Economics*, 13(1), 20–35. https://doi.org/10.2307/3003427
- Shehzad, U., Fareed, Z., Zulfiqar, B., Shahzad, F., & Latif, H. S. (2014). The impact of intellectual capital on the performance of universities. *European Journal of Contemporary Education*, 10(4), 273–280. http://dx.doi. org/10.13187/ejced.2014.10.273

- Singh, S., Sidhu, J., Joshi, M., & Kansal, M. (2016). Measuring intellectual capital performance of Indian banks: A public and private sector comparison. *Managerial Finance*, 42(7), 635–655. http://dx.doi.org/10.1108/MF-08-2014-0211
- Stabryła, A. (2012). The opportunities for and constraints to organizational development in the information society: Kraków: Mfiles pl.
- Thottoli, M. M., & Thomas, K. (2023). The impact of web marketing on corporate social responsibility (CSR) and firms' performance. *Rajagiri Management Journal*, 17(1), 37-51. http://dx.doi.org/10.1108/RAMJ-03-2021-0022
- Xu, J., & Li, J. (2019). The impact of intellectual capital on SMEs' performance in China: Empirical evidence from non-high-tech vs. high-tech SMEs. *Journal of Intellectual Capital*, 20(4), 488–509. http://dx.doi.org/10.1108/JIC-04-2018-0074
- Zhao, L., & Peng, G. (2023). The spillover effect of investment incentives on corporate social responsibility: Firm responses to accelerated depreciation. *Journal of Cleaner Production*, 385, 135647. https://doi.org/10.1016/j. jclepro.2022.135647