RESEARCH ARTICLE

Education Corporate Social Responsibility and Financial Performance of Telecommunication Companies in Kenya

CATHERINE MWANGI[1], and CAREN OUMA[1]

1. United States International University-Africa

Corresponding author*: couma@usiu.ac.ke*

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ABSTRACT

Financial performance of telecommunication companies has witnessed a decline in recent years. This study aimed to investigate the potential influence of education CSR on the financial performance of telecommunication companies in Kenya. Total population was 6,597 employees from the three major telecommunication companies: Safaricom, Airtel Kenya, and Telkom Kenya, with 3,859, 1,694, and 1,044 employees respectively. The unit of observation was employees in top and middle-level management positions. The sample size was determined using Yamane's formula, resulting in 353 employees. Data collection employed semi-structured questionnaires. Analysis was done using SPSS version 29 software. The correlation analysis found a positive significant association between education CSR programs and financial performance ($r=0.772$, $p=0.000$). The regression analysis also found a positive significant relationship between education CSR programs and financial performance ($\beta = 0.748$, $t(324) = 21.794$, $p<.05$). The study concludes that education CSR programs can include; scholarship initiatives, educational infrastructure, and skills development. The study recommends that companies should allocate resources to provide scholarships and financial assistance to students who are in financial need, and contribute to the development of educational infrastructure through providing support to existing schools and construction of new educational institutions.

Keywords: *Education CSR, Financial, Performance, Telecommunication, Companies, Kenya.*

I. INTRODUCTION

Corporate Social Responsibility (CSR) programs focused on education have gained increasing attention as a means to foster sustainable development while enhancing corporate performance. Wanjekeche (2022) highlights the significant impact of educational CSR programs on literacy rates and academic performance in underprivileged areas, contributing to social upliftment. Akhigbe & Olokoyo (2019) emphasize that investments in education not only enhance the human capital of the community but also improve a company's reputation. This is because as companies invest in educational programs, they build goodwill and trust among stakeholders, which can benefit their long-term financial performance. Miyogoh, Arasa & Ngui (2021) argue that an educated community is more likely to engage meaningfully with a company's products and services, potentially boosting its sales and revenue.

In Pakistan, a study conducted by Watto et al. (2020) revealed that CSR has a significant effect on firm performance. Another study from the Islamic banking sector in Pakistan, by Rehman et al. (2020), found that CSR disclosures have a significant effect on financial performance. In Africa, Awadzie et al. (2023) found a positive correlation between CSR activities and financial performance within the telecommunication industry in Ghana. Akhigbe & Olokoyo (2019) found no significant relationship between CSR and brand loyalty in the Nigerian telecommunication sector. CSR, in this context, was defined as the telecom companies' social and environmental commitments carried out alongside their business operations. This neutral finding indicates that while CSR is important, it may not directly affect customer loyalty; instead, other factors like price, service quality, and customer care might play more crucial roles in this sector.

The telecommunication industry in Kenya is highly volatile and competitive, and the financial performance of telecommunication companies has witnessed a decline in recent years. For example, Safaricom reported a decrease in profit from 68,676.2 million in 2021 to 67,496.1 million in 2022 (Safaricom, 2022). Additionally, Airtel Networks Kenya Limited experienced losses of 24,822,606,000 in 2020 and 30,662,525,000 in 2021 (Airtel Networks Kenya Limited, 2022). Furthermore, in 2019, Telkom's market shares significantly reduced after losing 600,000 customers, and its voice market share declined by 0.9 percent to 3.1 percent (Communications Authority of Kenya, 2019). Therefore, the current study aims to investigate the potential influence of CSR on the financial performance of telecommunication companies in Kenya. The volatile and competitive nature of the industry, along with the reported financial performance challenges faced by certain companies, creates a need to understand how CSR initiatives can potentially impact financial outcomes. The findings can inform telecommunication companies in Kenya about the potential benefits and implications of adopting CSR practices, helping them make informed decisions regarding their CSR strategies.

The evaluated empirical research yielded varied results about the correlation between CSR and financial success. In a study conducted by Watton et al. (2020), it was discovered that CSR has a favourable influence on the performance of small and medium-sized enterprises (SMEs) in Pakistan. Similarly, Ramzan, Amin & Abbas (2021) identified beneficial consequences of CSR on the financial performance, stability, and inclusivity within the banking industry of Pakistan. In a similar vein, research undertaken in Ghana has shown a favourable correlation between CSR and financial success within the telecommunications business (Awadzie et al., 2023).

Likewise, in Nigeria, a positive association has been seen in the banking sector (Amahalu & Okudo, 2023). Moreover, empirical research conducted in Ethiopia has revealed a positive correlation between CSR practices and firm performance (Ying, Tikuye, & Shan, 2021). Similarly, investigations carried out in Kenya have underscored the favourable impacts of environmental responsibility, corporate philanthropy, and CSR contributions on the financial performance of manufacturing firms and commercial banks listed on the stock exchange (Nzuki & Opuodho, 2022; Mwangi & Wanjira, 2019; Muchiri, Erdei-Gally, & Fekete-Farkas, 2022).

In contrast, several research findings have shown either an adverse or inconsequential correlation between CSR and financial success. In their study, Rehman et al. (2020) observed a negative correlation within the Islamic banking sector of Pakistan. Similarly, Mtaturu & Muloli (2021) discovered a detrimental effect of CSR on the financial performance of registered banks in Tanzania. Furthermore, research carried out in China and Kenya has produced varying outcomes or failed to demonstrate any statistically significant influence of CSR on financial performance (Deng, 2022; King'wara, 2020). In general, the aforementioned results underscore the intricate and contingent character of the association between CSR and financial success. This underscores the need for more study in diverse sectors and geographical areas to attain a thorough comprehension. The objective of this research was to investigate the impact of education CSR on the financial performance of telecommunication firms operating in Kenya

II. METHODOLOGY

Research Design

The research design functions as a strategic plan for addressing the research inquiries and issues, offering organization and guidance to the investigation (Siedlecki, 2020). The selection of an appropriate research design holds significant importance as it directly impacts the quality, reliability, and validity of the research outcomes (Asenahabi, 2019). The selection of a research design establishes the framework for data collection and analysis, thereby determining the range of inquiries that can be posed and the inferences that can be derived from the investigation (Schmettow, 2021). The research design employed in this study was correlational research design. A correlational research design is employed to examine the associations between variables without exerting control or manipulation over any of them. The utilization of a correlational research design in this study enabled the examination of the relationship between educational CSR and the financial performance of telecommunication firms in Kenya.

Population and Sample Size

Population

The target population in this study were employees from Safaricom, Airtel Kenya and Telkom Kenya. The justification for picking only Safaricom, Airtel Kenya and Telkom Kenya as the unit of analysis was because they controlled more than 95% of the market share with Safaricom (65.4%), Airtel Kenya (21.4%) and Telkom Kenya (8.9%) (Communications Authority of Kenya, 2023). Thus, the unit of analysis included three companies: Safaricom, Airtel Kenya and Telkom Kenya. Safaricom plc had 349 employees from the top management, 1474 from middle management (supervisors) and 2036 from the lower management while Airtel Kenya had 137 employees from the top management, 581 from middle management (supervisors) and 976 from the lower management. Finally, Telkom Kenya had 116 employees from the top management, 327 from middle management (supervisors) and 601 from the lower management.

However, the unit of observation were employees in the top and middle-level management levels. The focus on senior and middle-level management in this study was driven by the roles these individuals played in the strategic decision-making processes within their respective organizations. These individuals were likely to have a clear understanding of the organization's strategic goals and financial performance, making them well-positioned to assess the impact of CSR activities on financial outcomes. They were often privy to information and strategic decisions that lower-level employees might not have access to, providing valuable insights into the research questions. The target population of the employees is presented in Table 1.

Table 1:
Target Population

Company	Population Categories	Total Population	Percentage of Population
Safaricom	Senior Management	349	9.04
	Middle level Management	1474	38.20
	Lower-Level Management	2036	52.76
	Total	**3859**	**100**
Airtel Kenya	Senior Management	137	11.11
	Middle level Management	581	31.32
	Lower-Level Management	976	57.57
	Total	**1694**	**100**
Telkom Kenya	Senior Management	116	1.11
	Middle level Management	327	31.32
	Lower-Level Management	601	57.57
	Total	**1044**	**100**

Sample size

A simple random sampling technique will be used in the study. Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population and each member from the population has an equal chance of being selected (Rahi, 2017). The employees were picked randomly from the top and middle-level management levels. Thus, each employee from the top management level and middle management level from the companies had an equal chance of being selected to participate in the study. The researcher employed Yamane's (1967) formula to determine the appropriate sample size. The sample, as defined by Cooper and Schindler (2014), refers to a subset of the population under investigation. This formula is widely used in research to calculate the sample size needed for a given population:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample
N = population
e = Level of precision (0.05)
1 = Constant

Sample size will be;

n=2984/ (1+2984 (0.05$^{2)}$
=352.72≈353

Therefore, the sample size was 353 employees. The 353 employees from the top and middle level management were apportioned based on the target population from each of the companies. The sample size is presented in Table 2.

Table 2:
Sample Size

Company	Population Categories	Total Population	Determination of Sample Size	Sample Size	Percentage
Safaricom	Senior Management	349	349/2984*353	41	11.60
	Middle level Management	1474	1474/2984*353	174	49.30
Airtel Kenya	Senior Management	137	137/2984*353	16	4.53
	Middle level Management	581	581/2984**353	69	19.55
Telkom Kenya	Senior Management	116	116/2984*353	14	3.97
	Middle level Management	327	327/2984*353	39	11.05
Total		**2984**		**353**	**100**

Data Collection Methods

Data collection methods are the strategies or techniques used to gather information, facts, or responses for research. Data collection involves the systematic and precise gathering of relevant information pertaining to the research's sub-problems (Mwita, 2022). There are various methods available for data collection, including interviews, participant observations, focus group discussions, narratives, and case histories, among others (Mkandawire, 2019; Heap & Waters, 2019). In this study, primary data was collected using semi-structured questionnaires. Questionnaires were preferred for their efficiency, cost-effectiveness, and ability to reach a large number of individuals within a relatively short time frame (Hinton & McMurray, 2017). Questionnaires were also easily analyzable and provided the opportunity to gather both quantitative and qualitative data (Cheung, 2021). Respondents provided their answers using a five-point Likert scale, which allowed for measuring levels of agreement or disagreement on a continuum. This Likert scale captured perceptions, attitudes, and values effectively and facilitated the conversion of responses into a quantitative format for analysis using software such as SPSS version 29. The organization of the questionnaires aligned with the study's objectives, ensuring a logical and structured approach to data collection.

The questionnaire used for this study was divided into five sections to garner comprehensive data on the subject matter. Section A focused on gathering demographic information, serving as a foundation for contextualizing the responses. Section B, C, and D were dedicated to understanding the various dimensions of CSR programs, specifically in the areas of health, education, and environmental sustainability, respectively. Lastly, Section E aimed to evaluate the financial performance of the telecommunication companies. This multi-faceted approach ensured a thorough exploration of the correlation between CSR initiatives and financial performance.

Research Procedures

The data collection procedure refers to the systematic approach used to gather and measure information on targeted variables of interest to answer the research question, which includes identifying sources, designing data collection tools, defining the sample, and actual data collection and recording (Feng et al., 2021). The data collection procedure for this study followed an organized and structured approach to maintain the integrity and reliability of the research. The first step involved the development of a semi-structured questionnaire tailored to the specific requirements of the study. The designed questionnaire was then subjected to a rigorous review process for approval by the study's supervisor to ensure it aligned with the study's objectives and maintained ethical standards.

Following the approval of the questionnaire, the next step involved obtaining an authority letter from the Institutional Review Board (IRB). This crucial phase ensured the study conformed to ethical research practices, protecting the rights and welfare of the study participants. Subsequently, an introductory letter was acquired from the university, introducing the research and its objectives to the study participants. To proceed with the study in Kenya, permission was sought from the National Commission for Science, Technology, and Innovation (NACOSTI). This permit validated the study's scientific merit and its adherence to national guidelines for conducting research. Once the NACOSTI permit was granted, the study sought authorization from the management of companies through their respective ethics committees. Thus, with all necessary permissions in place, the respondents' consent was requested, ensuring their participation in the study was voluntary. Finally, with the aid of two research assistants, the researcher visited the respective organizations to commence the data collection process.

A pilot study was conducted. A pilot study or test is a small-scale version, or trial run, done in preparation for the main study (Kothari, 2004). The reason for pilot testing is to build up the precision and suitability of the examination outline and instrumentation (Saunders, Lewis & Thornhill, 2012). It refines the questionnaire with the goal that respondents will be having no issues in noting the response and in recording the information. Additionally, it empowers one to acquire some appraisal of the question's validity and the reasonable dependability of the information that will be gathered (Saunders, Lewis & Thornhill, 2012). A pilot study was carried out to check the validity and reliability of the questionnaires in collecting the data required for the purposes of the study. The pilot study was conducted in Jamii Telecommunications Ltd which is a telecommunications service provider in Nairobi. The thumb rule suggests that 5% to 10% of the sample should constitute the pilot test (Cooper & Schilder, 2014). Therefore, the study used 10% (35) of the sample size for piloting.

The validity of the research instruments was determined using the content and construct validity as discussed below. Content validity refers to the extent to which a measurement or assessment tool accurately captures the content or domain it is intended to measure. In other words, it assesses whether a tool is comprehensive enough to cover all the relevant aspects of the construct it is designed to measure. Content validity is an essential aspect of test development and validation. It ensures that the test or assessment tool is appropriate for the intended purpose and that it measures what it is supposed to measure. The content validity of a measurement tool can have a significant impact on the results obtained from it. If a tool does not cover all the relevant aspects of the construct, it may lead to incomplete or inaccurate results.

Therefore, establishing content validity is critical to ensuring the validity of a measurement tool. To achieve content validity, the questionnaires were subjected to a thorough examination by the supervisors in charge of the project development and the organizations experts from Jamii Telecommunications Ltd. The supervisor and the organizations experts evaluated the statements in the questionnaires for relevance. Based on their evaluation, the instruments were adjusted appropriately before subjecting them to the final data collection exercise. The review comments from the supervisor and experts were used to ensure that content validity was enhanced.

Moreover, the study used Keyser-Meyer-Olkin (KMO) and the test of Sphericity to examine the construct validity. The test measures sampling adequacy for each variable in the model and the complete model. The statistic measures the proportion of variance among variables that might be common. The findings presented in Table 3 indicate that the health CSR programs exhibited a Kaiser-Meyer-Olkin (KMO) value of 0.742 and Barlette's test of sphericity yielded a result of 0.000, which is less than the significance level of 0.05. Similarly, the Education CSR programs demonstrated a KMO value of 0.641 and Barlette's test of sphericity resulted in a value of $0.000<0.05$. Furthermore, the Environmental CSR programs displayed a KMO value of 0.655 and Barlette's test of sphericity yielded a result of $0.000<0.05$. Lastly, the financial performance variable exhibited a KMO value of 0.722 and Barlette's test of sphericity resulted in a value of $0.000<0.05$. Therefore, it was determined that the Kaiser-Meyer-Olkin (KMO) values for all variables exceeded the threshold of 0.5, and the P-value for sphericity was found to be less than 0.05. According to conventional practice, a KMO value exceeding 0.5 and a P-value of Sphericity below 0.05 indicate the validity and adequacy of the statements for conducting factor analysis. The study results on the construct validity are presented in Table 3.

Table 3:
Construct Validity Using KMO

Variable	KMO Value	Sphericity
Health CSR programs	0.742	0.000
Education CSR programs	0.641	0.000
Environmental CSR programs	0.655	0.000
Financial performance	0.722	0.000

In addition, the researcher calculated the Cronbach alpha coefficient to examine the reliability of the research instruments. The reliability was calculated using Cronbach’s alpha formula and results were generated with the aid of SPSS. The Cronbach's alpha coefficients for health CSR programs, education CSR programs, environmental CSR programs, and financial performance, as presented in Table 3.4, exceeded the threshold of 0.7. Golafshani (2003) asserts that a minimum threshold of 0.7 is deemed acceptable for the Cronbach alpha coefficient. Therefore, the variables under investigation are deemed to possess a high level of reliability. The results are illustrated in Table 4.

Table 4:
Reliability Results

Variable	Number of Items	Cronbach Alpha	Comments
Health CSR programs	12	0.873	Reliable
Education CSR programs	12	0.829	Reliable
Environmental CSR programs	12	0.801	Reliable
Financial performance	12	0.820	Excellent

Data Analysis Methods

Data analysis refers to the systematic procedure of acquiring data and transforming it into valuable information that can be used by those involved in decision-making processes (Mishra et al., 2019). The qualitative data obtained from the open-ended questions were subjected to content analysis and afterwards presented in a narrative format. The coding, analysis, and generation of the quantitative report were performed using version 29 of the Statistical Package for the Social Sciences (SPSS). The data was subjected to analysis using both descriptive and inferential statistics. The descriptive statistics included measures such as means, standard deviations, and percentages. The inferential statistics included both correlation analysis and regression analysis. Regression analysis encompasses several components, including the evaluation of model fitness, analysis of variance, and estimation of regression coefficients. The data was visually represented via the use of tables, graphs, and charts. Hence, the regression model was expressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where: -

Y= Financial performance
X_1= Health CSR programs
X_2= Education CSR programs
X_3= Environmental CSR
β_0 =Constant
β_1, β_2, & β_3= Coefficients
ε= Error term

Ethical Considerations

When conducting research, it was essential to uphold ethical considerations to ensure the protection and well-being of all individuals involved and to maintain the integrity of the study. First and foremost, informed consent was obtained from all participants involved in the study. This included both the telecommunication companies and any other stakeholders who may have been engaged during data collection. Participants were fully informed about the nature and purpose of the research, their rights as participants, and the voluntary nature of their participation. They had the opportunity to ask questions and provide their consent before their involvement in the study. Confidentiality and anonymity were strictly maintained throughout the research process. All data collected was treated with the utmost confidentiality, ensuring that individual and company identities were protected. Any personal or sensitive information obtained was stored securely and used solely for the purposes of the study.

Moreover, the research adhered to ethical guidelines regarding data handling, analysis, and reporting. Data was collected and analyzed using appropriate statistical methods and software, ensuring the accuracy and reliability of the findings. The results were presented in a manner that preserved the privacy and confidentiality of the participants. Additionally, the research respected the principles of fairness and equity. All telecommunication companies, regardless of their size or prominence, were given equal opportunities to participate in the study. The research aimed to provide a balanced representation of the industry by including a diverse range of companies. Furthermore, potential conflicts of interest were identified and addressed. The researcher disclosed any affiliations or financial interests that may have influenced the study. Steps were taken to ensure that the research was conducted objectively and without bias.

Lastly, the study adhered to relevant legal and regulatory requirements. Ethical approval was obtained from the appropriate institutional review board or ethics committee before commencing the research. The study also complied with applicable data protection laws and regulations to safeguard the rights and privacy of the participants.

The research design employed in this study was correlational research design. The utilization of a correlational research design in this study enabled the examination of the relationship between health CSR and the financial performance of telecommunication firms in Kenya. The target population in this study were employees from Safaricom, Airtel Kenya and Telkom Kenya. The justification for picking only Safaricom, Airtel Kenya and Telkom Kenya as the unit of analysis was because they controlled more than 95% of the market share with Safaricom (65.4%), Airtel Kenya (21.4%) and Telkom Kenya (8.9%) (Communications Authority of Kenya, 2023). The population scope comprised a total of 6,597 employees from the three major telecommunication companies in Kenya: Safaricom, Airtel Kenya, and Telkom Kenya, with 3,859, 1,694, and 1,044 employees respectively. The unit of observation was employees in top and middle-level management positions due to their pivotal roles in strategic decision-making processes within organizations. The sample size was determined using Yamane's formula, resulting in 353 employees from top and middle-level management. A primary data was collected using semi-structured questionnaires. The qualitative data obtained from the open-ended questions were subjected to content analysis and afterwards presented in a narrative format. The coding, analysis, and generation of the quantitative report were performed using version 29 of the Statistical Package for the Social Sciences (SPSS). The data was subjected to analysis using both descriptive and inferential statistics. The descriptive statistics included measures such as means, standard deviations, and percentages. The inferential statistics included both correlation analysis and regression analysis.

Approval to conduct the study was sought from the supervisors and thereafter and to fulfil the mandatory ethical requirements, the proposal was submitted to the Institutional Review Board (IRB) (include the approval reference number) for approval after which an application was made for a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) (include the approval reference number) and thereafter, permission sought from the three telecommunication companies' leadership before commencement of the study. Respondents' consent form and Debrief letter were prepared to ensure voluntary participation by then respondents. Information about data protection and confidentiality and well as conflict of interest were covered in these documents. Pilot study was conducted to establish validity and reliability of the instrument used. The questionnaire was administered as an online survey on Google forms and in cases where this was not possible, respondents were interviewed, and the responses entered to Google forms for ease of data cleaning and analysis

III. RESULTS

Response Rate

The study included a total of 353 participants, consisting of employees occupying positions in both top-level and middle-level management. Of the total sample size of 353, a majority of 324 questionnaires were appropriately completed and subsequently utilized for the analysis. Table 1 displays the summary of the response rate.

The study results presented in Table 5 indicate that the average response rate was 91.78%. A response rate of 91.78% is considered to be adequate for the analysis since it is above the 60% threshold recommended by Ahmad & Halim (2017) and Hendra & Hill (2019). The high response rate not only boosts the confidence in the survey's findings but also increases the study's impact, as stakeholders are likely to consider its conclusions to be credible. Overall, the high response rate provides a strong backbone for the study, setting the stage for meaningful analysis and valuable insights.

Table 5:
Response Rate

Company	Respondents Categories	Targeted respondents	Response (Those responded)	Percentage
Safaricom	Senior Management	41	38	0.9268
	Middle level Management	174	162	0.9310
Airtel Kenya	Senior Management	16	14	0.8750
	Middle level Management	69	65	0.9420
Telkom Kenya	Senior Management	14	13	0.9286
	Middle level Management	39	32	0.8205
Total		**353**	**324**	**0.9178**

Diagnostic Tests

In statistics, diagnostic tests are used to assess the quality and validity of a statistical model. These tests can identify any issues with the model, such as overfitting, underfitting or lack of fit. It is essential to use diagnostic tests to ensure that the conclusions drawn from a statistical model are valid and trustworthy. To ensure the requirements for regression are met, the following diagnostic tests were carried out.

Normality Tests

The study employed the Kolmogorov–Smirnov test to examine whether the data is normal. The normality test was used to determine if the sample data was collected from a population with a normal distribution. The study results of the normality tests are presented in Table 2 The findings presented in Table 2 indicate that the data exhibited a normal distribution, as evidenced by the respective p-values exceeding 0.05 for Education CSR programs. Hence, it can be inferred that the data exhibits a normal distribution based on the aforementioned findings.

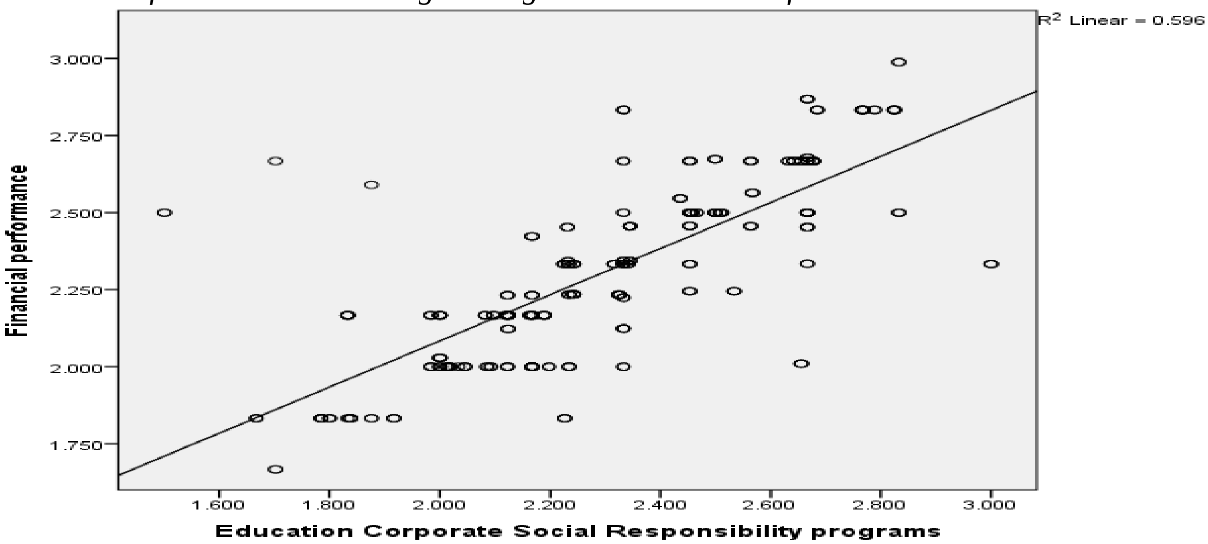
Table 6:
Normality Test

	Kolmogorov–Smirnov test.		
Variables	**Statistic**	**Df**	**Sig.**
Education CSR programs	0.074	324	0.064

Linearity Test

The linearity test is essential for ensuring the validity of a regression model, improving the accuracy of predictions, interpreting coefficients, and avoiding spurious relationships. Therefore, it is crucial to conduct a linearity test to ensure that the regression model is appropriate and valid for the data. The scatter plot of education CSR programs against financial performance is summarized in figure 1. Figures 1 shows that education CSR programs depicted a straight-line relationship with financial performance. In addition, the r-squared showed the percentage of the dependent variable variation that a linear model explains.

Figure 1:
Scatter Plot of Education CSR Programs against Financial Performance.



Multicollinearity

The multicollinearity test was done using the Variance Inflation Factor (VIF). Table 7 presents the multicollinearity results. The findings presented in Table 7 demonstrate the absence of multicollinearity, as evidenced by the Variance Inflation Factor (VIF) values for education CSR programs being below the threshold of 10. Katrutsa and Strijov (2017) have posited that variables with VIF values below 10 demonstrate an absence of multicollinearity.

Table 7:
Multicollinearity Results

Variables	VIF
Education CSR programs	1.658

Descriptive Statistics for Education CSR Programs and Financial Performance

According to the findings in Table 8, 72.9% (38.00% + 34.90%) of respondents disagreed that the company had effectively implemented scholarships to assist students, with a mean score of 2.11. The statement that the scholarship application process is simple received a mean score of 2.42. Although slightly higher, 65.1% (23.1% + 42.0%) disagreed with the statement. The average score for collaborations with other organizations that offer scholarships was 2.04. When it comes to investing in educational infrastructure, 72.9% (20.7% + 52.2%) of respondents disagreed, as evidenced by a mean score of 2.35. Similarly, the statement about educational infrastructure being well-equipped with cutting-edge technology received the highest mean score of 2.59. However, 67.6% (6.8% + 60.8%) agreed that more could be done to modernize the educational settings in which the company is investing.

Moving on, the statement "Skills development is a core component of our education CSR programs in Kenya" received a mean score of 2.05. This statement was rejected by 82.7% of respondents (24.1% + 58.6%). Following that, the statement "In our company, we emphasize empowering individuals through skills development to enhance their capabilities and knowledge" received a mean score of 2.10. In this case, 80% (27.5% + 52.5%) of respondents disagreed, indicating a need for the company to make its efforts in terms of empowering individuals more visible and effective. The statement "Our company actively engages in skills development initiatives to contribute to the growth and development of individuals in Kenya" received a mean score of 2.17 out of a possible 3. While this is slightly higher, 75% of respondents (29.0% + 46.0%) disagreed with the statement. This suggests that, despite some efforts, the company's skill development initiatives have not been well received by the majority of stakeholders.

The skills development initiatives offered are affordable for all employees received a mean score of 2.06, with 60.2% (20.4% + 39.8%) disagreeing. Considering the average mean score of 2.23 for the entire set of statements, it is clear that the general sentiment is against the company's education-related CSR efforts. The lower mean scores indicate that the area of skills development appears to be a significant gap in CSR activities. Overall, while the immediate, direct impact on finances may be difficult to quantify, long-term benefits such as brand building, employee engagement, and stakeholder relations can significantly contribute to a telecommunication company's financial stability and growth in Kenya.

Correlation Analysis for Education CSR Programs and Financial Performance

The correlation results are presented in Table 9. The study results of the correlation analysis indicate a positive and statistically significant association exists between education CSR programs and financial performance (r=0.772, p=0.000). This means that as education CSR programs increase, financial performance also tends to increase. There are a number of possible explanations for this positive association. One possibility is that education CSR programs can lead to increased employee productivity and morale. Consumers are increasingly looking for businesses that are committed to social responsibility. When companies invest in education CSR programs, they signal to consumers that they are a responsible and ethical company. This can lead to increased sales and revenue for the company. Finally, education CSR programs can help to improve the company's reputation. A good reputation can attract investors, customers, and employees. This can lead to increased financial performance for the company. Thus, a business should consider investing in education CSR programs. This can lead to several benefits, including increased employee productivity and morale, attracting and retaining customers, and improving the company's reputation.

Table 9:

Correlation Analysis for Education CSR Programs and Financial Performance

		H Financial Performance	Education CSR Programs
Financial Performance	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Education CSR Programs	Pearson Correlation	.772**	1.000
	Sig. (2-tailed)	0.000	

Table 8:
Percentage Distribution of Education CSR Programs and Financial Performance

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard deviation
In our company, we have implemented scholarship initiatives to support students' access to education	38.00%	34.90%	10.50%	11.70%	4.90%	2.11	1.18
Our scholarship initiatives are well-publicized	22.20%	47.80%	7.10%	16.00%	6.80%	2.37	1.03
The application process for our scholarships is not complicated and time-consuming	23.10%	42.00%	10.20%	19.10%	5.60%	2.42	1.20
Our scholarship initiatives are coordinated with other organizations that offer scholarships	16.00%	35.20%	4.00%	43.20%	1.50%	2.04	1.07
Our company invests in improving educational infrastructure to enhance learning environments in Kenya.	20.70%	52.20%	4.60%	16.70%	5.90%	2.35	1.15
Our investment in educational infrastructure is adequate to meet the needs of all students.	13.60%	51.90%	8.00%	14.50%	12.00%	2.10	1.04
The educational infrastructure that we have invested in is well equipped with the latest technology	6.80%	60.80%	9.30%	12.70%	10.50%	2.59	1.12
The educational infrastructure that we have invested is well-maintained	17.30%	57.10%	7.10%	11.40%	7.10%	2.34	1.01
Skills development is a core component of our education CSR programs in Kenya.	24.10%	58.60%	3.10%	10.80%	3.40%	2.05	1.00
In our company, we emphasize empowering individuals through skills development to enhance their capabilities and knowledge.	27.50%	52.50%	5.60%	12.00%	2.50%	2.10	1.04
Our company actively engages in skills development initiatives to contribute to the growth and development of individuals in Kenya.	29.00%	46.00%	6.50%	16.40%	2.20%	2.17	1.09
The skills development initiatives that we offer are affordable for all employees.	20.40%	39.80%	5.90%	21.30%	12.70%	2.06	1.35
Average						**2.23**	**1.11**

Regression Analysis for Education CSR Programs and Financial Performance

The regression analysis includes the analysis of model fitness, analysis of variance (ANOVA) and regression of coefficient. The study results of the model fitness are presented in Table 10. The results presented in Table 10 established that education CSR programs are satisfactory in affecting financial performance of telecommunication companies in Kenya. The R^2= 0.596 (59.6%). This implied that education CSR programs could explain 59.6% of the variations of financial performance of telecommunication companies in Kenya. The results of the Analysis of Variance (ANOVA) are summarized in Table 11.

Table 10:
Model Fitness for Education CSR Programs and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.772a	0.596	0.595	0.18053

a *Dependent Variable: Education CSR Programs*
b *Predictor: Financial Performance*

The results in Table 11 indicate that the overall model is statistically significant. This is supported by $F(1, 324) = 474.97$, $p < .05$. The F statistic serves as an indicator of the overall adequacy of the model, with a higher value suggesting a stronger fit. The F-statistic presented with a value of 474.97 and associated p-value of less than 0.05, indicates the overall statistical significance of the model used to assess the relationship between Education CSR Programs and Financial Performance. A high F-value suggests that the variance explained by the model (the difference in financial performance related to education CSR programs) is significantly greater than the unexplained variance, implying that the model is statistically significant.

Table 11:
Analysis of Variance (ANOVA) for Education CSR Programs and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.48	1	15.48	474.97	.000b
	Residual	10.494	322	0.033		
	Total	25.974	323			

a Dependent Variable: Education CSR Programs
b Predictor: Financial Performance

The study results of the regressions of coefficients are presented in Table 12. The results in Table 12 show that education CSR programs are positively and significantly related to financial performance of telecommunication companies in Kenya ($\beta = .748$, $t(324) = 21.794$, $p < .05$). The high t-value of 21.794, in comparison to the critical t-value of 1.96, along with a p-value (0.000), provides compelling evidence that education CSR programs are positively and significantly related to financial performance of telecommunication companies in Kenya. The regression coefficient (β) of 0.748 signifies that for each unit increase in education CSR programs, there is a corresponding increase in financial performance. These findings underscore the potential benefits of educational CSR initiatives in enhancing the financial performance of such firms in this specific context.

Table 12:
Regressions of Coefficient for Education CSR Programs and Financial Performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.588	0.08		7.368	0.000
Health CSR Programs	0.748	0.034	0.772	21.794	0.000

a Dependent Variable: Education CSR Programs
b Predictor: Financial Performance

Based on the results, the regression model thus becomes:

$$Y = 0.588 + 0.748X$$

Where: -

Y= Financial Performance
X = Education CSR Programs

IV. DISCUSSION

The second objective of the study was to establish the effect of education CSR programs on financial performance of telecommunication companies in Kenya. The average mean score of statements under education CSR programs was found to be 2.23 with a standard deviation of 1.11. The lower mean scores indicate that the area of skills development appears to be a significant gap in CSR activities. The correlation analysis found a positive and statistically significant association between education CSR programs and financial performance ($r=0.772$, $p=0.000$). This means that there is a positive relationship between the two variables, such that as education CSR programs increase, financial performance also tends to increase. The regression analysis also found a positive and statistically significant relationship between education CSR programs and financial performance ($\beta = 0.748$, $t(324) = 21.794$, $p<.05$). This means that education CSR programs can explain a significant amount of the variation in financial performance.

The results of the correlation and regression analysis suggest that there is a positive and significant relationship between education CSR programs and financial performance of telecommunication companies in Kenya. This means that education CSR programs can be a significant factor in improving the financial performance of these companies. There are a number of possible explanations for the positive relationship between education CSR programs and financial performance. One possibility is that education CSR programs can lead to increased employee productivity and morale. When employees are educated and have the skills they need to succeed, they are more likely to be productive and engaged in their work. This can lead to increased profits for the company. Another possibility is that education CSR programs can help to attract and retain customers. Consumers are increasingly looking for businesses that are committed to social responsibility. When companies invest in education CSR programs, they signal to consumers that they are a responsible and ethical company. This can lead to increased sales and revenue for the company. Finally, education CSR programs can help to improve the company's reputation. A good reputation can attract investors, customers, and employees. This can lead to increased financial performance for the company.

The findings of this study align with the research conducted by Wanjekeche (2022), which demonstrates that CSR activities focused on education, economic empowerment, community health, and infrastructure, and governed by diverse policies, have had a substantial impact on enhancing the quality of life for those living in the local community. Furthermore, it has been discovered that these CSR initiatives have a favourable influence on the company's overall performance, augmenting its reputation, acceptance of its products, and establishment of commercial alliances. The study conducted by Akhigbe & Olokoyo (2019) did not find any statistically significant association between CSR and brand loyalty. Nevertheless, buyers have recognized a reasonable price point, excellent quality service, and effective customer care as crucial determinants that significantly impact their brand loyalty.

The study conducted by Miyogoh, Arasa & Ngui (2021) shown that many factors, including community social support, environmental responsibility, CSR economic expectations, and consumer protection, accounted for 64.0% of the observed variability in the market share of the telecommunication business in Kenya. The analysis revealed that consumer protection had the most substantial positive impact on market share ($\beta=.334$), with CSR economic expectations ($\beta=.277$), community social support ($\beta=.232$), and environmental duties ($\beta=.211$) following suit.

The findings of this study demonstrate robust positive associations between the aforementioned four variables and market share, so underscoring the notable impact of CSR on market performance within the telecommunications industry in Kenya.

The research conducted by Adu et al. (2021) demonstrates that factors such as health and safety, workplace diversity, and training and development have a favourable and statistically significant influence on social performance inside higher education institutions (HEIs). The findings of this study emphasize the significant impact of ICSR (Integrated CSR) activities on the performance of employees and organizations in the higher education sector. The research conducted by Phillips, Thai, and Halim (2019) emphasizes the need of integrating CSR into the fundamental company operations and recognizing value chain competencies such as CSR leadership (CSRL) and CSR collaboration (CSRC) in order to attain sustainable performance and financial prosperity.

The research conducted by Feng et al. (2022) demonstrates a noteworthy and favourable correlation between corporate reputation and the achievement of sustainable business outcomes. Moreover, the results underscore the influential and noteworthy intermediary function of corporate reputation in the relationship between CSR and sustainable business success. A study conducted by Afiuc et al. (2021) revealed noteworthy associations among CSR, business image, service quality, and customer retention. It is worth noting that the mediating role of corporate image has been identified in the links between CSR, customer value, service quality, and customer retention. The research findings further shown that CSR had a role in strengthening the association between customer value and service quality, ultimately contributing to the enhancement of customer retention via the establishment of a favourable company image.

The study conducted by Amri, Wanza & Githinji (2021) shown a statistically significant positive relationship between environmental practices and organizational performance ($\beta = 0.711$, $p = 0.000$). These findings suggest that the implementation of improved environmental practices might lead to enhanced firm performance. The study conducted by Watto et al. (2020) shown that there is a partial mediation impact of innovation performance in the association between CSR and business performance. The impact of CSR on the performance of firms shown a decline with the inclusion of innovation performance inside the model. This discovery implies that CSR might serve as a crucial strategy for motivating corporations to enhance their levels of innovation, efficiency, and overall effectiveness. According to the findings of a research done by Al Sakkaf et al. (2023), it has been determined that reciprocity and engagement emerge as the primary drivers for United Arab Emirates (UAE) firms to actively participate in CSR initiatives pertaining to education. The research conducted by Muchiri et al. (2022) suggests that there exists an absence of a direct correlation between CSR and the financial success of corporations in Kenya.

Conclusion

The study concludes there is a positive and statistically significant relationship between education CSR programs and financial performance of telecommunication companies in Kenya. The education CSR programs can include scholarship initiatives, educational infrastructure, and skills development. Scholarship initiatives can include providing financial assistance to students who are unable to afford tuition, books, or other educational expenses. Educational infrastructure can include building or renovating schools, providing textbooks and other educational materials, or funding educational technology.

Skills development can include providing vocational training, apprenticeships, or other programs that help people develop the skills they need to get a job or start a business. Education is one of the most important investments that a company can make, and CSR programs can be a great way to make a difference in the lives of students and communities. By investing in education, companies can help to create a more skilled and educated workforce, which can lead to economic growth and social development. (write a concise conclusion that reflects the main objective of the study).

Recommendations

Based on the conclusion that there is a positive and statistically significant relationship between education CSR programs and financial performance of telecommunication companies in Kenya, the study recommends that companies operating in the telecommunications industry allocate resources towards providing scholarships and financial assistance to students who are in financial need. The institutions have the capacity to collaborate with schools in order to provide scholarships to students belonging to socioeconomically disadvantaged groups. Furthermore, companies operating in the telecommunications industry have the capacity to contribute to the development of educational infrastructure through various means, such as providing support to existing schools or undertaking the construction of new educational institutions. In addition, educational institutions have the capacity to provide essential learning materials such as textbooks, computer systems, and laboratory apparatus. Telecommunications companies ought to facilitate individuals in enhancing their professional capabilities. This can be accomplished through the provision of programme sponsorships or the facilitation of student internships. In addition, educational institutions have the capacity to provide scholarships and various forms of financial assistance to students residing within their vicinity who demonstrate financial need. The study suggests that another study be conducted to examine factors other than CSR that could influence the financial performance of telecommunication companies in Kenya. The financial performance of telecommunication companies in Kenya could be affected by a number of factors, including economic conditions, leadership styles, employee competency, work complexity, technological changes, regulatory environment and competition. (The recommendation should be very brief. Rewrite this to make it more clear and easy to understand.

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Conflict of interest

We have no actual, potential or perceived conflict of interest in relation to this document and our role as authors of this document is majorly to provide dissemination of scholarly materials to researchers as we uphold high degree of objectivity and integrity.

V. REFERENCES

Adu, M., He, Z., Nyame, G., Boahen, S., & Frempong, M. F. (2021). Effects of internal CSR activities on social performance: The employee perspective. *Journal Of Sustainability, Environment and Peace*, *13*(11), 62-73.

Afiuc, O., Bonsu, S. K., Manu, F., Knight, C. B., Panda, S., & Blankson, C. (2021). CSR and customer retention: evidence from the telecommunication industry in Ghana. *Journal of Consumer Marketing*, *38*(1), 15-26.

Ahmad, H., & Halim, H. (2017). Determining sample size for research activities. *Selangor Business Review* 5(2), 20-34.

Airtel Networks Kenya Limited (2022). *Airtel Networks Kenya Limited Annual Report and Financial Statements for The Year Ended 31 December 2021*. Retrieved from https://assets.airtel.in/teams/simplycms/web/docs/Airtel_Networks_Kenya_Limited_21072022.pdf

Akhigbe, J. O., & Olokoyo, F. O. (2019). CSR & Brand Loyalty in The Nigerian Telecommunication Industry. In *IOP Conference Series: Earth and Environmental Science 3*(1), 012-016

Al Sakkaf, S. Y., Farouk, S., & Abu Elanain, H. M. (2023). CSR towards education and corporation performance in the UAE: the mediating role of corporation reputation. *Social Responsibility Journal*, *19*(2), 305-327.

Amahalu, N. N., & Okudo, C. L. (2023). Effect of CSR on financial performance of quoted oil and gas firms in Nigeria. *Research Journal of Management Practice 2*7(8), 76-84.

Amri, K., Wanza, S. L., & Githinji, M. R. (2021). Effect of CSR Practices on Organizational Performance of Mobile Telecommunication Companies in Rwanda. *Journal of Business and Management*, 23 (7), 30-37

Awadzie, D. M., Garr, D. K., Attah-Botchwey, E., Koduah Sarpong, K., & Marfo, M. (2023). Does CSR promote the financial performance of the telecom industry in Ghana? *Cogent Business & Management*, *10*(1), 218-224.

Cheung, A. K. L. (2021). *Structured questionnaires in quality of life and well-being research*. Cham: Springer International Publishing.

Communications Authority of Kenya (2019). *Annual Report for Financial Year 2018-2019*. Retrieved from https://www.ca.go.ke/downloads/publications/annual-reports/

Communications Authority of Kenya (2023). *2021 - 2022 Annual Report*. Retrieved from https://www.ca.go.ke/sites/default/files/2023-06/CA%20Annual%20Report%202021-2022%20Final%20Version.pdf

Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods. Data Preparation and Description*. McGraw-Hill Irwi. Boston

Deng, B., Ji, L., & Liu, Z. (2022). The effect of strategic CSR on financial performance: Evidence from China. *Emerging Markets Finance and Trade*, *58*(6), 1726-1739.

Feng, Y., Akram, R., Hieu, V. M., & Hoang Tien, N. (2022). The impact of CSR on the sustainable financial performance of Italian firms: Mediating role of firm reputation. *Journal of Economic Researc 35*(1), 4740-4758.

Feng, Y., Duives, D., Daamen, W., & Hoogendoorn, S. (2021). Data collection methods for studying pedestrian behaviour: A systematic review. *Journal of Building and Environment*, *18*(7), 107-129.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, *8*(4), 597-606.

Heap, V., & Waters, J. (2019). *Data collection methods. In Mixed Methods in Criminology*. Routledge. United Kingdom

Hendra, R., & Hill, A. (2019). Rethinking response rates: new evidence of little relationship between survey response rates and nonresponse bias. *Evaluation review*, *43*(5), 307-330.

Hinton, P. R., & McMurray, I. (2017). *Presenting your data with SPSS explained*. Taylor & Francis. United Kingdom

Katrutsa, A., & Strijov, V. (2017). Comprehensive study of feature selection methods to solve multicollinearity problem according to evaluation criteria. *Expert Systems with Applications*, *76*, 1-11.

King'wara, R. A. (2020). *Influence of CSR Disclosure on Financial Performance of Companies Listed on the Nairobi Securities Exchange in Kenya* (Doctoral Dissertation, The Open University of Tanzania).

Kothari, C.R. (2004). *Research methodology: Methods and techniques*. New Delhi: New Age international. India

Mishra, P., Pandey, C. M., Singh, U., Keshri, A., & Sabaretnam, M. (2019). Selection of appropriate statistical methods for data analysis. *Annals of cardiac anaesthesia*, *22*(3), 297-302

Mkandawire, S. B. (2019). *Selected common methods and tools for data collection in research*. Marvel Publishers: New York.

Mtaturu, J. Z., & Muloli, M. M. (2021). Effect Of CSR on Firms Economic Performance: Implications for Banking Sector in Tanzania. *Business Education Journal*, *7*(1), 45-57

Muchiri, M. K., Erdei-Gally, S., & Fekete-Farkas, M. (2022). Effect of CSR on the Financial Performance of Financial Institutions in Kenya. *Economies*, *10*(7), 174-181

Mwangi, M. W., & Wanjira, J. (2019). CSR and the performance of commercial banks in Kenya: A case of equity bank. *International Journal of Current Aspects*, *3*(2), 186-198.

Mwita, K. (2022). Factors to consider when choosing data collection methods. *International Journal of Research in Business and Social Science*, *11*(5), 532-538.

Phillips, S., Thai, V. V., & Halim, Z. (2019). Airline value chain capabilities and CSR performance: The connection between CSR leadership and CSR culture with CSR performance, customer satisfaction and financial performance. *The Asian Journal of Shipping and Logistics*, *35*(1), 30-40.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, *6*(2), 1-5.

Ramzan, M., Amin, M., & Abbas, M. (2021). How does CSR affect financial performance, financial stability, and financial inclusion in the banking sector? Evidence from Pakistan. *Research in International Business and Finance*, *55* (4), 101-113.

Rehman, Z. U., Zahid, M., Rahman, H. U., Asif, M., Alharthi, M., Irfan, M., & Glowacz, A. (2020). Do CSR disclosures improve financial performance? A perspective of the Islamic banking industry in Pakistan. *CSR, Digital Transformation and Fintech*, 7(3), 38-46

Safaricom (2022). Financial Statements. Retrieved from https://www.safaricom.co.ke/annualreport_2022/download-pdf/financials.pdf

Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students.* Harlow: Pearson. London

Schmettow, M. (2021). *New statistics for design researchers*. Cham: Springer International Publishing. New York City

Wanjekeche, R. N. (2022). *CSR and Organizational Performance at Base Titanium in Kenya* (Doctoral project, university of Nairobi).

Watto, W. A., Manurung, D. T., Saputra, K. A. K., & Mustafa, S. G. (2020). CSR and Firm Financial Performance: A Case of SME's Sector in Pakistan. *International Journal of Environmental, CSR, and Social Science*, *1*(2), 62-74.