



## Impact of Retrenchment Generalship on Firm Performance: Pakistan's Listed Companies as Evidence

Ansar Abbas Shah\*<sup>1</sup>, Waqar Ahmed<sup>2</sup>, Rizwan Anwar<sup>3</sup>, Arooj Arshad<sup>4</sup>

<sup>1</sup>\* Department of Management Sciences, Superior University Lahore, Punjab, Pakistan.

<sup>2</sup>Department of Management Sciences, Superior University Lahore, Punjab, Pakistan.

<sup>3</sup>Department of Management Sciences, Superior University Lahore, Punjab, Pakistan.

<sup>4</sup>Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Punjab, Pakistan.

\*Corresponding author: [ansarshah.ca@gmail.com](mailto:ansarshah.ca@gmail.com)

**Keywords:** Agency Theory, Financial Sustainability, Operational Expenses, Resource Basis View Theory, Retrenchment

<b>Article</b>		<b>History</b>
Date	of	Submission:
23-10-2022		
Date	of	Acceptance:
27-12-2022		
Date	of	Publication:
31-12-2022		

**How to cite?**  
Shah A.A, Ahmed W., Anwar R., Arshad A., (2022). Impact Of Retrenchment Generalship on Firm Performance: Pakistan's Listed Companies as Evidence. *Research Journal for Societal Issues*. 4(1), 95-117.

DOI No: 10.56976/rjsi.v4i1.39

*Retrenchment refers to a business strategy that reduces the company's Size by decreasing its level of diversity. When a business experiences losses, cutting costs and slowing operations is one ways to ensure the company can continue operating. The study's goal is to learn more about how Retrenchment Strategy and financial indicators affect the success of Pakistan's publicly listed companies. Secondary data from the yearly financial statements of 76 non-financial businesses listed on the KSE-100 Index between 2015 and 2021 has been utilized to analyze Retrenchment and performance characteristics. We tested whether or not any of our research assumptions held using Panel Regression Analysis (ROE model) and Fixed Effects Panel Regression Analysis (ROA model). Based on the results of the panel regression analysis, it is clear that the Retrenchment Strategy has a significant and favourable impact on the success of Pakistani businesses. In support of the company's Retrenchment practices, the study provides evidence from Resource Basis View Theory and the Agency Theory. Using retrenchment as the primary dependent variable, it first examines how this strategy relates to the success of businesses. In addition, it will add to the canon by shedding light on the rising markets in Pakistan. The findings might serve as a benchmark for similar studies to be conducted in the future in Pakistan*



## Introduction

A good Retrenchment technique incorporates the termination of merchandise which contributes to firm stability or whose survival is problematic. The method, however, also contributes to limiting the labour and revenues due to the termination of that merchandiser example, an entity can remain focused on only one specialized service, which increases the firm's profitability

In this study, retrenchment is attributed to a decline in the cost of minimizing expenses of inventory, red employees count, cutting the payment of sales, general, decreasing the expenditure of (PPE), and decreasing the costs (R&D) are all illustrations of Retrenchment (David & David, 2019; Morrow et al., 2018). For instance, selling off unproductive and unused assets might help firms operate more efficiently in a recession. According to the literature, there is a negative relation between firm performance and Retrenchment Strategy. Firms strategies' substantial strategies have lower profitability than those having poor strategy implementations (Guthrie & Datta, 2018; Luan et al., 2017; Tsao et al., 2019).

In addition, Brahmana and Youconcludetesa (2020) conclude that the firm's performance is enhanced with strict strategy implementations. They also suggest that CEO acts as a moderator variable and tightens the bond between the organization's retrenchment and the decision-making in decision making related to the selling of assets or firing of employees; they use partiality, limited understanding or self-esteem productive. A productive Retrenchment Strategy helps a company boost revenue and performance in financial instability (Smith & Graves, 2015). Unproductive Rlowerhment strategies lower the firm's performance (Chakrabarti et al., 2021; Morrow et al., 2018). Every corporation has a variety of talents to avoid contributing to the economy's downfall. According to corporate strategy and financial studies, Retrenchmento keeps organizations upright amid a roaring flood (Ung et al., 2018). Retrenchment is a typical technique adopted by businesses experiencing the poor economic performance. Minimize it, quantified to minimize the likelihood risk by selling the asset and decreasing inflexible fixed expenses. Even though companies commonly enforce retrenchment, it is seldom practically researched. Furthermore, turnaround programmes dominate studies on the association between corporate strategy and profitability (Denis et al., 2021; Khanna & Palepu, 2020 Lee et al., 2021).

Turnaround strategies are the process of transforming a deficit firm into a profitable one. This strategy may be used by businesses when they are experiencing a downturn. (Belyh, 2015). This organizational form of organizational regeneration tries to sustain distressed enterprises, implying that the listed companies' performance has declined, and they necessitate corporate revival. A new aggressive competitor, a spike in supplier pricing, changes in market requirements, and economic challenges are all external factors for failing businesses. Economic challenges refer to the prevailing situation of the economy or industry, which may have a role in a company's demise (Belyh, 2015).

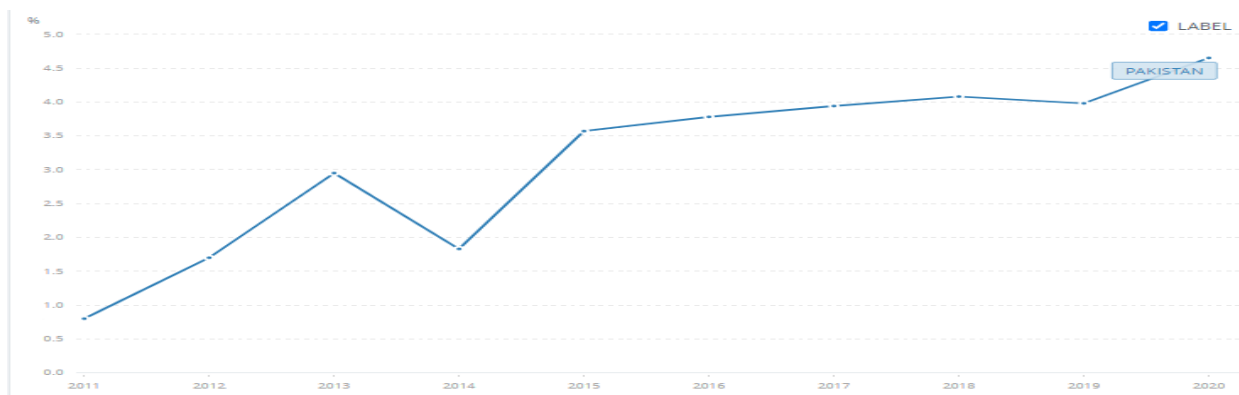


## Background

Despite implementing the Retrenchment Strategy, it is seldom treated as experimental research. Retrenchment Stratorganization keeps the organization upright in times of instability (Ung et al., 2018). It involves risk mitigation by excluding the risker cost and sale of inventory. It incorporates depletion of finished goods, expenses, workers, fees for property, plant expenditure and research (Morrow Jr et al., 2018). For example, an incompetent asset could be terminated, reducing instability and increasing visibility. To stabilize profitability, firms implement a Retrenchment Strategy which causes a reduction in expense, employers, plants, machinery, and specific business operations to generate cash (Ung et al., 2018).

Circumstances provide room for the implementation of Retrenchment theory. In times of downfall, firm may choose to abide by this strategy to reduce instability. The Pakistani government has decided to cut off 9,350 Pakistan Steel Mills personnel in June 2020. Pakistan Steel Mills laid off 4,544 people, including regional and deputy managers, as part of a cost-cutting effort in November 2020. The PSM had 30,000 employees at one point in time, which has now been reduced to an estimated 9,000 employees, many of whom have departed. The sacking of workers was their strategy, as manufacturing companies contribute to Pakistan's significant capital and should be stable. Otheorganizationsfew more organizations, like Pakistan Railways and K-Electric, have been weighing down with unskilled employees through which the firms were facing instability. The workers whose endowments were below average were fired to get the economy back on profitability line. However, the effect of strategy on the retrenchment of employees and employers on an entity's performance is raising research interest.

**Figure No 1: Unemployment Rate in Pakistan, Graph Extracted from World Bank**



Published in Dawn Newspaper, August 24, 2021, <https://www.dawn.com/news/1614087>



Every business must have the ability to survive in the current economic downturn. Retrenchment Strategy is documented in strategic management and finance literature as one technique to keep businesses afloat in the face of a raging wave (Ung et al., 2018). Retrenchment is a typical technique adopted by businesses when they are experiencing poor financial performance-minimize quantified, minimize the uncertainty of failure by trading off assets and eradicate inflexible fixed costs. Even though enterprises commonly enforce it, retrenchment is rarely practically researched. Furthermore, research on the association between a corporation's strategy and its growth is driven by diversification initiatives (Lee et al., 2021). As a result, the study is to analyze experimentally firm performance in implementing Retrenchment strategies in Pakistani industries.

There is no clarity on the utilizing the Retrenchment techniques enhances or worsens performance. From a resource-based viewpoint, a Retrenchment Strategy is a proactive decision by a business to boost performance (Barbero et al., 2020; Goesaert et al., 2018). On the other extreme, supporters of agency theory contend that perhaps a Retrenchment in organizational effectiveness is owing to agency costs.

Pakistan's gross domestic product (GDP) showed a rising trend, with an increment of 0.28% in 2018 from 2017. With the growth of GDP for 2018, every organization have a right to perform well while coming up with positive economic returns. The new government's appointment gave rise to many instability issues, which is out of our discussion. Limited literature shows a link between retrenchment and a firm's performance and only abides with the Return on Assets. Previous empirical studies focused on how this strategy is beneficial and provides conflicting results. Moreover, it emphasized literature only on the firm performance and failed to cover the finance market aspect (Javed et al., 2014; Pham, 2016; Ung et al., 2018). This study mainly focuses on financial performance, which is ROA & ROE in the context of Retrenchment Strategy.

### **Significance of Study**

Productive Retrenchment Strategy helps a company boost revenue and performance in financial instability and reduces unemployment. When it comes to company performance, retrenchment is thought to be a double-edged sword such that effective tactics assist businesses in boosting performance and helps in avoiding financial troubles and unemployment. The Retrenchment Strategy has not gained much attention in comparison with the strategy of Mergers and Acquisition; however, this study inspects the significance of this strategy with firm performance and declining unemployment.

The below-mentioned research questions are addressed in this study:

1. Is there any impact of the company's Retrenchment Strategy on its performance?
2. How is the stability of listed firms elaborated by the Retrenchment Strategy?



## Literature Review

There is no consensus on whether implementing a Retrenchment plan has a favourable, unfavourable, or no impact on firm performance. Many quantitative studies that have been done to explore the company advantages of the Retrenchment Strategy have shown conflicting effects. The first Retrenchment studies were largely under industrialized, industrialized nations, and only later were they expanded to include a few developing economies.

Only a few research have been conducted that link the Retrenchment Strategy to company performance using the agency cost theory. In his article, Kleiman is one of the few known sources who may connect the topic to agency theory. Kleiman uses agency cost theory related to Retrenchment Strategy with firm performance (Baker & Anderson, 2010). Since agents work on behalf of the principal, Robert asserts that this theory poses several ethical issues. Issues arise when management is concerned with their interests (Baker & Anderson, 2010). They noted that investors prosper when a firm reduces their Retrenchments workforce and implements Retrenchment Strategy. The model predicts that retrenchment satisfies shareholder and protect their profits. The objective depends on agents explaining what they should do to fulfill the principle to get incentives and profits. The theory also ascertains that managers may do retrenchment to prevail in their position while showing their strength due to self-pride and may have a positive or negative impact depending upon the circumstances (Anderson & Reeb, 2003).

Since agency connections in a company are more complex than contractual partnerships because agents are obligated to do duties for the principal, Robert claimed that agency theory poses unique ethical challenges and problems for agents and principals. The agency contract technique implies that agents should continuously operate in the principal's best interests, providing that the owners are involved. The agency problem emerges when firm executives aim to enhance and uphold their respective interests to the detriment of shareholders.

### **The Strategy of Retrenchment**

An analysis of 49 construction firms in Malaysia (Jamal & Salisi, 2021) rejects all positive relations between strategy and performance. It also accounts for the advantages of Agency Theory's redundancy for a firm's efficiency. In addition, the outcome accounts for the Agency Theory's benefit of layoffs in achieving more incredible firm performance. In terms of controlled variables, the only ones that significantly impact ROA are firm Size and leverage. This research backs up the Agency Theory. In the study, Barbero et al. (2020) examined the influence of Retrenchment severity on turnaround effectiveness.



## Retrenchment Strategy and Firm Performance

The analysis of Brahmanna et al. (2020), after a study on 319 non-financial companies in Malaysia, declares that Retrenchment Strategy enhances an entity's performance. Firstly, findings show that a Retrenchment approach can help a company improve its performance. Ung et al. (2018) have shown similar results. CEO authority is crucial to a company's success, especially if it is undergoing considerable retrenchment. They also show that the Retrenchment plan will improve business performance regardless of how powerful the CEO is. Moreover, the moderating impact of CEO authority is only applicable to small enterprises' retrenchment.

Moreover, according to the study of Tangpong, Abebe, and Li (2015), the sustainability of retrenchment as an approach relies on its implementation initially in turnaround efforts, providing a contextual perspective to the Retrenchment–turnaround relationship in deteriorating corporations. Using a sample of 96 US corporations, organizations that execute Retrenchment operations early have a greater likelihood of a sustainable turnaround. Early write-downs and local market exits, two particular Retrenchment practices, significantly add to the probability of favourable effects, but early layoffs don't, according to the results. In general, emphasize the relevance of strategically timed interventions in corporate turnarounds. Many researchers have noted that embracing retrenchment enhances firm performance. This is due to the greater effectiveness of cost and asset cutbacks. As a consequence, retrenchment enhances productivity by lowering costs and eliminating assets. The company's performance in the retrenched year is favourable and noteworthy (Lim et al., 2013; Love & Nohria, 2005).

Guthrie and Datta (2008), with the help of primary and secondary data on 122 US manufacturing firms, examined whether the industry arbitrates the influence of retrenchment on the firm's profitability. The results claim that the layoff is proportional to the firm's performance. Furthermore, these negative aspects of strategic implementation are more noticeable in the firms associated with growth and capital. Over the last 20 years, firms have increasingly used employee layoffs to reduce their workforce.

As per Pearce and Robbins (2008), retrenchment and restoration might lead to extended charges that adversely impair turnaround efficiency. Castrogiovanni and Bruton (2000) also revealed no linkage between retrenchment and performance. Judge, Naoumova, and Koutzevol (2003), after an analysis of 45 Russian firms, assert that the degree of aggression a company withholds towards Retrenchment policy builds up a negative relationship between director proportion and firm output. In the 1980s, businesses in America were in the aftermath of a deep recession; downsizing gained momentum irrespective of the employee's performance. It was due to the manager's assumption and aspirations that implementing retrenchment would maintain productivity and performance while reducing expenses. In such situations, retrenchment is seen as a dynamic way to stable the firm performance. A few contradictions also exist and state that the performance is negatively overripe by retrenchment. When income is maximized, then profit is also maximized. Cascio





(2002) asserts that an entity may choose to retrench employees or expenses because revenue is unpredictable. Therefore, retrenchment is boosted by reducing labour costs which means firing employees for profitability. To enhance organizational growth, organizations prefer the dismissal of employers. However, retrenchment decreases uncertainty and operating expenses while improving operations and strengthening efficiency in context to the positive relationship between strategy, firm performance and enhancing efficiency (Baumolet al., 2003; Wayhan & Werner, 2000: Espahbodi et al., 2000).

After an in-depth examination of all relevant literature, it can be inferred that retrenchment often negatively influences firm performance but is likely to depend upon the circumstances in which it is implemented. However, the outcomes of this strategy are subjected to contextual elements.

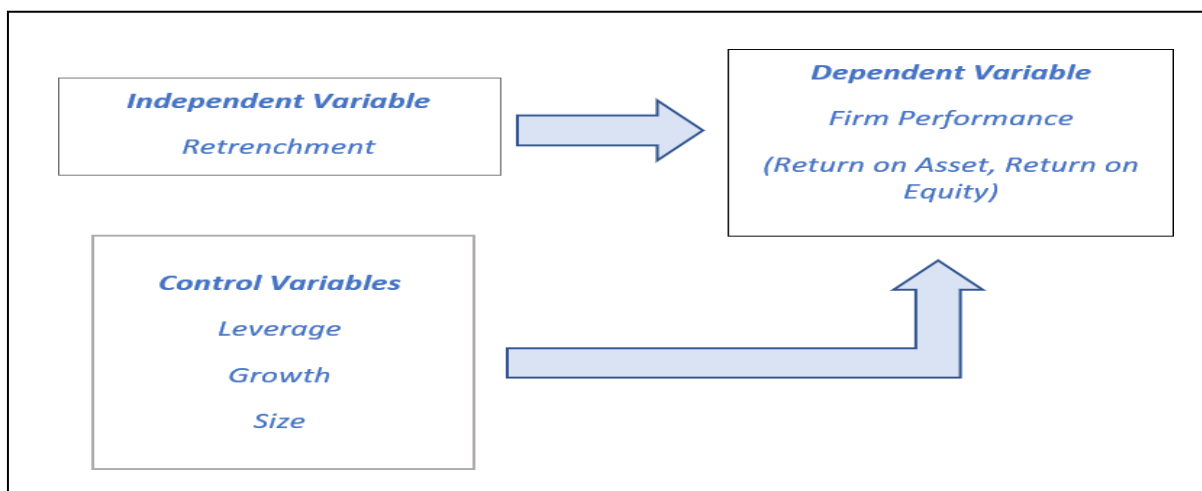
**Research Design**

For the analysis of Retrenchment and performance variables, secondary data is used from Pakistan's listed companies from 2015- 2020, given that the information is authentic. Using the quantitative approach, dependent, independent and control variables went through the testing process as this analyzeh is useful toanalyzee data on a larger scale. Relevant data were obtained from the Pakistan Stock Exchange Portal and companies' official websites. Finally, the results are a quantitative measure of the entity's performance.

**Conceptual Framework**

By incorporating variables, the conceptual framework demonstrates and identifies our goals. It explains how our independent and dependent variables are interrelated. This study includes Retrenchment Strategy used as an independent variable, leverage, growth, and Size, which control

**Figure 2: Conceptual Framework**





the performance and strategy.

### **Population and Sample**

This research is based on listed firms provided by Pakistan Stock Exchange. As of 2020, there are about 540 companies listed, including the parent company's subsidiaries, but they prepare their statements separately. However, we will only consider companies from KSE 100 Index. The financial firms were excluded as they don't have inventory and Property, Plant and Equipment costs, which are essential for measuring our primary variable, retrenchment. Therefore, the total sample size for the study totals 76 companies of the KSE-100 index.

### **Statistical Tools and Application**

Before performing the panel data regression, IBM SPSS Statistics 21 and STATA 14 were used to evaluate the assumptions. The Hausman test was performed using STATA 14.

### **Independent Variable**

Independent variables tend to have a proportional impact on the dependent variable. The independent variable of this study is as follows:

#### **a) Retrenchment Strategy:**

This examination treats retrenchment as an agent which causes depletion of expenses, employees, and assets. The reduction is measured as Assets/Cost of N year -Assets/Cost of N-1 year. A positive and high value explains the effective implementation of strategy. When a company's performance is declining, the two basic Retrenchment options are asset and cost Retrenchment.

Ung et al. (2018) presented the following formulas for Retrenchment Strategy.

$$RET = \Delta Inventory + \Delta Selling, General and Administrative Expenses + \Delta Research and Development Cost + \Delta Plant and Equipment Cost$$

The change in total asset is used to compute asset Retrenchment, while the variability in selling, general, and administrative costs within two years was used to determine cost Retrenchment. Since the majority of the companies in the sample did not have information related to R&D cost, we did not evaluate any additional spending categories. By removing the Research and Development Cost from the equation (Casillas, Moreno-Menéndez, Barbero, & Clinton, 2019), the model will be altered as:

$$RET = \Delta Inventory + \Delta Selling, General and Administrative Expenses + \Delta Plant and Equipment Cost$$





## Control Variables

The following variables are controlled variables.

### a) Firm Size

Denoted by the logarithm of total assets, firm Size plays a significant role in performance as large firm accompanies growth.

### b) Growth Opportunities

Growth and firm performance are negatively related and are calculated by a change in sales. The firm may encounter retrenchment with a growth increment. Moreover, growth is positively related to the firm performance by enhancing investments.

### c) Leverage

When measuring firm performance, the leverage ratio is an important variable.

## Dependent Variables

The variable which encounters a change due to a change in the independent variable is dependent. In the study, the dependent variables are as follows.

**Table No 1: Variable Definition**

Functional Notation	Variables	Measurement	Sources
RETRENCHMENT	Retrenchment Strategy	$\Delta$ Inventory + $\Delta$ Selling, General and Administrative Expense + $\Delta$ Plant and Equipment Cost	(Ung et al., 2018)
SIZE	Firm Size	Logarithm of total assets	(Brahmana et al., 2020)
GROWTH	Growth Opportunity	$\frac{\text{Current Period Sales} - \text{Prior Period Sales}}{\text{Prior Period}}$	(Akhmadi & Robiyanto, 2020)
LEV	Leverage	Ratio of total debt and financial liabilities against shareholders' equity	(Jamal & Salisi, 2021)



ROA	Return on Asset	$\frac{\text{Income}}{\text{Assets}}$	(Guthrie & Datta, 2008)
ROE	Return on Equity	$\frac{\text{Income}}{\text{Equity}}$	(Jamal & Salisi, 2021)

**a) Return on Assets**

It is used to calculate financial and operating performance. It explains how utilizing its assets increase shareholder and economic interest while enhancing firm performance.

**b) Return on Equity:**

Previous literature did not use ROE as a variable due to a lack of knowledge. As of now, one or two research make use of the relationship between entrenchment and ROE. It incorporates the profitability of the firm by making sure that maximization profit.

**Measurement of Vautilized Econometric Equations**

The logarithm of total assets is used to compute Size (SIZE), growth (GROWTH) is the change in sales and leverage (LEV) is the debt-to-equity ratio. For empirical result, following models will be used:

$$Performance = F(RETRENCHMENT, SIZE, GROWTH, OPPORTUNITY, LEV)$$

Which means:

$$ROA = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \epsilon_{it}$$

$$ROE = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \epsilon_{it}$$

**Results**

**Descriptive Statistics**

Figure covers central tendency and variability measurements that are crucial in determining the nature of our variables. The mean of our dependent variable, return on asset is 0.0930 with standard deviation of 0.1012 whereas 0.231 mean and 0.5129 for return on equity. Aside from that, the details of independent and control variables are also displayed, and they differ from one another depending on their nature.



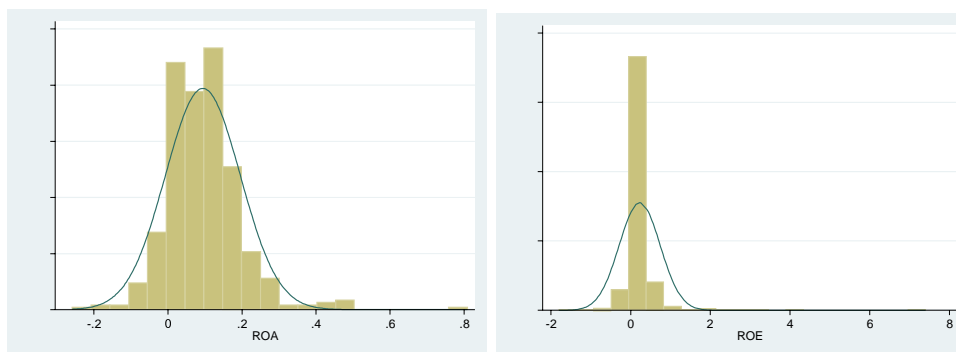
**Table No 2: Descriptive Statistic**

	N	Min	Max	Mean	Std.	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std.	Statistic	Std.
ROA	456	-.2586	.808	.0939	.101	1.366	.114	6.763	.228
ROE	456	-1.800	7.405	.231	.512	7.859	.114	95.39	.228
Retrenchment	456	-2.336	163.074	.865	7.751	20.298	.114	424.3	.228
Size	456	2.922	5.935	4.508	.562	-.037	.114	.259	.228
Growth	456	-1.302	8.503	.110	.564	9.442	.114	124.6	.228
Leverage	456	-80.800	22.790	.504	4.271	-14.851	.114	291.7	.228

Skewness determines the uniformity of the distribution, whereas kurtosis determines the weight of the distribution tails. Skewness values of -3 to + 3 are appropriate, whereas kurtosis values of 10 to + 10 are indeed tolerable (Brown, 2015). The less than 0 skewness value of leverage and Size depicts negatively skewed distribution while ROA, ROE, Retrenchment, and firm growth values illustrate positively skewed distribution. Moreover, the kurtosis value of Size is below zero representing platykurtic shape whereas all other variables are leptokurtic in nature.

**Normality test**

**Figure No 3: Normality test**



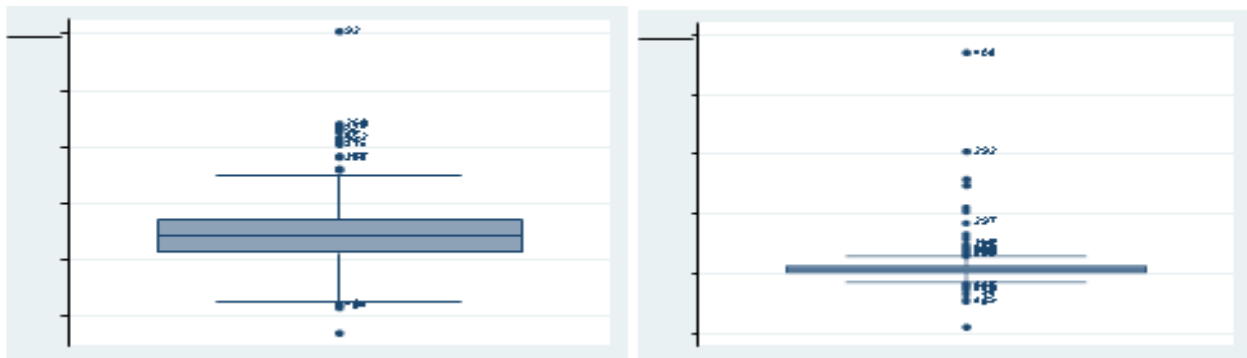
*Table 3: Shapiro Francia Test Befor*

Table No 3: Shapiro Francia Test Before

Shapiro-Francia W' Test for Normal Data					
Variable	Obs	W'	V'	z	Prob>z
ROA	456	0.91672	27.717	7.245	0.00001
ROE	456	0.43045	189.556	11.438	0.00001

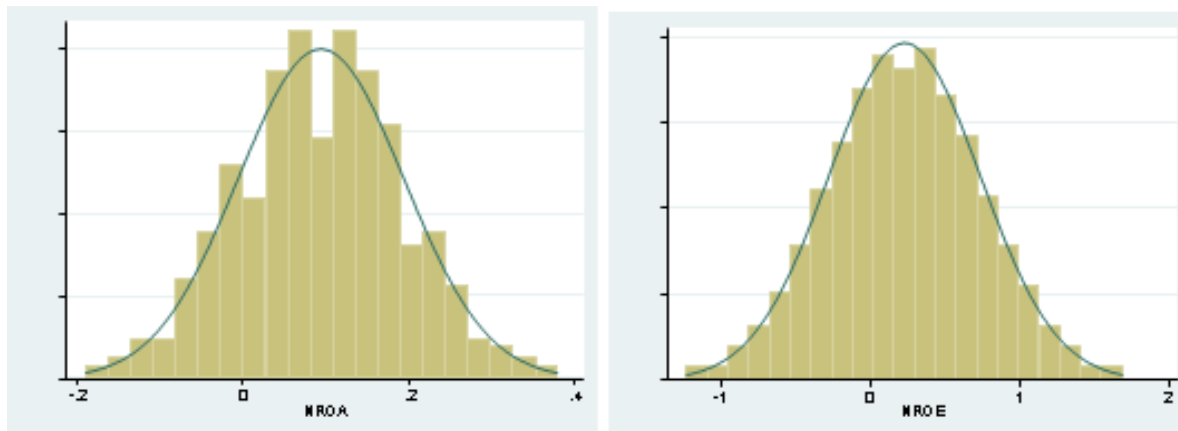
The variables, moreover, also include outliers deviating abnormally from other values as illustrated by the box plots below.

Figure No 4: Box Plot Before



The variables ROA and ROE were fractionally ranked to establish the normality of the dependent normalized, and new normalized variables NROA and NROE were constructed using the `idf.normal` function in SPSS. The below histograms illustrate bell curves depicting that the variables are now normally distributed

Figure No 5: Normality Test





Since the p-value of sfrancia test are more than 0.05, we do not reject H0 and conclude that we have sufficient evidence to say the variables ROA and ROE are normally distributed.

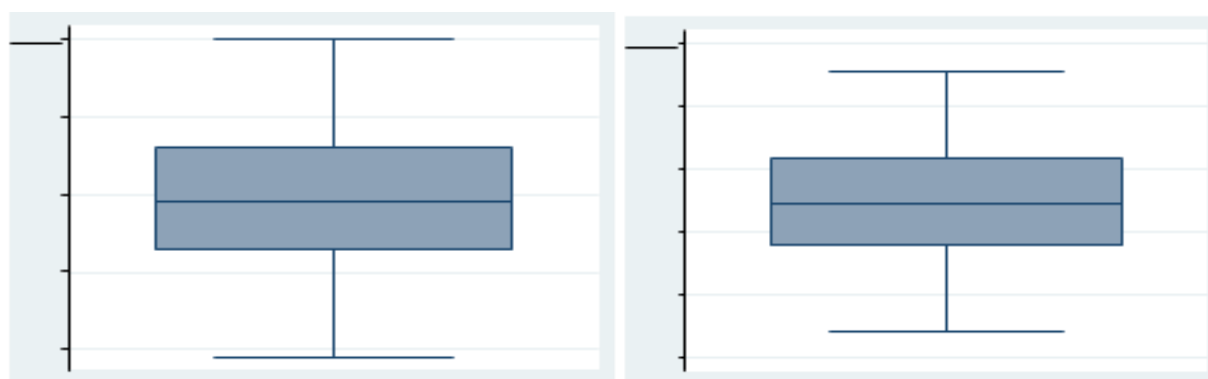
**Table No 5: Shapiro Frania W Test**

Shapiro-Francia W' Test for Normal Data					
Variable	Obs	W'	V'	z	Prob>z
ROA	455	0.99792	0.692	-0.804	0.78921
ROE	455	0.99759	0.800	-0.488	0.68718

*Table 4: Shapiro Francia Test After*

The box plot below displays a standard pattern, with most data centered around the median and within the interquartile range.

**Figure No 6: Box Plot After**



### Correlation Matrix

In a Pearson's correlation, the Pearson correlation coefficient,  $r$ , reveals how far data points are from the fitted line. There is a positive but weak association of our main variable retrenchment with dependent variables NROA and NROE. Moreover, NROA is negatively correlated with leverage and Size whereas NROE shows positive correlation with other variables.



Table No 6: Correlation Matrix

	NROA	NROE	Retrenchment	Leverage	Size	Growth
NROA	1.0000					
NROE	0.6628	1.0000				
Retrenchment	0.0160	0.0489	1.0000			
Leverage	-0.0071	0.0412	0.0233	1.0000		
Size	-0.0957	0.0329	-0.0158	0.0761	1.0000	
Growth	0.1559	0.0698	-0.0010	0.0453	0.0082	1.0000

### Multicollinearity

Collinearity occurs when two variables are a perfect linear mixture of each other. When the predictors have a perfect linear correlation, the regression model estimates cannot be determined separately. The predictor has a value of 1 if it does not correlate with other factors.

Table No 7: Variance Inflation Factor

Variable	VIF	1/VIF
Leverage	1.01	0.991921
Size	1.01	0.994536
Growth	1.00	0.997615
Retrenchment	1.00	0.999109
Mean VIF	1.00	

### Auto-Correlation

$$i. \quad ROA = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \epsilon_{it}$$

Omitted values, systematic measurement mistakes, and misspecification all contribute to autocorrelation. We reject H0 and conclude that there is auto correlation in the data set since the p-value of our Wooldridge test result for NROA is less than 0.05.



**Table No 8: Wooldridge test result for NROA**

<b>Wooldridge Test for Autocorrelation</b>	
F(1,75)	6.062
Prob>F	0.0161

$$ii. ROE = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \sum it$$

We do not reject H0 and conclude that there is no auto correlation in the data set since the p- value of our Wooldridge test result for NROE is greater than 0.05.

**Table No 9: Wooldridge test result for NROE**

<b>Wooldridge Test for Autocorrelation</b>	
F(1,75)	3.293
Prob>F	0.0736

**Heteroskedasticity**

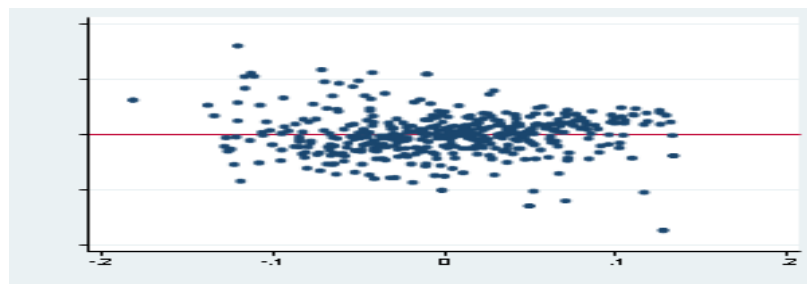
H0: Data is homoscedastic

H1: Data is heteroskedastic

$$ROA = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \sum it$$

The assumption of homoscedastic residuals is one of the fundamental assumptions of linear regression. The residuals in this plot should have no trend and should be uniformly distributed randomly over the graph. The residuals are shown against the fitted values of the dependent variable using the rvfplot script. Since the scatter of this plot is not uniform, and the residuals do not appear to be randomly distributed in the graph below, the model is heteroskedastic.

**Figure No 7: RVF Plot for ROA Model**



Since the significance value of Breusch Pagan test is 0.000 which is less than  $\alpha=0.05$ , as shown below, we reject H0 and conclude that the data is heteroskedastic.





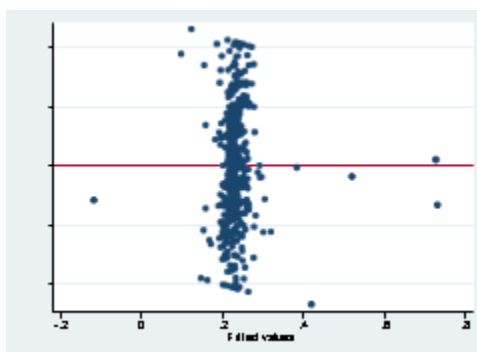
**Table No 10: Breusch Pagan Test**

	<b>Var</b>	<b>Sd = sqrt(var)</b>
NROA	0.00944	0.971594
e	0.0034076	0.583749
u	0.0056876	0.0754163
	chibar2(01) =	397.97
	Prob>chibar2 =	0.0000

$$i. \quad ROE = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \sum it$$

The graph below depicts that the scatter of this plot is not uniform, and the residuals do not appear to be randomly distributed. This ensures that the model is heteroskedastic.

**Figure No 8: RVF Plot for ROE Model**



The test's null hypotheses are rejected. Fitted by fixed effects, the errors show both groupwise heteroskedasticity and contemporaneous correlation since the significance value is less than  $\alpha$  as shown below.

**Table No 10 (a): Modified Wald Test**

<b>Modified Wald Test for Heteroskedasticity Test</b>	
Chi2 (76)	2.6e+05
Prob>chi2	0.0000

As our dependent variables did not meet the autocorrelation and heteroskedasticity assumptions, the vce(robust) command was used with the final regression model, so that the standard errors are robustified incorporating heteroskedasticity and autocorrelation.



**Regression Analysis**

The Hausman test, also referred to as a model misspecification, against the following hypothesis, the test enables us to determine whether to employ a fixed or a random effects model in panel data analysis.

$$ROA = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \sum_{it}$$

**Table 11: Hausman Test for ROA Model and Fixed Effect Regression**

<b>Hausman Test</b>				
<b>NROA</b>	<b>Coef.</b>	<b>Robust Std. Err.</b>	<b>t</b>	<b>P&gt; t </b>
Retrenchment	-0.0000407	0.0000684	-0.60	0.0554
Size	-0.1409972	0.0311905	-4.52	0.000
Growth	0.013973	0.0067277	2.08	0.041
Leverage	-0.0003111	0.0003157	-0.99	0.327
_cons	0.7281901	0.1408163	5.17	0.000
<b>Model Diagnostics</b>				
<b>R-Square</b>	<b>Within</b>	<b>Between</b>	<b>Overall</b>	
	0.1239	0.0055	0.0125	

R-squared is a quantitative calculation that depicts the amount of variance in a dependent variable accounted by an independent variable in a model. All three R-Square values are important since they give some insight into the model, but the within matter is often of primary relevance because fixed effects are known as the within estimator. The model incorporates 12% variation in the dependent variable within the independent and control variable. F-Statistics is the value of Test F, which is a panel data regression simultaneous test. This F value represents the level of significance of the predictor variable's effect on the responder variable. We conclude that the independent and control variables consistently predict the dependent variable NROA since the P-value associated is less than 0.05, which shows a statistically positive and significant relationship between Firm Size and Growth and the dependent variable NROA. The p-value for Leverage and Retrenchment is more significant than 0.05, suggesting a positive but insignificant relationship with NROA.

$$ROE = \beta_0 + \beta_1 RETRENCHMENT_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \sum_{it}$$

The p-value corresponds to 0.2760 which is greater than 0.05, and hence, we do not reject our null hypothesis concluding that random effect is suitable to study the of impact of ROE and other variables.



Table No 12: Hausman Test for ROE Model

Hausman Test	
Chi2 (4)	5.11
Prob>chi2	0.2760

Table No 13: Random Effect Regression

NROE	Coef.	Robust Std. Err.	z	P> z
Retrenchment	0.0020431	0.0006703	3.05	0.002
Size	-0.0398589	0.0765015	-0.52	0.602
Growth	0.0651922	0.0371441	1.76	0.079
Leverage	-0.0029192	0.0030914	-0.94	0.345
_cons	0.4032467	0.346264	1.16	0.244

Model Diagnostics			
R-Square	Within	Between	Overall
	0.0192	0.0019	0.0025

Regardless of the significance, the low R-squared value here indicates that the independent variable is not liable for considerable variance in the dependent variable. Pr,>ChiSq, suggests the likelihood that a particular Wald Chi-Square test statistic is as severe as, or more than, what has been seen under the null hypothesis. Having a p-value of 0.0086, the Wald Chi-Square test statistic is 13.62. We reject the null hypothesis and infer that variables are significant to model fit at a significance level of 0.05. Since the significance values for Leverage, Growth, and Size are all more than 0.05, there is enough evidence to infer a positive but insignificant association between NROE and these variables. The primary variable, retrenchment, has a figure less than 0.05, which means that there is substantial evidence to demonstrate a statistically positive and significant relationship with NROE.

### Discussion

Return on the asset, the first indicator of a company's performance, has an inverse relation with Leverage, Size, and our primary variable, Retrenchment Strategy. With a 0.0004 per cent rise in retrenchment, a unit fall in ROA (firm performance) is observed. The 0.003 per cent rise in leverage and the 14% increase in firm size result in a significant drop in entity performance. Furthermore, Firm Growth is strongly tied to its performance, with a 1.4 per cent rise in growth resulting in a unit increase in our first performance measure, ROA.

The second proxy for company performance, ROE, has an inverse connection with Leverage and Firm Size, with an increase in leverage of 0.29 per cent and a 3.9 per cent rise in Size causing a



unit fall in ROE. Furthermore, our main variables Retrenchment and Firm Growth, have a direct relationship, such that a 0.02 percent rise in retrenchment and a 6.5 percent increase in Firm Growth results in a unit gain in ROE.

Our main variable retrenchment have a significance value of 0.554 with ROA which means that retrenchment has a statistically insignificant relationship with ROA concluding that we do not reject our hypothesis H0A. This insignificant result of ROA with Retrenchment is directly aligned with the results of (Jamal & Salisi, 2021). As for the other control variables, a statistically significant relationship exists of ROA with Firm Size and Growth Opportunities. This statistically significant relation of variables are directly in accordance with Anton (2016), Husna and Satria (2019), Jamal and Salisi (2021). On the other hand, Ung et al. (2018) showed an insignificant relationship of ROA with Leverage, which also supports our results.

Moreover, Retrenchment Strategy has a significance value of 0.002 with ROE which means there exist a significant association in Retrenchment and ROE leading to the rejection of hypothesis H0B. Our results of this variable are in accordance with Umanah et al. (2015). Firm Size, Growth Opportunities and Leverage have insignificant relationship with ROE. Past literature of Khan, Ullah, and Afeef (2021), Jamal and Salisi (2021) and Aduralere Opeyemi (2019) validates our result.

Return on Equity was opted as a symbolic variable for firm's performance. Those incompetent firms and workers are hazardous liabilities in a company which should be eliminated or made obsolete. The rest profitable personnel will increase the company's efficiency and productivity, gaining a competitive advantage.

The quality and efficiency of a firm's company will enhance as a consequence of productive firms and workers, culminating in improved performance. Industrialized, industrialized nations such as the United States (Barbero et al., 2017) Germany (Goesaert et al., 2015), and Korea (Yu & Park, 2006) have also validated this. Numerous research demonstrates a negative association between retrenchment and profitability. Compared to businesses with less retrenchment, those with greater retrenchment do worse (Guthrie & Datta, 2008; Luan et al., 2013; Tsao et al., 2016). To explain the declining performance of Retrenchment implementations, agency theorists look to the CEO's self-interest. CEOs use favouritism, limited knowledge, or ego when deciding which assets to auction or which employees to terminate. Our findings suggest that a Retrenchment plan can help a company improve its performance.

## **Conclusion**

The Retrenchment approach has grown in prominence and is now considered a frequent cost-cutting method in the business sector. The association between firm performance and retrenchment is implemented and tested using 76 companies from the KSE-100 Index sample size. Our findings conform with those of previous researchers, who found the Retrenchment approach that lower assets will boost company desirability and tighten the business's position in most qualitative



research studies. These include Jamal and Salisi (2021), Brahmana et al. (2020), Musyimi and Kariuki (2019), Ung et al. (2018), Barbero et al. (2017), David and David (2016), Goesaert et al. (2015), Tangpong et al. (2015), Lim et al. (2013), Schmitt and Raisch (2013), Guthrie and Datta (2008), Love and Nohria (2005) and Morrow et al. (2004).

### **Theoretical contribution**

For academics and practice managers, comprehending the practices leading to increased performance and organizations forming organizations has significant consequences. According to Pearce and Robbins (1994), retrenchment is the underpinning for revival success. Our study backs up this claim but adds a caveat: regardless of the firm's comparative role, both cost (SGA Expenses, Plant and Equipment Cost) and asset (Inventory) Retrenchment are viable reversal approaches.

### **Practical contributions**

When deciding between cost and asset Retrenchment, managers in both developing and deteriorating sectors should plan about their alternatives. However, additional work on other countries is required to validate certain aspects concerning distinctive features entrenched in other emerging nations to authenticate all of our findings.

The Retrenchment Strategy has not gained much attention in comparison with the strategy of Mergers and Acquisitions. This study treats the Retrenchment act as an emerging trend which will reduce unemployment. It inspects the firm performance by implementing the strategy in developing and underdeveloped firms in Pakistan

### **References**

Aduralere Opeyemi, O. (2019). The impact of Firm Size on Firms Performance in Nigeria: A comparative study of selected firms in the Building Industry in Nigeria. *Asian Development Policy Review*, 7(1), 1-11.

Akhmadi, A., &Robiyanto, R. (2020). The Interaction Between Debt Policy, Dividend Policy, Firm Growth, and Firm Value. *The Journal of Asian Finance, Economics, and Business*, 7(11), 699-705.

Anderson, R. C., &Reeb, D. M. (2003). Founding-family ownership and firm performance: evidence from the S&P 500. *The journal of finance*, 58(3), 1301-1328.

Brahmana, R. K., You, H. W., &Kontesa, M. (2020). Does CEO power matter for the performance of Retrenchment Strategy? *Journal of Strategy and Management*. Print ahead

Brown, T. A. (2015). *Confirmatory factor analysis for applied research*: Guilford publications.

Cascio, W. F. (2002). *Responsible restructuring: Creative and profitable alternatives to layoffs*: Berrett-Koehler Publishers.



- Casillas, J. C., Moreno-Menéndez, A. M., Barbero, J. L., & Clinton, E. (2019). Retrenchment strategies and family involvement: The role of survival risk. *Family Business Review*, 32(1), 58-75.
- Castrogiovanni, G. J., & Bruton, G. D. (2000). Business turnaround processes following acquisitions: Reconsidering the role of retrenchment. *Journal of Business Research*, 48(1), 25-34.
- Chakrabarti, A., Vidal, E., & Mitchell, W. (2011). Business transformation in heterogeneous environments: The impact of market development and firm strength on retrenchment and growth reconfiguration. *Global Strategy Journal*, 1(1-2), 6-26.
- David, F., & David, F. R. (2016). *Strategic management: A competitive advantage approach, concepts and cases*: Pearson–Prentice Hall Florence.
- Denis, D. J., Denis, D. K., & Yost, K. (2002). Global diversification, industrial diversification, and firm value. *The Journal of Finance*, 57(5), 1951-1979.
- Espahbodi, R., John, T. A., & Vasudevan, G. (2000). The effects of downsizing on operating performance. *Review of Quantitative Finance and Accounting*, 15(2), 107-126.
- Geoffrey Love, E., & Nohria, N. (2005). Reducing slack: The performance consequences of downsizing by large industrial firms, 1977–93. *Strategic Management Journal*, 26(12), 1087-1108.
- Goesaert, T., Heinz, M., & Vanormelingen, S. (2015). Downsizing and firm performance:
- Husna, A., & Satria, I. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm Size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50-65.
- Jamal, A. E. A., & Salisi, M. S. (2021). Retrenchment Strategy and Firm Performance: Evidence from Malaysian Construction Companies. *International Journal of Academic Research in Accounting Finance and Management Sciences*, 11(1), 120-138.
- Javed, T., Younas, W., & Imran, M. (2014). Impact of capital structure on firm performance: Evidence from Pakistani firms. *International Journal of Academic Research in Economics and Management Sciences*, 3(5), 28-46.
- Khanna, T., & Palepu, K. (2000). Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups. *The Journal of Finance*, 55(2), 867-891.



Lee, K.-T., Hooy, C.-W., & Hooy, G.-K. (2012). The value impact of international and industrial diversifications on public-listed firms in Malaysia. *Emerging Markets Review*, 13(3), 366-380.

Li, J., & Tang, Y. (2010). CEO hubris and firm risk taking in China: The moderating role of managerial discretion. *Academy of Management Journal*, 53(1), 45-68.

Luan, C.-j., Tien, C., & Chi, Y.-c. (2013). Downsizing to the wrong Size? A study of the impact of downsizing on firm performance during an economic downturn. *The International Journal of Human Resource Management*, 24(7), 1519-1535.

Morrow Jr, J., Johnson, R. A., & Busenitz, L. W. (2004). The effects of cost and asset Retrenchment on firm performance: The overlooked role of a firm's competitive environment. *Journal of Management*, 30(2), 189-208.

Ou, A. Y., Tsui, A. S., Kinicki, A. J., Waldman, D. A., Xiao, Z., & Song, L. J. (2014). Humble chief executive officers' connections to top management team integration and middle managers' responses. *Administrative Science Quarterly*, 59(1), 34-72.

Pearce II, J. A., & Robbins, D. K. (2008). Strategic transformation as the essential last step in the process of business turnaround. *Business Horizons*, 51(2), 121-130.

Pearce, J. A., & Robbins, D. K. (1994). Retrenchment remains the foundation of business turnaround. *Strategic Management Journal*, 15(5), 407-417.

Rico, M., Pandit, N. R., & Puig, F. (2021). SME insolvency, bankruptcy, and survival: an examination of Retrenchment strategies. *Small Business Economics*, 57(1), 111-126.

Schmitt, A., & Raisch, S. (2013). Corporate turnarounds: The duality of retrenchment and recovery. *Journal of Management Studies*, 50(7), 1216-1244.

Smith, M., & Graves, C. (2005). Corporate turnaround and financial distress. *Managerial Auditing Journal*.

Tsao, C.-W., Newman, A., Chen, S.-J., & Wang, M.-J. (2016). HRM Retrenchment practices and firm performance in times of economic downturn: exploring the moderating effects of family involvement in management. *The International Journal of Human Resource Management*, 27(9), 954-973.





Umanah, U. N., Ukommi, A. S., & Agwu, A. O. Implications of Retrenchment in the Banking Industry for Economic Growth: A Study of Selected Commercial Banks in Uyo, Nigeria. *The Nigerian Journal of Sociology and Anthropology*, 15(2), 20.

Ung, L.-J., Brahmana, R., & Puah, C.-H. (2018). Defensive Strategy's Effect on Firm Value: Evidence from Public-Listed Companies in Malaysia. *Journal of Asia-Pacific Business*, 19(2), 114-135.

Wayhan, V. B., & Werner, S. (2000). The impact of workforce reductions on financial performance: A longitudinal perspective. *Journal of Management*, 26(2), 341-363.

Yu, G. C., & Park, J. S. (2006). The effect of downsizing on the financial performance and employee productivity of Korean firms. *International Journal of Manpower*. 27 (3), 230-250.