THE IMPACT OF FINANCIAL AND MACROECONOMIC VARIABLES ON FINANCIAL DISTRESS: EVIDENCE FROM PAKISTANI MARKET

Hafiz Muhammad Muien[*]**, Dr. Sabariah bt. Nordin**[†] **&
Dr. Bazeet Olayemi Badru**[‡]

Abstract

The purpose of this paper *is to check the effect of financial ratios and macroeconomic variable on financial distress. The population of this study is 559 non-financial companies that are listed on the Pakistan stock exchange. The final sample size is 285 non-financial companies for the period of 2013-2017. Financial distress is dependent variable that shows categorical in nature. Therefore, this paper used logistic regression for the analysis. The result shows that profitability (EBITTA) has a negative significant relationship with financial distress, but RETA shows a positive significant relationship with financial distress. The result shows that liquidity ratio (WCTA) has a negative significant relationship with financial distress, but CACL shows a positive and insignificant relationship with financial distress. Additionally, Inflation has a positive significant relationship with financial distress. In the context of Pakistan, previous studies are limited to explore the*

[*] PhD Scholar (PhD in Finance and Banking), Institution affiliation: Department of Finance, School of Economics, Finance and Banking, College of Business, Universiti Utara Malaysia, Email I'd: mmuienhafiz@hotmail.com

[†] Senior Lecturer of Finance, Department of Finance, School of Economics, Finance and Banking, College of Business, Universiti Utara Malaysia, Email I'd: norsabariah@uum.edu.my

[‡] Senior Lecturer of Finance, Department of Finance, School of Economics, Finance and Banking, College of Business, Universiti Utara Malaysia, Email I'd: bazeetolayemi@gmail.com

link between financial and macroeconomic variables on financial distress. This paper also contributes to the literature and fills this gap. This study also indicates that to investigate the association between financial and macroeconomic variables on financial distress in the emerging market. Previous studies are limited to using this model and methodology especially in the context of Pakistan.

Keywords: Financial Ratios, Macroeconomic Variables, Financial Distress

Introduction

The day by day changing of the economic condition can have a high risk of causing a company to experiencing financial distress. This is a type of distress that occur when a company is unable to obtain the necessary financing to operate (Frydman, Altman, & Kao, 1985; Habib, Bhuiyan, & Islam, 2013; Riantani & Nurzamzam, 2015; Uzhegova, 2015).

The prediction models of financial distress are needed to help managers monitor and identify key trends in companies' performance. They can also help predict the future financial distress of a company (Geng, Bose, & Chen, 2015; Handayani, 2020; Zhang, Xie, Lu, & Zhang, 2016). Financial distress occurs when a company is unable to pay its debts or maintain its operational performance. This issue usually comes due to three factors: high expenses, poor performance, and industry decline (Pan, 2012). Due to various factors such as high interest payment on debt, poor operational performance, and low profitability, a company suffers financial distress. This is usually caused by financial leverage (Handayani, 2020; Riantani & Nurzamzam, 2015).

The failure of a company greatly affects its various stakeholder groups (employees, investors, and creditors). In most cases, the loss of money causes a company to go bankrupt, which in turn affects the entire economy. When a large company goes bankrupt, it affects the employee economy and the local economy. The investors and other interested parties are left with huge losses (Malinić, 2013; Rafatnia et al., 2020; Setyawati, 2016).

The companies capable of communicating accurate and sufficient financial health information are discovered early and may not result in a corporate collapse or failure. Institutional investors and fund managers must manage an investment portfolio and distinguish the weaker companies from healthy companies to increase their performance and generate larger returns for their clients (Ahmed, 2009; Susilowati, Suwarti, Puspitasari, & Nurmaliani, 2019; Yap, Munuswamy, & Mohamed, 2012).

The financial statements of the companies can be evaluated and used as a financial performance indicator. The financial statements of the company include information on numerous financial ratios which are an essential tool to evaluate the company's future financial performance. In order to project future trends in stock price analysts, investors and researchers employ

financial ratios. Thus, financial ratios are commonly employed in different financial performance assessments of the organisation (Dutta, Bandopadhyay, & Sengupta, 2012; Listyaningsih & Krishnamurti, 2015; Nisasmara & Musdholifah, 2016). Hence, previous studies are limited to examine the relationship between financial variables and inflation with company financial distress.

Previous research on financial distress and associated theoretical foundations is difficult to find. As a result, the causes of financial distress are determined based on their importance in earlier research. A meta-analysis by Aziz and Dar (2006) pointed out on 98 Predictions of financial distress, who discussed the importance of financial ratios such as profitability, liquidity, leverage, and cash flow ratios in predicting the company financial distress. To predicting bankruptcy, Shumway (2001) incorporated a few market variables, such as volatility, firm size, and standard deviation of previous returns, and discovered that these variables are significant. However, the importance of macroeconomic variables in predicting the company financial distress, previous research in Pakistan, like Ijaz, Hunjra, Hameed, and Maqbool (2013) and Rashid and Abbas (2011) had neglected these variables in predicting financial distress among Pakistani companies.

The current study contributes to the literature, previous research was used financial ratios in predicting financial distress and getting mixed results, and limited studies are used macroeconomic variables to predict financial distress. Therefore, this study used financial ratios with macroeconomic variable and fill this gap, especially in the context of Pakistan. Several studies were used profitability, leverage, liquidity and operating cash flow, studies found different results in term of significant or insignificant impact on financial distress (Afiezan, Wijaya, Priscilia, & Claudia, 2020; Dirman, 2020; Handayani, 2020; Ijaz et al., 2013; Masdupi, Tasman, & Davista, 2018; Rashid & Abbas, 2011; Vinh, 2015; Waqas & Md-Rus, 2018; Yasser & Mamun, 2015). Thus, the objective of the paper is to fills this gap in the literature by using macroeconomic variable along with financial ratios by using the sample size of 285 listed non-financial companies of Pakistan stock exchange from 2013 to 2017. The results are examined by using the larger sample size that includes the data form all sectors of Pakistani Market.

Literature Review

The conflict between the company owner as the principal and the management as the agent is explained by the agency theory. According to Jensen (1976), an agency relationship is a contract between one or more peoples who obligate a second party (the agent) to act on their behalf when the principle has delegated decision-making authority. In the modern economy, ownership and management of companies are increasingly separately. This is consistent with agency theory, which emphasises the

significance of company shareholders (owners) giving company management to experts who are more knowledgeable about managing the company on a day-to-day basis. Separating management from company ownership serves the objective of ensuring that the company owner receives the greatest value at the lowest cost possible through expert management.

Financial risk is usually inherent in the ability of the companies to get some additional spending, when the companies facing financial distress. Moreover, the one of the important causes of the financial distress is the presence of the mismanagement, therefore, doing poor decisions regarding financial while the planning of the effective management might be help in delay failure and decline (Andersen, Bollerslev, Christoffersen, & Diebold, 2013).

The profitability of a company determines its long-term viability. In fact, profitability ratios show how well a company performed throughout the previous fiscal year. Profitable companies are more likely to have a high tax problem and a low risk of insolvency (Fumani & Moghadam, 2015). Furthermore, profitable companies are better able to tolerate debt since they are more likely to be able to pay off their debts on time. This sign can play an important role in the investigating the bankruptcy. These previous research on predicting financial distress has discovered a strong link between profitability and the financial distress (Duan, Sun, & Wang, 2012). Their findings revealed that the severity of financial difficulty had a significant impact on profitability across all prediction horizons. Profitability ratio that assesses a company ability to generate profit (Anderson, Fornell, & Lehmann, 1994; Duan et al., 2012; Etemadi, Rostamy, & Dehkordi, 2009; Olalere, Omar, & Kamil, 2017; Ponsian, Chrispina, Tago, & Mkiibi, 2014). The profitability ratio is used to measure financial performance since it includes the debt ratio, activity ratio, and liquidity ratio (Bharath & Shumway, 2008; Brigham & Houston, 2021).

When a company has a high liquidity ratio, it can pay off its commitments on time and show that its performance is improving. As a result, companies can pay dividends to shareholders during operations (DeAngelo, DeAngelo, & Wruck, 2002; Susilowati et al., 2019). The working capital-to-total-assets ratio is an important factor for determining a company's liquidity. If the company continuously experiences operating losses, current liquidity will shrinkage in relation to total assets. According to the literature, improper working capital procedures cause firm insolvency, notwithstanding hopeful profitability or revenues as a result of such practises. As a result, focusing solely on profitability while ignoring liquidity would be risky (Samiloglu & Akgün, 2016; Setyaningsih & Gunarsih, 2018). Furthermore, it was discovered in Yanuar (2018) and Lin, Liang, and Chen (2011), that liquidity plays a significant role in the prediction of financial distress determinants. Liquidity, on the other hand, is a most important indicators of a company's financial distress.

Additionally, Afiezan et al. (2020) reported that liquid company has sufficient funds to meet all of its obligations. The higher company's liquidity, more internal funds it will have to meet its operating needs. The current ratio is one of the liquidity ratios, and it represents the company's ability to pay off short-term liabilities using its current assets.

Macroeconomic factors influence a company's viability, and the external factors are often beyond a sector's immediate control (Bachmann, Elstner, & Sims, 2013; Inekwe, Jin, & Valenzuela, 2018). Furthermore, the inflation is a macroeconomic variable that cause financial distress. Macroeconomic factors, have an impact on the prediction of company financial distress (Bhattacharjee & Han, 2014; Rafatnia et al., 2020). Variation in inflation may also affect companies because of growing production costs, or it may generate higher pricing, which, in turn, causes weaker demand. In general, macroeconomic conditions offer strong explanatory power for predicting financial distress (Becchetti & Sierra, 2003). In this sense, the current study will use inflation as macroeconomic variable to accurately predict financial distress.

Hypothesis   Development

Profitability and Financial Distress

A high "profitability value" shows that ability of a company to make a profit in a particular amount of time is based on the efficiency and effectiveness with which assets are used. The effective use of the company assets will minimise the company's costs, allowing them to save funds and manage their business more efficiently (Agustini & Wirawati, 2019). The profitability ratio has a significant negative effect on financial distress by (Affiah & Muslih, 2018; Susilowati et al., 2019). According to the findings of these research, the companies get higher, the less likely it is to face financial distress.

H1: The profitability ratios have a negative significant relationship with financial distress.

Liquidity and Financial Distress

A high "liquidity value" suggests that the company can cover its present liabilities and that its management is considered good. When a company is in financial issues, it usually begins to pay off its trade payables slowly and borrows more from the bank, both of which raise current liabilities, lowering the current ratio and signalling a problem (Malinić, 2013). The importance of the situation gets worse because liquidity is the reason. The external stakeholders may have major impact because liquidity issues might lead to bankruptcy, insolvency, liquidation, transfers of assets to another industry, liability reorganisation or acceptance of government assistance and subsidies (Nisasmara & Musdholifah, 2016; Syamsudin, Imronudin, Utomo, & Praswati, 2017). According to Masdupi et al. (2018), the liquidity ratio has a

negative significant impact on financial distress, implying that the more liquid a company is, the more likely it is to meet its obligations. It will reach maturity soon, avoiding the risk of financial distress.

H2: The liquidity ratios have a negative significant relationship with financial distress.

Inflation and Financial Distress

Inflation rate is also affected to the financial distress. The services and goods prices increased will produce purchasing power decreased, therefore, affecting the original costs and income (Setyawati, Suroso, Suryanto, & Nurjannah, 2017). However, the possibility of financial distress increases when the profitability decreases.

Inflation is associated financial distress. predicted inflation indicates that companies may expect rising costs and hence generate revenue more rapidly than cost with a significant influence on profitability. While unexpected inflation shows the adjustment of expenses, leading to higher costs than income of the Company, the outcome is a reduce in profitability. This has been done. Reducing profitability will increase the possibility of financial distress (Riantani & Nurzamzam, 2015; Setyawati, 2016).

H3: inflation rate has a positive significant relationship with financial distress.

This study contributes to all financial statement's users, who will pay greater attention to the future company perspective in a situation of financial problems. It depends on investors, bankers and creditors choices to provide continuous financial assistance to financially challenging companies and reduce further losses in this way.

Method of the Study

The quantitative data is employed in this study. The source of data is secondary data that are collected from the company's financial statements of listed non-financial companies of Pakistan stock exchange for the period of 2013 to 2017. The population of the study is 559 listed non-financial companies. This study excludes the 190 financial companies, and 84 companies also exclude due to the missing or incomplete data, the final sample size used in this paper is 285 companies.

Variables and its Measurements

Dependent Variable

For this study, we used financial distress as dependent variable. In this stud, the financial distress is dummy variable, the 1 is denoted if a company having financially distress, 0 otherwise. It is measure with the definition of recommended by the state bank of Pakistan "a company is in distressed if the value of equity shows negative sign for consecutive three years". Previous studies who's also used this definition by (Mateos-Ronco & Mas, 2011; Waqas & Md-Rus, 2018).

Independent Variables

For this study, we used current ratio, cash flow from operations and inflation rate as independent variables. The current ratio is measured with the current assets over current liabilities, operating cash flow measured with cash flow from operations over total assets and inflation rate is measured with increases good rate of overall prices.

For the analysis, logistic regression is used to examine the operating cash flows, current ratio and inflation rate. To check the multicollinearity threat, descriptive statistics and correlation as well. The data is examined by using the software of Stata version 14.

In this paper, the dependent variable is financial distress that shows a dummy variable. Therefore, logistic regression model is a most appropriate for this study. Previous researcher was used logistic regression (Jovanović, Todorović, & Grbić, 2017). For the study, the general model of logistic regression as follows (Hox, Moerbeek, & Van de Schoot, 2017):

$$Li = \ln\left[\frac{P_i}{1 - P_i}\right] = Zi = \beta1 + \beta2Xi$$

The estimation of the model to evaluate the data from study variables as follows:

$$Ln = \frac{p}{1 - p} = \beta0 + \beta1X1it + \beta2X2it + \ldots\ldots + \beta nXnit$$

Where

$\frac{p}{1 - p}$ = The possibility of a company facing financial distress
$\beta0$ = Constant
βn = Coefficients of regression for independent variables
Xn = Denoted as independent variable
i = Denoted as entity
t = Denoted as period

Hence, model employed as follows to equation 1:

$$Ln = \frac{p}{1-p} = \beta0 + \beta1 EBITTA_{it} + \beta2 RETA_{it} + \beta3 WCTA_{it} + \beta4 CACL_{it} + \beta5 CFTA_{it} + \beta6 INF_{it} + \varepsilon_{it}$$

Where in:

$Ln = \frac{p}{1-p}$ = The possibility of a company facing financial distress

$\beta0$	= Constant
EBITTA	= Earnings before interest and tax over total assets
RETA	= Retained Earning over Total Assets
WCTA	= Working Capital over Total Assets
CR	= Current Asset over Current Liabilities
CFTA	= Cash flows from operating activities over total assets
INF	= Inflation rate
i	= Entity
t	= Period

Results and Discussion

Descriptive Statistics of the Study

Table 1 represented the summary statistics of the variables. Over the five years of time period, the average value of FD is 0.161 which represents the value of mean is not nearer to 1 value. which indicates that the companies are not entered in the bankruptcy category or financial distress. Hence, the higher value of mean of the financial distress is indicating that companies having financial distress (Ramadhan & Marindah, 2021).

The mean value EBITTA is 0.041, indicating that greater profitability will reduces the possibility of the bankruptcy or financial distress. This ratio detects that company's ability to produce EBIT, on the results positively of the company then afford. The value of the standard deviation of 0.275 is higher than the mean value which shows that the spreading pattern of data.

The value of mean of RETA is -0.017, negative sign shows due to the distressed companies in the data. The positive value shows that company is capable to the display the capability to generating the earnings. The value of standard deviation of 0.258 is higher than the value of mean which indicates that the high variation in the data.

The WCTA and CACL are the liquidity ratio, the mean value of working capital over total assets and current assets over current liabilities are -0.114 and 1.472 respectively, negative sign shows due to the distressed companies in the data and the positive sign represents the healthy companies. Which

means that the company will encounter problems in covering liabilities of the short term, it is because companies have no sufficient current assets to cover liabilities, due to the working capital is less than its current assets. The value of standard deviation of 0.76 and 2.215 respectively, is higher than the mean value which shows that the high variation in the data.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FD	1425	0.161	0.368	0.000	1.000
EBITTA	1425	0.041	0.275	-7.504	2.603
RETA	1425	-0.017	0.258	-6.832	3.126
WCTA	1425	-0.114	0.760	-9.289	0.926
CACL	1425	1.472	2.215	0.002	36.733
CFTA	1425	0.063	0.317	-1.992	9.134
INFLATION	1425	5.052	2.025	2.529	7.692

Note: FD is financial distress, EBITTA is earning before interest and tax over total assets, RETA is retained earnings over total assets, WCTA is working capital over total assets, CACL is current assets over current liabilities, CFTA is cash flow from operations over total assets, INFLATION is changes in the rate of inflation of goods and services.

The value of mean of operating cash flow ratio is 0.063, indicating that how enough time is needed for pay off its debt, for the all-cash flow is sharp to repay of its debt. The value of standard deviation of 0.317 is higher than from the average value, which shows higher variation in the data. The value of mean of inflation is 5.052, which indicating that the high inflation will increase the possibility of financial distress.

Table 2: Correlation Matrix

Variabes	Ebitta	Wcta	Reta	Cacl	Cfopeta	Inflation	_cons
Ebitta	1.000						
Wcta	-0.079	1.000					
Reta	-0.952	-0.018	1.000				
Cacl	-0.028	-0.412	0.049	1.000			
Cfta	-0.152	0.118	0.049	-0.004	1.000		
Inflation	-0.067	-0.115	0.054	0.034	0.029	1.000	
Constant	-0.231	0.385	0.231	-0.306	-0.012	-0.838	1.000

Note: FD is financial distress, EBITTA is earning before interest and tax over total assets, RETA is retained earnings over total assets, WCTA is working capital over total assets, CACL is current assets over current liabilities, CFTA is cash flow from

operations over total assets, INFLATION is changes in the rate of inflation of goods and services.

To check the multicollinearity threat, this paper using the correlation and variance inflation factor (VIF) for check the issues in the data. Table 3 shows the all variables values are less than 10, which means in the using data has not severe issues of multicollinearity (Gujarati & Porter, 2009).

Table 3: Variance Inflation Factor

Variables	Vif	1/Vif
Ebitta	4.964	.201
Reta	4.313	.232
Wcta	1.461	.685
Cacl	1.102	.908
Cfta	1.012	.988
Inflation	1.004	.996
Mean Vif	2.309	.

Note: FD is financial distress, EBITTA is earning before interest and tax over total assets, RETA is retained earnings over total assets, WCTA is working capital over total assets, CACL is current assets over current liabilities, CFTA is cash flow from operations over total assets, INFLATION is changes in the rate of inflation of goods and services.

Logistic Regression

In this research, the dependent variable is employed as dichotomous "giving the value 1, if company having financially distress, 0 otherwise", therefore, we employed binary logistic regression for the analysis. The Table 4 shows the logistic regression results summary, to examine the influence of financial ratios and macroeconomic variable on financial distress.

The profitability ratio of EBITTA has a negative significant relationship with financial distress, which means increases the EBITTA ratio will decreases the possibility of financial distress. But the variable of RETA has a positive and significant relationship with financial distress, which means increases the ratio of RETA will increases the possibility of financial distress. The retained earnings to total assets ratios is not good for predicting financial distress in the context of Pakistan.

The liquidity ratio of WCTA has a negative significant relationship with financial distress, which means increases the ratio of WCTA will decrease the possibility of financial distress. while the variable CACL has a positive and insignificant relationship with financial distress, this association is opposite to our expectation, the current assets to current liabilities ratio is not good for predicting financial distress in the context of Pakistan. The finding of this study

is in line with Widhiari and Merkusiwati (2015) reported that the liquidity has a negative significant related to the financial distress, and opposite with the (Dirman, 2020) identified that no effect of liquidity on financial distress.

Table 4: Logistic Regression

Fd	Coef.	St. Err.	T-value	P-value	[95% conf	Interval]	Sig
Ebitta	-6.139	2.171	-2.831	0.005	-10.393	-1.885	***
Reta	6.335	2.251	2.813	0.005	1.923	10.747	***
Wcta	-3.238	0.279	-11.624	0.000	-3.784	-2.692	***
Cacl	0.020	0.064	0.315	0.753	-0.106	0.146	
Cfta	-1.256	0.587	-2.146	0.032	-2.406	-0.106	**
Inflation	0.079	0.045	1.752	0.080	-0.009	0.168	*
Constant	-2.410	0.285	-8.470	0.000	-2.968	-1.852	***
Mean dependent var	0.161		Sd dependent var			0.368	
Pseudo r-squared	0.329		Number of obs.			1425.000	
Chi-square		414.543	Prob > chi2		0.000		
Akaike crit. (aic)		859.129	Bayesian crit. (bic)		895.962		
*** p<0.01, ** p<0.05, * p<0.1							

Note: FD is financial distress, EBITTA is earning before interest and tax over total assets, RETA is retained earnings over total assets, WCTA is working capital over total assets, CACL is current assets over current liabilities, CFTA is cash flow from operations over total assets, INFLATION is changes in the rate of inflation of goods and services. *** p<0.01, ** p<0.05, * p<0.1

Finally, the macroeconomic variable of inflation has a positive significant relationship with financial distress, which means inflation increases than financial distress also increases, whereas inflation decreases than financial distress also decreases. Moreover, inflation rate has a smaller possibility to exposed the company's financial distress (Tinoco & Wilson, 2013). Good macroeconomic conditions affect the possibility of high profits from a company. Under these circumstances, the prices of goods and services are low, and the demand is reached high, in this results business are strong and the financial distress is lower.

Classification of Accuracy of the Model

The classification of accuracy of the model to examine the logit model's ability to categorizes the healthier company as healthy and distressed

company as distress with precision. For the calculation of the rate of accuracy by using following formula:

$$Accuracy\ rate = \frac{compnay's\ correctly\ classified}{total\ number\ of\ company's}$$

Table 5: Classification of Accuracy of the Model

Observed	Predicted		
	Healthy	Distressed	Correct percentage
Healthy	1174	21	98.24
Distressed	130	100	56.52
Overall percentage			89.40

The Table 5 shows the overall accuracy percentage of the model is 89.40%, and for the healthy companies the rate of accuracy is 98.24%, while the distressed companies the rate of accuracy is 56.52%. The model overall accuracy rate is higher than from some previous studies such as 75% by (Shumway, 2001), 82% by (Almamy, 2016), 83% by (Zmijewski, 1984), 85% by (Wang & Wu, 2017) and 85.6% by (Ohlson, 1980).

Discussion

This research contributes to the literature in the context of Pakistan by using the profitability ratios, liquidity ratios and inflation rate relationship with the financial distress. These essential facts can help to the different users like investors, managers, creditors, shareholder, auditor and financial institution in assessing the company's financial performance, the companies are in good position or not. However, this study is important for the shareholder and the investor since it might offer them with a future guidance as to whether or not to continue investing in such companies and to prevent potential huge losses. When the firm is in financial difficulties and fails to bankrupt, the investors and stockholders are the most affected parties given that they have committed a big amount of money. The findings of this study can be used by creditors and financial institutions to assess the company's ability to meet its commitments before granting the credit facilities and loans. They must be assessing the financial performance of the companies since there is evidence that companies are unable to bind their borrowing facilities amid financial difficulties. The research of the prediction of financial distress would be helpful to the management since the results can give an idea of the corrective and prevention planning to avoid the financial troubles of the company. To ensure their continuous existence on the marketplaces, managers can use the outcomes of the finding to determine and uphold the vulnerabilities

of the companies. This study would also be of benefit to an auditor as it will be possible to investigate on the findings of this study in order to assess the status of the going concern of the existing and future companies. This is because the status of going concern is closely tied to financial distress.

From the macro variables, economic growth is the only variables that has an impact on financial distress. This is due to the fact that a growing economy results in a growing the company, as evidenced by rising sales and income, which decreasing the financial distress. Financial distress is unaffected by inflation since it typically affects the goods price and consumer purchasing power, which reducing the sales turnover of a company. Inflation is a propensity for prices to rise steadily and generally across a wide range of goods and services. As a result of rising prices for goods, inflation lowers peoples' purchasing power and welfare levels. The study's results are consistent with (Nurhidayah & Rizqiyah, 2017), which discovered a significant and insignificant link between inflation and financial distress.

Conclusion and Recommendation

The research objective of this paper is to determine the relationship among financial and macroeconomic variables with financial distress. The final sample size of this paper is 285 companies. The data is collected from listed non-financial companies of Pakistan stock exchange for the period of 2013 to 2017. Although financial distress prediction had been reflected by several researchers from different countries, that shows there is the absence of the research that concentrated on the profitability, liquidity, and inflation towards the company financial distress.

The finding of this study indicating that profitability ratios, liquidity ratios and the inflation rate variables are significant relationship with company financial distress, but only one ratio of liquidity of the current ratios is insignificant. The results emphasized on the importance of the earning before interest and tax over total assets is negative and significant in predicting the company's financial distress. Moreover, working capital over total assets is also negative and significant in predicting financial distress. Finally, the inflation is shows a positive significant in the predicting company's financial distress.

The rate of the accuracy of this research is higher than some previous researcher, who used Pakistani company's data like Rashid and Abbas (2011) identify 76.9% is lower than the current study accuracy rate of 89.40% and Ijaz et al. (2013) identify 95% is higher than the current study.

The contributed of the study to the literature in several ways. The effect of financial and macroeconomic variables on the company financial distress. This study found that the impact of inflation on the company financial distress as expected. Previous studies from Pakistani market used ownership structure (Udin, Khan, & Javid, 2017), financial ratios (Waqas & Md-Rus, 2018) board structure (Ud-Din, Khan, Javeed, & Pham, 2020) and family ownership

(Ullah, Khan, Hussain, Alam, & Haroon, 2021). Hence, previous studies reveals that the lack of that relationship, therefore, this study fills this gap through explore the influence of financial and macroeconomic variables on the company financial distress.

The limitation of this study, first this paper used sample period from 2013 to 2017. Second, only two type of profitability and the two type of liquidity ratios and one variable from macroeconomic were used. For the analysis, due to popularity of the model in the literature, this paper applied logistic regression.

For the sack of more good results future studies also can used more financial ratios, macroeconomic variables like exchange rate, political stability, corporate governance related variables for the prediction of financial distress. This paper limit to the listed non-financial companies, future studies can include financial companies to strength the results. This research focus on the Pakistani listed companies only, so further studies can include other countries as well. Additional models like Neural Network Model or Hazard Model can be used in further research to compare the accuracy of the models.

The results of this study have important implications for the Pakistani government as well as investors who should emphasise the value of the liquidity ratio, profitability ratio, and macroeconomic variables when monitoring and assessing the performance of the company, particularly when the company is in the condition of financial distress.

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