Analysis of the specified paint company's financial performance together with the impact on stock liquidity

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Abstract: The study examined the paint manufacturer's stock price-liquidity correlation. Choosing the best model and forecasting paint company stock values are financial decisions. Yahoo Finance and Money Control were examined. Demand and supply set prices in open markets. Equilibrium explains stock markets. The top three NSE India-listed paint companies by market cap were examined. Shorting equities reduces market activity, influencing shareholder sentiment and liquidity. This cubic regression model study measures investor sentiment. According to studies, optimistic investors boost market liquidity. Margin trading dampens investor mood and market liquidity. Cognitive data limits market liquidity. Explosive data enhances liquidity in bull markets, decreases it in bear markets, and has no influence when startled. March 2017–February 2022 data was collected monthly. Liquidity does not affect paint makers' stock prices. The cubic regression equation accurately forecasted paint company stock values. The regression equation predicted that AKZOINDIA would trade for 1,912.40, 1,960.45, 1,918.48, 1,872.30, and 1,821.78 Indian rupees in March, April, May, June and July. ASIAN PAINTS may trade for 3,203.00, 3,614.16, 3,714.51, 3,817.38, and 3,922.81 rupees. BERGER PAINT may trade for 736.80, 788.94, 788.67, 787.18, and 784.41 Indian rupees.

Keywords: liquidity; stock performance; stock market liquidity; investment and expense; microeconomic; global reactions; liquidity traders; financial ratios.

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1   Introduction

When a corporation has cash on hand to cover both investment and expense needs and the ability to quickly exchange significant amounts of securities for a cheap trading cost, this is referred to as having liquidity. In-depth research has been done on the equity markets' cross-sectional and time-series liquidity fluctuations (Brennan and Tamarowski, 2000). A key indicator of liquidity is the underlying stock volatility. Increased underlying stock return volatility entails higher adverse selection risk for liquidity providers due to a higher likelihood of transacting with informed investors and higher inventory risk due to order imbalances. Asset liquidity is decreased due to the increased asset price volatility (Jun et al., 2003). In the past few years, networks that depict the structure of connections inside complicated structures have been the subject of more and more research. Examples of applications include cellular networks, networked social facilities and finance. In banking, there has been a lot of emphasis on estimating the magnitude of interactions among financial variables via intersect-correlations, mostly due to the amount of time-series data available regarding economic entities and the absence of data on direct links among them. Filter strategies have been developed to determine meaningful linkages from noisy correlation matrices (Tripathi and Al-Zubaidi, 2023). These techniques are based on a few statistical or topological hypotheses, producing substantial sparse network architectures.

A microeconomics quantity is an agent's unique assessment of and response to the market. Conversely, macroeconomic quantities include market curves, particularly index ones. As a result, we are also interested in researching how this model moves from studying microeconomic structures to macroeconomic numbers. Generally, the scales and speeds of the microeconomic and global reactions are considerably different. Based on the economic position of national or worldwide events, external information is represented by a random process, which has a greater mathematical interest (Al-Maaitah et al., 2021a). This information influences the agents' decisions. We are in the middle of a dynamic system developing in an unpredictable setting. This affects the shifts and the great variances principles (Tucmeanu et al., 2022).

Systematic volatility is expected to have a different effect on liquidity than idiosyncratic volatility, according to adverse selection models or inventory risk models (Chauhan et al., 2017). In addition, studies have found that the trading volume and liquidity of a stock are affected by the correlation between its price and its return. This is so because there is a large discrepancy between the amount of general market information and firm-specific information, as seen by the market's association with stock returns (Chan et al., 2013). Market participants find it easy to detect market-wide data, but they struggle to notice company-specific data, according to a 2017 study by Millath and Thowseaf (2017) and others (Abu-Rumman, 2021).

Highly liquid stocks are less sensitive to order flow and market makers can rely more on trading activity (Al-Naif and Al Shraah, 2018; Chan et al., 2013). Due to the stronger return connection between the cross-listed asset and domestic assets, knowledgeable traders and liquidity prefer to trade more of it in the exchange (Al Shraah et al., 2013). The market with a higher correlation between the cross-listed asset and other traded assets will have more volume (Chang et al., 2017). Due to lower adverse selection costs, basket markets are better for naïve liquidity traders than markets for individual assets (Mohsan et al., 2022; Chan et al., 2013). When security-specific returns are diversified, systematic returns make the basket of securities more liquid (Bogdan et al., 2012). This study examines if liquidity affects the chosen paint firm's stock price. Selecting the best forecasting model and predicting paint company stock prices is an investment strategy (Al-Maaitah et al., 2021b).

2   Literature review

Despite theoretical and empirical support for the negative association between liquidity and idiosyncratic volatility (Heidarpoor and Rouhi, 2012), the relationship between liquidity and systematic volatility is unknown (Chan et al., 2013). Market-related inventory risk can be hedged because adverse selection is impossible. Systematic risk does not influence liquidity because market makers are not incentivised for delivering it. Market makers cannot eliminate market risk from inventory control because hedging is either expensive or ineffective (Amihud and Mendelson, 1986). Insiders may keep market-moving information concerning the company's adverse selection risk private. Thus, market makers must prevent unfavourable selection in the systematic component (Gupta, 2021a, 2021b).

Ratios are frequently used together to paint a fuller picture of a company's health. Using a specific ratio as a yardstick for more than one organisation, you can figure out which one is the safest or most attractive. Investors can gauge the success of a ratio by comparing the results of using the ratio on past data with the results of using the ratio on the present data (Gupta, 2022). Ratios have several applications for investors. Overall, financial ratios can provide a multi-faceted look at a company, allowing investors to see warning signs early on. In this age of globalisation, industrialised nations' effective economic creations are a barometer of a nation's quality. And we are aware that economics, which impacts all facets of life, is one of the most significant effects of globalisation. The financial position is a major worry for any firm or commercial entity. The balance sheet, operating income, and comments of other financial statements that make up an annual financial performance will reveal the situation of its finances. The financial situation of the items on the balance sheet will be understood after analysis. Financial ratios are one of many methods that may be used to evaluate a company's financial status. Financial ratios must be of a specified magnitude to support the study of financial statements interpretation. Financial ratios will display all facets of finance, including profitability, liquidity and solvency. It will be very helpful to interpret or analyse the strengths and limitations of the firm's operations to understand its income reports. Additionally, generic profitability ratios can be used to evaluate a company's financial success. In this instance, the author emphasises profitability and liquidity ratios (Al Shraah et al., 2022).

The capacity of the business to meet urgent financial obligations is known as liquidity. Since short-term debt is a commitment that must be met right away, this ratio can then be used to gauge the security enjoyed by short-term creditors and determine whether the company's operations would not be adversely affected if these commitments are paid off right away. A business that is in a 'liquid' state and can meet its financial commitments on time, whether long-term or short-term debt, is said to be able to pay its financial obligations on time.

The leverage ratio measures a firm's ability to pay off all its debts with its available assets; the higher the ratio, the more confidently investors will invest. According to the trade-off hypothesis, the more debt a company has, the better it performs in lowering its tax costs. By doing so, the higher the return on investors, a high leverage ratio has a positive effect on the organisation. Additionally, the company benefits from the rise in corporate debt since it no longer needs to pay additional fees for investor oversight (agency expenses). The more debt a corporation has, the more investor supervision that the company is subject to. Investors frequently utilise the profitability ratio to best represent a firm (Alabdullah et al., 2021). Through this ratio, investors may learn how the company can produce returns, including returns on its capital and assets. Return on asset (ROA) gauges a company's capacity to produce operating income from all of its owned assets. ROA demonstrates the capacity of a company's assets to produce profits. Because they can determine how liquid a company is, investors use the liquidity ratio.

The ability of a corporation to pay off its short-term debt depends on how liquid its assets are. Liquidity ratios can either help or hurt a company's ability to raise capital. While some businesses are adept at managing their current assets to enable them to settle their current liabilities, in some circumstances, the more liquid the business, the riskier it is. Company financial performance is a summary of a company's finances throughout a specific period, including features of bankroll as distribution. Profits can be used to gauge business results. According to Bogdan et al. (2012), inefficiency a company is an entity that does business intending to profit by providing its clients with goods and/or services. Most businesses aim to maximise both short- and long-term profitability as part of their operations (Abu-Rumman and Qawasmeh, 2021).

The amount to which current assets can satisfy current liabilities determines how liquid a liability is; the higher the ratio of current assets to current liabilities, the better a company's capacity to meet short-term obligations. The bigger the ratio of total resources to net income, the better the company's ability to create earnings, even though there is a relationship between the competitiveness of total assets and the extent to which total assets can generate profit or loss in the firm's management (Jun et al., 2003). Liquidity and stock liquidity ratio assesses the company's capacity to meet its short-term financial obligations in the short to medium term (less than one year). The company's ability to satisfy its debt commitments is shown by the liquidity ratio, which describes the company's liquidity. According to Brennan and Tamarowski (2000), a corporation is liquid if:

1   It has cash assets that can be used to cover its liquidity needs.

2   The company also possesses other assets that may be sold at any time without affecting its market worth. However, these are less substantial in cash than the grains mentioned earlier.

3   The company can generate fresh cash assets by taking on various types of debt
     (Żywiołek et al., 2022).

The term 'income' is used by the Indonesian Institute of Accountants to translate. The
fundamental ideas of preparing financial statements and presenting income (income) are
increases to the financial period in the form of earnings, extra resources, or decreases in
debts that lead to increases throughout equity that are not the result of asset contributions.
According to Edelman and Baker (1990), profit is the difference between actual revenue
from transactions that took place during the period and the expenses related to those
revenues (Kanaan-Jebna et al., 2022). In contrast, profit, as defined by Edelman and
Baker (1990), is the difference between the real income generated by corporate activities
during a certain period and the expenses incurred to generate that income. The margin is
the difference between earnings realised through operations during the period and the
associated expenses spent during the time, according to the concept of income provided
above. At the same time, the gain in this study refers to profit pre-taxes (Khan et al.,
2023).

There are significant co-variations in stock liquidity, according to studies. The
commonality in liquidity indicates that there are some shared causes of liquidity (Chan
et al., 2013). For instance, program trading that executes several large orders
simultaneously can strain dealer inventory (Edelman and Baker, 1990). Institutional
investors that use similar investing strategies may also engage in linked trading
behaviours, shifting the market's inventory pressure. Market makers must prepare for
unanticipated common demand on inventories when managing a portfolio of equities in
their liquidity provision. As a result, even if it might not be as significant as idiosyncratic
risk, we anticipate systematic risk to negatively impact a stock's liquidity.

3   Objectives

A company's potential to generate a profit is the primary focus of profitability analysis. It
examines corporate productivity from a number of angles, using a variety of scenarios.
Earnings per share use historical financial data to reveal important insights about a
company, such as how much money it brings in and how it is related to other metrics. A
company's liquidity is a reflection of how quickly it can meet its financial commitments.
It is evidence of how well a company's assets can cover expenses.

Investors might use liquidity ratios as a barometer for a firm's efficiency. They also
show how fast and easily a company may make money to pay down debt and invest in
new assets. This demand may arise in the course of ordinary business operations or in the
event of an unexpected circumstance.

The study was carried out to investigate whether the selected paint company's
liquidity is connected with its stock price. Further, to identify the best forecasting model
and predict the stock prices of selected paint companies for an investment decision.

4   Methodology

The researcher applied an analytical design for the study wherein secondary data was
collected from money control and Yahoo Finance websites. The top 3 paint companies

with the highest market capitalisation listed in NSE India were selected and considered for the study. The monthly data was collected between March 2017 to February 2022.

5 Analysis and interpretation

Here, the analysis was made to identify whether there is a significant relationship between profit and performance of the stock price of the selected paint companies (Table 1).

Table 1 Correlation analysis – relationship between liquidity and performance of the stock price

Correlations		
		AKZOINDIA.NS – liquidity
AKZOINDIA.NS – close	Pearson correlation	–0.299
	Sig. (2-tailed)	0.625
		ASIAN PAINTS.NS – liquidity
ASIAN PAINTS.NS – close	Pearson correlation	0.582
	Sig. (2-tailed)	0.303
		BERGEPAINT.NS – liquidity
BERGEPAINT.NS – close	Pearson correlation	–0.812
	Sig. (2-tailed)	0.095

Source: Secondary data

Table 2 Curve estimation – AKZOINDIA (see online version for colours)

Model summary and parameter estimates									
Dependent variable					AKZOINDIA.NS – close				
Equation	Model summary					Parameter estimates			
	R square	F	df1	df2	Sig.	Constant	b1	b2	b3
Linear	0.396	38.740	1	59	0.000	1,725.640	7.358		
Logarithmic	0.215	16.168	1	59	0.000	1,616.595	106.699		
Inverse	0.028	1.702	1	59	0.197	1,972.132	–239.083		
Quadratic	0.412	20.352	2	58	0.000	1,786.825	1.530	0.094	
Cubic	0.640	33.742	3	57	0.000	2,073.262	–51.755	2.225	–0.023
Compound	0.390	37.752	1	59	0.000	1,732.230	1.004		
Power	0.206	15.282	1	59	0.000	1,643.665	0.053		
S	0.024	1.481	1	59	0.229	7.581	–0.113		
Growth	0.390	37.752	1	59	0.000	7.457	0.004		
Exponential	0.390	37.752	1	59	0.000	1,732.230	0.004		
Logistic	0.390	37.752	1	59	0.000	0.001	0.996		

Source: Secondary data

Table 2   Curve estimation – AKZOINDIA (continued) (see online version for colours)

Date	Period	AKZOINDIA.NS – close
01-03-2017	1	1,912.10
01-04-2017	2	1,963.30
01-05-2017	3	1,791.55
01-06-2017	4	1,832.70
01-07-2017	5	1,786.05
01-08-2017	6	1,816.90
01-09-2017	7	1,931.50
01-10-2017	8	1,913.30
01-11-2017	9	1,787.85
01-12-2017	10	1,834.40
01-01-2018	11	1,841.30
01-02-2018	12	1,800.20
01-03-2018	13	1,789.55
01-04-2018	14	1,926.70
01-05-2018	15	1,933.30
01-06-2018	16	1,841.55
01-07-2018	17	1,857.20
01-08-2018	18	1,716.25
01-09-2018	19	1,603.35
01-10-2018	20	1,531.05
01-11-2018	21	1,579.35
01-12-2018	22	1,749.30
01-01-2019	23	1,759.85
01-02-2019	24	1,786.55
01-03-2019	25	1,802.85
01-04-2019	26	1,718.65
01-05-2019	27	1,738.25
01-06-2019	28	1,796.80
01-07-2019	29	1,747.60
01-08-2019	30	1,720.70
01-09-2019	31	1,919.80
01-10-2019	32	2,118.05
01-11-2019	33	1,935.05
01-12-2019	34	1,971.15
01-01-2020	35	2,046.50
01-02-2020	36	2,350.55
01-03-2020	37	2,213.05

Source: Secondary data

Table 2   Curve estimation – AKZOINDIA (continued) (see online version for colours)

Date	Period	AKZOINDIA.NS – close
01-04-2020	38	2,085.85
01-05-2020	39	1,878.90
01-06-2020	40	1,834.20
01-07-2020	41	1,898.95
01-08-2020	42	2,100.10
01-09-2020	43	2,165.20
01-10-2020	44	1,983.35
01-11-2020	45	2,153.00
01-12-2020	46	2,399.50
01-01-2021	47	2,228.00
01-02-2021	48	2,158.10
01-03-2021	49	2,296.05
01-04-2021	50	2,243.15
01-05-2021	51	2,277.60
01-06-2021	52	2,354.60
01-07-2021	53	2,271.75
01-08-2021	54	2,211.45
01-09-2021	55	2,284.35
01-10-2021	56	2,100.90
01-11-2021	57	2,058.70
01-12-2021	58	2,045.45
01-01-2022	59	1,930.80
01-02-2022	60	1,940.75
01-03-2022 (predicted)	61	1,912.40 ($-0.023 \times 61^3 + 2.225 \times 61^2 - 51.755 \times 61 + 2{,}073.3$)
01-04-2022 (predicted)	62	1,960.45 ($-0.023 \times 62^3 + 2.225 \times 62^2 - 51.755 \times 62 + 2{,}073.3$)
01-05-2022 (predicted)	63	1,918.48 ($-0.023 \times 63^3 + 2.225 \times 63^2 - 51.755 \times 63 + 2{,}073.3$)
01-06-2022 (predicted)	64	1,872.30 ($-0.023 \times 64^3 + 2.225 \times 64^2 - 51.755 \times 64 + 2{,}073.3$)
01-07-2022 (predicted)	65	1,821.78 ($-0.023 \times 65^3 + 2.225 \times 65^2 - 51.755 \times 65 + 2{,}073.3$)

Source: Secondary data

The cubic regression function is given as follows:

$$y = a + bx + cx^2 + dx^3 \tag{1}$$

In every instance, the calculated significance level is above 0.05, suggesting that the null hypothesis is correct. Therefore, the stock price performance of the chosen paint companies shows no significant correlation with liquidity.

Herein analysis was carried out to identify the best forecasting model for predicting the stock price of the AKZOINDIA paint company (Table 2).

An nth-degree polynomial in x is used to model the association among x, the independent variable, and the factor dependent on y in a polynomial regression model, a type of regression technique.

Cubic regression is helpful whenever a path passes through the depicted data curves in one direction and then the opposite way. The computed curve can have an abrupt turn inside the spectrum of the standards, making some of the curves useless for dosage estimates. This is one issue with utilising cubic regression to deal with test evaluation.

The highest R-square value is noted for cubic regression model. The estimated R-square value is 0.640, meaning the forecasting accuracy of the cubic regression equation is 64%. The cubic regression equation from its coefficient values is given by;

$$y = -0.023x^3 + 2.225x^2 - 51.755x + 2073.3 \tag{2}$$

Further, applying the regression equation, it was interpreted that during March, April, May, June and July, the AKZOINDIA is likely to trade for 1,912.40, 1,960.45, 1,918.48, 1,872.30 and 1,821.78 Indian rupees. Herein analysis was carried out to identify the best forecasting model for predicting the stock price of the ASIANPAINTS paint company (Figures 1 and 2).

Figure 1   Relationship indicating the accessibility and stock value effectiveness (see online version for colours)
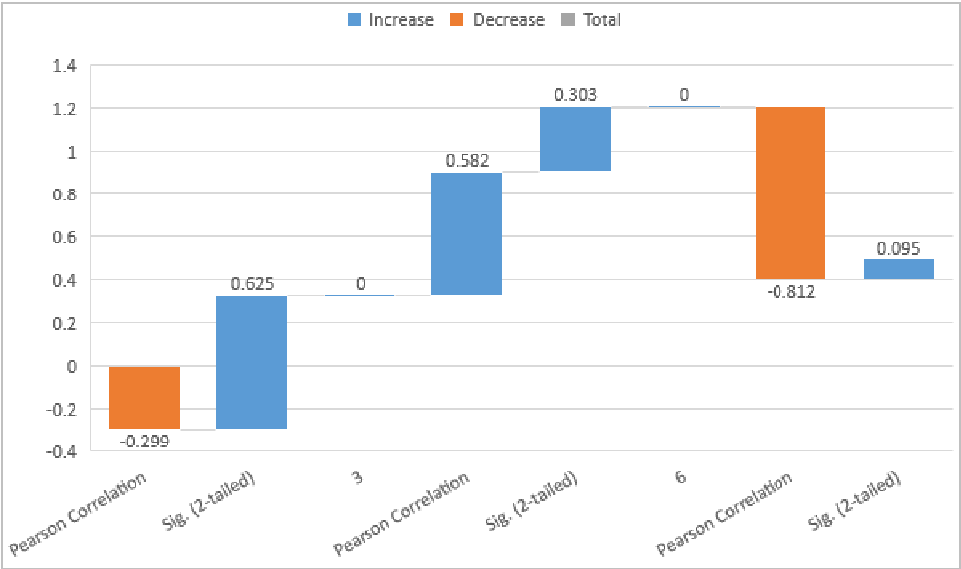
The highest R-square value is noted for cubic regression model (Figure 3). The estimated R-square value is 0.958, meaning the forecasting accuracy of the cubic regression equation is 95.8% (Table 3). The cubic regression equation from its coefficient values is given by:

$$Y = 0.005x^3 + 0.358x^2 - 0.6075x + 1133.166 \tag{3}$$

Further, applying the regression equation was interpreted that during March, April, May, June and July, the ASIANPAINT is likely to trade for 3,203.00, 3,614.16, 3,714.51, 3,817.38 and 3,922.81 Indian rupees.

Figure 2   Predictions of the model's parameters and the asset prices experience of the chosen paint businesses (see online version for colours)
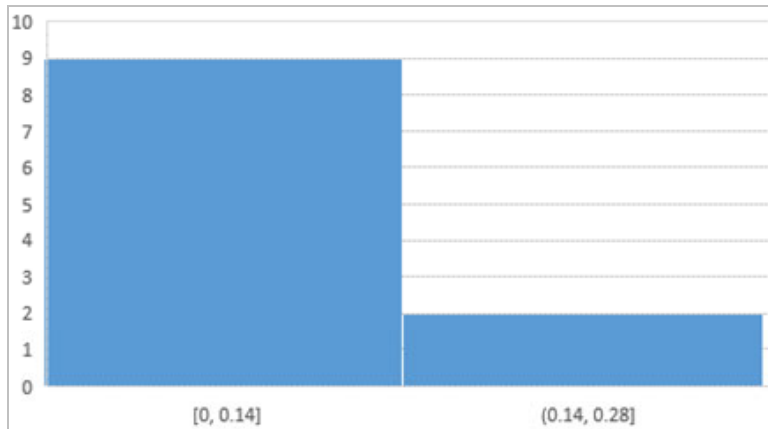
Figure 3   Predictor variables and expected values for specified paint companies' success, with cubic regression's predictive accuracy (see online version for colours)
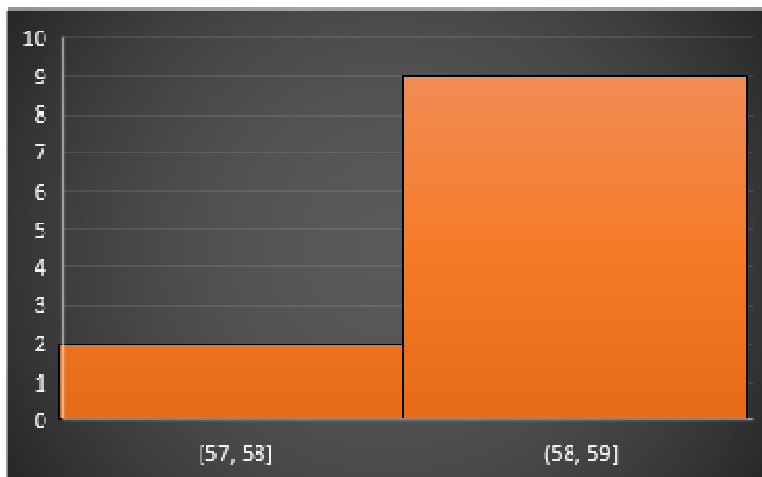
Herein analysis was carried out to identify the best forecasting model for predicting the stock price of the BERGER PAINT paint company (Table 4).

The highest R-square value is noted for cubic regression model. The estimated R-square value is 0.949, meaning the forecasting accuracy of the cubic regression equation is 94.9%. The cubic regression equation from its coefficient values is given by:

$$Y = -0.008x^3 + 0.822x^2 - 13.913x + 304.217 \tag{4}$$

Further, applying the regression equation was interpreted that during March, April, May, June and July, the BERGER PAINT is likely to trade for 736.80, 788.94, 788.67, 787.18 and 784.41 Indian rupees.

Table 3   Curve estimation – ASIAN PAINTS (see online version for colours)

Model summary and parameter estimates									
Dependent variable					ASIAN PAINTS.NS – close				
Equation	*Model summary*					*Parameter estimates*			
	R square	*F*	*df1*	*df2*	*Sig.*	*Constant*	*b1*	*b2*	*b3*
Linear	0.862	369.053	1	59	0.000	670.194	38.050		
Logarithmic	0.547	71.188	1	59	0.000	–35.087	596.526		
Inverse	0.145	9.973	1	59	0.003	1,996.278	–1,903.527		
Quadratic	0.957	651.022	2	58	0.000	1,193.041	–11.745	0.803	
Cubic	0.958	435.137	3	57	0.000	1,133.166	–0.607	0.358	0.005
Compound	0.928	763.431	1	59	0.000	931.665	1.020		
Power	0.647	108.103	1	59	0.000	614.429	0.327		
S	0.192	14.028	1	59	0.000	7.539	–1.105		
Growth	0.928	763.431	1	59	0.000	6.837	0.020		
Exponential	0.928	763.431	1	59	0.000	931.665	0.020		
Logistic	0.928	763.431	1	59	0.000	0.001	0.980		
Date	*Period*				*ASIAN PAINTS.NS – close*				
01-03-2017	1				1,073.50				
01-04-2017	2				1,120.45				
01-05-2017	3				1,151.20				
01-06-2017	4				1,102.95				
01-07-2017	5				1,161.70				
01-08-2017	6				1,168.55				
01-09-2017	7				1,131.70				
01-10-2017	8				1,180.85				
01-11-2017	9				1,146.75				
01-12-2017	10				1,158.50				
01-01-2018	11				1,128.30				
01-02-2018	12				1,117.75				
01-03-2018	13				1,120.40				
01-04-2018	14				1,201.70				
01-05-2018	15				1,304.65				
01-06-2018	16				1,264.45				
01-07-2018	17				1,451.40				
01-08-2018	18				1,372.45				
01-09-2018	19				1,293.30				

Source: Secondary data

Table 3   Curve estimation – ASIAN PAINTS (continued) (see online version for colours)

Date	Period	ASIAN PAINTS.NS – close
01-10-2018	20	1,230.40
01-11-2018	21	1,345.95
01-12-2018	22	1,373.05
01-01-2019	23	1,412.60
01-02-2019	24	1,405.20
01-03-2019	25	1,492.70
01-04-2019	26	1,463.15
01-05-2019	27	1,407.30
01-06-2019	28	1,358.15
01-07-2019	29	1,521.10
01-08-2019	30	1,616.20
01-09-2019	31	1,762.15
01-10-2019	32	1,809.60
01-11-2019	33	1,706.15
01-12-2019	34	1,784.95
01-01-2020	35	1,795.65
01-02-2020	36	1,797.95
01-03-2020	37	1,666.50
01-04-2020	38	1,758.70
01-05-2020	39	1,683.10
01-06-2020	40	1,687.45
01-07-2020	41	1,715.50
01-08-2020	42	1,899.10
01-09-2020	43	1,986.40
01-10-2020	44	2,211.50
01-11-2020	45	2,215.30
01-12-2020	46	2,764.50
01-01-2021	47	2,407.35
01-02-2021	48	2,277.20
01-03-2021	49	2,537.40
01-04-2021	50	2,536.40
01-05-2021	51	2,977.50
01-06-2021	52	2,992.70
01-07-2021	53	2,958.45
01-08-2021	54	3,201.35
01-09-2021	55	3,244.65
01-10-2021	56	3,100.10

Source: Secondary data

Table 3   Curve estimation – ASIAN PAINTS (continued) (see online version for colours)

Date	Period	ASIAN PAINTS.NS – close
01-11-2021	57	3,143.65
01-12-2021	58	3,382.95
01-01-2022	59	3,152.25
01-02-2022	60	3,197.70
01-03-2022	61	$3{,}203.00\ (0.005 \times 61^3 + 0.358 \times 61^2 - 0.6075 \times 61 + 1{,}133.166)$
01-04-2022	62	$3{,}614.16\ (0.005 \times 62^3 + 0.358 \times 62^2 - 0.6075 \times 62 + 1{,}133.166)$
01-05-2022	63	$3{,}714.51\ (0.005 \times 63^3 + 0.358 \times 63^2 - 0.6075 \times 63 + 1{,}133.166)$
01-06-2022	64	$3{,}817.38\ (0.005 \times 64^3 + 0.358 \times 64^2 - 0.6075 \times 64 + 1{,}133.166)$
01-07-2022	65	$3{,}922.81\ (0.005 \times 65^3 + 0.358 \times 65^2 - 0.6075 \times 65 + 1{,}133.166)$

Source: Secondary data

Table 4   Curve estimation – BERGER PAINT (see online version for colours)

	Model summary and parameter estimates								
Dependent variable					BERGEPAINT.NS – close				
Equation	*Model summary*					*Parameter estimates*			
	R square	*F*	*df1*	*df2*	*Sig.*	*Constant*	*b1*	*b2*	*b3*
Linear	0.899	522.848	1	59	0.000	133.779	10.928		
Logarithmic	0.612	93.062	1	59	0.000	–88.405	177.532		
Inverse	0.166	11.783	1	59	0.001	516.772	–574.566		
Quadratic	0.924	351.360	2	58	0.000	209.394	3.726	0.116	
Cubic	0.949	356.237	3	57	0.000	304.217	–13.913	0.822	–0.008
Compound	0.932	809.075	1	59	0.000	206.016	1.024		
Power	0.691	131.892	1	59	0.000	120.539	0.403		
S	0.208	15.481	1	59	0.000	6.170	–1.371		
Growth	0.932	809.075	1	59	0.000	5.328	0.024		
Exponential	0.932	809.075	1	59	0.000	206.016	0.024		
Logistic	0.932	809.075	1	59	0.000	0.005	0.977		

Date	Period	BERGEPAINT.NS – close
01-03-2017	1	242.10
01-04-2017	2	261.25
01-05-2017	3	251.75
01-06-2017	4	246.25
01-07-2017	5	247.80
01-08-2017	6	246.00
01-09-2017	7	245.10
01-10-2017	8	266.05
01-11-2017	9	258.55

Source: Secondary data

Table 4   Curve estimation – BERGER PAINT (continued) (see online version for colours)

Date	Period	BERGEPAINT.NS – close
01-12-2017	10	273.75
01-01-2018	11	250.35
01-02-2018	12	248.70
01-03-2018	13	256.70
01-04-2018	14	286.60
01-05-2018	15	298.20
01-06-2018	16	281.00
01-07-2018	17	315.45
01-08-2018	18	334.70
01-09-2018	19	293.05
01-10-2018	20	279.90
01-11-2018	21	319.80
01-12-2018	22	330.30
01-01-2019	23	318.75
01-02-2019	24	304.95
01-03-2019	25	323.75
01-04-2019	26	318.95
01-05-2019	27	330.30
01-06-2019	28	317.50
01-07-2019	29	330.80
01-08-2019	30	369.15
01-09-2019	31	434.80
01-10-2019	32	526.95
01-11-2019	33	496.55
01-12-2019	34	515.55
01-01-2020	35	560.15
01-02-2020	36	566.55
01-03-2020	37	497.95
01-04-2020	38	508.40
01-05-2020	39	491.75
01-06-2020	40	493.90
01-07-2020	41	526.50
01-08-2020	42	537.70
01-09-2020	43	583.70
01-10-2020	44	623.05
01-11-2020	45	647.75
01-12-2020	46	759.45

Source: Secondary data

Table 4   Curve estimation – BERGER PAINT (continued) (see online version for colours)

Date	Period	BERGEPAINT.NS – close
01-01-2021	47	706.85
01-02-2021	48	679.85
01-03-2021	49	765.00
01-04-2021	50	704.00
01-05-2021	51	805.55
01-06-2021	52	805.10
01-07-2021	53	843.55
01-08-2021	54	820.80
01-09-2021	55	809.00
01-10-2021	56	741.50
01-11-2021	57	751.75
01-12-2021	58	771.75
01-01-2022	59	722.40
01-02-2022	60	742.65
01-03-2022	61	$736.80 \ (-0.008 \times 61^3 + 0.822 \times 61^2 - 13.913 \times 61 + 304.217)$
01-04-2022	62	$788.94 \ (-0.008 \times 62^3 + 0.822 \times 62^2 - 13.913 \times 62 + 304.217)$
01-05-2022	63	$788.67 \ (-0.008 \times 63^3 + 0.822 \times 63^2 - 13.913 \times 63 + 304.217)$
01-06-2022	64	$787.18 \ (-0.008 \times 64^3 + 0.822 \times 64^2 - 13.913 \times 64 + 304.217)$
01-07-2022	65	$784.41 \ (-0.008 \times 65^3 + 0.822 \times 65^2 - 13.913 \times 65 + 304.217)$

Source: Secondary data

6   Findings and discussion

Numerous financial measures for both companies were analysed during the inquiry, including capital expenditure, liquidity ratios, leverage ratios, cash flow and quick ratios. According to the results of our inquiry, both businesses made serious attempts to improve their financial situation and were, in a sense, successful in doing so. It would be unfair if we did not honour firms for their exceptional performance in difficult macroeconomic conditions. Any investor will assume that a better option will be available among those presented. He may select a corporation if it performs better in the vast majority of the crucial individual factors. What happens if a company fully complies with all the requirements? Businesses did the same. Even if several of its most current indicators, such as interest coverage ratio, operating margin, net income, and ROA, showed a drop from prior years' performance, it still outperformed its rivals. We concluded that the subprime crisis, the economic downturn, inflationary pressures, real estate bubbles, and a sluggish building industry were some of the elements causing the bad performance.

Earnings are the amount of money at which the owners of a business get their investments back. However, from the standpoint of a corporation, a reward is the cost related to the capital raised from shareholders. While equity owners receive dividends that are based on the company's success, preferred stockholders receive payments at a fixed rate. An important financial management decision that necessitates balancing the

company's and its shareholders' interests are the selection of a payout. Management must consider two important factors when choosing the right pay-out ratio. The first step is picking a proper pay-out ratio. We offer a comprehensive architecture framework that assembles statistical methodologies for application in various autonomous financial markets and general investing, liquidity service and cost forecasting. We anticipate deploying an ecosystem of such methods to support investing choices on a system holding the approaches. This ecosystem will help raise the worth and rewards of ventures by supplying liquid to autonomous digital currencies. Each network agent will run as a regression for the other agents, smart agreements, and end-user business applications. Retention is essential since it may be used to finance the company's development goals and serves as a safety net against unforeseen events. In addition, paying dividends is essential for keeping investors' faith in the company. Finding the ideal balance between the dividend and the retention cap is crucial.

The second factor is figuring out if the investment choice impacts the company's market value. The company's market value is significantly influenced by the market capitalisation of the business, which is determined by the prices at which its stocks are traded. Many ideas addressing the impact of the announcement date on the firm's value through investigating such an impact on share prices have been advanced in earlier literature. The current study aims to understand how annual dividend announcements impact a company's stock price. It also goes above and above to determine whether the incentive announcement impacts shareholder wealth in the market.

7 Conclusions

Market liquidity, which favours the stock market, is a market's capacity to enable an asset to be sold swiftly without a price reduction. The stock market improves business performance and managers' pay-for-performance effectiveness. According to the market-to-book ratio, companies with liquid stocks do better. Banking economics has paid a lot of attention to the connection underlying liquidity and profitability from several angles. The impact of liquidity on performance and the relationship between liquidity and company performance are considered in this study. The study does not evaluate the relationship between liquidity and firm performance, nor is there any proof that block holder investors can demonstrate competence performance through increased liquidity. Both equities with high and low amounts of outside bloc holdings and stocks with both high and low firm holdings exhibit the same performance. Evaluation in the event that concedes ownership reduces the liquidity of the company's shares or stocks in the market. This study aims to understand the fundamentals of the financial markets and how market liquidity affects firm performance. The analysis found that there is no significant relationship between liquidity and the performance of the stock price of the selected paint companies. Also, the cubic regression equation was the best regression model to forecast the selected paint companies' stock prices. Applying the regression equation, it was interpreted that during March, April, May, June and July, the AKZOINDIA is likely to be traded for 1,912.40, 1,960.45, 1,918.48, 1,872.30 and 1,821.78 Indian rupees. At the same time, ASIANPAINT will likely trade for 3,203.00, 3,614.16, 3,714.51, 3,817.38 and 3,922.81 Indian rupees. Similarly, BERGEPAINT will likely be traded for 736.80, 788.94, 788.67, 787.18 and 784.41 Indian rupees.

References

Abu-Rumman, A. (2021) 'Effective knowledge sharing: a guide to the key enablers and inhibitors', in Tessier, D. (Eds.): *Handbook of Research on Organizational Culture Strategies for Effective Knowledge Management and Performance*, pp.133–156, IGI Global, USA [online] https://doi.org/10.4018/978-1-7998-7422-5.ch008.

Abu-Rumman, A. and Qawasmeh, R. (2021) 'Assessing international students' satisfaction of a Jordanian university using the service quality model', *Journal of Applied Research in Higher Education*, in press [online] https://doi.org/10.1108/JARHE-05-2021-0166.

Al Shraah, A., Abu-Rumman, A., Alqhaiwi, L.A. and AlSha'ar, H. (2022) 'The impact of sourcing strategies and logistics capabilities on organizational performance during the COVID-19 pandemic: evidence from Jordanian pharmaceutical industries', *Uncertain Supply Chain Management*, Vol. 10, No. 3, pp.1077–1090 [online] https://doi:10.5267/j.uscm.2022.2.004.

Al Shraah, A., Irtaimeh, H.J. and Rumman, M.A. (2013) 'The strategic human resource management practices in implying total quality management (TQM): an empirical study on Jordanian banking sector', *International Journal of Management*, Vol. 4, No. 5, pp.179–190.

Alabdullah, T.T.Y., Al-Fakhri, I., Ahmed, E.R. and Kanaan-Jebna, A. (2021) 'Corporate governance system and firm financial performance', *Acta Scientific Computer Sciences*, Vol. 4, No. 6, pp.97–103.

Al-Maaitah, D.A., Tha'er Majali, M.A. and Almaaitah, T.A. (2021a) 'The role of leadership styles on staffs job satisfaction in public organizations', *Journal of Contemporary Issues in Business and Government*, Vol. 27, No. 1, pp.772–783.

Al-Maaitah, T.A., Tha'er Majali, M.A. and Almaaitah, D.A. (2021b) 'The impact of COVID-19 on the electronic commerce users behavior', *Journal of Contemporary Issues in Business and Government*, Vol. 27, No. 1, pp.784–793.

Al-Naif, K.L. and Al Shraah, A.E.M. (Eds.) (2018) 'Working capital management and profitability: evidence from Jordanian mining and extraction industry sector', *IUG Journal of Economics and Business*, Vol. 2, No. 1, pp.42–60.

Amihud, Y. and Mendelson, H. (1986) 'Liquidity and stock returns', *Financial Analysts Journal*, Vol. 42, No. 3, pp.43–48.

Bogdan, S., Bareša, S. and Ivanović, S. (2012) 'Measuring liquidity on stock market: impact on liquidity ratio', *Tourism and Hospitality Management*, Vol. 18, No. 2, pp.183–193.

Brennan, M.J. and Tamarowski, C. (2000) 'Investor relations, liquidity, and stock prices', *Journal of Applied Corporate Finance*, Vol. 12, No. 4, pp.26–37.

Chan, K., Hameed, A. and Kang, W. (2013) 'Stock price synchronicity and liquidity', *Journal of Financial Markets*, Vol. 16, No. 3, pp.414–438, DOI: 10.1016/j.finmar.2012.09.007.

Chang, X., Chen, Y. and Zolotoy, L. (2017) 'Stock liquidity and stock price crash risk', *Journal of Financial and Quantitative Analysis*, Vol. 52, No. 4, pp.1605–1637.

Chauhan, Y., Kumar, S. and Pathak, R. (2017) 'Stock liquidity and stock prices crash-risk: evidence from India', *The North American Journal of Economics and Finance*, Vol. 41, No. 7, pp.70–81.

Edelman, R.B. and Baker, H.K. (1990) 'Liquidity and stock exchange listing', *Financial Review*, Vol. 25, No. 2, pp.231–249.

Gupta, R.K. (2021a) 'A study on occupational health hazards among construction workers in India', *International Journal of Enterprise Network Management*, Vol. 12, No. 4, p.325, DOI: 10.1504/ijenm.2021.119663.

Gupta, R.K. (2021b) 'Adoption of mobile wallet services: an empirical analysis', *International Journal of Intellectual Property Management*, Vol. 12, No. 3, pp.341–353, DOI: 10.1504/ijipm.2021.10035526.

Gupta, R.K. (2022) 'Utilization of digital network learning and healthcare for verbal assessment and counselling during post COVID-19 period', in *Technologies, Artificial Intelligence and the Future of Learning Post-COVID-19*, pp.117–134, Springer Nature, Switzerland.

Heidarpoor, F. and Rouhi, A. (2012) 'Relationship between stock liquidity and stock price changes rate', *African Journal of Business Management*, Vol. 6, No. 37, pp.10178–10184.

Jun, S.G., Marathe, A. and Shawky, H.A. (2003) 'Liquidity and stock returns in emerging equity markets', *Emerging Markets Review*, Vol. 4, No. 1, pp.1–24.

Kanaan-Jebna, A., Baharudi, A.S. and Alabdullah, T.T.Y. (2022) 'Entrepreneurial orientation, market orientation, managerial accounting and manufacturing SMEs satisfaction', *Journal of Accounting Science*, Vol. 6, No. 1, pp.1–14.

Khan, M.A., Kumar, N., Mohsan, S.A.H., Khan, W.U., Nasralla, M.M., Alsharif, M.H. and Ullah, I. (2023) 'Swarm of UAVs for network management in 6G: a technical review', *IEEE Transactions on Network and Service Management*, Vol. 20, No. 1, pp.741–761, DOI: 10.1109/tnsm.2022.3213370.

Millath, M.A. and Thowseaf, S. (2017) 'An investigative study on stock performance of selected companies in food and beverage sector listed under BSE', *ZENITH International Journal of Business Economics & Management Research*, Vol. 7, No. 4, pp.59–70.

Mohsan, S.A.H., Othman, N.Q.H., Khan, M.A., Amjad, H. and Żywiołek, J. (2022) 'A comprehensive review of micro UAV charging techniques', *Micromachines*, Vol. 13, No. 6, p.977, DOI: 10.3390/mi13060977.

Tripathi, S. and Al-Zubaidi, A. (2023) 'A study within Salalah's higher education institutions on online learning motivation and engagement challenges during Covid-19', *FMDB Transactions on Sustainable Techno Learning*, Vol. 1, No. 1, pp.1–10.

Tucmeanu, E.R., Tucmeanu, A.I., Iliescu, M.G., Żywiołek, J. and Yousaf, Z. (2022) 'Successful management of IT projects in healthcare institutions after COVID-19: role of digital orientation and innovation adaption', *Healthcare (Basel, Switzerland)*, Vol. 10, No. 10, p.2005, DOI: 10.3390/healthcare10102005.

Żywiołek, J., Tucmeanu, E.R., Tucmeanu, A.I., Isac, N. and Yousaf, Z. (2022) 'Nexus of transformational leadership, employee adaptiveness, knowledge sharing, and employee creativity', *Sustainability*, Vol. 14, No. 18, p.11607, DOI: 10.3390/su141811607.