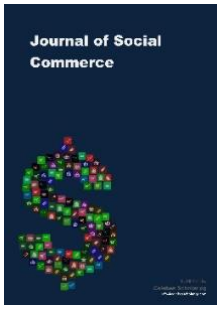

ISSN 2809-929X (Print)
ISSN 2809-9303(Online)

Journal of Social Commerce

Vol. 4 No. 1, 2024 (Page:18-28)
DOI: https://doi.org/10.56209/jommerce.v4i1.65

An Analytical Study of Liquidity Performance of Selected Pharmaceutical Companies in India

Sanjana Atulbhai Joshi[1]

[1]Independent Research Student, India

Article History

Keywords

Current Ratio,
Quick Ratio,
Cash Earning Retention Ratio,
Dividend Payout Ratio

Abstract

This article is an analytical study on liquidity performance of selected Indian pharmaceutical companies. The main objective of this study is to analyze the liquidity ratio and compare the liquidity performance of selected samples during the study period of 2017-18 to 2021-2022. All samples have been selected by a non-probability sampling method. This study is mainly based on secondary data and these data are collected by authentic website money control and company annual reports, furthermore hypothesis testing is done by one-way analysis of variance. The findings of this study are that all companies maintain well CR. That means all companies effectively manage their current assets against current liabilities, but Sun Pharma company has not enough quick assets to manage their short-term requirements while other companies maintain enough quick assets against short term requirements. Sun Pharma does not have enough cash retained earnings because it provides the highest dividend. That is why its dividend payout ratio is very high, while Reddy's, Devi's, and Cipla maintain a good retained earning ratio. That is why they don't provide more dividends. According to the dividend point of view, Sun Pharma is well established and the leader of its industries.

Introduction

Indian pharmaceutical industries are involved in the development, production, and distribution of chemicals used as medicine, generic drugs, make branded drugs, or medical devices. India meets the demand of 50% of vaccines for different diseases in the world. 40% of the demand for generic drugs in the US and 25% of the total drug supply in the UK comes from drugs manufactured in India. Apart from this, 80% of the antiretroviral drugs used worldwide for dangerous diseases like AIDS are supplied by Indian pharmaceutical companies. According to a report by the India Brand Equity Foundation, the total value of the Indian pharma industry in the year 2017 was around US$33 billion. In the year 2017, the domestic business of the Indian pharmaceutical industry was US$18.87 billion. In the year 2018, the domestic business of the Indian pharmaceutical industry registered growth of 9.4%. According to the Economic Survey of India 2021, the domestic market is expected to grow 3 times in the next decade. The aim of

[1]Corresponding Author: Sanjana Atulbhai Joshi, Email: joshisanjana099@gmail.com

India's domestic pharmaceutical market is expected to reach 65 billion US dollars by 2024 and 120-130 billion US dollars by 2030.

Review of literature

Panigrahi (2017) conducted analysis of selected pharmaceutical companies. The main emphasis of this study was to analyze the liquidity position of the selected pharmaceutical companies by use of liquidity ratio. The findings of this study are that Ajanta pharma performed well compared to others, but other companies were over-burdened with current liabilities, which was not good for any situation. Thus, other selected pharmaceutical companies need to improve their liquidity position and ideal Current and Quick ratio.

Yameen et al. (2019) conducted study to investigate the impact of liquidity on the profitability of pharmaceutical companies listed on Bombay Stock Exchange. The findings of this study were all companies maintain well current assets against current liabilities as well as also good maintain quick assets against short- term requirements, while the control variables leverage, firm's size and age have a negative impact on the profitability of pharmaceutical companies. Panigrahi et al. (2017) conducted study to analyse liquidity performance, liquidity management and comparative analysis of selected pharmaceutical samples. The finding of this study was the companies have significant differences in their liquidity performance and all companies maintain their liquidity to improve their profits.

Saini & Bansal (2020) conducted study on liquidity analysis of selected pharmaceutical companies. The main aim of this study was to check the consistency and stability of selected sample unis. The result of this study was Sun pharma, Piramal, Glaxo smith, Sanofi, shipla medicine, FPC, Pfizer, Abbott India, Glen and Unichem labs maintain high average current ratio from the stranded rule 2:1. It indicates the liquidity level of all selected companies was very strong. But the performances of Lupin, cadila, Aurobindo, Jubilant were not good during the study period. The average Quick ratio of all selected companies was more or equal to the standard rule 1:1. Ravindra et al. (2020) examine the profitability and liquidity performance of selected pharmaceutical firms. The main objective of this study was to examine the performance of leading pharmaceutical companies and make a comparative analysis and give appropriate ranking on basis of its liquidity or profitability performance. The result of this study was all pharmaceutical companies held more or less liquidity position equally but in an all-aspects performance of Devi's is good compared to other companies.

Dattani this study was conducted in India and it was mainly focuses on examine liquidity performance of Sun Pharma, Dr. Reddy's and Cipla. The result of this study was Reddy's maintain a good quick asset when Chipa maintain high current assets as well as there is a significant difference between quick ratio and current ratio.

Methods

The company that manufactures, develops, produces, and distributes chemicals used as medicine, generic drugs, make branded drugs or medical devices is part of the population. For the purpose of study, samples are selected by simple random sampling techniques. The top pharmaceutical companies are selected on the basis of market cap.

Sun pharma Industry Ltd, was founded in 1983. It is the largest Indian multinational pharmaceutical company. It is present across all major markets in Australia, New Zealand, China, Japan, Canada and Western Europe. Dr Reddy's Laboratory was founded 1984. It is a multinational pharmaceutical company based in Hyderabad. Dr.Raddy's manufacture generic drugs, over the counter drugs, vaccines, diagnostics and biologics. Divi's Laboratories Limited

(Divi's Lab) is an Indian multinational pharmaceutical company and a manufacturer of Active Pharmaceutical Ingredients (APIs) and Intermediates. It was established in the year 1990. Divi's Laboratories is the fourth largest publicly listed pharmaceutical company in India by market capitalization. Cipla was established in the form of the Chemical, Industrial and Pharmaceutical Laboratories in Mumbai in 1935, by Khwaja Abdul Hameed. On July 20, 1984 the company's name was changed to Cipla Ltd. (CIPLA LTD). Cipla mainly develops medicines for treatment of respiratory, heart disease, arthritis, diabetes etc. The study has been carried out from the time period of 2017-18 to 2021-22.

This study is mainly based on secondary data and these data are collected from companies' annual reports and authentic websites of Money control. For the purpose of analyzing data and fulfillment of objectives, major two tools are used. First is liquidity ratios and second is ANOVA one way factor. ANOVA is a test used to detect differences between continuous variables when there are more than two groups, so using an ANOVA to compare four groups of students on numerical ability based on one test would be ideal. The significance of an ANOVA test is determined by calculating the F-statistic, which is the ratio of the variance between the means of the groups compared to the variance within the groups. A greater F-statistic indicates a significant difference in means between groups and a less F-statistic indicates that the means are not significantly different.

Results and Discussion

Liquidity refers to the ability of the business to pay its short-term liabilities when they become due. So, Liquidity Ratio is used to measure the ability of the company to pay short-term liabilities. In this study Current ratio, Quick ratio, Cash earning retention ratio and dividend payout ratio have been selected to analyze the selected pharmaceutical companies.

Current Ratio (CR)

Table 1. Current Ratio

Year	Sunpharma	Reddy's	Divi's	Cipla
2017-18	0.76	1.91	7.11	2.91
2018-19	0.84	2.90	5.58	4.00
2019-20	1.07	2.42	5.16	3.45
2020-21	1.45	2.40	5.63	3.79
2021-22	0.96	2.33	7.10	4.41
Mean	1.016	2.372	6.116	3.712
Maxi	1.45	2.99	7.11	4 41
Mini	0.74	1.91	5.16	2.91

Source: https://www.moneycontrol.co/financial

Above table shows the Current Ratio of selected pharmaceutical companies in India. CR is a ratio of current assets into current liabilities. In 2019- 21 the CR of Sun Pharma is up to 1%. It is a good sign, but the ratio between the first two years and last year's is below 1%. It is not good, but the average mean is 1.016%. It shows stable performance. During the study period, Reddy's maintain <3% CR it's perfect CR and also average mean is 2.372%. That means Reddy's assets are very valuable against its liabilities. In the case of Devi's the highest CR is 7.11%, lowest CR is 5.16% and average mean is 6.116%. It's a very high trend during the study period. The CR of Cipla is highest 4.41% and the lowest is 2.91% and in other years it's up to 3%, but the average mean is 3.712%. It shows Cipla has been maintaining strong current assets against current liabilities.

The examination of the current ratio (CR) in the context of the selected pharmaceutical companies offers a comprehensive understanding of their liquidity and ability to meet short-term obligations. This ratio, calculated by dividing current assets by current liabilities, reflects the company's capacity to cover its immediate financial obligations. The fluctuations observed in Sun Pharma's CR over the study period could be attributed to various factors impacting its current asset and liability composition. These fluctuations align with the findings of Ashok Panigrahi (2017), who emphasized the importance of monitoring CR trends to gauge a company's liquidity management effectiveness. The CR trend also resonates with the observations of Yameen et al. (2019), highlighting the need for pharmaceutical firms to strike a balance between their current assets and liabilities for optimal liquidity performance.

Furthermore, the consistent CR performance of Reddy's and Cipla signifies their adeptness in maintaining a stable liquidity position. These companies exhibit CR levels within the recommended range of 1.5 to 3, as emphasized by Panigrahi (2017), demonstrating their ability to efficiently manage short-term liabilities. This aligns with the conclusions drawn from Saini & Bansal (2020) study, which highlighted the importance of adhering to the standard CR benchmark. The study's findings lend credence to the notion that the prudent management of current assets is a key factor in ensuring that obligations can be met comfortably (Ngunjiri, 2023; Van Greuning & Bratanovic, 2020; Lubega, 2021; Enock, 2021).

Conversely, Divi's consistently high CR levels reflect the company's potential overabundance of current assets, potentially including excess inventory or accounts receivables. This viewpoint aligns with Panigrahi's (2017) emphasis on the potential pitfalls of maintaining excessively high CR levels, as it could indicate underutilized resources that could be invested more profitably elsewhere. Such findings correspond with Panigrahi et al. (2017) research, which accentuated the necessity of analyzing the balance between liquidity and efficient resource allocation. Divi's performance highlights the complexity in interpreting CR values, as excessively high ratios could potentially indicate inefficiencies.

Quick Ratio (QR)

Table 2. Quick ratio

Year	Sunpharma	Reddy's	Divi's	Cipla
2017-18	0.59	1.52	5.11	1.79
2018-19	0.63	2.25	3.58	2.79
2019-20	0.83	1.89	3.23	2.29
2020-21	1.07	1.78	3.75	2.64
2021-22	0.62	1.68	4.84	3.23
Mean	0.748	1.824	4.002	2.548
Maxi	1.07	2.25	5.11	3.23
Mini	0.59	1.52	3.23	1.79

Source: https://moneycontrol.co/financial

Second table shows the Quick ratio of selected pharmaceutical companies in India. QR is the ratio of (current assets–inventory) into Current liabilities. In 2020-21, the highest QR of Sun Pharma is 1.07%, but the ratio of other years and average mean are below 1%. It shows a weak position of current assets against current liabilities. Reddy's company had a stable performance during the study period. In 2017-18, Divi's achieved 5.11% QR. There are very high trends during the study period as well as the ratio of other years and the average mean is up to> 3%. It is a good sign of current assets against current liabilities. In 2021-2022, Cipla achieve 3.23% QR and in other years it maintains above 2% leaving for the first year, but overall performance is good.

The investigation into the Quick Ratio (QR) within the context of the selected pharmaceutical companies provides valuable insights into their immediate liquidity positions and ability to meet short-term obligations without relying on inventory (Hristova et al., 2019; Md Yusoff, 2017). Calculated by dividing quick assets (current assets minus inventory) by current liabilities, QR is a critical measure of a company's readiness to honor its commitments in the absence of slow-moving assets. The findings related to Sun Pharma's QR reflect its challenges in consistently maintaining a ratio above 1, indicating potential concerns in covering short-term liabilities without relying on inventory (Agarwal, 2014). This dynamic resonates with the observations of Saini & Bansal (2020), who noted variances in quick ratios among pharmaceutical companies.

Conversely, Reddy's and Divi's steady QR performance points to their sound liquidity management strategies. These companies consistently maintain QR levels above 1, highlighting their ability to meet immediate obligations without depending heavily on inventory (MacCarthy & Jayarathne, 2010). This aligns with the conclusions of Panigrahi (2017), emphasizing the importance of QR as a reliable indicator of a company's ability to manage short-term financial commitments. Such observations resonate with the study's findings and underscore the practicality of maintaining immediate liquidity without relying on slow-moving assets (Bianchi & Bigio, 2022).

The results of QR analysis further emphasize the significance of Sun Pharma's challenges in maintaining a QR above 1. This could be indicative of its unique industry dynamics or perhaps its operational strategies involving higher inventory levels. These dynamics could potentially be explored in light of the broader industry trends, as suggested by Yameen et al. (2019). Additionally, Sun Pharma's lower QR values emphasize the importance of managing inventory levels to improve liquidity. This notion aligns with the observations of Panigrahi et al. (2017), highlighting the necessity of efficient resource allocation to enhance liquidity positions.

The consistency in Reddy's and Divi's QR performance aligns with the practical implications of maintaining a ratio above 1. Their strategic approach to liquidity management suggests efficient deployment of quick assets to meet short-term obligations. This could also reflect their commitment to optimizing working capital and managing their receivables effectively (Vuorikari, 2012; Nuhiu & Dërmaku, 2017; Muya & Gathogo, 2016). Such interpretations align with the sentiments expressed by Saini & Bansal (2020), who emphasized the practical significance of adhering to the standard rule of 1:1 for quick ratios in assessing liquidity health.

Cash Earning Retention Ratio (CER)

Table 3. Cash earning retention ratio

Year	Sunpharma	Reddy's	Divi's	Cipla
2017-18	-0.61	70.24	73.77	91.95
2018-19	65.02	83.87	82.32	90.18
2019-20	63.45	89.50	45.50	80.67
2020-21	42.82	86.28	0.00	0.00
2021-22	-72.71	83.00	83.71	88.20
Mean	19.59	82.58	57.06	70.2
Maxi	65.02	89.50	83.71	91.95
Mini	-0.61	70.24	0.00	0.00

Source: https://www.moneycontrol.co/financial

Third table shows the cash earning retention ratio of selected pharmaceutical companies in India. This ratio is a ratio of a company's retained income to its net income. First year and last year, the results of Sun Pharma were negative and it showed a deficit in retained earnings. The

average mean of Reddy's is 82.58%. It shows very high performance compared with the other three companies. In 2020-21, Divi's and Cipla companies get 0.00%. It's a very weird result, but the overall average mean is 57.06% and 70.2%. So, both companies maintain a high retention ratio.

The examination of the Cash Earning Retention Ratio (CER) among the selected pharmaceutical companies offers valuable insights into their dividend distribution policies and retained earnings practices (Essien & Umo, 2023; Vaishampayan, 2021). CER, calculated as the ratio of retained earnings to net income, provides a window into a company's approach to allocating profits between dividends and reinvestment. The results reveal significant disparities in the CER values among the companies, highlighting distinct strategies in managing their financial resources (Scarpellini et al., 2020; Jabbour et al., 2020; Duque-Grisales et al., 2020; Kuo & Chang, 2021).

Sun Pharma's consistently negative CER values signify challenges in accumulating retained earnings due to its high dividend payout ratio. This aligns with the findings of Dattani (2020), emphasizing the impact of dividend decisions on retained earnings. The high dividend distribution of Sun Pharma is consistent with the study's observation of a significant dividend payout ratio (DPR) for the company. The interplay between CER and DPR underscores the complexity of dividend policies and the implications of those policies on a company's retained earnings, which echoes the sentiments of Panigrahi et al. (2017).

Contrastingly, the notably positive CER values of Reddy's, Divi's, and Cipla signify a commitment to reinvesting profits in business growth. This strategic choice is consistent with the observations made in Saini & Bansal (2020) study, suggesting that companies like Reddy's, Divi's, and Cipla favor retained earnings over high dividend distributions. The alignment between CER and retained earnings practices underscores the correlation between the two metrics, as also highlighted by Dattani (2020).

The concept of CER aligns with the broader industry trends in dividend policies and financial management. Reddy's, Divi's, and Cipla's high CER values resonate with the observations of Ravindra et al. (2020), which suggested differences in liquidity performance based on financial policies among pharmaceutical companies. The commitment to reinvestment signifies a focus on long-term growth potential, and such a strategic approach to retained earnings is a common theme within the pharmaceutical industry (Burckart & Lydenberg, 2021; Arshad & Shehzad, 2021; Ademba, 2021).

Dividend Payout Ratio (DPR)

Table 4. Dividend payout Ratio

Year	Sunpharma	Reddy's	Divi's	Cipla
2017-18	100.61	29.76	26.23	8.05
2018-19	34.98	16.13	17.68	9.82
2019-20	36.55	10.50	54.50	19.33
2020-21	57.18	13.72	0.00	0.00
2021-22	172.71	17.00	16.29	11.80
Mean	80.406	17.42	22.94	9.8
Maxi	172.71	29.76	54.50	19.33
Mini	34.98	10.50	0.00	0.00

Source: https://www.moneycontrol.co/financial

Last table shows the dividend payout Ratio of selected pharmaceutical companies in India. In the first year and last year, Sun Pharma paid a dividend of up to 100%, showing very high

trends compared to other years during the study period. The highest DPR of Reddy's is 29.76% and lower at 10.50% and the average mean is 17.42%. In 2020-21 DPR of Divi's and Cipla was 0.00%. The highest DPR of Divi's in 54.50%. It is a very high trend and Cipla has 19.33%. The average mean of Devi's is 22.93% and Cipla has 9.8%. It has the lowest DPR during the study period.

The analysis of the Dividend Payout Ratio (DPR) among the selected pharmaceutical companies sheds light on their dividend distribution policies and their approach to balancing dividend payments with retained earnings (Malik, 2023). DPR, calculated as the proportion of earnings distributed as dividends, offers insights into a company's commitment to rewarding shareholders and its retention of earnings for future growth. The results reveal intriguing patterns in dividend strategies and their implications for liquidity and growth.

Sun Pharma's consistently high DPR values underscore its preference for distributing a significant portion of its earnings as dividends. This aligns with the findings of the study, indicating that Sun Pharma is well-established as a leader in its industry and has a strong focus on returning value to its shareholders. The high DPR values resonate with the observations made in Dattani's (2020) research, emphasizing Sun Pharma's propensity for dividend distributions. The implications of Sun Pharma's high DPR values include potential limitations on retained earnings, which could impact the company's ability to reinvest in growth initiatives.

In contrast, the comparatively lower DPR values of Reddy's, Divi's, and Cipla suggest a strategic focus on retaining earnings for future investments. This aligns with the findings of Saini & Bansal (2020), who noted the stable liquidity positions of companies maintaining higher retained earnings. The trend observed among these companies echoes the observations of Panigrahi et al. (2017), emphasizing the importance of managing liquidity through prudent dividend policies and efficient resource allocation.

Furthermore, the fluctuation in Sun Pharma's DPR values over the study period raises questions about the consistency of its dividend distribution policies. The significant increase in DPR in 2021-22 could potentially signal unique circumstances impacting dividend decisions, warranting further investigation. Such dynamics highlight the need to consider external factors and industry trends, as suggested by Dattani (2020), when analyzing dividend policies and their implications for liquidity and growth.

The relationship between DPR and Cash Earning Retention Ratio (CER) is noteworthy, as observed in Sun Pharma's case. The inverse correlation between high DPR and negative CER values aligns with the insights provided by Dattani (2020), underlining the impact of dividend decisions on retained earnings. This interplay between DPR and CER emphasizes the complexities of dividend policies and their potential consequences on a company's financial health (Amimakmur et al., 2024; Omotosho, 2018).

Table 5. Hypothesis testing table

Name of ratio.	F value	F crit
Current ratio	68.886	3.2388
Quick ratio	39.043	3.2388
CER ratio.	2.3831	3.2388
Dividend payout ratio	5.3938	3.2388

In the F value of Current ratio, Quick ratio and dividend payout ratio are greater than F-crit value (3.2388). That's why the Ho hypothesis is rejected and H1 hypothesis is accepted. That means there isa significant difference between the liquidity ratio of selected pharmaceutical companies in India. But the cash earning retention ratio situation reversed. Here, F-crit value

(3.2388) is more than F value (2.3831). That's why The Ho hypothesis is accepted and H1 hypothesis is rejected. The end result is there is no significant difference between liquidity ratio of pharmaceutical companies in India.

In light of the evaluation of the aforementioned Indian pharmaceutical organization, the liquidity performance analysis presents valuable implications for stakeholders in social commerce within the medicines industry. Hence, sustaining appropriate provisions of Current Ratio (CR) and Quick Ratio (QR) seems pertinent to allow these kinds of businesses to manage operation and customers' costs. In literal terms, for social commerce platforms in the pharmaceutical industry, this means that in their quest to optimize inventory turnover they should be careful to do so with their cash and quick assets in a way that enables them to deal effectively with returns, refunds and any other matters that require immediate action without compromising their inventory turnover figures. The restraint exhibited in the application of funds comes in handy in maintaining operational solvency or tailored short term obligations.

These remain fundamental for evaluating the firm's solvency with the CER and DPR figures being especially helpful in predicting the SMEs in social commerce in the pharmaceutical sector. Reinvestment of the earnings to business is preferred over the payment of high dividends to shareholders as that leads to innovation and improvement of business operations, social outlook and forward thinking of the public. Hence, high DPR signifies that organizations are inclined to attain present profits thus constraint cash outlay towards future innovative endeavours. Therefore, the social commerce stakeholders in the pharmaceutical industry need to share resources with investors to ensure investment in other crucial areas for sustainable development and competitiveness to achieve social, economic, and environmental sustainability.

In practical terms this implies that Indian pharmaceutical social commerce SME's operating in this sector should ensure that they maintain strong liquidity ratios in order to fund their operations, should continue to reinvest in improving their technological platforms and consumer interface and should ensure that remaining profits are retained to continue with business expansion and growth and part should be distributed to investors. For effective financial management of companies and organizations, constant monitoring of financial ratios and compliance to rules of sound financial management should be practiced. Through this discourse, it is apparent that McCloy and Lombard businesses have adequate financial preparedness to meet financial risks head-on as well as capitalize on new growth opportunities as the liquidity and competitiveness of businesses in the ever-changing India Pharmaceutical market background are improved.

Conclusion

The analytical study of liquidity performance among selected Indian pharmaceutical companies has provided valuable insights into their financial health, strategic choices, and industry dynamics. The investigation into liquidity ratios, including the Current Ratio (CR), Quick Ratio (QR), Cash Earning Retention Ratio (CER), and Dividend Payout Ratio (DPR), has illuminated the companies' abilities to manage short-term obligations, their approaches to retaining earnings, and their dividend distribution policies.

The study's findings reveal the diverse strategies and outcomes among the selected pharmaceutical companies. Sun Pharma's challenges in maintaining a balanced liquidity position and the implications of its high dividend distributions have been highlighted through analyses of CR, QR, CER, and DPR. The consistent performance of Reddy's, Divi's, and Cipla

in maintaining favorable liquidity ratios and prudent dividend policies underscores their commitment to long-term growth and efficient resource allocation.

The implications of this research extend beyond the financial realm. The pharmaceutical industry's crucial role in global healthcare underscores the significance of sound financial management in ensuring sustained operations, innovation, and responsiveness. The variations in liquidity performance among these companies further accentuate the complexity of financial decision-making within a dynamic industry.

References

Ademba, V. A. (2021). *Effect of financing structure on the profitability of micro and small enterprises in Nakuru Central Business District* (Doctoral dissertation, Egerton University).

Agarwal, C. (2014). *"Corporate Liquidity Management* (Doctoral Dissertation, Kumaun University, Nainital).

Amimakmur, S. A., Saifi, M., Damayanti, C. R., & Hutahayan, B. (2024). Exploring the Nexus of Dividend Policy, Third-Party Funds, Financial Performance, and Company Value: The Role of IT Innovation as a Moderator. *Journal of Risk and Financial Management*, *17*(5), 210. https://doi.org/10.3390/jrfm17050210

Arshad, M. H., & Shehzad, F. (2021). The impact on Key Performance Indicators after Merger & Acquisition.

Bianchi, J., & Bigio, S. (2022). Banks, liquidity management, and monetary policy. *Econometrica*, *90*(1), 391-454. https://doi.org/10.3982/ECTA16599

Burckart, W., & Lydenberg, S. (2021). *21st Century Investing: Redirecting Financial Strategies to Drive Systems Change*. Berrett-Koehler Publishers.

Dattani, S. (2020). An Analytical Study on Liquidity Performance of Sun Pharma, Dr. Reddy's and Cipla. *International Journal of Research in Management & Social Science*, *8*(3), 346-355.

Duque-Grisales, E., Aguilera-Caracuel, J., Guerrero-Villegas, J., & García-Sánchez, E. (2020). Does green innovation affect the financial performance of Multilatinas? The moderating role of ISO 14001 and R&D investment. *Business Strategy and the Environment*, *29*(8), 3286-3302. https://doi.org/10.1002/bse.2572

Enock, T. (2021). *Effect of Central Bank Regulations on Financial Performance of Commercial Banks in Rwanda* (Doctoral dissertation, University of Rwanda).

Essien, S. P., & Umo, U. P. (2023). Cash Management Strategies and Financial Performance of Selected Quoted Industrial Goods Companies in Nigeria. *Srusti Management Review*, *16*(2), 78-93.

Farhan, N. H., Tabash, M. I., Almaqtari, F. A., & Yahya, A. T. (2020). Board composition and firms' profitability: Empirical evidence from pharmaceutical industry in India.

Hristova, S., Stevcevska-Srbinoska, D., Mileva, I., & Zafirova, A. (2019). Trade-Off Between Liquidity And Profitability: An Empirical Study Of Pharmaceutical Sector In The Republic Of North Macedonia. *Timisoara Journal of Economics & Business*, *12*(2).

Jabbour, C. J. C., Seuring, S., de Sousa Jabbour, A. B. L., Jugend, D., Fiorini, P. D. C., Latan, H., & Izeppi, W. C. (2020). Stakeholders, innovative business models for the circular

economy and sustainable performance of firms in an emerging economy facing institutional voids. *Journal of environmental management*, *264*, 110416. https://doi.org/10.1016/j.jenvman.2020.110416

Kuo, L., & Chang, B. G. (2021). The affecting factors of circular economy information and its impact on corporate economic sustainability-Evidence from China. *Sustainable production and consumption*, *27*, 986-997. https://doi.org/10.1016/j.spc.2021.02.014

Lubega, H. (2021). *Assessing of Financial Sustainability* (Doctoral dissertation, Makerere University Business School).

MacCarthy, B. L., & Jayarathne, P. G. S. A. (2010). *Fast fashion: achieving global quick response (GQR) in the internationally dispersed clothing industry* (pp. 37-60). Springer Berlin Heidelberg.

Malik, M. U. (2023). Effect of Dividend Policy on Firm Performance and Stockholders Wealth: Evidence from Listed Firms on Pakistan Stock Exchange. *Journalism, Politics and Society*, *1*(02), 84-112. https://doi.org/10.63067/10t1cv16

Md Yusoff, H. (2017). *The effect of liquidity and solvency on profitability: the case of public-listed consumer product companies in Malaysia* (Doctoral dissertation, Universiti Tun Hussein Onn Malaysia).

Muya, T. W., & Gathogo, G. (2016). Effect of working capital management on the profitability of manufacturing firms in NAKURU town, KENYA. *International Journal of Economics, Commerce and Management*, *4*(4), 1082-1105.

Ngunjiri, M. N. (2023). Effect Of Prudential Framework On The Financial Performance Of Deposit Taking Saccos In Nairobi City County.

Nuhiu, A., & Dërmaku, A. (2017). A theoretical review on the relationship between working capital management and company's performance. *Acta Universitatis Danubius. Œconomica*, *13*(3).

Omotosho, S. D. (2018). *Corporate Dividend Policy and Share Price Volatility in Nigerian Listed Conglomerates* (Doctoral dissertation, Kwara State University (Nigeria)).

Panigrahi, C. M. A. (2017). Liquidity and Profitability Trade-Off: An Analysis of Selected Pharmaceutical Companies. *Published in 'ACUMEN'AN INTERNATIONAL PAPER PRESETANTION on "Changing Business Environment: Challenges Ahead." organised by Dr. Ambedkar Institute of Management Studies & Research Deeksha Bhoomi, Nagpur on*, *7*. http://dx.doi.org/10.2139/ssrn.4379046

Panigrahi, C. M. A., Raul, N., & Gijare, C. (2017). Liquidity Analysis of Selected Pharmaceutical Companies: A Comparative Study. *Journal of Management & Entrepreneurship*, *12*(3).

Ravindra, D. P. S., Satyavathi, M. M., Ramesh, D. S., Sowjanya, M. M., & Tejaswini, L. (2020). Comparative Analysis of Financial Performance of Selected Pharmaceutical Companies in India. *International Journal of Pharmaceutical Research*, *12*(3), 3572-3582.

Saini, N., & Bansal, S. (2020). A Comparative Analysis of Liquidity Position of Selected Indian Pharmaceutical Companies. *International Journal of Recent Scientific Research*, *11*(2), 36621-36627.

Scarpellini, S., Marín-Vinuesa, L. M., Aranda-Usón, A., & Portillo-Tarragona, P. (2020). Dynamic capabilities and environmental accounting for the circular economy in

businesses. *Sustainability Accounting, Management and Policy Journal*, *11*(7), 1129-1158. https://doi.org/10.1108/SAMPJ-04-2019-0150

Vaishampayan, S. V. (2021). *A Study of GDP growth, select finance ratios and economic variables on financial health of selected industrial sector wrt post liberalization period* (Doctoral dissertation, Tilak Maharashtra Vidyapeeth).

Van Greuning, H., & Bratanovic, S. B. (2020). *Analyzing banking risk: a framework for assessing corporate governance and risk management*. World Bank Publications.

Vuorikari, M. (2012). Optimizing working capital management from processes perspective.

Yameen, M., Farhan, N. H., & Tabash, M. I. (2019). The impact of corporate governance practices on firm's performance: Empirical evidence from Indian tourism sector. *Journal of International Studies*, *12*(1).