CHAPTER 2
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2.1 Introduction:

May be much work has been done on working capital management, profitability and liquidity on manufacturing and financing company except field of ceramic and granite industries. This chapter includes review of paper, reports, books and many related articles on the following three points of views:

- Working Capital management
- Profitability
- Liquidity

Literature Review is broadly bifurcated in to two parts, i.e. National and International. The following are the reviews of related research topics being undertaken.

2.2 National:

Pravin Patel (2018) studied on the analysis of management of working capital of selected cement companies with the secondary data of seven years (2008-09 to 2014-15) using the current ratio, quick ratio and debtors ratio. Researcher has used ANOVA test as a statistical tools for analysis and represented data with use of tables and Charts. Researcher founded that the Ambuja Cement Company and Ultra Tech cement are in good position of working capital whereas Binani Cement Company is not in good position of working capital.

Santu Charan Das (2018) studied on “Impact of Profitability on Capital Structure: An Analytical Study”. Study is based on literature review. Researcher has been taken 21 Indian research papers for the analysis of capital structure and profitability. Researcher found that the inverse relation seem between profitability and capital structure in 50% of research paper, 25% research paper presented positive relation between profitability and
capital structure, where as few research paper presented absent in relationship between profitability and capital structure. Researcher has also studied on Indian steel companies, which shows inverse relationship between profitability and Debt equity ratio. Maximum research papers, which are studied in China, presented inverse relationship between capital structure and profitability of Chinese companies. Where as China’s steel companies have also negative relationship between profitability and Debt equity ratio. All over researcher has been found that the same relationship seems in capital structure and profitability.

**C. J. Davis and Jain Mathew (2017)** studied on “Determination of Profitability of Private Sector Bank Old and New in India” for the period of 2000-01 to 2014-15 using secondary data, which is grouped in old and new private bank. Data collection was made from data base of RBI and other related banks. They used ratio related ROA, NIM, NII, IC, WBE and NPA as measurement for comparison. They used statistical tool like Correlation co-efficient and Regression model for better results. The result of study shows there are new and private banks are better performing than old banks and there are some relation seems in debt and profitability.

**Dave Ashvin and Thakar Payal (2017)** studied on “A comparative study on working capital management practices of selected companies in FMCG industry using secondary data for the period of 2012 to 2016. Researchers have been used CR, QR, WCR, STR, D’R, C’R etc for the ratio analysis. Researchers found that the Indian Tobacco Company (ITC) and Dabar India Ltd (DIL) have powerful WCM, but in comparatively ITC has invested high amount in WC. ITC has liberal policy for the collection and holding inventories. Thus the usually prove by comparing with the DIL, ITC has powerful management in WC.

**Divahar Sundar Nadar and Other (2017)** have studied on “An empirical study and analysis of the capital structure and working capital of Indian textile industry” for the period of 2006-07 to 2015-16 with secondary data from BSE and HDFC web sites to
analysis of trend and component analysis for capital structure and working capital. Result of the study shows major working capital is locked in inventory and receivable (i.e. debtors). So they are demanding more cash as working capital. Thus it can say that Indian textile sector needs efficient effective and economic working capital management.

**Jaimin Patel and Dr. Kishor Bhanushali (2017)** have studied on “Comparative Study of Nationalised Bank and Private Sector Bank” using secondary data for the period of 2010-11 to 2014-15 of SBI, BOB, ICICI, AXIS and HDFC for the calculation of ROA, ROE, ROCE, Loan vs. Deposit and Total Debt vs. Equity; using graphical presentation and tables from www.moneycontrol.com and banks. They have not used any statistical tools for the evaluation.

**Surbhi Jain and Other (2017)** have wrote on “Impact of capital structure on profitability of Indian manufacturing firms” for the period of 2011 to 2015, study is based on secondary data using a panel regression model (fixed effect regression and random effect regression). Short term debt and Long term debt are compared to total capital employed. Result of the study is shows negative impact of capital structure on profitability. The theory proposed by modgilani and miller (1963); shows the firm should use more debt capital as possible to maximize its value, does not hold true in the context of Indian manufacturing companies.

**Barot Mukti (2016)** compared working capital management of Raymond and Vardhman textiles using secondary data for the period of 2006 to 2015. Study used current ratio, quick ratio, debtors’ ratio, average collection period, inventory ratio, working capital turnover ratio and current assets to total assets ratio with tabulate and graphical presentation. Study resulted that the Raymond Ltd. has maintained all ideal level of working capital and constant increase is sign of healthy position of business from the view.
Dr. Uppugunduri Padmavathi (2016) has studied on "Significance of Financial Leverage in Capital Structure Decisions in Indian Auto Mobile Industry" for the period of 2010-11 to 2014-15 using secondary data from the websites of livemint.com, moneycontrol.com, indiabulls.com, www.acma.in. The study is based on calculation of Leverages. Paper is presented by using tabulation and graphical presentation for data analysis. The result shows that the companies are under financial risk.

R sangitha and N saravanan (2016) studied on “working capital management in cement industries in Ariyalur –A comparative study” for the period of 2011 to 2015; is quantitative research based on secondary data from moneycontrol.com (web portal), selected company’s websites, books and research report. The study of working capital management of cement companies were analysed by net working capital, current assets to total assets ratio and descriptive statistics. Analyses are presented through tables and various types group. Paper suggested that the companies should maintain good working capital management.

Subrata Mukharjee (2016) has worked on “Working capital management of ACC limited” using 10 year’s secondary data of 2004-05 to 2013-14. Study includes various ratio using secondary data from final account of ACC ltd. Study includes the use of regression analysis to compare liquidity factors and profitability factors using co-efficient of inventory, turnover, current ratio, working capital turnover and sales; proved that there are significant relation between working capital and profitability.

Thangaraju (2016) studied on working capital management in Deccan Pumps (who has 100000 units over in India) using secondary data for the period of 2000-01 to 2009-10. Researcher has been used CR and QR for the analysis and found that the Duccan Pumps has strong WCM.
Barot Mukti (2015) studied on working capital management of Ambuja Cement Company using secondary data for the period of 10 years (2005-2014) from Moneycontrol.com and annual reports of the company. Researcher has used current ratio, quick ratio, debtor’s ratio and cash turnover ratio. Researcher has concluded that the company’s financial position is strong and investors got high benefit in investment cause of the good working capital management.

Chirag (2015) studied financial performance of selected 20 private banks in India for the period of 2008-09 to 2012-13. Study prepared by using RBI reports. Calculation of return on assets, return on equity and net interest margin are base for comparison of performance. Researcher concluded that private banks performing good financial growth and provide superior services. Government and RBI are also co-operating in India.

Goyani Mukesh (2015) analysed profitability of selected nine diamond companies in India for the period of ten years. Study includes comparison of gross profit ratio, net profit ratio, operating ratio, return on fixed assets ratio, return on shareholders’ fund and return on capital employed. Study proved that the profitability of diamond industries is highly unsatisfied.

Himatkumar (2015) analysed profitability of selected ceramic companies of Gujarat state for the period of 2009-10 to 2013-14. Data was taken for Asian Granito India Ltd. and Kajaria Ceramics Ltd. Researcher used common size income statements and its ratios which are presented by tabulates and graphical presentations. The T-test indicated that there is no significance difference between both companies in net sales to turnover, in excise duty, raw material, operating profit but there is significance difference in profit after tax.

Jay Dave (2015) evaluated profitability criterion of Petroleum refinery Industries in India. The study used data for the period of 2007-08 to 2012-13 of selected company; ONGC, RIL, IOCL, MRPL, BPCL, HPCL. Study includes profitability ratios to
comparison by using tables. ANOVA is calculated for every ratio separately. Study shows good profitability condition in all refinery company.

**Karampal and Shwetapatheja (2015)** studied on “Determinants of Productivity and Profitability of Indian Banking Sector: A Comparative Study” for the periods of 2004-05 to 2013-14 using secondary data of public sector bank and private sector bank. Study is based on productivity and profitability with uses of statistical tools like linear programming, regression equations and correlation analysis. They proved by studying that the private sector banks are more productive and profitability than public sector.

**Nirmal Chakraborty (2015)** studied on “working capital management and its impact on liquidity and profitability: An empirical study of Britannia industries” using published data in annual report of the company for the period of 2000 to 2013. Paper includes use of technique of ratio analysis and spearman’s rank correlation to find out relation sheep between liquidity and profitability. Paper includes uses of ‘T’ test. Paper presented current ratio, quick ratio and net profit margin; which is not satisfactory. Company’s credit policy is found to be better. Inventory holding position is much better. There are positive relationship between liquidity and profitability.

**M. Sumathy and S. Seetha Lakshmi (2015)** studied on “working Capital Structure and Liquidity Analysis of Oil and Gas Industry” using the data five oil and gas industry of India. Data was collected from the web site of moneycontrol.com. Research paper contains various ratios, averages and ANOVA by MS excel software. Conclusion shows no sound liquidity position among the oil and gas industry.

**Prasad T. Durga (2015)** studied on Working Capital Management with Regression Analysis of Visakhapatnam steel plant for the period of 2000-01 to 2007-08 using secondary data for analytical study of Sales performance, working capital by regression analysis. Study proved that the regression analysis is more helpful tool to find out estimated working capital.
Lalitkumar and Rima (2014) analysed accounting environment and firm profitability of Reliance Ltd. using regression analysis for ROCE, NOM, DPS and EPS. Researchers found that there is significant relationship between environment accounting and firm profitability.

K. Madhavi (2014) studied on working capital management of Andhra Pradesh Paper Mills Ltd. and Seshasayee Paper Mills Ltd. using secondary data for the period of 2002-03 to 2010-11. Researcher has been studied short term liquidity position by using CR, QR, Cash Ratio and NWC Ratio. Researcher found that the Andhra Pradesh Paper Mills Ltd. is weak position in WCM with comparison Seshasayee Paper Mills Ltd.

Nishant and Dharmesh (2014) studied on effect of macro-economic variables and P/E Ratio on stock return. Study is based on various research paper reviews regarding to price earnings ratio and compared views of researchers. Study shows that most of the researcher used multivariate regression methodology for comparison of relationship between macro economic variables and stock market. It shows that low price earning securities gives better return to investor than high price earnings ratio.

Tulsian Monika (2014) studied on “Profitability Analysis (A comparative study of SAIL and TATA Steel)” for the period of 2007-08 to 2011-12 using the secondary data of SAIL and TATA steel for the calculation of various ratios. Researcher has been used T-Test as a statistical tool for the better output and comparison. In study, result shows the profitability TATA steel is comparatively good performs in comparison to SAIL.

Vatsal and Ruchi (2014) studied on “Relationship between working capital management and profitability: A comparison of steel and cement industries of India” with secondary data from company’s web site and moneycontrol.com for the period of 2009 to 2013 using Pearson’s correlation and linear regression as statistical tools. They presented
analysis by descriptive and quantitative. The paper shows both the types of industry have same relationship between working capital management and profitability as finding of Deloof(2003), Shahid ali(2011) and vida et al(2011).

**Rao K. Sarala (2013)** studied on “Productivity, Cost and Profitability Performance of Scheduled Commercial Banks in India- A Comparative Evaluation” using the secondary data for the periods of 2004-05 to 2010-11 of various commercial banks of India which is classified in traditional banks and modern bank. For the study, Productivity, Cost efficiency and Profitability ratios are used to analytical study. He has not used any statistical tools for better analysis.

**Parmar K.S. (2012)** wrote an article on cash management in business with brief explanation using definition, factors, important and cash budget. Researcher concluded that a good cash management is related with the decision taken by the management, whether it for short term or long term. It’s related with the expertness of owner or management.

**Vedavinayagam Ganesan (2007)** analysed working capital management efficiency in telecommunication equipment industry. Study was done on 349 companies for the period of 2001 to 2007. Study prepared by using ANOVA, correlation and regression analysis. Output of study is that working capital is negatively affected to firm profitability.
2.3 International:

Sindhu Shastry at all (2018) studied on “An Analysis on Working Capital and its Impact on Sales and Profitability, with Special Reference to Niva Holdings, Minks, Belarus” for the period of 2014-15 to 2016-17 using secondary data. Researcher found that the Niva Holdings has strong WCM with the required liquidity ratio. There is significant relationship seems between WC and sales and also between profitability and WC.

Ali Esmaeilzadeh and Ali Mazinani (2017) studied on relationship between the components of WCM and company returns using secondary data of 90 registered companies with the Tehran stock exchange. For the study, researcher has been used Chaw Test Model to testing of hypotheses. Researcher found that the direct positive relation seems between CR and ROA and inverse significant relation seems between debt collection period, inventory turnover period, cash conversion cycle, debt payment period and ROA.


Aslam and Aziz (2016) studied on “Impact of working capital and firm size on firm performance: An evidence from BRIC automobile industry” for the period of 2000-2015; data was collected from The Stock Exchange Karachi of automobile listed 25 firms or company of BRIC. Study is based on five variables- DOL, Sales log, DFL, CR and EBIT using descriptive statistics table, ANOVA and Regression analysis table. Co-efficient correlations of financial leverage shows positive impact, operating leverage shows
negative relations and size of the firm is directly related to the performance and growth of the firm.

**Fatemeh mohammadian and other (2016)** studied on “The study of the relation between debt and profitability ratios separately for profit smoother and non-smoother company” for the period of 2008 to 2012 from Tehran stock exchange, around 240 companies are selected for the calculation by regression models using secondary data. They studied on ROE, ROA and NIMt by ANOVA. The result shows that there are some reverse and significant relations between debt to assets with profitability.

**Sajid at all (2015)** studied on WCM antecedent impact on firm specific factors using ten years secondary data for the period of 2005 to 2014 from the Karachi stock exchange. Researchers have been used ratios and regression model for analysis. Researcher found that the WCM has significant relation with the Profitability, size of the firm has also significant relation with Profitability where as Debt of the firm has negative significant relation with Profitability.

**Adolphus J. Toby (2014)** studied on WCM policy and corporate profitability of Nigerian quoted companies for the period of 2003 to 2007 using secondary data of 107 companies. Researcher has found that the negative relation seems between WCM and Profitability.

**Obguji and Ogunyomi (2014)** studied on WCM policy and financial performance in the Nigerian foods and beverages industries; a study of Nestle Nigeria Plc (for the period of 2008 to 2012) using secondary data. Researchers have been used ratios and simple correlation co-efficient for the analysis. Researchers conclude that there is negative significant correlation of WCM with Profitability and Liquidity.

**Vohra Mohsin at all (2014)** studied on impact of working capital management on financial charges of eight manufacturing listed industries on Karachi stock exchange of the Pakistan. Researchers have been used secondary data for the period of 2006 to 2011
Researchers conclude that the positive significant relation found between WCM and Financial Charges.

**Thomas Korankye and Rosca Serwaah Adarquah (2013)** studied on empirical analysis of WCM and its impact on Profitability of seven listed manufacturing firms in Ghana using secondary data for the period of 2004 to 2011. Researchers have been used liquidity and profitability ratios as accounting tools and correlation and regression model for the statistical analysis. Researcher founded negative relation with the Profitability of WCM.

**Kesseven Padachi and Others (2012)** studied on “Working Capital Financing Preferences: The Case of Mauritian Manufacturing Small and Medium-sized Enterprises” for the period of 1985 to 2010 using GDP, capital structure, size, age of industries etc. study is based on descriptive mode. They have also used cluster analysis of profit of firms, short-term borrowings and internal equity.

**Greg Filbeck and Others (2007)** had worked on Working Capital survey of selected firms work for shareholder by using secondary data to find out investor view in investment regarding working capital to examine of stock market. They have tested for 1997 to 2000 of various company and prove that market price of shares are dependent on working capital; it shows that the investors have been use WC information to invest in the company.

**Edward A. Dyl and William B. Elliott (2006)** Studied on the relationship between stock price and the size of the firm by using secondary data of the various company, which is registered with the NYSE, Amex and Nasdaq, for the period of 1976 to 2001 using regression analysis model. Researcher has found that the relationship of the market price and the size of the firm are closely related.
**Jingu Liu at all (2002)** have studied on Equity Valuation of the research period of 1982 to 1999, using 26,613 sample from IBES and CRSP, later it reduced to 19,879 due to financial error. Researcher has examined the EPS using two sets of comparable companies for the relationship between Price and Value Drivers. They have concluded that the common practice of choosing companies with the same attitude improves performance for all value drivers.

**John E. Core and Others (2002)** studied on The Economic Dilution of Employee Stock Option: Diluted EPS for Valuation and Financial Reporting by using data on 731 large firms for the period of 1994 to 1997. Researcher has concludes that only half of the dilutive shares implied by economic measure options and also suggested that the analysis offers a rigorous and economically intuitive approach to including the dilutive effects of stock options in calculating EPS.

**Koehler Robert W. (1980)** studied on “Guide to Working Capital Management by Keith V. Smith.” This guide is for the students and also for the management team of the firm. In this guide, chapter two is useful to improving knowledge of working capital planning. Study suggests that working capital management directly influence risk and profitability of the company. So it can be inferred that effective working capital management can raise the financial strength of a business.

**James A. Gentry and Other (1979)** wrote a paper on ‘An International Study of Management Perceptions of The Working Capital Process’ for the period of December-1974 to March-1975 to study short term resources. They collected primary data of 500 industry by interview and secondary data of published data. They have studied on working capital management with statistical tools like analysis of variance test, cash statement and statistical technique like chi-square and ANOVA to determinate the related objectives. The result shows that short run objectives are not related to long run financial management.
George Foster (1973) studied on Stock Market Reaction to Estimates of Earnings per Share by Company Officials by using the secondary data for the period of 1968 to 1970 by using Earnings Expectation Models. Researcher has concludes that the market is considering estimated EPS, Investors demands high performance but does not earn abnormal returns.

Pringle John (1973) wrote on Price Earnings Ratios, Earnings-Shares and Financial Management using various research papers to comparison and explains it. Researcher has concluded; debt vs. Equity depends on where the firm presently is operating relative to its target debt-equity ratio. Investment decision depends on the net present value. P/E ratio indicates the management to take good decision for maximizes market value but high P/E ratio should not be considered desirable to market investment.

Gibson James (1964) studied on working capital; worked by Colin Park and John W Gladson. He compared the both paper and given classification of wealth (i) Consumable and (ii) Secondary; for make recommendation omit intangibles, use current exchange value and make appropriate adjustment to approximate real income. Researcher has broadly explained WC format and management.

Mauriello Joseph (1962) wrote a report on the working capital concept – A restatement on the basis of AICPA pronouncement and illustrative explanation for presenting debt related operating cycle and Debts not related operating cycle items; with use of the current assets and current liabilities. Here debt means current liabilities. The researcher has suggested to taking fixed assets as individual part below a sub-total from the current assets.
Colin Park (1951) studied on working capital and the operating cycle; using data of Meikle Production Incorporation, for the year ended on December 31st, 1950. Colin had computed bulk of product to find operating cycle; arithmetic averages and weighted averages are also used on current and non-current assets. Researcher has suggested that the responsibility of management is operation of working capital funds. However, management is under control of the fund control functions. A further responsibility of the management is use of free capital to current and non-current activities of a business.

Collins George William (1946) wrote an article regarding “Analysis of Working Capital” using the illustrative presentation and show summary of working capital with various transactions affected to the WC by using Balance sheet etc. Researcher proved that the depreciation and unamortised bond premium are not affected to WC. Sales proceeds of bonds, net profit, cash dividend paid and purchase & sales of fixed assets are affected to WC. Researcher has also discussed about fund statement and classified, additions of working capital as sources of fund and deduction from working capital as applications of funds, whereas non cash transaction as adjustments of profit and loss statement. Thus, researcher has tried to establishment relationship between WC and Fund Flow.