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ASSOCIATION BETWEEN WORKING CAPITAL ADMINISTRATION AND FIRMS' PROFITABILITY CONCERNING THE FOOD AND BEVERAGE INDUSTRY.

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Abstract

The paper inspects the connection between working capital procedure and firms' monetary performance of well-known Food & Beverages Industry Company (Hindustan Unilever Limited) in India. The current examination centres on Hindustan Unilever Limited (HUL) as the company reputed in F& B industry. For information investigation, various kinds of working capital components were viewed like current ratio and collection days on gross profit movement coefficient. The examination is led with the assistance of 'Karl Pearson's Product Moment Method'. By this method the measure of connection between two factors/variables can be mathematically estimated. The outcome disclosed that there is a positive correlation (0.67) between current ratio and profitability. This implies that current ratio and profitability compatible with each other. In the event that the current ratio improving, profitability of the firm will reduce. While the study additionally shows a positive correlation (0.52) between collection days and ROCE. This indicates that as collection days are increasing there will be decreasing rate in profitability.

Keywords: *Working capital strategy, FMCG Sector (HUL), Correlation Coefficient (r).*

INTRODUCTION:

Earlier, the responsibility of the manager has been designed in working capital management under accounting and finance departments. However, today the scenario has been changing, most of the managers who traditionally were not the part of this process now they are taking pro-active steps in the reduction of the risk associated with working capital. The ultimate goal and success of any company is based upon all its departments and adequate requirements of the working capital to fulfil its purpose or mission. The same principle applied in framing the working capital strategies. For creating shareholder's value, effective management of working capital execute as a fundamental role for the overall corporate strategy. Firms' strategy is always try to maintain optimum level of working capital that enhances their value. A firm need to preserve a proper balance between liquidity and profitability while managing its day-to-day business operations. Working capital management is also perform significance role for the small business enterprises.
According to Weston and Brigham- "Working capital refers to a firms' investment in short-term assets, such as cash amounts, inventories and receivables etc. L. J. Guttmann defined working capital as "the portion of s firms' current assets are financed from long-term funds". Working capital management is considering an effective tool for the measurement for both a company's successfulness/productiveness and its short-term financial soundness. In the sector of financial statement of the company, working capital management contributes an essential factor which have direct positive effect on company's liquidity position and profits of the firms. There is a significant relationship between firms' working capital and firms' profits. Many researchers suggested and recommended that a company should avoid under investment in working capital management if they want higher rate of profit surplus. With negative working capital a firm's prosperity shows hazard sign for insolvency of the business which is not good for the firm.

INDUSTRY AND COMPANY PROFILE:

The large players- Fast Moving Consumer Goods (FMCG) industry includes Hindustan Unilever Limited, Nestle India, Godrej Consumer Products Limited, Procter and Gamble, Nirma, Emami, Patanjali Auyurved etc. This study mainly focuses on Hindustan Unilever Limited. Hindustan Unilever Limited (HUL) is India's largest fast moving consumer goods company with a legacy of over 80 years in India. HUL works to create a better future every day and helps people feel good, look good and get more out of life with brands and services that are good for them and good for others. In 1931, Unilever set up its first Indian subsidiary, Hindustan Vanaspati Manufacturing Company, it followed by Lever Brothers India Limited (1993) and United Traders Limited (1935). In 2016, HUL unveiled 'Suvidha' a first-of-its-kind urban water, hygiene and sanitation community centre in Azad Nagar, Ghatkopar, one of the largest slums in Mumbai. A new state –of-art manufacturing facility was commissioned on 11th March 2017 in Doom Dooma Industrial Estate, Assam. In 2018, HUL signed an agreement with Vijaykant Dairy and Food Products Limited (VDFPL).

LITERATURE REVIEW:

Following some important reviews covers research studies conducted on working capital management and its impact on firm's profitability which have been followed before the study taken up.
Gaur Reeti and Kaur Rajendra (2017), tried to explore the study of Bamal et al (2013) which was conducted on a comparative analysis to know the relationship between working capital management and firms' profitability of chemical and pharmaceutical industries in India from the period of 2002 to 2011. During the study he has found that strong positive relationship between working capital management variables and the profitability variables of chemical industry in comparison of pharmaceutical industry. Outcome also noticed that the positive impact on the profitability position of the pharmaceutical companies but it is insignificant.
Panigrahi Ashok (2012), worked out on the title of 'a case study on the cement company in India, i.e. ACC Ltd'. And analyse the data from 1900-00 to 2009-10 and during his study found that a moderate level of relationship between working capital management and firm's profitability. This study found only few working capital variables that had a positive impact on profitability while others variables shown the negative impact. After the study lastly even though he found that some influencing consequences towards working capital management on profitability which was highly insignificant.
Falope and Ajilore (2009), conducted study on Working capital management and corporate profitability: Evidence from panel data analysis of selected companies quoted non-financial firms using a sample of 50 Nigeria based firms for the period of year 1996-2005. They considered some attributes for the study like; net operating profits and the average collection period, inventory turnover, average payment period and cash conversion cycle. In last, the study perceived a significant relationship among them.
Uyar (2009) emphasized and perceived a significant negative relationship Cash conversion cycle (CCC) and firms' profitability among Turkey based firms using ANOVA and Pearson moment correlation to check the reliability of the study. Similarly, Mathuva's study also found the negative relationship among 30 firms in Nairobi. In Nigeria, Ben-Caleb (2009) studied the relationship between the elements of working capital and profitability that was measured by Return on assets using a sample of 25 non-financial firms for the period 2005 and 2006 and found out the only debtor's collection period shows the significant negative relationship with profitability.
Reheman and Nasr (2007) carried out study that is based on Indian and Pakistani firms respectively come up with same results that have strongly negative impact between working capital and liquidity or profitability. In this consideration, Sadlovska and Viswanathan remarked that best performing companies have their liquidity (cash conversion cycle) 5-6 times shorter than the low/average performing once.
Nobanee and Al Hajjar (2005) conducted a systematic analysis on the relationship between working capital management and profitability and they have taken 2123 samples into consideration of Japanese non-financial firms which is listed in the Tokyo Stock Exchange for a period of 15 years from 1990-2004. Throughout the study, they found that managers can help in raising the firm's profitability by reducing the receivables collection period, cash conversion cycle and inventory conversion period as well as strengthening the payable deferral period.

Tabular view of the literatures reviewed

Sr. No.	Researchers	Company/firm	Time period	Impact of working capital on profitability
1.	Gaur Reeti and Kaur Rajendra (2017)	Chemical and pharmaceutical companies, India	2002-2011	Positive relationship but insignificant
2.	Panigrahi Ashok (2012)	Cement Company (ACC Ltd.)	1900-2010	Both positive and negative impact but it was highly insignificant
3.	Falope and Ajilore	50 Nigeria firms	1996-	Significant positive relationship

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	(2009)		2005	
4.	Mathuva (2009)	30 firms, Nairobi	2009	Negative relationship
5.	Ben-Caleb (2009)	25 Non-financial firms, Nigeria	2005-2006	Significant negative relationship
6.	Uyar, and (2009)	Turkey based firms	2009	Significant negative relationship
7.	Reheman and Nasr (2007)	Indian and Pakistani firms	1999-2004	Strongly negative impact
8.	Nobanee and Al Hajjar (2005)	Non-financial Japanese firms	1990-2004	Raising firms' profitability

METHODOLOGY:

The current information examination is the monetary information of food and beverage industry (Hindustan Unilever Limited) which is listed on BSE India. The fundamental information has been gathered from the Database Capitaline for a long time from monetary years 2014-15 to 2018-19. The market capitalization of HUL as of 15th July remained at Rs. 3,45,383 Crore. For this investigation, variables were utilized about working capital management as a monetary procedure and characterized into; reliant and free variables. The current ratio and collection days considered as an estimation of aggressiveness of working capital are independent variables. Then again, working profitability addresses firms' productivity which is used as a dependent variable that is estimated by gross profit margin/surplus and returns on capital employed. The quantity of day's accounts receivables/ payables used as an intermediary for the collection/payment strategy is an independent variable. Based on the adopted information, study checked the relationship of working capital strategy and for this Karl Pearson's Product Moment Method (Correlation coefficient r) was used.

DATA ANALYSIS:

Table- 1 Key Financial Ratios for the period of 2014-15 to 2018-19 (March)

Particulars /years	**2015**	**2016**	**2017**	**2018**	**2019**
Gross profit margins (%)	15.97	17.47	17.72	19.69	21.22
EBIT (%)	22.51	-3.92	7.67	13.82	17.04
PBT (%)	23.05	-3.90	7.57	13.90	16.98
ROE (%)	115.87	65.88	69.18	74.02	79.06
ROCE (%)	148.75	95.42	95.17	104.12	114.59
Collection days	38.52	33.64	32.02	33.28	27.11
Current ratio (X)	0.75	1.03	0.82	0.94	1.00
Total debt to equity (%)	0.00	0.00	0.00	0.00	0.00
Interest coverage (X)	311.70	397.40	291.73	365.25	305.36
EPS (X)	19.95	19.12	20.75	24.19	27.88
DPS	15.00	16.00	17.00	20.00	22.00

Source: Capitaline database (Calculation from table 1 and 2)
Where,
EBIT = Earnings before interest and tax
PBT = Profit before tax
PAT = Profit after tax
ROE = Return on Equity
ROCE = Return on Capital Employed
EPS = Earnings per share
DPS = Dividend per share

Table – 2 Relationship between Current Ratio (X) and Gross Profit Margin (Y)

Year	X	Y	$X-\bar{X}$	$Y-\bar{Y}$	$(X-\bar{X})^2$	$(Y-\bar{Y})^2$	$(X-\bar{X})(Y-\bar{Y})$
2015	0.75	15.97	-0.158	-2.44	0.024	5.98	0.385
2016	1.03	17.47	0.122	-0.95	0.014	0.90	-0.115
2017	0.82	17.72	-0.080	-.070	0.007	0.48	0.056
2018	0.94	19.69	0.032	1.276	0.001	1.63	0.040
2019	1.00	21.22	0.092	2.810	0.008	7.88	0.258
Total	**4.54**	**92.07**	**0.008**	**-0.004**	**0.054**	**16.87**	**0.624**

$\bar{X} = 4.54/5 = 0.908$
$\bar{Y} = 92.07/5 = 18.414$

r = (X- X) (Y-Y)/ N.$\bar{Sx}$ X Sy

$$Sx = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n}} \text{ and } Sy = \sqrt{\frac{\Sigma(y-\bar{y})^2}{n}}$$

Sx = 0.103
Sy = 1.836
r = 0.624/ 5 X 0.103 X 1.836
r = 0.67

Table – 3 Relationship between Collection Days (X) and Return on Employed (Y)

Year	X	Y	X- X	Y- Y	(X- X)²	(Y- Y)²	(X- X)(Y-Y)
2014	38.52	148.75	5.606	37.14	31.42	1379.379	208.206
2015	33.64	95.42	0.726	-16.19	0.527	262.116	-11.753
2016	32.02	95.17	-0.894	-16.44	0.799	270.273	14.697
2017	33.28	104.12	0.366	-7.49	0.133	56.100	-2.741
2018	27.11	114.59	-5.804	2.98	33.68	8.880	-17.295
Total	**164.57**	**558.05**	**0**	**0**	**66.559**	**1976.748**	**191.114**

X = 164.57/5 = 32.914
Y = 558.05/5 = 111.61
r = (X- X) (Y-Y)/ N.$\bar{Sx}$ X Sy

$$Sx = \sqrt{\frac{\Sigma(x-\bar{x})^2}{n}} \text{ and } Sy = \sqrt{\frac{\Sigma(y-\bar{y})^2}{n}}$$

Sx = 3.648
Sy = 19.883
r = 191.114/ 5 X 3.648 X 19.883
r = 0.52

DATA INTERPRETATION:

The coefficient of the correlation always lies between -1 and +1, including both the restricted values. For example;
That is, -1 < r < 1.
The correlation coefficient estimating a linear relationship between two variables indicates the measure of variety of one variable considered for another variable. The square of correlation coefficient is estimated for a superior outcome that is known as the coefficient of determination. It is denoted by (r^2). This can be interpreted as the ratio between the explained variance to total variance.
r^2 = explained variance / total variance
From the above table - 2 we can say that the value of (r = +0.67) indicates that the perfect linear relationship between the variables. Positive sign with coefficient value shows positive (direct, strong) connection between the relationships. Accordingly, a worth 0.67 of r determines that $(0.67)^2$ x 100% or 44.89% considered by the factor under consideration and the leftover 55.11% is due to other factors. It implies the result shows that the perfect relationship between current ratio and gross profit margin.
From the above table – 3 the result shows the value of (r = +0.52) and also indicates that perfect positive linear relationship between the variables. Thus a value 0.52 of r suggest that $(0.52)^2$ x 100% or 27.04% accounted by the factor consideration and remaining 72.96% is responsible due to other variables. The findings express that the additionally, a positive ideal/perfect connection between the collection days and return on employed.

CONCLUSION:

The study investigated the connection between working capital management and firms' financial performance with the F & B Industry (Hindustan Unilever Limited) and information has been gathered from the period 2014-15 to 2018-19. The connection between current ratio & gross profit margin and relationship between the collection days and return on employed are scrutinized through Karl Pearson's product moment method (correlation coefficient r). Further, two outcomes saw that the ideal/perfect positive connection between the above variables. Hence, the study suggest that the organization should develop its working capital which is viewed as a backbone of any organisation.

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