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- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

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FINANCING PATTERN AND UTILISATION OF FIXED ASSETS IN BATTERY INDUSTRY IN ANDHRA PRADESH

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ABSTRACT

Batteries are an integral part of our everyday lives. Batteries are portable storehouses of energy. Fixed assets are those assets that are of permanent nature having a life expectancy of more than one year and are used by a firm in its normal operations. The research paper aims at examining the various dimensions of financing pattern and utilization of fixed assets of battery industry in Andhra Pradesh. The analysis of data is carried out through fixed assets to net worth ratio, fixed assets to long term funds ratio and fixed assets turnover ratio. Further, various statistical tools like arithmetic mean, standard deviation, co-efficient of variation, co-efficient of correlation, and students 't'-test are also applied. Graphs and diagrams are presented to illuminate the facts and figures at appropriate contexts. Long term funds constitute owners' funds and long-term debt should alone be used to finance fixed assets. The average fixed assets to net worth ratio was less than the unity in all battery companies in Andhra Pradesh. It indicates that the proprietary funds were sufficient to finance the fixed assets requirement. As a result, all battery companies were depending upon the shareholders' funds to meet their quantum of fixed assets. Fixed assets to long term funds ratio worked out to less than the unity during the entire study period in all battery companies under study and the industry in Andhra Pradesh. It indicates that the long term funds were fully adequate to finance fixed assets as well as the part of current assets. One of the most potent tools employed to evaluate the effectiveness of the utilisation of fixed assets is assets turnover. ARBL and HBL, have become symbols of under utilisation of fixed assets and idle investments. But only one company – NBL – is a rare exception to this phenomenon. It reveals that NBL utilised its fixed assets effectively, whereas ARBL and HBL could not do so.

KEYWORDS

ARBL, HBL, NBL, battery industry in A.P.

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INTRODUCTION

Batteries are an integral part of our everyday lives. Batteries provide us with a mobile source of power that makes many modern conveniences possible. Batteries are portable storehouses of energy. A battery is an electrochemical device in which the free energy of a chemical reaction is converted into electrical energy. Batteries of immense variety and of different sizes are manufactured for industrial, automotive and consumer applications.

Fixed assets are those assets that are of permanent nature having a life expectancy of more than one year and are used by a firm in its normal operations. To quote Finny and Miller, fixed assets are the assets of a relatively permanent nature used in the operation of a business and which are not intended for sale (Finny and Miller 1968). Sometimes, the term fixed assets is used to designate the fixed or permanent investment in tangible assets of a business enterprise. They are necessary for manufacturing firms, since production would be impossible without them (Gitman, 1982).

REVIEW OF LITERATURE

Gangadhar made an important attempt to study the financial analysis of companies in Eritrea. Various ratios relating to profitability, liquidity, solvency and asset management are used for the study. He found that the management of Asmara Brewery Factory Limited had to strive for maximizing the assets efficiency through optimum sales with efficient use of the assets (Gangadhar, 1988). A noteworthy study was undertaken by Sanjib Roy to analyse the financial performance of Indian Tea Industry. He made an attempt to study the financial statement analysis which represents the earning power of an entrepreneur and ratio analysis which can measure managerial efficiencies. He explained that a high degree of fixed assets turnover ratio may mean efficient utilization of plant and machinery etc., (Sanjib Roy, 1998). Rajesh in his study entitled, Financial Performance of Select Drug and Pharmaceutical Industries in Andhra Pradesh, analyses the impact of fixed assets expansion was effective on sales of all the sample units so that the units can make more operating profits (Rajesh, 2008). Padmini in her study, Financial Performance of Pharmaceutical Industry in India, concluded that there is effective use of long term funds to finance the fixed assets and also to finance the core current assets in Industry. She suggests that the proportion of proprietary funds have to be increased in order to provide greater coverage to fixed assets in all the pharmaceutical groups (Padmini, 2012).

OBJECTIVE OF THE PAPER

The research paper aims at examining the various dimensions of financing pattern of fixed assets and utilization of fixed assets of battery industry in Andhra Pradesh.

HYPOTHESES

The hypotheses formulated in the present study are:

- i) There is no significant difference between the fixed assets to net worth ratio of individual battery companies and the battery industry in Andhra Pradesh.
- ii) There is no significant difference between the fixed assets turnover ratio of individual battery companies and the battery industry in Andhra Pradesh.

RESEARCH METHODOLOGY**SAMPLE DESIGN**

According to A.P. industries website, four registered battery companies are operating in the state of Andhra Pradesh. They include Nippo Batteries Limited (NBL - 1972), Amara Raja Batteries Limited (ARBL - 1985), Hyderabad Batteries Limited (HBL - 1986) and Energy Leader Batteries India Limited (ELBIL - 2007). In order to carryout time series analysis, the companies with ten years of existence were brought into the sample frame. In other words, the companies which were established prior to 2002-03 alone are considered for the purpose of the study. Barring ELBIL, the rest of the battery companies fulfilled this criteria.

DATA BASE

The present study is based on the secondary data only. The data for the study have been primarily obtained from the annual reports of select battery companies in Andhra Pradesh. Relevant information is also gathered from the data published by the reports of battery companies, libraries of various institutions and the companies' website and other related websites on the battery industry were consulted. Also internet, journals, magazines, periodicals and research dissertations on finance and industry have been referred.

PERIOD OF THE STUDY

The present study needs a lengthy period so as to arrive at meaningful and purposeful inferences. Therefore, a ten year period commencing with the financial year 2002-03 and ending with 2011-12 has been adopted.

SCOPE AND LIMITATIONS OF THE STUDY

The present study is confined to issues relating to analyzing the financial pattern and utilization of fixed assets in battery industry in Andhra Pradesh. The present study may not be free from limitations. The figures taken from the annual reports have been rounded off to two decimals of rupees in crores. Secondary data have been collected from more than one source. Hence, there may be slight discrepancies between one source and another on the same variable. The reliability and correctness of calculation and findings depend upon the information obtained through secondary data.

TOOLS AND TECHNIQUES OF ANALYSIS

The data gleaned from the annual reports of select battery companies in Andhra Pradesh has been carefully processed, tabulated, analysed, and interpreted by using well established financial tools. The analysis of data is carried out through fixed assets to net worth ratio, fixed assets to long term funds ratio and fixed assets turnover ratio. Further, various statistical tools like arithmetic mean, standard deviation, co-efficient of variation, co-efficient of correlation, and students 't' – test are also applied. Graphs and diagrams are presented to illuminate the facts and figures at appropriate contexts.

ANALYSIS**FINANCING PATTERN OF FIXED ASSETS**

The investment in fixed assets involves commitment of funds for longer periods into the future and usually are difficult and costly to reverse often as they are in large increments (Hunt and Donaldson, 1965). As such, fixed assets represent permanent investment of funds and, therefore, they have to be financed primarily by the owners' funds. Usually, funds provided by the owners should be sufficient not only to finance the entire requirements of fixed assets but also some of the current assets, which are relatively permanent in nature. Further, fixed assets are to be preferably financed through long-term debt. It implies that in any situation, an enterprise's fixed assets should not be financed by the short-term funds. In other words, long-term funds constitute owners' funds and long-term debt should alone be used to finance fixed assets. In order to study the financing pattern of fixed assets in the battery industry, two relevant ratios viz., fixed assets to owners' funds or net worth and fixed assets to long-term funds have been computed.

FIXED ASSETS TO NET WORTH

Fixed assets to net worth ratio is an important tool for judging the margin of safety for long-term creditors. The ratio explains the relationship between fixed assets and tangible net worth. To quote Roy Chowdhary, the ratio of fixed assets to owners' funds indicates the relationship between net worth and investment in fixed assets i.e., gross block less depreciation (Roy Chowdhary, 1970). The ratio is calculated by dividing the net fixed assets with owners' funds (tangible net worth). Thus,

$$\text{Fixed Assets to Net Worth Ratio} = \frac{\text{Fixed Assets (Net)}}{\text{Net Worth}}$$

Fixed Assets to Net Worth Ratio =

Table 1 and Figure 1 indicate the ratio of fixed assets to net worth in select battery companies and the battery industry in Andhra Pradesh.

AMARA RAJA BATTERIES LIMITED

In ARBL, the ratio had exceeded the standard norm of 0.65 times in the initial seven years from 2002-03 to 2008-09. After that the ratio showed below the norm of 0.65 times in the concluding years of the study from 2009-10 to 2011-12. The average fixed assets to net worth ratio of ARBL was higher than the standard norm. The ratio had varied from the lowest of 0.49 times in 2011-12 to the highest of 0.91 times in 2008-09. The volume of net fixed assets had increased from Rs.121.87 crores in 2002-03 to Rs.402.62 crores in 2011-12 with an average of Rs.244.18 crores and net worth had surged up to Rs.823.47 crores in 2011-12 from Rs.175.13 crores in 2002-03. Net fixed assets and net worth have shown an increasing trend over the study period. Net worth had outweighed the net fixed assets during the entire period of study. It reveals that the shareholders' funds were sufficient to finance fixed assets requirement.

TABLE 1: FIXED ASSETS TO NET WORTH RATIO (in times)

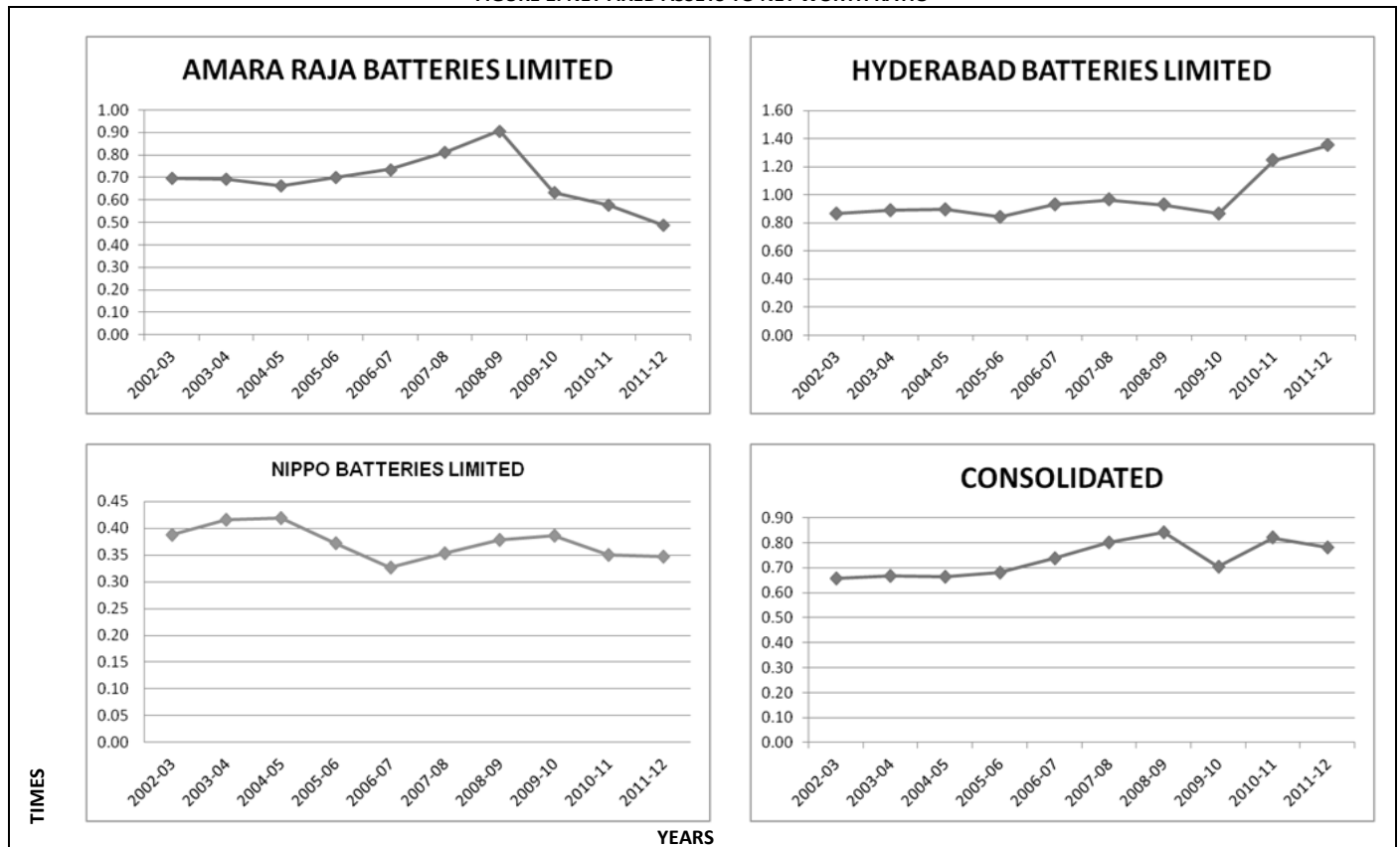
YEAR	ARBL	HBL	NBL	CONSOLIDATED
2002-03	0.70	0.86	0.39	0.66
2003-04	0.69	0.89	0.42	0.67
2004-05	0.66	0.90	0.42	0.66
2005-06	0.70	0.84	0.37	0.68
2006-07	0.74	0.93	0.33	0.74
2007-08	0.81	0.96	0.35	0.80
2008-09	0.91	0.93	0.38	0.84
2009-10	0.63	0.87	0.39	0.71
2010-11	0.58	1.25	0.35	0.82
2011-12	0.49	1.35	0.35	0.78
Average	0.69	0.98	0.38	0.74

Source : Annual reports of select battery companies in Andhra Pradesh

HYDERABAD BATTERIES LIMITED

In HBL, the ratio had exceeded the idle norm of 0.65 times over the study period. At the same time, the ratio had outstripped the unity only in two years i.e., 2010-11 and 2011-12. It implies that the company was not able to finance its fixed assets comfortably in the last two years of the study. Net fixed assets had reported an increasing trend from Rs.84.17 crores in 2002-03 to Rs.716.39 crores in 2011-12 and net worth had increased from Rs.97.39 crores in 2002-03 to Rs.530.03 crores in 2011-12. The ratio varied between the minimum of 0.84 times in 2005-06 and the maximum of 1.35 times in 2011-12 with an average of 0.98 times. It may be observed that the company not only used ownership funds but also borrowed funds to finance fixed assets in the concluding years of the study.

FIGURE 1: NET FIXED ASSETS TO NET WORTH RATIO



NIPPO BATTERIES LIMITED

In NBL, the ratio had never touched the norm of 0.65 times over the study period. In other words, the company had been moving satisfactorily in the right direction of financing its fixed assets and part of permanent current assets completely by owners’ funds. The ratio varied between the minimum of 0.33 times in 2006-07 and the maximum of 0.42 times in the years 2003-04 and 2004-05 with an average of 0.38 times. Net fixed assets had surged from Rs.38.07 crores in 2002-03 to Rs.49.33 crores in the year 2011-12 and net worth increased from Rs.98.36 crores in 2002-03 to Rs.142.38 crores in 2011-12. Net fixed assets had fluctuated while net worth shows a rise over the study period. It is observed that the ratio was less than the norm during entire study period. It indicates that the shareholders’ funds were sufficient not only to finance fixed assets but were also used to finance current assets.

CONSOLIDATED

In the consolidated position, the average ratio was 0.74 times and the ratio had shown an inconsistency over the years. The ratio had exceeded the norm of 0.65 times over the study period. It is observed that the ratio was less than unity in consolidated position indicating that the shareholders’ funds were sufficient not only to finance fixed assets but a meagre quantum of current assets.

An overall observation of fixed assets to net worth ratio indicates that the battery industry had only used ownership funds. The ratio depicts a mixed trend of ups and downs. It may be concluded that the fixed assets were less than the net worth in all battery companies in Andhra Pradesh. It indicates that the proprietary funds were sufficient to finance the fixed assets requirement. As a result, all battery companies were depending upon the shareholders’ funds to meet their quantum of fixed assets.

APPLICATION OF ‘t’ - TEST FOR FIXED ASSETS TO NET WORTH RATIO

Application of ‘t’ - test for fixed assets (net) to net worth ratio of select battery companies and the battery industry in Andhra Pradesh is presented in Table 2. To determine whether there was any significant variation in the fixed assets to net worth ratio between the individual battery companies and the battery industry in Andhra Pradesh, the following hypothesis was formulated and it was tested through students ‘t’ - test.

H₀: There is no significant difference between the fixed assets to net worth ratio of individual battery companies and the battery industry in A.P.

TABLE 2: APPLICATION OF ‘t’ - TEST FOR FIXED ASSETS TO NET WORTH RATIO

PARTICULARS	ARBL	HBL	NBL	CONSOLIDATED
Mean of FA to NW ratio	0.69	0.98	0.38	0.74
SD of FA to NW ratio	0.12	0.18	0.03	0.07
CV of FA to NW ratio	16.86	17.90	8.17	9.46
‘r’ of FA to NW ratio	0.92	0.96	0.79	0.99
Calculated value of ‘t’	-1.04865638 ^{NS}	4.062274 ^{**}	-15.0055 ^{**}	
p – value	0.308213411	0.000731	1.28E-11	
Table value of ‘t’	2.10092204	2.10092204	2.10092204	

Source : Computed from Table 1

Notes
 i) NS indicates Not Significant at 5 per cent level of significance
 ii) ** indicates highly significant at 5 per cent level of significance
 It is found that there is no significant difference between fixed assets to net worth ratio of ARBL and the consolidated position, whereas there is significant difference between fixed assets to net worth ratio of HBL and NBL and that of consolidated position. It is concluded that in the case of individual battery companies when compared with consolidated position, null hypothesis was accepted for ARBL and rejected for HBL and NBL.

FIXED ASSETS TO LONG TERM FUNDS

Fixed assets to long-term funds is yet another ratio to study the financing pattern of fixed assets. It is related to net fixed assets with long-term funds. The long-term funds for this purpose include owners’ funds, as represented by tangible net worth, plus long-term borrowed funds. Normally, funds provided by the owners

should be sufficient to cover the fixed assets. However, if it is necessary to finance fixed assets under certain conditions by borrowed funds, only long-term funds should be preferred. Otherwise, it would result in financial embarrassment. In such a situation, the total long-term funds should be sufficient to finance fixed assets and leave a part of these to finance core current assets. The ratio indicates whether the long-term funds are sufficient to finance company's fixed assets or the extent of fixed assets financed by the current debt due to inadequacy of long-term funds. Ideally, this ratio should not exceed unity. If it is less than unity, it means that the long-term funds are more than the fixed assets and they are used for the purpose of other than the acquisition of the long-term assets, i.e., for financing working capital (Hingorani and Ramanathan, 1977). The ratio is calculated by dividing fixed assets (net) with the long-term funds. Thus, the formula for the derivation of this ratio is:

$$\frac{\text{Fixed Assets (Net)}}{\text{Long - term Funds}}$$

Fixed Assets to Long-term Funds =

Table 3 depict the ratio of net fixed assets to long-term funds for the select battery companies and the battery industry in Andhra Pradesh.

AMARA RAJA BATTERIES LIMITED

In ARBL, on an average, fixed assets formed 0.54 times of long-term funds, thereby leaving 0.46 times to finance working capital needs. The ratio had shown an overall fluctuation over the study period. It varied between the minimum of 0.42 times in 2007-08 and the maximum of 0.66 times in 2002-03. It implies that the availability of long-term funds to finance working capital needs had been increasing after meeting the fixed assets requirements completely compared with the previous years of study.

HYDERABAD BATTERIES LIMITED

In HBL, the ratio of fixed assets to long-term funds had registered ups and downs. On an average, it had recorded 0.51 times and leaves 0.49 times to finance a part of current assets. The ratio varied between the minimum of 0.45 times in 2007-08 and the maximum of 0.64 times in 2011-12. It may be observed that long-term funds were sufficient to finance fixed assets requirement. In other words, the surplus long-term funds in HBL enabled to strengthen its working capital financing.

TABLE 3: FIXED ASSETS TO LONG TERM FUNDS RATIO (in times)

YEAR	ARBL	HBL	NBL	CONSOLIDATED
2002-03	0.66	0.50	0.39	0.54
2003-04	0.64	0.55	0.42	0.55
2004-05	0.59	0.46	0.42	0.50
2005-06	0.59	0.48	0.36	0.50
2006-07	0.47	0.54	0.32	0.48
2007-08	0.42	0.45	0.34	0.42
2008-09	0.53	0.48	0.37	0.49
2009-10	0.54	0.47	0.38	0.49
2010-11	0.50	0.53	0.35	0.51
2011-12	0.44	0.64	0.33	0.54
Average	0.54	0.51	0.37	0.50
SD	0.08	0.06	0.03	0.04
CV (%)	15.22	11.21	9.48	7.50
(r)	0.98	0.98	0.73	0.99

Source : Annual reports of select battery companies in Andhra Pradesh

NIPPO BATTERIES LIMITED

In the case of NBL, the fixed assets to long term funds ratio recorded, on an average, 0.37 times. This can also be stated as a part of current assets being financed on an average at 0.63 times of the long term funds. The ratio had varied between the lowest of 0.32 times in 2006-07 and the highest of 0.42 times in 2003-04 and 2004-05. The long-term funds were fully adequate to finance fixed assets as well as the part of current assets as the ratio was very less. It is observed that the ratio had been declining, leaving heavy surplus long-term funds for the financing of current assets, which enabled the company to strengthen its working capital base.

CONSOLIDATED

It is apparent that long-term funds advanced from Rs. 450.11 crores in 2002-03 to Rs. 2179.85 crores in 2011-12. The ratio had varied between a minimum of 0.42 times in 2007-08 and the maximum of 0.55 times in 2003-04. The ratio points out that the long-term funds were sufficient to finance their fixed assets. It also reflects that even after meeting the fixed assets requirements completely, the industry was able to provide, on an average, 0.50 times of long-term funds to finance the net working capital. In other words, the long-term funds were adequate to finance the entire fixed assets and a part of current assets too.

An analysis of individual battery companies points out that, all battery companies have long-term funds quite sufficient to finance the fixed assets as well as part of current assets, as their average ratio worked out to less than the unity. However, none of the individual battery companies reported a constant trend during the study period. To conclude, the financing pattern of fixed assets through long-term funds was appropriate in all battery companies under study in Andhra Pradesh.

Standard deviation of ARBL, HBL, NBL and Consolidated are 0.08, 0.06, 0.03 and 0.04 respectively. Co-efficient of variation (CV) explains that if CV is less in NBL compared with other battery companies, and then a series having less CV is best. The co-efficient of correlation between the fixed assets and long-term funds had a high positive relationship in all individual battery companies in Andhra Pradesh. But such relationship was relatively lower in NBL whereas it was higher in ARBL and HBL.

EFFICIENCY IN THE USE OF FIXED ASSETS

One of the most potent tools employed to evaluate the effectiveness of the utilisation of fixed assets is assets turnover (Srivastava, 1979). The turnover of fixed assets denotes their contribution to sales. It is, therefore, an important ingredient of overall profitability. Westwick also suggests the application of fixed assets turnover ratio to measure the utilisation of fixed assets (Westwick, 1973). Turnover means the number of times an asset flows through a firm's operations into sales. The turnover of fixed assets investment is defined as the relationship between the volume of business done and the amount of capital tied-up in fixed property investments (Bogen, 1957). The ratio is calculated by dividing net sales with net fixed assets (Pandey, 1979). Thus,

$$\frac{\text{Net Sales}}{\text{Net Fixed Assets}}$$

Fixed Assets Turnover Ratio =

A reasonably high fixed assets turnover ratio indicates the effective utilisation of fixed assets in generating sales. But low ratio indicates idle capacity and inefficient utilisation of fixed assets. The standard norm of this ratio is five times in manufacturing industry (Mohsin, 1980).

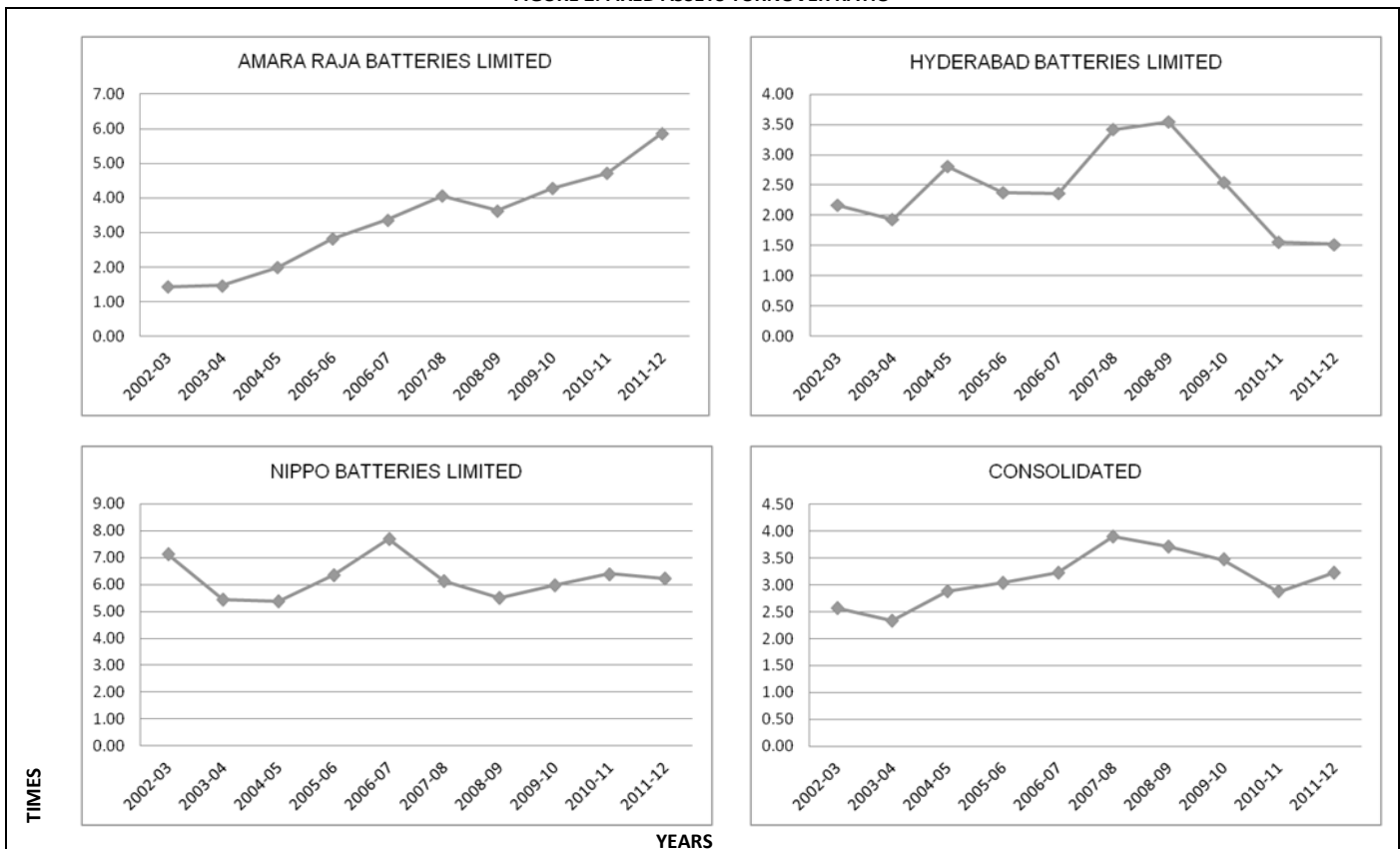
The fixed assets turnover ratio of select battery companies and the battery industry in Andhra Pradesh is presented in Table 4 and Figure 2.

TABLE 4: FIXED ASSETS TURNOVER RATIO (in times)

YEARS	ARBL	HBL	NBL	CONSOLIDATED
2002-03	1.42	2.17	7.13	2.57
2003-04	1.47	1.93	5.43	2.33
2004-05	1.99	2.81	5.37	2.88
2005-06	2.81	2.37	6.35	3.04
2006-07	3.36	2.37	7.68	3.22
2007-08	4.06	3.42	6.14	3.90
2008-09	3.63	3.54	5.49	3.71
2009-10	4.28	2.54	5.96	3.47
2010-11	4.72	1.55	6.39	2.87
2011-12	5.87	1.52	6.23	3.22
Average	3.36	2.42	6.22	3.12

Source : Annual reports of select battery companies in Andhra Pradesh

FIGURE 2: FIXED ASSETS TURNOVER RATIO



AMARA RAJA BATTERIES LIMITED

It is evident that ARBL registered, on an average, 3.36 times, which is above the combined average and below the standard norm of five times. The ratio showed an increasing trend over the study period except in the year 2008-09. The ratio varied between the minimum of 1.42 times in 2002-03 and the maximum of 5.87 times in 2011-12. The ratio depicted an improvement over the years and reached the standard norm of five times by the end of the study period. It means that utilisation of fixed assets was effective in the last two years of the study but the company failed to make use of fixed assets effectively in remaining years of the study.

HYDERABAD BATTERIES LIMITED

In HBL, the ratio had fluctuated between the minimum of 1.52 times in 2011-12 and the maximum of 3.54 times in 2008-09. HBL might be signalled out for its total failure in making use of fixed assets effectively as the average ratio worked out to 2.42 times which is below the standard norm. It indicates that the ratio was less than the standard norm in all the years of study, thereby denoting that fixed assets were not effectively utilised by the management. It reflects the ineffective utilisation of fixed assets.

NIPPO BATTERIES LIMITED

In NBL, fixed assets turnover ratio had varied between the minimum of 5.37 times in 2004-05 and the maximum of 7.68 times in 2006-07. Undoubtedly, NBL had used its fixed assets efficiently as is evident from its turnover ratio, which is above the standard norm of five times over the entire study period. Hence, it may be concluded that there was effective use of fixed assets in the company.

CONSOLIDATED

A glance at the fixed assets turnover ratio shows that, on an average, it recorded 3.12 times, which is far, less than the standard norm of five times in the combined position of select battery companies in Andhra Pradesh. The average turnover of fixed assets is only three-fifth of the standard norm and in none of the years the ratio touched the standard norm. It reached the peak level of 3.90 times in the year 2007-08 and the lowest level of 2.33 times in the year 2003-04. It is noticed that the ratio registered fluctuations throughout the study period. In other words, the fixed assets have not been efficiently utilised in all the years under reference. It is evident that, an evaluation of individual battery companies, NBL reveals a different picture from that of the combined position. Average fixed assets turnover ratio of NBL (6.22 times) had shown an impressive performance. ARBL shows a ratio, an average of 3.36 times, resembling the industry average of 3.12 times. In HBL, an average fixed assets turnover (2.42 times) was very low, disclosing ineffective utilisation of fixed assets. It may be concluded that two out of three battery companies have become symbols of under utilisation of fixed assets and idle investments. But only one company – NBL – is a rare exception to this phenomenon. It reveals that NBL utilised its fixed assets effectively, whereas ARBL and HBL could not do so.

APPLICATION OF 't' - TEST FOR FIXED ASSETS TURNOVER RATIO

Application of 't' - test for fixed assets turnover ratio of select battery companies and the battery industry in Andhra Pradesh is presented in Table 5.

To determine whether there was any significant variation in the fixed assets turnover ratio between the individual battery companies and the battery industry in Andhra Pradesh, the following hypothesis was formulated and it was tested through students 't' - test.

H₀: There is no significant difference between the fixed assets turnover ratio of individual battery companies and the battery industry in Andhra Pradesh.

TABLE 5: APPLICATION OF 't' - TEST FOR FIXED ASSETS TURNOVER RATIO

PARTICULARS	ARBL	HBL	NBL	CONSOLIDATED
Mean of FAT ratio	3.36	2.42	6.22	3.12
SD of FAT ratio	1.46	0.69	0.74	0.49
CV of FAT ratio	43.31	28.52	11.94	15.67
'r' of FAT ratio	0.97	0.81	0.45	0.98
Calculated value of 't'	0.494193 ^{NS}	-2.61159 [*]	11.01422 ^{**}	
p - value	0.627147	0.017664	1.98E-09	
Table value of 't'	2.100922	2.100922	2.100922	

Source : Computed from Table 4

Notes

i) NS indicates Not Significant at 5% level of significance

ii) * indicates significant at 5% level of significance

iii) ** indicates highly significant at 5% level of significance

It is observed that there is no significant difference between fixed assets turnover ratio of ARBL and the consolidated position, whereas there is significant difference between fixed assets turnover ratio of HBL and NBL and that of the consolidated picture. Therefore, it is confirmed that with regard to the individual battery companies when compared with consolidated position, the null hypothesis was accepted for ARBL and rejected for HBL and NBL.

CONCLUSION

Fixed assets are those assets that are of permanent nature having a life expectancy of more than one year and are used by a firm in its normal operations. Usually, funds provided by the owners should be sufficient not only to finance the entire requirements of fixed assets but also some of the current assets, which are relatively permanent in nature. Further, fixed assets are to be preferably financed through long-term debt. The average fixed assets to net worth ratio was less than the unity in all battery companies in Andhra Pradesh. It indicates that the proprietary funds were sufficient to finance the fixed assets requirement. As a result, all battery companies were depending upon the shareholders' funds to meet their quantum of fixed assets. It is found that there is no significant difference between fixed assets to net worth ratio of ARBL and the consolidated position, whereas there is significant difference between fixed assets to net worth ratio of HBL and NBL and that of consolidated position. Fixed assets to long term funds ratio worked out to less than the unity during the entire study period in all battery companies under study and the industry in Andhra Pradesh. It indicates that the long term funds were fully adequate to finance fixed assets as well as the part of current assets. It is observed that there is no significant difference between fixed assets turnover ratio of ARBL and the consolidated position, whereas there is significant difference between fixed assets turnover ratio of HBL and NBL and that of the consolidated picture. Therefore, it is confirmed that with regard to the individual battery companies when compared with consolidated position, the null hypothesis was accepted for ARBL and rejected for HBL and NBL.

The battery companies instead of depending excessively on shareholders' funds, should raise the debt funds for meeting the fixed assets requirements since the debt capital is a cheaper source than equity finance. The reason is that the interest on debt is tax deductible.

ARBL and HBL, have become symbols of under utilisation of fixed assets and idle investments. But only one company – NBL – is a rare exception to this phenomenon. It reveals that NBL utilised its fixed assets effectively, whereas ARBL and HBL could not do so. Hence, the managements of these companies shall utilise their fixed assets effectively through productive employment of shareholders' funds.

REFERENCES

- Bogen, J.J., Financial Handbook, New Delhi: The Ronald Press, 1957, p.253. (In text citation: Bogen, 1957)
- Finny, H.A., and Miller, H.E., Principles of Accounting, New Delhi: Prentice-Hall of India, 1968, p.163. (In text citation: Finny and Miller, 1968)
- Gangadhar, V., Financial Analysis of Companies in Eritrea: A Profitability and Efficiency Focus, The Management Accountant, November 1988, pp.810-817. (In text citation: Gangadhar, 1988)
- Gitman, L.J., Principles of Management Finance, New York: Harper and Row Publishers, 1982, p.381. (In text citation: Gitman, 1982)
- Hingorani, N.L., and Ramanathan, A.R., Management Accounting, New Delhi: Sultan Chand and Sons, 1977, p.115. (In text citation: Hingorani and Ramanathan, 1977)
- Hunt, W., and Donaldson, G., Business Finance – Text and Cases, Illinois: Richard D. Irwin, 1965, pp.114-115. (In text citation: Hunt and Donaldson, 1965)
- Mohsin, M., Financial Planning and Control, New Delhi: Vikas Publishing House Pvt. Ltd., 1980, p.174. (In text citation: Mohsin, 1980)
- Padmini, K., Financial Performance of Pharmaceutical Industry in India, Unpublished Thesis, Sri Venkateswara University, Tirupati, June 2012. (In text citation: Padmini, 2012)
- Pandey, I.M., Financial Management, New Delhi: Vikas Publishing House Pvt. Ltd., 1979, pp.440-441. (In text citation: Pandey, 1979)
- Rajesh, K., Financial Performance of Select Drug and Pharmaceutical Industries in Andhra Pradesh, Unpublished Thesis, Sri Venkateswara University, Tirupati, February 2008. (In text citation: Rajesh, 2008)
- Roy Chowdhary, A.B., Analysis and Interpretation of Financial Statements, New Delhi: Orient Longmans, 1970, p.24. (In text citation: Roy Chowdhary, 1970)
- Sanjib Roy, Financial Performance of Indian Tea Industry, The Management Accountant, May 1998, pp.330-334 and 337. (In text citation: Sanjib Roy, 1998)
- Srivastava, R.M., Financial Management, Meerut, India: Pragati Prakashan Publishing House, 1979, p.474. (In text citation: Srivastava, 1979)
- Westiwick, C.A., Management: How to use Ratios, Epping Essex: Grower Press Ltd., 1973, p.5. (In text citation: Westiwick, 1973)

REPORTS

- Annual Reports of Amara Raja Batteries Limited
- Annual Reports of Hyderabad Batteries Limited
- Annual Reports of Nippo Batteries Limited

WEBSITES

- <http://accountingexplained.com>
- <http://www.investopedia.com>
- <https://corporatefinanceinstitute.com>
- www.arbl.co.in
- www.hbl.co.in
- www.indianaccounting.org
- www.moneycontrol.com
- www.nbl.com

GROWTH AND CREDIT - AN INDIAN CONTEXT

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ABSTRACT

Credit Risk Management in Scheduled Commercial Banks have greater impact on its profitability and sustainability, much research work happened in this area but many researchers ignored the impact of macroeconomic factors such as Gross Domestic Product growth in credit Risk Management. This paper is mainly aimed to establish the correlation among Gross Domestic Product growth and Credit Risk factors such as Credit Growth and Write off amount growth. Based on the empirical correlation we ascertain the situation in Scheduled Commercial Banks in Credit Risk Management with help of experts in the area.

KEYWORDS

SCBs, GDP, write off, credit, correlation co-efficient.

JEL CODE

H89

INTRODUCTION

In this Modern world everything scaled based the growth, banking have no exception to it. The word growth impacted every sphere of life of human from Agriculture and atomic sciences. Banks now became a key centre for developmental activities in India with its deep penetration and strong presence. Prime function of the banks in India is accepting deposits for the purpose of lending in developmental activities, at large interest of development of the society and Nation. Share of the SCBs in the industry in India is more than Ninety five percent. Credit growth is essentially important for the survival of banking industry. Growth of the Nation measured in terms of Gross Domestic Product growth in general. Major economic factors are having high impact on credit repayments and performance of industry as well.

Scheduled Banks in India refer to those banks, which have been included in the Second Schedule of Reserve Bank of India Act, 1934. RBI in turn includes only those banks in this Schedule which satisfy the criteria laid down vide section 42(6)(a) of the said Act. Banks not under this Schedule are called Non-Scheduled Banks. Every Scheduled bank enjoys two types of principal facilities: it becomes eligible for debts/loans at the bank rate from the RBI; and, it automatically acquires the membership of clearing house. Scheduled banks which works on commercial motive is known scheduled commercial banks (SCBs)

In banking, banks write off bad debt that is declared non collectable (such as a loan on a defunct business, or a credit card due that is in default), removing it from their balance sheets. A reduction in the value of an asset or earnings by the amount of an expense or loss

GROSS DOMESTIC PRODUCT

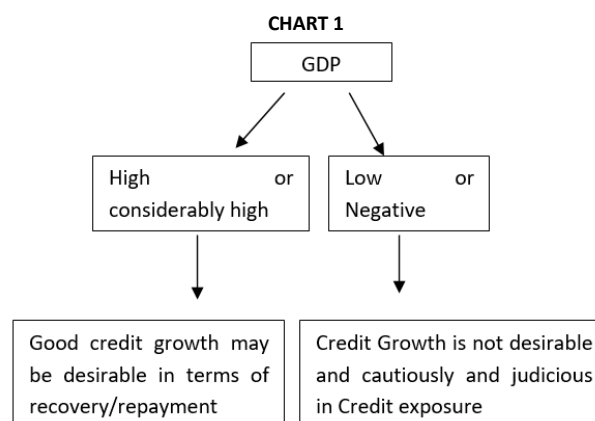
The Gross domestic Product (GDP) is the market value of all final goods and services produced within a country in a given period of time. The GDP is the officially recognized totals. The following equation is used to calculate the GDP:

$GDP=C+I+G+(X-M)$ OR

$GDP = \text{private consumption} + \text{gross investment} + \text{government investment} + \text{government spending} + (\text{exports} - \text{imports})$.

For the gross domestic product, "gross" means that the GDP measures production regardless of the various uses to which the product can be put. Production can be used for immediate consumption, for investment into fixed assets or inventories, or for replacing fixed assets that have depreciated. "Domestic" means that the measurement of GDP contains only products from within its borders.

GDP growth rate is greater stimulator for business activity and performance in development of a Nation which is essentially important for the credit growth and recovery of bank credits and advances as well. Before granting the loans banks are supposed to see growth prospective of concerned if it is bright, greater credit growth advised otherwise credit growth might be curtailed to safe guard shareholders wealth.



GDP growth is the best measure among measure of major economic factors to indicate performance of industry and also a nation. This paper mainly focused to correlate the mentioned factor with performance of Indian SCBs in terms of credit growth percentage and Write off amount Growth percentage.

REVIEW OF LITERATURE

Much research happened in credit risk management and credit risk analysis with much focus on several criterions. Credit risk in commercial banks represents the most important type of risk. Banks bear the credit risk attached to bank loans and forward contracts. The risk of defaults or protracted arrears on outstanding loan is termed as credit risk (Tamimi, H. and Mazrooei, F., 2007). According to the consultative paper issued by the Basel Committee on Banking Supervision (1999), for most banks loans are the largest and most obvious sources of credit risk. Credit Risk is the potential that a bank borrower or counter party fails to meet the obligations on agreed terms. It mainly arises from the potential that a borrower or counterparty will fail to perform on an obligation. It may arise from either an inability or an unwillingness to perform in the pre-committed contracted manner.

Oldfield and Santomero (1997) investigated risk management in financial institutions. In this study, they suggested four steps for active risk management techniques: 1. The establishment of standards and reports; 2. The imposition of position limits and rules (i.e. contemporary exposures, credit limits and position concentration); 3. The creation of self-investment guidelines and strategies; and 4. The alignment of incentive contracts and compensation (performance-based compensation contracts).

Swaranjeet Arora (2013) in his study discussed several factors, which have impact on Credit and Credit Risk such as Credit Worthiness analysis and Collateral requirements, the two important factors for analyzing Credit Risk. Outcomes of his study are primarily "Credit risk Analysis is crucial because no single database typically houses all of the risk related data and several years of information is required" and Secondly "Credit Risk Analysis is better in Old Private sector banks and New Private Sector banks, as compared to State Bank of India and its associates and other public sector banks".

Diana Cibulskiene and Reda Rumbaускаite are evaluated the credit risk management in commercial banks in Lithuania they concluded that "No solid policy for credit risk management exists. Absence of a solid credit risk management model exacerbates supervision of credit risk management of the Lithuanian banking sector and allows choose indicators for banks themselves."

NEED OF THE STUDY

Risk Management is professional and skilled multi-dimensional activity based on several factors either internal or external factors. This study is to find impact of macroeconomic factors on Credit and its related Risk. The outcome of this paper is extremely useful for policy makers, Stakeholder and Academicians'.

Majority of the researchers were ignored and not considered impact macro-economic factors on credit management and credit risk. This paper is essentially aimed to fill the vacuum aroused in the mentioned area. This study is a blended two wise subjects namely commerce and economics in cohesive manner to augment the capability of credit risk management and analysis for professionals and academicians'.

RESEARCH METHODOLOGY

This study has two main aspects, firstly a simple correlation between GDP growth and Credit expansion of PSBs, secondly studying relation between GDP growth and Written Off amount. The macro (Gross level) level investigations are based on secondary data which have been collected from world banks' annual reports, various statistical abstracts, and journals. GDP growth rate is collected from World Bank reports in its official website. Credit growth rate is collected from Reserve Bank of India official website. Mainly written off amount data is extracted from concerned Ministry reply to Parliamentary question during its session. The data used for analysis is highly authenticated and reliable.

STATISTICAL TOOLS AND TECHNIQUES

- 1. Line Chart using MS-Excel for visual comparison
- 2. Correlation coefficient to correlation co-efficient to understand the relative position among variables/factors.

In statistics, the correlation coefficient R measures the strength and direction of a linear relationship between two variables on a scatter plot. The value of R is always between +1 and -1. To interpret its value, see which of the following values your correlation R is closest to:

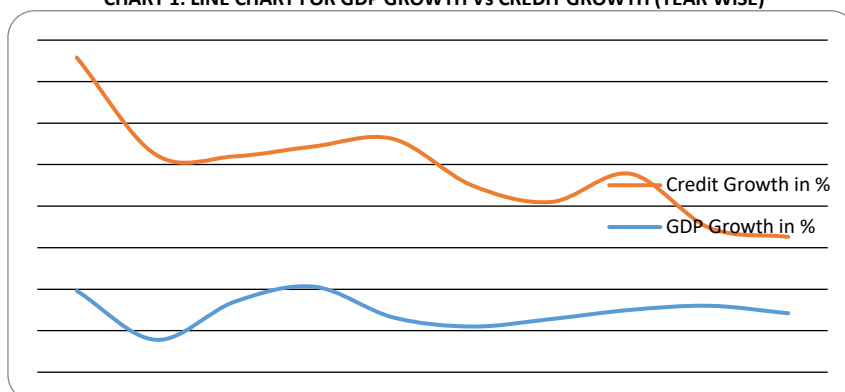
- **Exactly -1.** A perfect negative linear relationship
- **-0.70.** A strong downhill negative linear relationship
- **-0.50.** A moderate negative relationship
- **-0.30.** A weak downhill negative linear relationship
- **Exactly 0.** No linear relationship
- **+0.30.** A weak positive linear relationship
- **+0.50.** A moderate positive relationship
- **+0.70.** A strong positive linear relationship
- **Exactly +1.** A perfect positive linear relationship

DATA TABLE 1

Variable/Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP Growth in %	9.8	3.9	8.5	10.3	6.6	5.5	6.4	7.5	8.0	7.1
Credit Growth in %	28.1	22.3	17.5	16.9	21.5	17.0	14.1	16.4	9.4	9.2
Write off amount Growth in %	4.4	-12.7	-7.0	49.9	59.1	-12.6	75.1	26.4	52.7	13.3

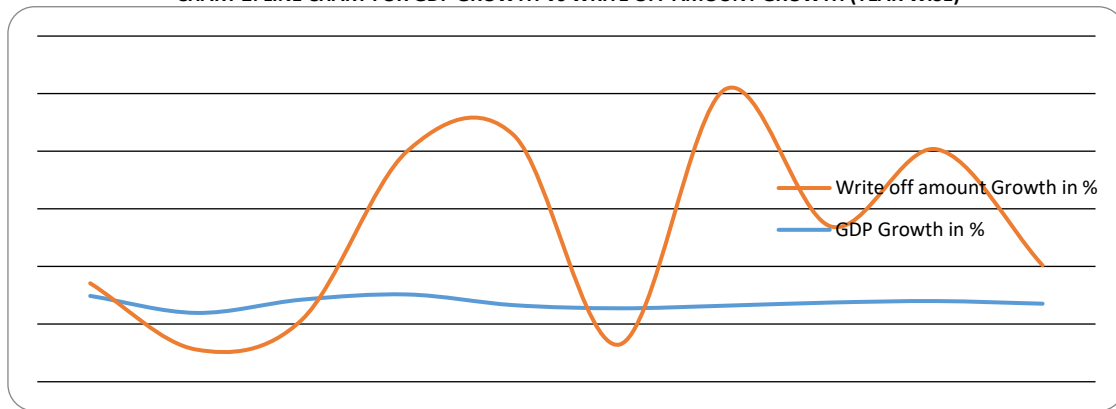
Growth percentage (%) calculated based on Figures of March 31st of concerned financial year.

CHART 1: LINE CHART FOR GDP GROWTH Vs CREDIT GROWTH (YEAR WISE)



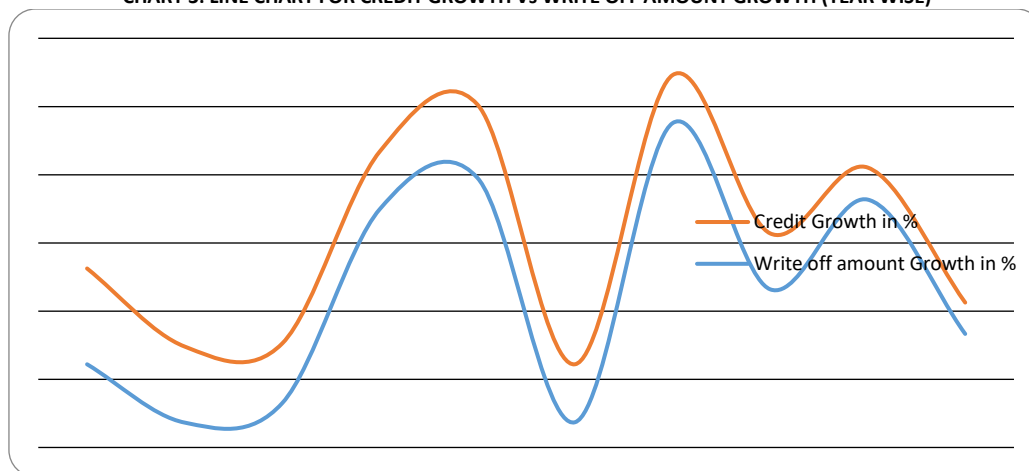
Pearson Correlation coefficient between GDP Growth Vs Credit Growth is 0.0548.

CHART 2: LINE CHART FOR GDP GROWTH Vs WRITE OFF AMOUNT GROWTH (YEAR WISE)



Pearson Correlation coefficient between GDP Growth Vs Write off amount Growth 0.238

CHART 3: LINE CHART FOR CREDIT GROWTH Vs WRITE OFF AMOUNT GROWTH (YEAR WISE)



Pearson Correlation coefficient between Credit Growth Vs Write off amount Growth is: -0.3319.

CONCLUSION AND SUGGESTION

1. After through consideration of experts' opinion in the industry, it is expected to have GDP growth should have high positive correlation in case of remaining factors such as regulatory environment, stable political atmosphere etc are in cohesive manner. In fact this papers revealed that GDP Growth have feeble/NO correlation with credit growth with Pearson correlation value 0.05. It is undesirable; it required correcting the banking system by the concerned regulator in consultation with statutory for safeguarding interests of Stakeholders and nation as well.
2. After through consideration of experts' opinion in the industry, it is expected to have GDP growth should have high negative correlation in ideal conditions with Write off amount growth. In other words Write off amount growth should be less in case of Higher GDP growth. Interestingly it showed positive considerably feeble correlation which is highly undesirable. It suggests that strong robust measures needed to augment recovery of bad loans with greater efficient banking recovery norms with help of statutory and regulatory bodies.
3. After through consideration of experts' opinion in the industry, it is expected to have Credit Growth and Write off amount also should have a negative correlation. The correlation between these two factors found -0.33. Banks' credit growth and Write off amount growth are exhibiting a weak negative correlation, a slightly desirable feature.

LIMITATIONS

1. This is brief and gross level study some minor causes and features may not considered and included.
2. There are several agencies involved in measuring GDP growth, in our paper considered World Bank growth rate.
3. The study not exhaustive as this study conducted only between the years 2007 to 2016(i.e Nine years).

REFERENCES

1. Al-Tamimi, H. and Al-Mazrooei, F. (2007). "Banks' Risk Management: A Comparison Study of UAE National and Foreign Banks". The Journal of Risk Finance, 8(4), pp:394 – 409.
2. BIS, Basel Committee on Banking Supervision (1999), "A New Capital Adequacy Framework" Bank for International settlements, Switzerland, CP1
3. Diana Cibulskiene and Reda Rumbauskaite (2012). "Credit Risk Management Models of Commercial Banks : their Importance for Banking Activities". Socialiniai tyrimai / Social Research. 2 (27), pp:71–77
4. Oldfield, G.S. and Santomero, A.M. (1997). "Risk Management in Financial Institutions." Sloan Management Review, 39(1), pp:33-46.
5. Swaranjeet Arora (2003). "Credit Risk Analysis in Indian Commercial Banks-An Empirical Investigation". Asia-Pacific Finance and Accounting Review 1(2), pp: 25-34.

WEBSITE

6. <http://www.socscistatistics.com>

A STUDY ON THE USAGE OF SOCIAL NETWORK SITES BY COLLEGE STUDENTS WITH SPECIAL REFERENCE TO ERODE DISTRICT - TAMILNADU

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ABSTRACT

Social Network Sites are profile based Websites that allow the users to maintain social relationship by viewing, visiting and sharing their social connection with other members. Social Network Sites such as Myspace, Facebook, Cyworld, Twitter, Orkut, Google plus become a part of students daily life. The growing popularity of Social Network has influenced the researchers to start investigating the communication and interaction between students using these Networks. Social Network Sites are used as an interactive platform for academic communication and as a source of information. Nowadays college students join in groups and communicate with others (Students and faculty members) by discussing on subjects topics. Tamil Nadu Government already provided free Laptop to Arts & Science College Students and 24 hours free internet facility (Wi-Fi) is provided by most of the educational institutions. Private net browsing centers also contribute more to the access of internet. As this Social media Phenomenon continues to grow at faster pace, it is important to understand the effect it has on college students. The researchers explores how Students especially College Students get access to these networks and develop their academics.


KEYWORDS

Wi-Fi, social network, social media, communication.

JEL CODE

Q55

INTRODUCTION

 Social networking sites are a type of virtual community that has grown tremendously in popularity. Through social networking people can use network of online friends and group memberships to keep in touch with current friends, reconnect with or create real-like friendships through similar interest or groups. Besides, establishing social relationships, social networking member can share interests and their ideas with other like-minded members by joining groups or forums. They can also participate in discussions through SNS. Members will be updated instantly about their friends and groups. It also offers micro blogging facility. In short, a SNS is hub for communication, entertainment and information.

OVERVIEW OF THE LITERATURE

There have been various researches in the field of usage of Social Networks but the studies relating to academic performance of Arts and Science College with special reference to particular community students are not yet found. Hence empirical studies relating to usage of Social Network Sites are reviewed which proved to be very useful to the researchers in getting insight in to the main objective of the study and finalizing the methodology of present study. Here a brief account of important studies pertaining to the usage of Social Network Sites is presented.

Jason Tham and Niaz Ahmed (2011) in their study they found that Female college students spent more time on Social Networking sites than male students. Significant correlations were found between age and gender and the influence of Social Networking sites on user's personal development

Adam MahamatHelou, ZorZariah.Rahim and Oye.N (2013) in his article he observed that most of the younger students are engage in the use of Social Networking sites mainly for socializing activities rather than for academic purpose. The study concludes that most of the students felt that the Social Networking Sites have more Positive impact on their academic performance.

Manjunatha.S (2013) in his article he observed that Social Networking Sites often much quicker and more convenient way to internet. He concludes that the students are aware of the danger and risk involved in these sites is a positive indicator that Indian college students are not only techno-Savvy Socially active through Social Networking sites but they also possess social consciousness.

The present study makes an attempt to fill these gaps and study the usage of Social Network Sites for the academic development of Arts and Science students with special reference to SCs & STs.

STATEMENT OF THE PROBLEM

There are hundreds of Social Media Websites with various technological tools, supporting a wide range of interest and practices. These websites are becoming popular among college students and help them in connecting with each other, their local and the global community at large. To address the issue of the effectiveness of using social networking the first question raised in this study is for what purpose are the students utilizing social networking? Research on this topic will start to reveal social networking sites are simply part of how students interact with each other and how it is used by students. The main purpose of this research is to expand on precious research explore the relationship between the usage and effects of social networking and students study efficiency and to determine if social media interfering with students' academic and personal life. To study the usage of Social Network Sites by college students and to explore the relationship between demographic profile and usage related profile.

OBJECTIVES OF THE STUDY

1. To analyze the impact of students age, gender, income and social influence on usage of social network.
2. To evaluate the pattern of usage of Social Network Sites by college students.
3. To examine the factors influencing the level of usage of social network.
4. To study the utility of Social Network Sites by college students.

HYPOTHESIS

- There is no significant relationship between Age and level of usage of Social Network Sites by College Students.
- There is no significant relationship between Gender and level of usage of Social Network Sites by College Students.

RESEARCH METHODOLOGY

SAMPLING DESIGN

Sample is the process of representative subset of a total population for obtaining data for study of the whole population. The subset is known as sample.

SAMPLE SIZE

Field survey techniques was employed to collect primary data from the 150 selected sample respondents in Erode Town.

SAMPLING TECHNIQUE

The sampling design used in the study was non-probability sampling. Convenience sampling techniques are used for collecting the data.

NATURE OF DATA

The present study used both primary as well as secondary data.

➤ **PRIMARY DATA**

The firsthand information, which is being collected by the researchers, is called primary data. In this study, the primary data was collected through structured questionnaire.

➤ **SECONDARY DATA**

Besides the primary data, the secondary data was also collected for the study through websites, journals, magazines and newspapers.

TOOLS FOR DATA COLLECTION

Questionnaire was the main and important tool for collection of the data. Hence, effort has taken to construct the questionnaire in a systematic way as to include adequate and relevant questions to ensure the research objectives.

DATA ANALYSIS

The data collected from the primary source were arranged sequentially and tabulated in a systematic order in the master table.

TOOLS FOR DATA ANALYSIS

Data collected through questionnaire were presented in a master table. From the master table, sub-table was prepared. For analysis and interpretation of the data simple statistical tools like chi-square test and percentage analysis were used.

➤ **PERCENTAGE ANALYSIS**

Percentage Analysis refers to a special kind of ratio percentage is used in making comparison between two or more series of data.

Percentage reduced everything to a common base their allow meaningful comparisons to be made.

$$\text{Percentage} = \frac{\text{No. of Respondents}}{\text{Total No. of Respondents}} \times 100$$

➤ **CHI-SQUARE TEST**

The chi-square is a measure of actual divergence of the observed and expected frequencies and as such, if there is no difference between observed and expected frequencies the value of chi-square is zero. Chi-square tests enable the researchers to find out whether the divergence between expected and actual frequencies is significance or not the following formula can be used for calculating chi-square value.

$$\chi^2 = \sum \frac{(O-E)^2}{E} \text{ Where, } O = \text{Observed frequency, } E = \text{Expected frequency}$$

➤ **WEIGHTED SCORE ANALYSIS**

The average rank analysis is performed to identify the priority of the different category of the consumer awareness and usage level of Social Network Sites base on the college students consolidated priority of the respondents. The average rank is calculated and the final rank is fixed based on the criteria lesser the average rank more is the priority on the various aspect relation personal factors.

$$\text{Weighted Average} = \frac{\text{Total}}{\text{No. of items} \times \text{No. of Respondent}}$$

$$\bar{x}_w = \frac{\sum wx}{\sum w}$$

Symbolically it represents as, Where, $\sum wx$ = Total Score, $\sum w$ = Total Weighted score

ANALYSIS AND INTERPRETATION

The analysis of data collected from primary sources presented in the form of tables and interpretation is given in description as required. Analysis refers to the course of finding out answers to the question that had arisen to the study. Interpretation finds out the relationship among the available data and the variables.

TABLE 1: PROFILE OF THE RESPONDENTS

S.NO	Particulars	Classification	Numbers	Percentage
1	Age	17 - 20 years	105	70
		21 - 24 years	25	17
		Above 25 years	20	13
		Total	150	100
2	Gender	Male	22	15
		Female	128	85
		Total	150	100
3	Annual Income	Below - 50,000	120	80
		50,000 - 1,00,000	25	16
		1,00,000 - 1,50,000	3	3
		Above 1,50,000	2	1
		Total	150	100

Source: Primary Data

From table 1 it is observed that 70 % of the respondents belong to the age group of 17-20 years, 17% of the respondents belonging to the category of 21-24 years and 13% of the respondents come under the age group of 25 years and above. 15% are male and 85% are female. The table also reveals that that 80% of the respondents are under income level of below Rs. 50,000, 16% of the respondents belong to the income level of Rs. 50,000-Rs. 1,00,000, 4% of the respondents income earn from Rs. 1,00,000-Rs. 1,50,000 and 1% of the respondent earn highest income that is above Rs. 1,50,000.

TABLE 2: TIME SPEND ON FAVORITE SOCIAL NETWORK SITES

S.NO	TIME SPEND	NO. OF RESPONDENT	PERCENTAGE %
1	5-10 minutes	52	35
2	11-30 minutes	29	19
3	30-60 minutes	25	17
4	Above 1 hour	44	29
	Total	150	100

Source: Primary Data

Table 2 clearly indicates that 35% of the respondents spent time on social network for less than 5-10 minutes, 19% of the respondents spent time on Social Network Sites for 11-30 minutes, 17% of the respondents spent time on Social Network Sites for 30-60 minutes and 29% of the respondents spent time on Favorite Social Network Sites for more than 1 hour.

TABLE 3: MEMBERSHIP IN SOCIAL NETWORKING SITES

S.NO	MEMBERSHIP	NO.OF RESPONDENT	PERCENTAGE %
1	Twitter	9	6
2	Face book	98	65
3	Orkut	1	1
4	Social media	26	17
5	My space	16	11
	Total	150	100

Source: Primary Data

Table 3 clearly reveals that 6% of the respondents are in twitter, 65% of the respondents are in face book, 1% of the respondents are in Orkut, 17% of the respondents are in social media, 11% of the respondents are in my space.

CHE- SQUARE TEST

TABLE 4: AGES AND LEVEL OF USAGE OF SOCIAL NETWORK SITES BY COLLEGE STUDENTS

Age/Level	Excellent	Good	Average	Poor	Total	Chi-square Value	Table Value	Sig
17-20 years	12(11%)	66(63%)	20(19%)	7(6%)	105	24.16	12.6	Sig
21-24 years	7(28%)	5(20%)	7(28%)	6(24%)	25			
Above 25 Years	5(25%)	5(25%)	5(25%)	5(25%)	20			
Total	24	76	32	18	150			

At 5% level of significance for 6 degree of freedom the table value is 12.6. Since the calculated value (24.16) is more than the table value, the null hypothesis is rejected. Hence there is a significant relationship between age and level of usage of Social Network sites by college students.

TABLE 5: GENDER AND LEVEL OF USAGE OF SOCIAL NETWORK SITES BY COLLEGE STUDENTS

Gender/Level	Excellent	Good	Average	Poor	Total	Chi-square Value	Tale Value	Sig
Male	5 (23%)	6 (27%)	5 (23%)	6 (27%)	22	11.83	7.81	Sig
Female	19 (15%)	70 (55%)	27 (21%)	12 (9%)	128			
Total	24	76	32	18	150			

At 5% level of significance for 6 degree of freedom the table value is 7.81. Since the calculated value (11.83) is more than the table value, the null hypothesis is rejected. Hence there is a significant relationship between Gender and level of usage of Social Network sites by college students.

WEIGHTED AVERAGE RANKING SCORE ANALYSIS

A comprehensive interview schedule is given to 150 sample customer in order to know their priority according to the factors that influence the Social Network Sites. These sample consumers are made to rank the reasons such as Keeping in touch with friends, Planning events, Making new friends, Educational purpose, Sharing information, Time passing. The ranks are assigned according to the problems. The ranks 1, 2,3,4,5 and 6 are assigned as per the weight of 6, 5,4,3,2 and 1 respectively.

TABLE 6: FACTORS INFLUENCING THE INTERNET USERS TO VISIT THE SOCIAL NETWORK SITES WEIGHTED AVERAGE SCORE RANKING METHOD

weighted Score points (w)	6	5	4	3	2	1	Total Score ($\sum wx$)	Weighted Average Score	Rank
Rank	I	II	III	IV	V	VI			
Factors									
Keeping in touch with friends x wx	35 210	19 95	27 108	21 63	18 36	30 30	542	25.80	II
Planning events x wx	23 138	21 105	20 80	32 96	30 60	24 24	503	23.95	VI
Making new friends x wx	25 150	30 150	22 88	15 45	33 66	25 25	524	24.95	IV
Educational purpose x wx	27 162	23 116	31 124	29 87	18 36	22 22	547	26.04	I
Sharing information x wx	26 156	24 120	22 88	30 90	27 54	21 21	529	25.19	III
Time passing x wx	30 180	17 85	28 112	23 69	24 48	28 28	522	24.86	V
Total	150	150	150	150	150	150			

Note: x= No. of Respondents; w= weighted score points.

The above table highlights the factors that influence the consumers for the usage of Social Network Sites. It could be observed that "Educational purposes" is ranked first by the respondents with a weighted score of 26.04 points and the second rank was given to a "Keeping in touch with friends" with a weighted score of 25.80 points. it is followed by "Sharing information" is ranked third with a weighted score of 25.19 points and the fourth rank is occupied "Making new friends" with a weighted score of 24.95 and "Time passing" is ranked fifth with a weighted score of 24.86 points. The sixth rank was given to a "planning events" with a weighted score of 23.95 points.

From the above analysis, it is found that "Educational purpose" is the most influence factor among the College students to prefer Social Network Sites.

FINDINGS OF THE STUDY

- The majority (85%) of the respondents are Female.
- The majority (70%) of the respondents belong to the age group of 17-20 years.
- The majority (80%) of the respondents are under Annual income level of Below Rs. 50,000

- The majority (35%) of the respondents spent time on favorite social network sites for more than 5-10 minutes.
- The majority (65%) of the respondents have membership in Face book when compared to other social network sites.
- There is significant relationship between Age and level of usage of Social Network Sites by College Students.
- There is significant relationship between Gender and level of usage of Social Network Sites by College Students
- From the above analysis it is identified that "Educational Purpose" is the most influenced factor among the College students to prefer Social Networking Sites.

SUGGESTIONS

Some of the Suggestions drawn from the findings of the study are:

- Face book is mostly used by the students, so the service providers can concentrate more on to provide educative features whenever college students log on to their profile.
- An attractive education related or social network sites should be developed to educate the students.

CONCLUSION

Social networking is a recent phenomenon among educated may where they can share their views on current topics every day. It not only helps to develop their skills but also helps to create wide contracts all over the world. But spending more time may not be productive at his juncture an attempt is made to study the Usage of Social Network Sites by College Students. The study reveals that majority of the students use the Social Networking Sites for their development. Hence social networking is a boon to the younger generation.

REFERENCES

1. Adam Mahamathelou, ZorZariah. Ab.Rahim and Oye. N (2012) "Students perception on Social Network Sites influence on Academic performance" International Journal of Social Networking and Virtual communities, Vol 1, July 2012.
2. Har Singh and Anil Kumar (2013). "Use of social networking sites (SNSs) by the research scholars of Panjab University, Chandigarh: A study". 58th International Conference on: Next Generation Libraries: New insights and Universal Access to Knowledge.
3. Jason Tham and NiazAhmad (2011) "The usage and implications of Social Networking ites: A survey of college students" Journal of interpersonal, intercultural and mass communication Vol 2, 2011.
4. KotravelBharathi.C.K (2012) "Perception and utility of Social Network Sites: An Empirical analysis with special reference to MBA students in Coimbatore", Journal of management and Science, Special issue (viii) on Social network and communication, August 2012.
5. Munjunatha.S. (2013) "The usage of Social Networking Sites among the College Students in India" International Research Journal of Social Science, Vol 2, No (5), May 2013.
6. Retta Guy, "The Use Of Social Media for Academic Practice", Kentucky Journal of Higher Education Policy and Practice, Vol 1, Issue (2), 2012.
7. Subramani R. (2015) "The academic usage of Social Networking Sites by the University students of Tamilnadu" Online journal of communication and media Technologies, Vol 5, Issue (3), July 2015
8. TejaB.Shah, Marteen H.Patel (2015) "The effects of Social Media on college students" Research Hub – International Multidisciplinary Research Journal, RHIMRJ Journal Vol 2, Issue (4), April 2015.

MACRO ANALYSIS OF CEMENT INDUSTRY IN HIMACHAL PRADESH-A CASE STUDY

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ABSTRACT

Macro means as a whole. The macro variables affect every business. Macro analysis involves influences, which affect the entire economy of business. It consists of many factors that, if left unchecked, can destroy a business. Some factors, such as the economy, slowly affect each and every aspect of business. To reduce the negative impacts of these various unchecked factors, macro analysis is required. The price of cement is mainly controlled by government, viz. coal rates, oil rates, power tariffs, royalty on limestone etc. Himachal Pradesh has a history of not repeating the ruling of one party in the state but this factor also had never impacted negatively on the cement companies functioning in the state. The objective of the present study is to analyze the cement industry of Himachal Pradesh on the basis of PESTLE and SWOT analysis and provide suggestions on the basis of interpretation.

KEYWORDS

PESTLE analysis, SWOT analysis, macro analysis, cement companies.

JEL CODES

L6, L61.

INTRODUCTION

An industry comprises of many internal as well as external factors influencing it directly or indirectly. PESTLE and SWOT analysis of any industry provides an insight into various factors which are responsible for successful conduct of any business. Cement industry is also a part of it which is affected by political, economic, social, technological, legal as well as environmental factors. Also the SWOT analysis of cement industry becomes a paramount importance in the present scenario of changing worlds' business environment. The cement industry of India went through different phases pre and post-independence. Ever since it was deregulated in 1982, the cement industry in India experiencing challenges from the external environment. India has a lot of potential for development in the infrastructure and construction sector and the cement sector is expected to largely benefit from it. The industry is also considered one of the eight core sector industries and major carbon-dioxide emitter in the country. Hence, it becomes important to review its functioning time-to-time to make it competitive in the global environment.

LITERATURE REVIEW

Sigurdson (1976) studied the impact of vertical shaft kiln technology used in most small scale cement plants in the Chinese Cement Industry and concluded that the total production of cement had increased rapidly in most small scale cement plants of China with the introduction of vertical shaft kiln technology. The number of small cement plants, almost all of them located in rural areas. **Cooper (2000)** examined the social and economic implications of human activities in general and climate changes in particular and concluded that population and human pressure witnessed diverse human activities which resulted in the emission of great volumes of gaseous materials into the atmosphere. Some of these gases absorb earth's radiation leading potentially to warming of earth's surface, which in turn alter the world climate. **Das Gupta (2002)** critically analyzed the study of Nath and Bose (2002) and concluded that globalization provided a platform to the Indian cement industry to improve its performance overall. **Limin Du and Shenghua Cai (2012)** concluded that economic development, technology progress and industry structure are the most important factors as compared to energy consumption, trade openness and urbanization which affected the CO₂ emission in China. **Weiguo Shen and Quingjun Ding (2017)** pointed out the need of alternative cements based on high abundance raw materials, low carbon emission, low energy consumption etc. and suggested three approaches viz. cleaner production, recycling and alternative cement for sustainable development of cement industry.

RESEARCH METHODOLOGY

The present study is based on PESTLE analysis and SWOT analysis from different point of view w.r.t. cement industry in Himachal Pradesh and provides suggestions on the basis of available data.

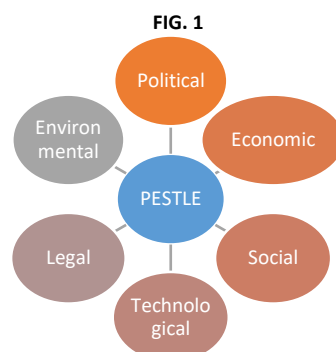
OBJECTIVES OF THE STUDY

The present study is based on following objectives:

- To study the impact of political, economic, social and technological environment on cement industry in Himachal Pradesh.
- To analyze the strengths, weaknesses, opportunities and threats of cement companies in Himachal Pradesh.

ANALYSIS AND INTERPRETATION OF DATA**PESTLE ANALYSIS OF CEMENT INDUSTRY IN HIMACHAL PRADESH**

PESTLE Analysis is a useful tool for understanding the big picture of operating and takes advantages of opportunities. PESTLE Analysis includes Political, environmental, social and technological factors which affects both the companies as well as the industry.



POLITICAL

The price of cement is mainly controlled by the following rates, which are predominantly controlled by government, viz. coal rates, oil rates, power tariffs, royalty on limestone, limestone mining charges, taxes like GST, electricity duty, etc. Government is also one of the biggest consumers of the cement with various housing projects, construction projects, etc. The government has provided the cement companies a great opportunity by investing in infrastructure with various programs like MNREGA, Indira Awas Yojana which in turn raising the minimum support prices of cement enhancing rural income boosting cement demand in rural areas. Taxes levied by the government which includes royalty on limestone, royalty on coal, electricity duty, GST, etc. on cement constitute a lot of the ex-factory price of cement. Himachal Pradesh has a history of not repeating the ruling of one party in the state but this factor also had never impacted negatively on the cement companies functioning in the state.

ECONOMIC

The industry is on boom, with a lot of government infrastructure and housing project under construction and construction of transportation systems. The infrastructure development of the state in the recent years is the demand driver for the cement industry. The export segment of the industry is expected to grow again on account of various infrastructure project that are being taken up all over and numerous cement plants are also coming up in near future in the state. As cement is the basic ingredient in construction work, it not only binds the bricks of the buildings and houses but also a contributor to state exchequer, generation to employment in the state and also helpful in the development of other industries as well. Cement industries with huge export potentialities and quick marketability also enhance the state income in the form of state GDP. Growth in tourism sector is also fuelling the increase in the construction of hotels in the state. The central government decision to allow 100% FDI in the sector is also very instrumental in allowing cement industries to reach the level they are at today not only in the state but overall. The state government is also pushing the demand for education, health, government buildings which in other way round increased the demand for the construction of various schools, colleges, dispensaries, hospitals, secretariat or mini secretariat buildings, etc. further boosting the demand for cement in the state.

SOCIAL

The cement industry in the state responded to the demands of infrastructure and increased the production capacity enormously. The industries mainly rely on mining operations, for its product impacting large number of people and the environment around it. The companies operating in the state are taking care of this huge responsibility by moving alongside its growth. For example, companies like Ambuja, ACC, Jaypee Cement in the state sees CSR as their social performance forming a significant aspect of the company's overall sustainability. Sustainability is the broad umbrella and CSR is the company's performance towards all its stakeholders, workforce, business partners, customers and the society which impacts through its operations. While there is no doubt that companies need to sprout and grow especially to meet the development demands of the society, they in turn directly or indirectly impact the society in which they exists with increasing the income of the people by generation of employment and also influencing the social taboos of the areas with educational enhancement programs and also by supporting the nearby schools, colleges, and various educational institutions like ITI etc. Cement industry firms are actively indulging in CSR activities, promoting education for unprivileged, supporting clean and green tech. as cement industry is an energy intensive industry with high emissions, companies are using latest technologies to meet the environmental standards.

TECHNOLOGICAL

Continuous technological upgrading and assimilation of latest technology are going on in the cement industry. There is tremendous scope for waste heat recovery in cement plants and thereby reduction in emission level. The induction of advanced technology helped the industry to conserve energy and fuel and to save materials substantially. The wet process of cement manufacturing is mostly replaced by the dry process, reflecting the need for energy conservatism. Various changes are being made in the design of cement kiln and blowing furnances which promote the use of kiln for utilization of wastes. Renewable sources of fuel, unlike coal are being proposed to be used in the plants. The companies are effectively and accurately searching the limestone reserves in the state and better mining techniques reducing per unit cost of limestone.

LEGAL

The cement industry in India is regulated under various Acts viz. Factories Act, 1948, Environment Protection Act, 1986, Companies Act, 2013 etc. The legal framework for mining activities is also covered under various Acts. The Geological Wing of Industry Department of Himachal Pradesh, Shimla supervise the mining exploration in the state. It also provides necessary guidelines to set up cement plant in Himachal Pradesh. Apart from it, the mining and mineral exploration activities also covered under its jurisdiction. State Pollution Control Board measures the initiative undertaken by cement companies in Himachal Pradesh to protect the environment.

ENVIRONMENTAL

Cement manufacturing is a "high volume process" and correspondingly requires adequate quantities of resources, that is, raw materials, thermal fuels and electrical power. Cement manufacturing process is technology intensive. Raw material extraction causes serious environmental problems by damaging the landscape and most of these raw materials become scarce. Cement industry is considered as one of the most pollution hazardous industry. Poor air quality, water pollution and garbage pollution – all affect the food and environment quality necessary for ecosystems. According to Surveyor General of India, the total area of Himachal Pradesh is 55,673 square kilometers which is divided into twelve administrative districts, a variety of air pollutants such as carbon monoxide, nitrogen oxides, hydrocarbons but mainly carbon dioxide are emitted to the environment through the combustion of gasoline or diesel fuel contributing to significant impacts such as climate change, acidification, eutrophication etc., but also to respiratory and other effects on human health.

SWOT ANALYSIS OF CEMENT INDUSTRY IN HIMACHAL PRADESH

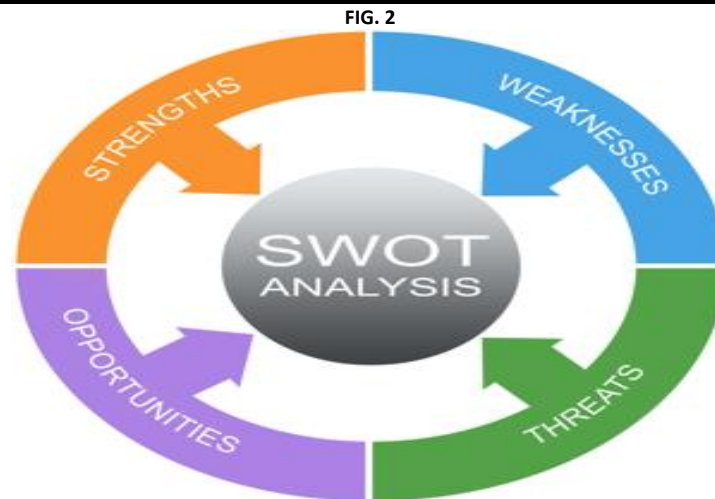
SWOT Analysis is undertaken by the business firms to understand the internal and external environment. Through such analysis, the strengths and weaknesses existing in the organization can be matched with the opportunities and threats operating in the environment so that an effective strategy can be formulated. SWOT tends to be more product/service specific as; this analysis is being framed based on that product/service. SWOT give an in-depth view to the company regarding the environment they're in or are about to enter and also about the products or the services with which they plan to enter the marketplace. It is necessary to view the overall performance of a cement plant/unit to survive in the near future due to challenging environment of the economy. Further, it becomes of paramount importance to know about the strengths and opportunities to overcome weaknesses and threats.

The components of the SWOT analysis are:

STRENGTHS

The 'S' in the acronym stands for Strengths. Much to do with the name, it analyses the company's strengths in line with the product/service and counts the USP (unique selling propositions) that it has. Strengths of a company or a product make it stand out when in comparison with their competitors.

- Cement is, literally the building block of the construction industry. Almost every building constructed relies on cement for its foundation. The cement business is billion industries, measured by annual cement shipments.
- Cement is a solid material and consumers rarely have complaints about the product.
- Also the distribution channels of cement manufacturers have been very efficient ensuring timely and economic cement supply.
- Cement companies have established themselves as brand names.
- High selling prices and profitability levels due to supply shortage.
- FDI investments have bolstered the cause of cement industries.
- Natural hedge from outside competition arising from high transportation costs.
- Capital-intensive industry with long construction periods, creating natural barrier to new entrants.



WEAKNESSES

The 'W' stands for Weaknesses. It accounts for all the current weaknesses that the company may have or may be facing and how the product features them. It gives the company the view from an external standpoint where they can understand what their areas of lacking and then work upon them to remove them from their internal environment.

- ✓ Cement industry is affected by prices of commodities like oil, coal, etc.
- ✓ Continuously increasing transportation costs, shipping cement costs more than the profit from selling it.
- ✓ The cement industry heavily relies on weather. About 2/3rd of cement production takes place between May & October.
- ✓ The cement industry relies on construction jobs to create a profit.

OPPORTUNITIES

'O' spells out Opportunities. These opportunities are for the company to gain, master and then derive benefits from. Usually, weaknesses are reflected here with a strategy to encounter them as opportunities where the company can work upon itself or the product/service.

- ✓ Emerging economies will keep on spending on infrastructure and thus the cement industry will keep prospering.
- ✓ The government has made special investments in the sector.
- ✓ The cement industry's efficiency: the cement industry has recently streamlined its production efforts, using dry manufacturing instead of wet which is heavier and more time-consuming.
- ✓ The cement industry has also invested about billions in expansion efforts to meet unmet cement needs.
- ✓ A number of merger and acquisition transactions might take place in the near future.

THREATS

Threats, denoted by 'T' take into account the threats that able and potential competitors pose for the company and its products/services. These also analyze the barriers to entry and how potential competition can be tackled effectively.

- ✓ The nature of the economy has uncovered a number of threats to the cement industry. It relies heavily on the economic scenario.
- ✓ The cement industry greatly relies on construction. The current economy has lessened the number of construction jobs, which in turn hurts the cement industry.
- ✓ Further hikes in oil prices could negatively affect companies' profitability if they cannot pass increase in production costs on to customers.
- ✓ Taxes and other royalties levied on the industry may increase.

SWOT ANALYSIS OF ACC CEMENTS

ACC cements have a rich history. In 1936, ten companies which were manufacturing Cement individually joined hands to form the Associated Cement Companies Limited in India. The objective of the company was simple – to give the best quality of cement in huge quantities. Till date, we are safely and confidently saying that ACC has become the company it wanted to be.

FIG. 3



STRENGTHS IN THE SWOT ANALYSIS OF ACC CEMENTS

- ✓ **Solid brand equity** – Winning the Super Brand Award multiple times is itself an achievement for ACC. ACC won the award in 2006 as well as in 2007, showcasing that their customers are happy with them and the brand is trustworthy in the ultimate sense. In the cement industry, ACC cements is always touted as one among the top 3 brands – Ambuja, Jaypee (now acquired by UltraTech) and ACC.

- ✓ **Awards** – ACC cements is one among the leading cement manufacturers who are at the forefront of winning awards. It is already an ISO 9001 company recognized globally for its manufacturing practices. For the same, ACC cements has won the Golden peacock award for quality management as well as the Green marketing award for environmentally responsible manufacturing.
- ✓ **Far and wide distribution network** – ACC today has a number of dealers and distributors keeping intact its supply as per the demand. This far and wide distribution network ensures that ACC reaches all corners of not just Himachal but of India.
- ✓ **Numerous CSR initiatives** – ACC is known to do several CSR activities. One of them is the ACC scholarship which was started in February 2016 and is an excellent initiative. They have their own HIV and AIDS treatment centers and regularly promote socially responsible activities by releasing newsletters every quarter discussed in detail in previous chapters. ACC cements is also associated with United Nations global impact initiative for continuous improvement across the world.
- ✓ **Maximum manufacturing plants** – ACC has the highest numbers of manufacturing plants which are close to 17 in India and 2 units in Himachal Pradesh whereas UltraTech and others have lesser.

WEAKNESSES IN THE SWOT ANALYSIS OF ACC CEMENTS

- ✓ **Advertising is poor** – Ambuja with its BTL ads is taking away the market rapidly. Recently Ambuja did an ATL ad with the Great Khali (WWE) and the ad was appreciated all across. Similarly, Ultra tech is known for its branding with the tagline “Engineers Ki PA sand”. Overall, even though the manufacturing strength of ACC cements is strong, the advertising and the push strategy is somewhat comparably weak.
- ✓ **Losing brand equity** – Although ACC cements was the first brand to win the Super Brand Award in 2006 and 2007, UltraTech won the same award in 2011. This shows that UltraTech has won the brand equity which once belonged to ACC cements and the same is visible in statistics.
- ✓ **Presence in India only** – In Himachal, ACC is restricted with its presence to vast but limited areas and hence it faces competition from UltraTech which is exporting cement in huge quantity to all across. With exports, UltraTech can increase its turnover to a good percentage.
- ✓ **Availability** – Many dealers complain that ACC has such good tie up with corporates, that during summers when there is massive construction going on, most cement goes to builders and the dealers are not able to sell. On the other hand UltraTech has a constant presence across the year and hence they favour UltraTech which has constant supply over ACC which varies in its supply quantities.

OPPORTUNITIES IN THE SWOT ANALYSIS OF ACC CEMENTS

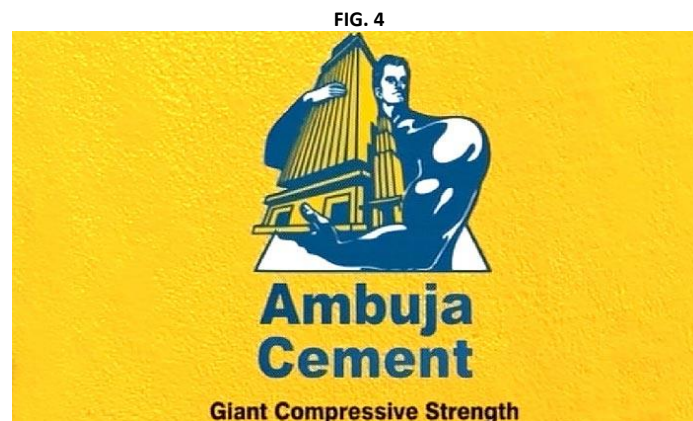
- ✓ **Himachal growing in Infrastructure** – One of the major advantages of ACC cements is that it is a leading brand in the cement industry, which is itself growing due to increasing demand of Infrastructure in Himachal. With the rise in population and the rise in economic conditions, this demand will not lessen anytime sooner.
- ✓ **Brand activities** – By investing in branding activities for 1 or 2 years, ACC cements can easily gain back the market share as well as the brand equity and can become the leading brand not only in Himachal but also in India. Sure it faces competition by UltraTech and Ambuja, but UltraTech is a recent company whereas ACC has the heritage in India to support it.
- ✓ **Cement roads** – One of the most contributing factors to the growth of ACC cements will be its one product – Ready mix concrete. Because of Government’s initiative to build Cement roads, RMC (Ready mix concrete) is more in demand and ACC is a brand known to be a pioneer in RMC.
- ✓ **Exports** – Its weakness can become its strength. ACC is already known for its quality in manufacturing. It can use the same strength to start exports across the world which will help its overall turnover and increase bottom line.
- ✓ **Government tie ups** – The more government tie ups it has, the more the company will grow.

THREATS IN THE SWOT ANALYSIS OF ACC

- **Market is becoming crowded** – ACC not only has to look at UltraTech and Ambuja cements. It also has to look Birla white, M/s J.P. Associates cements, M/s Lafarge India Ltd, Dalmia, India Cement Ltd, and number of different cement companies coming up in the state. Where ACC majorly had to worry about a couple of players in the market a decade back, the market has suddenly opened to multiple companies.
- **Price Competition** – Once a company enters price competition, its bottom line drops. And the same is the threat to ACC. Due to the number of brands available; ACC is a part of price competition which is affecting its bottom line.
- **Market share** – Once dealers start selling products which are lower in cost but better in quality, then the market share will slowly start to tilt. ACC and Ambuja are fighting for the 2nd level but both of them might lose market share to these small and regional players. Because they are regional and focused, these players can become strong in their regions.

SWOT ANALYSIS OF AMBUJA CEMENTS

Ambuja cement is one of the top three cement manufacturing companies in Himachal. The trio at the top includes Jaypee cement (recently acquired by UltraTech), ACC cement and Ambuja Cement. Ambuja cement has been manufacturing and distributing cement in Himachal since the last 3 decades and more. It is known most for its logos which has a huge guy holding a complete building. Ambuja is known to market its cement on the quality of its strength. Recently, the marketing campaign of Ambuja cements which included The Great Khali in the ads was very well received.



STRENGTHS IN THE SWOT ANALYSIS OF AMBUJA CEMENTS

- **Leading Cement Manufacturer:** Ambuja Cements has been one of the leading Cement manufacturers in Himachal. Even though there are significant capacity additions in the industry and a slow demand growth in Himachal.
- **Strong dealer network:** Ambuja Cements has a strong dealer network, which has helped the company to withstand intense competition.
- **Extremely strong in west:** The company has a very strong network on the Shimla Solan area which supported the sustainable strong market position in major districts of Himachal. There are pockets which are covered majorly by Ambuja cement only.
- **Cost advantage through infrastructure:** Ambuja has made its processes more efficiently and sourced low priced inputs through which it has been able to achieve a cost advantage.

- **Excellent financial backing:** Ambuja cements is known to be a financially sound company. Its financial resources were further increased when HOLCIM (another major player in infrastructure) invested in Ambuja.
- **Marketing consistency:** There are two ads of Ambuja which are legendary. First is the tag line "Iss cement mein jaan hai" which caught the attention of consumers all across. The second was the marketing campaign with the Great Khali which said that only Ambuja cement could make homes that don't get destroyed even for Khali. The brand picked the quality of "strength" very well and portrayed it regularly and consistently.

WEAKNESSES IN THE SWOT ANALYSIS OF AMBUJA CEMENTS

- ✓ **Lack of product diversification:** Unlike many competitors, Ambuja does not have diversified product range. This reduces its potential to expand its market share.
- ✓ **Known more for small works:** While UltraTech focuses on large contracts and huge buildings, Ambuja is known more for repair works and hence it loses out its brand image where the builder lobby is concerned.

OPPORTUNITY IN THE SWOT ANALYSIS OF AMBUJA CEMENTS

- ✓ **High growth in Cement Industry:** The cement production in the state is expected to grow at high speed due to increasing demand. This creates an opportunity for Ambuja to tap the demand created.
- ✓ **Investment on infrastructure to grow:** The investment in infrastructure is expected and has this creates demand for cement in the state.
- ✓ **Benefits due to GST:** Cement Industry is going to be benefited with GST as overall taxation going to drop from current 25 per cent to about 18 per cent. Also, logistics cost is also to be decreased by GST.
- ✓ **Make in India:** With the government's initiatives to increase production in India, Ambuja, being a core Indian company, can see many advantages with its cement plants in Himachal.
- ✓ **Increased production:** The cement industry runs on the basis of "Who can produce the most". As on date, UltraTech has the highest production capacity. But even UltraTech runs out of supply at times and the demand is high. Thus, an increased production can help the brand reach new heights.

THREAT IN THE SWOT ANALYSIS OF AMBUJA CEMENTS

- **Litigation for cartelization in the industry:** After the complaints from Builders Association of India (BAI), the Competition Commission of India (CCI) published an order to stop cartelization in the Cement Industry.
- **Intense Competition:** There is a lot of competition in the cement industry with various other global companies operating in the state. This allows limited market share in the industry.

SWOT ANALYSIS OF JAYPEE CEMENT

The company is one of the best in the cement industry, analyzing it through the different framework of analysis in order to judge the actual situational and industrial position of the company in order to find out how actually is the company doing.

FIG. 5



STRENGTHS: DOUBLE DIGIT GROWTH RATE

- Cement demand has grown in tandem with strong economic growth: Growth in housing sector (over 30%) key demand driver; -Infrastructure projects like ports, airports, power projects, dam & irrigation projects-National Highway Development Programme-Bharat Nirman Yojana for rural infrastructure.
- Rise in industrial projects.
- Export potential also demand driver.
- Capacity utilization over 90%:

WEAKNESS: LOW VALUE COMMODITY

- Cement Industry is highly fragmented
- Industry is also highly regionalized
- Low – value commodity makes transportation over long distances un-economical

OPPORTUNITIES: DEMAND–SUPPLY GAP

- Substantially lower per capita cement consumption as compared to developing countries (1/3rd of world average) per capita cement consumption in India is 82 kg against a global average of 255 kg and Asian average of 200 kg.

THREATS

- The company is facing a lot of problem regarding its promotion and marketing techniques due to which it faces a short of awareness in the market due to which people are not aware of the product but instead of all the problems it is quite stable and maintain its position in the market.

SUMMARY, FINDING AND SUGGESTIONS

On the basis of above discussion, it can be concluded that the cement industry in Himachal Pradesh has a lot of potential to increase per capita consumption of cement. The political instability in the state has no adverse impact on the functioning of cement industry in the state. Further, the state is still on the path of infrastructure development, so the demand of cement can be increased in the near future. So companies are advised to review its growth potential time-to-time in the state.

REFERENCES

1. Cooper, R.N., (2000), "International Approaches in Global Climate Change," The World Bank Research Observer, Vol. 15(2), pp. 145-172
2. Das Gupta, Susmita, (2002), "Globalisation and Cement Industry," The Economic and Political Weekly, Sept. 7 pp. 3766-67
3. Limin Du, Shenghua Cai, (2012), "Economic Development and carbon dioxide emissions in China: Provincial panel data analysis", China Economic Review, Vol. 23, Issue 2, June, pp. 371-384
4. Sigurdson, Jon, (1976), "Small Scale Plants in Cement Industry," Economic and Political Weekly, Annual Number, February,
5. Weiguo Shen and Qingjun Ding (2017) "Cement Industry of China: Driving Force, environment impact and sustainable development", Renewable and Sustainable Energy Reviews, Vol. 75, August, pp. 618-628

A STUDY OF CONSUMERS SATISFACTION AND PREFERENCE OF DTH (DIRECT-TO-HOME) INTEROPERABILITY IN PUNE CITY

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ABSTRACT

The arrival of Direct-to-Home (DTH) services in India has led to the emergence of many DTH service providers who are offering various value added services at competitive prices. As a consumer, one has to carefully select the service provider after considering the various factors such as transmission in inclement weather, picture quality, plans & packages, package pricing and other value added services. Drop in setup and service costs is making service delivery cheaper for the service provider and the drop in set-top box prices have made DTH viable to Indian users. With the mandated introduction of CAS (Conditional Access System) on cable networks in India, cable television services are becoming more expensive thus bringing the gap between overall cost of service down. This research paper studies the satisfaction of the consumer with respect to price, services, transmission, quality etc and perception of consumer with regard to interoperability. The researcher have applied the chi square test to find out the level of satisfaction of the consumer and to what extent they are satisfied with the existing DTH service provider. The paper also makes an attempt to study that in case if the interoperability services are provided then the consumers will prefer to switch i.e expected consumer movement to DTH service provider and type of interoperability preferred by consumer whether technical or commercial.

KEYWORDS

DTH Services, interoperability, satisfaction of DTH services, perception of DTH services.

JEL CODE

A19

INTRODUCTION

Direct-to-Home (DTH) services in India have registered a very impressive growth since its inception in 2003. In DTH facility, TV channels are directly distributed via satellite to the subscribers' homes without the intervention of the cable operators. India's \$1.5 billion, 32.4 million subscriber (2012 figures as per Media Partners Asia) DTH industry is the second largest in the world. According to TRAI, there are an estimated 56.5 million DTH subscribers in India as of 31 March 2013, registered with six private DTH operators. However 25 - 30 % connections are inactive making the active connections to about 40-45 million. A report by Media Partners Asia, an independent provider of information services focusing on media, communications and entertainment industries projected that the Indian DTH industry will grow to \$3.9 billion and 63.8 million subscribers by 2017 and \$5 billion and 76.6 million subscribers by 2020. A total of 74% FDI is permitted in DTH services with 49% on automatic route.

There are six private DTH operators in India. The seventh operator DD Direct Plus is an FTA platform operated by Prasar Bharti, the Public Service Broadcaster and not counted amongst the DTH operators.

1. **Dish TV:** It is a division of Zee Network Enterprise (Essel Group Venture). Launched in October 2003, It is the largest player in India having a 28% share of India's \$1.5 billion DTH industry.
2. **Tata Sky:** Tata Sky is a joint venture between the Tata Group and Rupert Murdoch's STAR. Currently, Tata Sons owns 60 per cent, while STAR owns a 30 per cent stake.
3. **Airtel Digital TV:** Airtel Digital TV is a DTH service provider owned and operated by Bharti Airtel, a telecom company having mobile and wired telephone service and broadband provider. Its satellite service was launched in 2008.
4. **Reliance BIG TV:** Launched on 19 August 2008, Reliance digital TV limited is a part of Reliance Communications Ltd., a subsidiary of Reliance Anil Dhirubhai Ambani Group owned by Anil Ambani. BIG TV started operations from 19 August 2008 with the slogan "TV ho Toh BIG Ho".
5. **Videocon d2h:** Videocon d2h is the DTH service provided by the Videocon Group, an industrial conglomerate with interests all over the world, and is an Indian multinational company. The group has 17 manufacturing sites in India and plants in China, Poland, Italy and Mexico.

INTEROPERABILITY

Interoperability may be defined as "the ability to exchange information and mutually use the information which has been exchanged."

In today's information society, most, if not all, commonly used information technology products must be able to communicate, or interoperate, in networks with other IT products. There is often confusion over the meaning of interoperability in today's information technology markets, and over the relationship between interoperability and competition. Telecom Regulatory Authority of India (TRAI) is building consensus among operators on the commercial and technical feasibility of making set top boxes portable similar to mobile number portability in the telecom space. In set top interoperability, a DTH customer can retain the box and switch to the operator of his choice that suits his pocket and satisfactory delivery of service. There is a hitch in technical interoperability as different DTH brands are airing their signals in different broadcast technology formats like MPEG2 and MPEG4 making seamless adaptability of the boxes impossible in the interoperability regime. If consensus is build and set top portability is made possible by finding a solution to the technological conundrum then DTH market would witness a fresh lease of provider competitiveness where subscribers would make a beeline to an operator offering best possible deal in the market. TRAI has also mandated commercial interoperability which gives the subscriber an option to take the STB on rent or hire purchase basis giving him enough flexibility to be able to switchover from one operator to another at least cost.

Dish TV, in its early days, had introduced a similar offering but it failed to light up the DTH market. Videocon had introduced the idea of TVs without set-top boxes. The idea, however, failed to garner interest.

This pivotal study examines the consumer preference about DTH interoperability if such a facility is provided to the consumers.

NEED OF THE STUDY

Researcher want to find out whether the consumer are satisfied with the present DTH service provider. Given an opportunity for portability will they shift from one DTH service provider to another. This research will provide insight to the service provider that if consumer is given an opportunity to switch then they will prefer which service provider. They can tap the potential customers and frame strategies accordingly.

¹ INTEROPERABILITY AND COMPETITION LAW, European Committee for Interoperable Systems (ECIS), available at <http://www.ecis.eu/interoperability-competition-law/> last visited on June 13, 2012
² Definition of interoperability, available at <http://www.merriam-webster.com/dictionary/interoperability> June 13, 2012

LITERATURE REVIEW

¹Dhinakaran Samson Joe (2012) study identifies the various factors that determine the preference of DTH service with reference to brand loyalty. DTH Services are in a nascent stage in our country. However, there is a stiff competition among the present 6 Service providers. Most of the people are confused with which Service connection can be obtained. Moreover, DTH Service providers are also perplexed with what channel should be given free of cost and what channel should be offered at a price. This study aims at with these.

²Jayashree J., Sivakumar A. (2013) study reveals that the majority of the respondents prefer to buy sun direct because of its best picture quality, reasonable price, various kinds of packages and more channels. So the DTH service providers must pay attention on Customer Service, picture quality, reasonable price rather than other factors to make their business more successful and satisfy the consumers. In the buyer's market today, business concerns have to make a lot of efforts to sell their product and establish their survival. It may be basically due to changes in attitude of consumers towards buying products and changing business world. Every human being is changing time to time according to the changing trends in every day's life. The biggest changes occurred in consumer products, new and innovative technology has used to satisfy the consumers. In this content, the study is taken up with the various DTH services, which have considerable share in the market. This paper reveals the customer perception towards DTH services in Coimbatore city and it also helps to analyze the competition exist in the market regarding DTH services. The study is focused on the four kinds of DTH services namely, Sun direct, TATA sky, Dish TV, Big TV. The task of the study is to know the preference of the users in Coimbatore city among these various services. Various tools used to analyse the data.

³Jotheshwari P., Gunasekaran T., Lakshmana B. C. and Chandra Mohan A. (2014), paper explains about list of players in the broadcasting industry as on 2013 and also comparative performance of DTH vs Cable DTH is the acronym for Direct-To-Home television services. DTH service is the reception of satellite, programmed with a personal dish in every individual home. It is basically a satellite service that would provide the subscribers to view the television services through satellite transmission anywhere in the country. DTH provides uninterrupted signal reception with reduced amount of service breakdowns. DTH offers high picture fineness and sound quality. A customer's behavior is influenced by the perception and beliefs that he holds of issues and events. This study has attempted to study the perception and beliefs of the customers about the DTH brands and services provided. From the analysis and interpretations it is very clear that as far as the awareness, perception, belief and acceptance is concerned DTH has won an Oscar, but with certain areas of concerns and improvements such as., Packages, choice of channels and charges, Prompt information about the services, High quality signal, Continuity of service etc., DTH offers highly customized packages and additions of channels. DTH is a direct competitor of the cable TV since it puts the broadcaster directly in touch with the consumers. This paper also analyses the awareness about DTH services in Kanchipuram city and DTH brands and services provided in this regard.

⁴Prajapati Sandip, Rathod Khuman (2013) objective of the study is to know the preference and satisfaction level of consumers regarding DTH services and find out the reasons behind the success of DTH Industry in major city. DTH is one of the fastest growing industries in today's era. There are various big players already in the DTH industry like Reliance Digital TV, Sun Network, TATA SKY, Airtel Digital etc. Here researcher collect primary data of users of DTH services at different cities of Gujarat through surveys where both open & close ended questionnaire where used. Some of the key findings are Picture quality and Network consistency are extremely important parameters while Monthly charges, Channel packages offered and customer care services are less important in the mind of consumers. Majority of the respondents would like to recommended others regarding DTH services which is considerably one of the major key success factor for DTH industry

⁵Sutha Irni, Jayanthi L (2013) paper compares the various kinds of services that are offered by the DTH service providers to the customers in order to find the reach of the DTH and also to understand the customer preference and extent of satisfaction. The research design used for the study is descriptive research. The study is conducted among both the users & non-users, with the help of structured interview schedules using questionnaire. Initially, a pilot study was conducted among few respondents and changes were brought in the questionnaire. Analysis and Interpretation is done using Chi-square method & ANOVA. It was found out that people prefer a DTH service to Cable operations due to various factors such as Quality of both Video & Audio, Quality of service etc. Based on the findings, appropriate suggestions have been made for increasing the number of users.

⁶Tiwari Shrish Kumar research paper studies the comparative and analytical study of the sales promotion strategies of D.T.H service providers. D.T.H. stands for Direct-To-Home television. DTH helps in keeping broadcasters in direct touch with consumers thus, eliminating the need of local cable operators. Since the DTH TV industry is currently in its growth phase, it is expected to attract a large number of subscribers in near future and so becomes an area of concern for service providers on which study has been conducted.

⁷Kumar Dilip, Yamuna S M research study is focused on business concerns have to make a lot of efforts to sell their product and establish their survival. It may be basically due to changes in attitude of consumers towards buying products and changing business world. Every human being is changing time to time according to the changing trends in every day's life. The biggest changes occurred in consumer products, new and innovative technology has used to satisfy the consumers. In this content the study is taken up with the various DTH services which have considerable share in the market. This paper reveals the customer perception towards DTH services in Coimbatore city and it also helps to analyze the competition exist in the market regarding DTH services. The study is focused on the Six kinds of DTH services namely, Sun Direct, TATA sky, Dish TV, Big TV. Videocon, Airtel. The task of the study is to know the preference of the users in Coimbatore city among these various services. Various tools used to analyses the data. The present study reveals that the majority of the respondents are using Sun Direct because of its best picture quality, reasonable price, various kinds of packages and more channels. So the DTH service providers must pay attention on Customer Service, picture quality, reasonable price rather than other factors to make their business more successful and satisfy the consumers

RESEARCH OBJECTIVES

1. To examine consumer level of satisfaction towards DTH services.
2. To find out whether the consumer will opt for DTH portability.
3. To find out customer loyalty among DTH service providers.

HYPOTHESIS

Ho – Customers are highly satisfied with DTH service provider.

H₁ . Customers are satisfied to some extent with DTH service provider.

RESEARCH METHODOLOGY**Sources of Data Collection**

Questionnaire was developed.

Reports and Research papers were referred

Thus, combination of data collected from primary as well as secondary sources.

- Sample Design: Stratified random sampling
- Sample Size: 93 respondents.

DATA ANALYSIS AND INTERPRETATION

The researcher had considered the major DTH service providers viz., Airtel digital, DishTV, Reliance Digital, Tata Sky and VideoconD2h. The table-1 shows the usage of DTH facility by the respondent from various service providers. Videocon d2h shows average number of years of usage is 7.42 compared to other service providers. Lowest average is Tata Sky in terms of usage.

The average number of connections a customer possesses is 5.42 in case of Tata sky compared to other is between 0.08 to 1.83. But the average monthly expenditure is highest of Videocon d2h.

TABLE 1: MEAN

Service Provider	Usage of DTH (number of years)	TV Connections (Number)	Monthly Expenditure (in Rs.)
Airtel Digital	4.46	1.25	325.00
Dish TV	4.88	1.83	331.25
Reliance Big TV	5.00	0.08	250.00
Tata Sky	4.37	5.42	396.81
Videocon d2h	7.42	1.42	416.67

The level of satisfaction is measured on Likert scale of 1 to 5. Where 1 denotes highly satisfied and 5 denotes highly dissatisfied. The table-2 shows that consumer level of satisfaction for DTH service provider. It reflects that customers are highly satisfied with audio-video quality, quality of High Defines channels and online recharge as compared to other indicators consumer is just satisfied. Chi square test has been applied to find out the difference between expected outcomes and actual outcomes. It is found that to some extent audio-visual quality and recording quality makes a significant difference to customers compared to other indicators. Thus, there is association between service provider and level of satisfaction in audio –visual and recording Facility. While other indicators have no association with service provider. Thus, we reject the null hypothesis and accept the alternate hypothesis.

TABLE 2: CONSUMER'S LEVEL OF SATISFACTION FOR DTH SERVICE PROVIDER

Indicators	Mean	SD	Coefficient of variation	Chi Square (p value)
Monthly Subscription	2.290	0.939	0.410	0.71
Price Range	2.441	0.972	0.398	0.10
Audio-Video Quality	1.753	0.816	0.466	0.009
After Sales Services	2.054	0.864	0.421	0.76
Transmission Quality	2.505	1.039	0.415	0.65
Quality of HD Channels	1.892	0.949	0.502	0.40
Movies on Demand	2.075	0.811	0.391	0.32
Recording Facility	2.075	0.726	0.350	0.05
Online recharge facility	1.688	0.608	0.360	0.91
Education Interactive Channels	2.011	0.699	0.348	0.90

Table-3: shows that if given a inter-portability facility the expected movement of consumers in DTH services. Airtel Digital, Dish TV, Tata Sky customers would be ready to switch user if provided inter-portability facility.

TABLE 3: EXPECTED CONSUMER MOVEMENT IN DTH SERVICES

Service Provider	Airtel	Dish TV	Reliance Digital	Sun Direct	Tata Sky	Videocon d2h
Airtel Digital	X	X	X	X	2	2
Dish TV	1	X	1	X	5	6
Reliance	X	X	X	X	X	X
Tata Sky	2	X	X	1	X	6
Videocon d2h	X	X	1	X	1	X

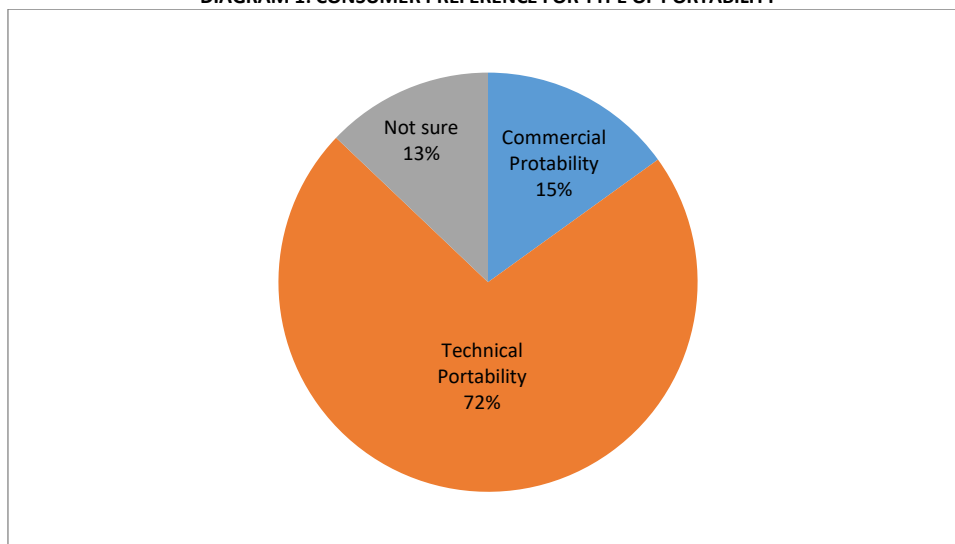
Table-4: explains customer loyalty among the DTH service providers. It is found that Customer Loyalty is highest in case of Videocon followed by DishTV and lowest in case of Tata Sky. As in case of Airtel Digital only 2 out of 15 customers are not ready to switch rest all are willing to switch. While dishTV only 3 out of 16 customers were not ready to switch and so on. Thus, higher the percentage more is the customer loyalty and less is the chances of portability.

TABLE 4: CUSTOMER LOYALTY AMONG VARIOUS DTH SERVICE PROVIDERS

Service Provider	Customer Loyalty	Percentage
Airtel Digital	02/15	13.33
Dish TV	03/16	18.75
Reliance Big TV	00	00
Tata Sky	05/47	10.68
Videocon d2h	3/15	20

Diagram -1: explains if the customer is given a chance to choose between technical or commercial portability then 72% customers prefers Technical portability compared to 15% prefers commercial portability.

DIAGRAM 1: CONSUMER PREFERENCE FOR TYPE OF PORTABILITY



FINDINGS

1. Customers of Videocon has maximum number of years of usage compared to other DTH services provider.
2. Tata Sky customers have maximum TV connections while Videocon d2h average monthly expenditure is highest.
3. Majority of customers are satisfied with the audio-visual and recording quality of DTH service providers.
4. Airtel Digital, DishTV, Reliance Digital customers if given an option would opt for either Tata Sky or Videocon d2h.
5. Customer loyalty is more in case of Videocon d2h compared to others.
6. Customers would prefer Technical portability compared to commercial portability.

Thus, this research will help the DTH service providers to frame the strategies and pricing as per the customer preference and tap the potential customers whether portability is implemented or not implemented in future.

CONCLUSION

Interoperability in the DTH market would also imply that manufacturers of the Set-top boxes, which are critical in receiving transmission, would be able to manufacture universal products without a specific company in mind, thereby opening up the market to other potential entries, a situation which is difficult at the moment as manufacturers are tied to a specific DTH service provider. If interoperability services are provided it will also create competition among the service provider to provide the best possible facilities with respect to pricing and quality of service.

REFERENCES

1. Dhinakaran Samson Joe (2012), "A Study of Consumer Buying Behaviour of DTH Services in Palayamkottai", International Journal of Research in Commerce and Management, Vol. 3, Issue. 4, April 2012, pp: 96-98, ISSN: 0976-2183.
2. Jayashree J. and Sivakumar A. (2013), "A Study of Consumer Perception towards DTH Services in Coimbatore City", IOSR Journal of Business and Management, Vol. 8, Issue. 1, Jan-Feb. 2013, pp. 10-14, e-ISSN: 2278-487X
3. Jotheshwari P., Gunasekaran T., Lakshmana B. C. and Chandra Mohan A. (2014), "Customer Awareness and Perception about DTH Services in Kanchipuram District, Tamil Nadu, India", Abhinav- National Monthly Refereed Journal of Research in Commerce and Management, Vol. III, January 2014, ISSN- 2277-1166
4. Prajapati Sandip, Rathod Khuman (2013), "A Study of key success factors of DTH services in Selective cities of Gujarat", Radix International Journal of Economics and Business Management, Vol. 2, Issue. 10, October 2013, pp: 1-7, ISSN: 2277- 1018
5. Sutha Irni and Jayanthi L (2013), "A Comparative Study of the various Direct-to-homes (DTH) service providers in Chennai", Indian Journal of Applied Research, Vol. 3, Issue: 7, July 2013, ISSN: 2249-555X.
6. Tiwari Shrish Kumar (2014), "A Comparative Study of Sales Promotion Strategy of DTH Services" Humanities and Social Science Reviews Publishing Contemporary and Cross Cultural Research Review Globally, eISSN 2395-6518, April 2014
7. Kumar Dilip, Yamuna S M (2015), "A Study of Consumer Preferences towards DTH Service in Coimbatore City", Abhinav International Monthly Referred Journal of Research in Management and Technology, Abhinav Publication, Vol. 4, Issue. 5, May 2015, ISSN-2320-0073.
8. Anand Vijay V, Renganathan R, Srinivasakumar V, Balchandran S, Abarna Vaishaly, Sindhuja S, Radhika R, "A Study on Consumer Brand Preference with reference to DTH in Rural Area", Indian Journal of Science and Technology, Volume 9, Issue 27, July 2016.
9. Joshi S, Bhatia S, Puri D, Roy A, Saini J. "Application of fishbein model using predictive analytics for measuring purchase intention of the DTH consumers". IJIM; 2015: 5(1-2):19-36.
10. Hire N, Rajesh "An in-depth study on customer satisfaction of DTH services users in Mehsana District", International Journal of Marketing and Technology. 2013 Jan; 3(1):193-202.
11. Malarvizhi V, Geetha KT. "Customer's satisfaction on DTH and cable TV services. A comparative study in Coimbatore City", Indian Journal of Applied Research. 2014 Jun; 4(6):1-3.
12. Jayashree J, Sivakumar A. "A study on customer perception towards DTH services", IOSR Journal of Business and Management. 2013 Jan -Feb; 8(1):10-14.
13. Sridurga M. A "Study on consumer behavior and satisfaction towards sun direct DTH with special preference to Erode District", IJMSS. 2015 Mar; 3(3):1-6.
14. Kaur K, Kumar A. "Direct to home television: A review", IJAER. 2012 Jan/Jun; 2(1):1-5.
15. Northern Sky Research. Global Direct-to-Home Markets, 6th Ed. Available from: <http://www.nsr.com>

**PRODUCTIVITY AND FINANCIAL HEALTH ANALYSIS OF TAMIL NADU CO-OPERATIVE SUGAR INDUSTRIES:
A STUDY**

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ABSTRACT

The research study titled "Productivity and Financial Health Analysis of Tamil Nadu Co-Operative Sugar Industries: A Study" is a piece of research work done in order to assess the financial stability, profitability, long term solvency, efficiency in asset utilization of the five major sugar companies operating in the state of Tamil Nadu. The study has been conducted during 2006-2007 to 2016-17 which is clear that the Ministry of Company Affairs, Ministry of Finance – Government of India, as well as the Reserve Bank of India are seriously thinking together for further liberalization, and to reduce the bank rate of interest on the welfare of the companies and the banking agencies were coming forward to support these industries financially to improve the productivity and giving direct and indirect employment for the common man. Since, these types of industries basically depend upon agricultural production and the same in turn depends on the geographical and climate conditions of a State which is above the hands of a common man. Knowingly the researchers have made an attempt to find that whether these white elephants are healthy and financially strong enough to run on its own leg, the researchers had made an attempt to critically analyze the financial strengths. It is found that on an average all the units considered for the study are at average to the industry standards and to the rule of thumb. While making with the Comprehensive Test Kothari Sugars state in the first place where all the sugar companies considered for study should learn a lesson from Kothari Sugars. Rajshree Sugars shows a weak ratio and implies that it is to be bankrupted. It is a warning for other companies to be at most clever. This researchers concludes that all the five major sugar companies considered for study shows an average productivity which can be increased provided these industries in particular depends upon agricultural production where the concerned central and state Government has to answer whether these industries will be at a Survival.

KEYWORDS

sugar industry, financial performance.

JEL CODES

D24, O43.

I. INTRODUCTION

The focus of financial analysis is a key factor in determining the fate of any company. The analysis of financial statements is a process of evaluating relationship between components of financial statements to obtain a better understanding in the firm's performance. Financial statement analysis involves analyzing the firm's financial statements to extract information that can facilitate decision-making activity. An analysis of the financial statement can reveal whether the firm will be able to meet its long-term debt commitment, or financially distressed, company uses its physical assets efficiently and optimal financing mix is maintained, whether firm is generating adequate return to its shareholders and whether it can sustain its competitive advantage. While the information used is historical, the intention is to clearly arrive with recommendations and forecasts for the future rather than provide a "picture of the past".

II. SUGAR INDUSTRY - PROFILE

Sugar industry is very important to the Indian national economy due to its multiple contributions in the shape of employment and provision of raw materials to other industries. It had been rightly pointed out by late Shri. Fakhruddin Ali Ahmed who was the minister for food and agriculture. In his eleventh annual general meeting of the national federation of co-operative factories limited he addressed that "the co-operative sugar factories in some parts of the country have become the symbol of industrialization in the development of ancillary industries providing opportunities of employment to the village folk". The industry provides employment to about 35 million cultivations and 3.6 lakhs skilled and unskilled workers. Further, it accounts for providing employment to crores of thousands in the sugar trade, transporting of sugarcane and sugar etc. It's by-products are used as raw materials in industries such as alcohol, plastics, synthetics, rubber, and fiberboard pharmaceuticals, paper, etc. The sugar industry in recent years has begun to export sugar, thus earning valuable foreign exchange besides it provides Rs.300 crores as tax to the government. Consisting these facts of importance it is ranked second among the major consumer industries of this country, next only cotton, textile industry. In India, major sugarcane growing states includes Uttar Pradesh, Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Andhra Pradesh. These six states contribute more than 85% of total sugar production in the country. Uttar Pradesh and Maharashtra together contribute more than 57% of total production.

III. STATEMENT OF THE PROBLEM

India is the fourth low cost sugar producers in the world after Australia, Brazil and Thailand. India's cost of sugar production is one-fourth of that in Europe. India's sugar sector faces a fall in prices, rising raw material costs, limited export capacity and a lack of flexibility to produce ethanol for biofuel, analyst Licht said. Sugar is the second largest agro-based industry in India. The industry provides employment to about two million skilled and semi-skilled workers besides those who are employed in ancillary activities, mostly from rural areas. Though the industry contributes a lot to the socioeconomic development of the nation, it is plagued with a number of problems such as cyclical fluctuations, high support prices payable to farmers, lack of adequate working capital, partial decontrol and the uncertain export outlook. Global sugar prices have fallen sharply because of a huge glut of production driven by the world's leading producers such as Brazil, India and Thailand.

The Sugar Industry in Tamil Nadu plays a vital role in the economic development of the State, particularly in rural areas. Tamil Nadu is one of the leading producers of sugar in the country and its contribution is about 7% of the country's total sugar production. At present, there are 47 sugar mills in Tamil Nadu of which 16 sugar mills are in cooperative sector, 3 in public sector and 28 in private sector. At present 44 sugar mills are functioning and the remaining 2 mills viz., Madura Sugars

and Arunachalam Sugar Mills Limited are not functioning. The Agro based sugar mills play an important role in the economic growth of rural areas with the sole aim to generate large scale direct employment. Apart from that, a lot of indirect employment to rural population is also provided. Tamil Nadu Sugar industry is responsible for about 10% of the total sugar production in India. At present, the sugar industry in Tamil Nadu stands in a total mess similar to that of the other rural industries.

IV. SCOPE OF THE STUDY

“Productivity and Financial Health Analysis of Tamil Nadu Co-Operative Sugar Industries: A Study” is a maiden attempt to analyze various financial aspects of sugar companies. It analyses various aspects such as liquidity, solvency, turn-over etc. of the year 2006-2007 to 2016-2017. It is a specific study which is confined to financial aspects only and is purely based on secondary data which also limits the scope of the study. The study highlights the financial position of the sugar companies in Tamil Nadu for the study period. The study helps to understand the financial position and provides suitable suggestion to improve their financial performance.

V. METHODOLOGY

The source of data for the study is collected from the annual Reports and balance Sheet of select 5 sugar companies in Tamil Nadu. The Companies considered are Bannari Amman Sugars(BAS), Ponni Sugars(PS), EID Parry(EID), Kothari Sugars(KS) and Rajshree Sugars(RS) all these are located and operating in Tamil Nadu only. The objective of this paper is to analyze and compare the Profitability, Liquidity, Long Term Solvency position and Efficiency in Asset Utilization of sugar companies under study and to offer findings and suggestion to improve the financial position of sugar companies. The tool used for the study includes Ratio Analysis, Comparative Financial statement, Common Size statement, Motaal's Comprehensive Test, Z – Score Ratio, Trend Analysis and Correlation and to understand the actual financial position, trend projection made to projected for the following three years based on the actual position. Study was made for just five years and the current year excluded was on account of the non-availability of the data. It is based on secondary data, were it is affected by the inherent limitations of the secondary data.

VI. REVIEW OF LITERATURE

Kannadhasan (2007) in his article entitled —Measuring Financial Health of a Public Limited Company Using Z' Score Model-A Case Study|| ascertained the financial health of Wendt (India) Limited company and its consistency in financial performance for five financial years from 2001-02 to 2004-05. The research findings are that the company is maintaining good financial performance throughout the study period.

Kannadhasan (2008) has made an attempt —Measuring Financial Health of a Public Limited Company using ‘Z’- Score Model- A Case Study|| to have an insight into the examination of financial health of a watch company in India. To evaluate the financial conditions and performance of a company, the author has used Z-score model, which captures the predictive viability of a company's financial health, by using a combination of financial ratios that ultimately predicts a score, which can be used to determine the financial health of a company. The study concludes that the company's overall financial health was good.

Sam Luther (2009) has undertaken a study entitled —Liquidity Risk and Profitability Analysis : A case study of Madras Sugars Ltd|| and has highlighted how the company had achieved adequate liquidity, risk minimization and profit maximization. The objectives of the study are to measure and evaluate the liquidity position of MCL, to assess the correlation between liquidity and profitability and to assess the trade-off between profitability and risk for a period from 1994-98 to 2004-05. The relationship between liquidity and profitability are measured by computing spearman's rank correlation co-efficient. The author, by using t-test, has concluded that there is a liner relationship between liquidity and profitability. It is also concluded that the high degree of aggressive policy adopted by MCL has made a negative impact on its profitability.

Singh (2010) has studied —Sugar industry in Uttar Pradesh: Efficiency still Honey the Key, the sugar industry is a major agro-based industry of Uttar Pradesh where cropping pattern is largely subsistence- oriented and sugarcane is one of the important cash crops. During 2001-02, the state had 20.35 lath ha area under sugarcane out of the total 4403 lakhsha area under sugarcane in the country. The sugar industry has shown considerable instability in the level of production because of interdependence and inter-relationship between sugarcane, gur, khansari and white sugar leading to fluctuations in the production of sugarcane, as well as, sugar. These fluctuations have emanated from the presence of various processing sectors and have the different government policies. Such uncertainty of affairs is neither conducive to sound growth of the industry nor to the growers. In view of this scenario, it felt necessary to carry out an investigation, which can reveal the present state of sugar industry, in terms of its efficiency in operations. The study has revealed that most of the mills are in the efficiency range of 60-80 percent. Efficiency is higher in the private sector (81%), followed by the public (73%) and co-operative (66%) sectors. Though this study has advocated the continuation of partial decontrol policy, it has urged the policy makers to streamline strategies that promote stabilization of sugarcane economy and make the state, a credible supplier of Sugar in the international market, benefiting growers, processors and, in turn, consumers.

Somannavar (2011) in his article, states that —Indian Sugar Industry is Competitive||. He concluded that the strong infrastructure build up, co-ordination between the centre and state governments, dialogue between the firm and the farm sector, future based R&D, government co-operative sector, proper utilization of the by-products and able trade policy have been the essentials to make the Indian sugar industry globally competitive.

Vishanani and Shah (2011) have studied the —Impact of Working Capital Management Policies on Corporate Performance —An empirical study of Indian consumer electronic industry by implementing simple correlation and regression models. They have found that there is no established relationship between liquidity and profitability for the industry as a whole; but various companies of the industry depict different types of relationship between liquidity and profitability. However, majority of the companies revealed positive association between liquidity and profitability.

Appuhami and Ranjith (2013) in their study on Firms' Capital Expenditure on Working Capital Management: An. Empirical Study across Industries have investigated the impact of Thailand firms' capital expenditure on their working capital management. The authors have used the data collected from listed companies in the Thailand Stock Exchange. The study has also found that the firms' operating cash flow, which has been recognized as a control variable, has a significant relationship with working capital management, which is consistent with findings of previous similar researches. The findings enhance the knowledge base of working capital management and will help companies manage working capital efficiently in growing situations associated with capital expenditure.

VII. FINDINGS

7. 1. Liquidity ratio

It was found that the overall performance, Bannari Amman Sugars shows high with 1.65 as average current ratio whereas Rajshree sugars low with 0.89 during the study period. It was found that the overall performance of EID Parry was shows 1.32 liquidity ratio whereas Ponni sugars low at 0.39 against the standard norm of 05. Performance of Kothari Sugars is good by 6.03 as against Bannari Amman Sugars low 2.86 with regard to inventory turnover ratio. It was found that the overall performance, Ponni sugars was showing 312.48 as an average debtors turnover ratio whereas EID Parry low with 35.21.

7. 2. Long Term Solvency ratio

Rajshree sugars performs good with regard to Debt equity ratio (14) and Long term debt equity ratio (2.46) and low in the case of interest coverage ratio (1.96). Bannari amman sugars a low degree with 0.55 in the case of debt equity ratio as well as in the case interest coverage ratio it is found to be as high as 18.32. Ponni sugars has performed quite good during the study period in the case of return on long term fund with 147.21 and as low as 0.21 in the case of long term debt equity ratio. Rajshree sugars shows a high average of 2.46 in long term debt equity ratio and Kothari sugars with 42.77 as average low on long term fund ratio. It was found that the overall performance of debt equity ratio found to be high in the case of Rajshree Sugars (14) as an average debt equity ratio whereas Bannari amman Sugars low with 0.55. Ponni sugars was showing high with 2.94 as an average fixed asset turnover ratio whereas EID Parry low with 0.95. It is understood that the overall performance of Ponni Sugars is 2.05 as an average total asset turnover ratio whereas EID Parry with 0.63. It was found that the overall performance of EID Parry was showing high with 1.18 and Rajshree Sugars low with 0.35 return on net worth ratio.

7. 4. Profitability Ratio in relation to sale

Operating ratio is concerned it is observed that Bannari Amman Sugars shows high value of 98.74 as EID Parry low with 31.29. Gross Profit Ratio is found to be good in the case of Bannari Amman Sugars by 15.07 whereas EID Parry is low with 2.24. Average profit ratio is concerned it is understood that EID Parry shows high 23.02 and Rajshree sugars with 2.60. Bannari Amman Sugars shows 14.09 as average profit before interest and tax ratio whereas EID Parry with -0.01.

7. 5. Profitability Ratio in relation to investment

Earnings per share ratio is high with Bannari Amman sugars Rs.77.85 and Kothari Sugars low of Rs.1.14. Dividend payout ratio to net profit is concerned it is found that EID Parry shows high 30.62 whereas Kothari Sugars has not paid dividend to its share holders throughout the study period which has to be taken in to account. It was found that the overall performance of EID Parry was shown high with 26.47 as average dividend payout ratio cash profit whereas Kothari Sugars has not paid dividend to its share holders throughout the study period. Investment turnover ratio is concerned it is found that Kothari Sugars shows high with 6.56 times whereas Bannari Amman Sugars low with 2.86.

7. 6. Common Size Statement

Common size balance sheet shows that the current liabilities and current assets show fluctuation in its respective percentage to total liabilities and total assets when compared each year. In the year 2008 Rajshree sugars percentage of total current asset to its total asset is (21%) less than the percentage of total current liabilities to its total liabilities (31%). While comparing the five companies for five years the percentage of reserve has increased except Rajshree sugars and Bannari Amman sugars.

Common size income statement when compared to the then yester four year's Bannari Amman sugars total income has increased at 132 % against its total sales in the year 2011 and total expenses increased at 114% to its total sales. Compared with other years the operating profit of EID Parry has decreased at -5% to its sales in the year 2008 due to decrease in total income at 109% on its total sales. The Operating profit of Ponni sugars in the year 2010 has increased at 31% to its total sales to total income at 110% which decreased at 85% to its total sales on total expenditure.

7. 7. Comparative Statement

Comparative balance sheet is found that the Bannari Amman sugars total liability has decreased to -2% during the year compare then its previous year. Cash and bank balance of Rajshree sugars increased to 1231 times during the year 2010. The percentage of capital work in progress has increased 1006 times during the year 2008. Kothari sugars reserves has increased to 258% during the year 2010 compare then its previous year 2009. Sundry debtors of Ponni sugars has increased 1187 times during the year 2008. Total asset and liabilities of Ponni sugars has decreased to -10% during the year 2011. **Comparative income statement** is found to increase in net sales to 78% during the year 2010 due to increase in total income 6% to 8%. Even though there has been no change in total expenses during the year 2009. -4273 time decrease in net profit during the year 2009 of EID Parry. Kothari sugars net profit has increased 1256 times during the year 2010 compared to its previous year 2009 Kothari sugars net profit has decreased to -43% during the year 2008 due to increases in its miscellaneous expenses to 1887 times.

It was found to be negatively performed with a net profit towards the companies showing fluctuation trend. A sale of companies considered for the study gradually increased and was steady in all projected periods i.e. 2013-14 to 2014-15 except Bannari Amman Sugars & Kothari Sugars. In the case of reserve & surplus it is learnt that there was a positive trend of all the five companies except Rajshree Sugars. Sundry Debtors is concerned companies considered such as Ponni Sugars and Kothari Sugars are well maintained. Rajshree Sugars trend was healthy and positive towards fixed asset for the entire projected period.

7. 8. Z-Score

Altman's Z- Score reveals Ponni Sugars, Bannari Amman Sugars, EID Parry and Kothari Sugars shows Healthier except Rajshree sugars. Ponni Sugars shows healthy zone during 2009 -10 with a score of 4.29 and Rajshree Sugars shows a bankruptcy signal during the year 2007-08 whose score is 0.99. All the companies are found to be in the healthy zone and it is certain that financial health of the companies considered are good and high except Rajshree Sugars where necessary steps to be taken for recovery of this poor financial position.

7. 9. Motaal's Comprehensive Test

During 2006 - 07 the said companies were ranked as 1st except Kothari Sugars. In the year 2007 - 08 2nd rank was achieved by EID Parry, Kothari Sugars and Rajshree Sugars. In the year 2008 - 09 Bannari Amman Sugars, Kothari Sugars and Rajshree Sugars achieved 4th rank. In the year 2009 - 10 1st rank was achieved by Kothari Sugars. EID Parry and Rajshree Sugars were achieved 5th rank in the year 2010 - 11. It is evident from the above test that the sugar companies considered for the study are equally doing good.

7. 10. Correlation

There exist a positive correlation between current asset and debt equity ratio except EID Parry (-0.24108). There is a positive correlation between inventory turnover ratio and net profit ratio, current asset and inventory turnover ratio, quick ratio and return on capital employed of all the above noted five companies.

VIII. SUGGESTION

Liquidity position of Ponni Sugars shows poor performance hence the company has to take necessary steps to improve its liquidity position by maintaining the sufficient current assets. While taking the Long Term Solvency position in to consideration Ponni Sugars performance seems to below the company has to concentrate on long term investments to improve its long term solvency position. EID Parry's activity ratio is low, and to overcome this company has to concentrate on its activity position by deploying more funds on its fixed assets as well as total assets. Profitability position of EID Parry shows poor performance. The company has to improve its sales by reducing operating expenses to earn more profit. Motaal's Comprehensive test reveals that the EID Parry achieved 5th rank during the year 2010 - 11 the company has to concentrate to improve its liquidity position. Rajshree Sugars situation in the case of Z - score test is in bankruptcy situation, to safeguard the company from this situation it has to concentrate on its all activities. There is negative Correlation between current asset and debt equity ratio of EID Parry. Hence the current assets do not influence the debt equity ratio of EID Parry.

IX. CONCLUSION

The study has been conducted during 2006-2007 to 2016-2017 which is clear that the Ministry of Company Affairs, Ministry of Finance - Government of India, as well as the Reserve Bank of India are seriously thinking together for further liberalization, and to reduce the bank rate of interest on the welfare of the companies and the banking agencies were coming forward to support these industries financially to improve the productivity and giving direct and indirect employment for the common man. Since, these type of industries basically depends upon agricultural production and the same in turn depends on the geographical and climate conditions of a State which is above the hands of a common man. It is found that on an average all the units considered for the study are at average to the industry standards and to the rule of thumb. While making with the Motaal's Comprehensive Test Kothari Sugars state in the first place where all the sugar companies considered for study should learn a lesson from Kothari Sugars. Rajshree Sugars shows a weak ratio and implies that it is to be bankrupted. It is a warning for other companies to be at most clever. This researchers concludes that all the five major sugar companies considered for study shows an average productivity which can be increased provided these industries in particular depends upon agricultural production where the concerned central and state Government has to answer whether these industries will be at a Survival.

REFERENCES

1. Gavada.P.N and Patil.J.F, "Problems and prospects of sugar industry in 21st century", India cooperative review, April 2011, Volume xxx.v111.No.4.
2. Kawarkle.P.K (2011) "economic efficiency of sugar industry in Marathuada region of Maharashtra ".Finance India, Vol xxi, No 1., March 2011.
3. Samar K.Datta, "Indian agriculture retrospect and prospect, Yojana, January 2013.
4. Shriram.V.Thiagarajan, President, Indian sugar mills association, 74th general meeting.
5. Venugopal.R, Sugar production in Orissa, Kssan World, August, 2014, Vol 28, Nov 8, P- 21.
6. Vijayakumar.A, (2012),Financial appraisal of Salem Co-operative Sugar Mills Ltd., Mohanur, In the book research studies in commerce and management, Delhi, Classical publishing Company, pp 51-65.

A STUDY ON IMPACT OF DIGITAL MARKETING ON THE USAGE OF NUTRITION LABEL ON FOOD PRODUCTS WITH REFERENCE TO BANGALORE NORTH

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ABSTRACT

Indian consumers are in the process of changing their consumer behavior especially with respect to food items. The thrust from incumbent government on J.A.M (JanDhan – Aadhaar- Mobile) has turned out to be a significant milestone in pushing the common man into the digital era. Not surprisingly more and more transactions are taking place online & through mobile devices. Organizations are spending millions of dollars in marketing research in order to keep a constant connect with the customer to serve his personalized wants as well as to find new customer quickly. Digital marketing, for a food manufacturer, can offer an ideal medium for effective messaging of nutrition information and thus differentiate the product more effectively to win a higher market share. The purpose of this study is to survey respondents living in Bangalore North on random basis to understand overall perception of nutrition level and whether digitization has made any difference to the way they perceive / expect nutritional information messaging and their purchase decision making process

KEYWORDS

digital marketing, nutrition, consumers, food label.

JEL CODE

M31.

INTRODUCTION

Food industries are developing day to day within the increasing period of the population to complete the public needs consumed by the world population. Consumer demand for healthy and nutritional food is the major motive for this growth. As we are living in the digital age, it has opened platform for food products too.

Online food products shopping is a relatively new environment that is rapidly growing in popularity. Compared to traditional supermarkets, online environments present consumers with different challenges and opportunities. For example, in a supermarket a consumer has to walk to the correct aisle in order to find a product, whereas an online environment allows consumers to find products in a number of different ways, such as entering a search term, navigating through categories of products, or browsing special offer pages. Having found a product, consumers using an online system can access a large and varied amount of information, some of which is available in an offline environment (e.g., lists of ingredients, price), but some of which is not (e.g., which two products are often purchased together). Even when the nature of the information provided in offline and online environments are similar; it is often presented in a different format. For example, to examine the ingredients that a product contains, consumers using an online system may need to click on an “extra information” tab, instead of looking at, for example, the back of the package. Given the increase in online shopping, it is important to understand what information consumers consider when shopping for groceries online, and how they go about finding it in this new environment.

Once consumers using an online grocery website have identified relevant products, they then need to decide which products to buy. Online environments provide various types of information about products. Typically, consumers first see a list of products that contains a small image of the product, its title, along with its price and whether it is currently on offer (i.e., discounted or part of a special promotion). Further information about the product, such as its ingredients or allergy information, is often available on a separate page that can be accessed by clicking on the image of the product or its title. Much of this information is part of compulsory labeling systems that have been introduced in an attempt to promote public health as well as awareness of environmental and social issues (e.g., animal welfare, fair-trade, country of origin). Studies of information seeking in traditional supermarket environments typically report relatively high levels of (self-reported) label usage. Few consumers use detailed information about products to guide their choices (at least some of the time), most consumers purchase products after simply looking at the front of the package.

Food Labeling serves as a primary link of communication between the manufacturer or packer of food on the one hand and distributor, seller, and user or consumer on the other hand. By way of labeling the manufacturer introduces his product to his distributor or seller and to the target consumer or user of his product by providing all the information regarding his product on the label. The manufacturer can impress the consumer or its target user that it is the product of his choice, which suits him/her according to his/her needs. Thereby, the correct and required labeling undoubtedly promotes the sale of his product.

Nutrition label use may lead to better food choices, in turn, may yield a more nutritious diet and reduce risk of chronic diseases so as to health care costs. Additionally, in order to maintain healthy body weight was the only belief associated with use of nutrition information labels. What's more, display formats of nutrition information labels have an important impact on customer decisions.

REVIEW OF LITERATURE

According to Katarzyna et al. (2010), the nutritional label is one of the important source of information on the food package. Anderson et al. (2010) mentioned that the nutritional label comprises of the information regarding the nutritional goodness of the respective food product. Hieke and Taylor (2012) argued that the nutritional labels could be placed on either front of the food package or at the rear of the packaged food product. The food labels have a utility from various points of views (Susannah, 2011)

Nutritional labels serve as a quality guarantees tool for promotion of healthy eating habits among consumers. From the standpoint of consumers, the nutritional label reduces the risk perceptions regarding the product and act as a vital promotional cue. From the view of retailer, this label is a source of providing necessary information regarding the nutritional goodness of the food. Finally, from the marketers' angle, the nutritional label is major food packaging cue which results in creating perceptions regarding the quality of the product. Nutritional labels are widely acknowledged to communicate sophisticated product information and are perceived to influence the consumer choice (Susannah, 2011)

The knowledge of the consumer regarding the nutritional labels on the food packages makes it convenient for the consumer to choose the product among variety of different products (Krishna, 2015)

The research conducted by Miller (2014) reported that the respondents could identify the nutritional fact panel accurately however they could not calculate the daily intake value and could not understand the numerical calculations

OBJECTIVES OF THE STUDY

1. To know the type of information that the consumers seek from food label.
2. To identify the specific nutrients that consumer seek from food label.
3. To assess the impact of online marketing on the usage of nutritional label.

RESEARCH METHODOLOGY

For the purpose of research, information was collected through a well-structured questionnaire. Survey was conducted in four location of Bangalore north. A total of 100 respondent were responded.

LIMITATIONS

1. The study was restricted to Bangalore north with 120 respondents.
2. Only e-shoppers are included in the present study.

DATA ANALYSIS AND INTERPRETATION

TABLE 1

BASIS	CATEGORY OF RESPONDENT	NUMBER OF RESPONDENTS	PERCENTAGE
Gender	Male	52	43.33
	Female	68	56.67
	Total	120	100
Age	15-25	38	31.66
	25-35	40	33.33
	35-45	31	25.83
	45 and above	11	9.17
	Total	120	100
Marital status	Married	78	65
	Unmarried	42	35
	Total	120	
Educational qualification	Below SSLC	9	7.5
	PUC	32	26.67
	Degree	44	36.67
	Post graduate	35	29.16
	Any other specified	0	0
	Total	120	
Occupation	Own business	24	20
	Govt/private employee	31	25.83
	Pensioner	9	7.5
	Unemployed	56	46.67
	Total	120	
Family Income	Below 200000	6	5
	200000-400000	29	24.17
	400000-600000	54	45
	600000 and above	31	25.83
	Total	120	

FOOD LABEL READING FREQUENCY

An analysis of food label reading frequency revealed that 100% of the respondents read food label every time they purchase food products. This shows that respondents perceived food labeling as a very important information.

TABLE 2: TYPE OF INFORMATION SEEKING FROM FOOD LABEL WHEN CONSUMER BUY ONLINE

Attributes	Always	Sometimes	Rarely	Never
Nutritional information	10%	22%	11%	57%
Brand	63%	24%	13%	0%
Price	77%	16%	7%	0%
Weight	18%	23%	53%	6%
Date	6%	10%	41%	43%
Additives/ artificial color	0%	0%	3%	97%
List of ingredients	0%	16%	27%	58%
Environmental information	0%	0%	0%	100%

The result of the study indicates that majority of the respondent give importance to Price and Brand while buying the products online. 57% of the respondent rarely see the nutritional information in the food label. This data proves that consumers requires continues educational campaign to understand the importance of nutritional information.

NUTRITION LABEL READING FREQUENCY

Result showed that 73% of the respondent don't read nutrition label when they buy online

TABLE 3: SPECIFIC INFORMATION SEEKING FROM THE NUTRITION LABEL

Particulars	Always	Sometimes	Rarely	Never
Fat	41%	34%	19%	6%
Calories	38%	38%	16%	8%
Cholesterol	28%	44%	13%	16%
Protein	28%	25%	22%	25%
Iron	22%	28%	28%	22%
Fiber	6%	13%	16%	66%
Carbohydrates	13%	9%	9%	70%
Sodium	12%	3%	0%	85%

It is evident from the above table that majority of the respondent seek fat and cholesterol from the food label. The parameter like protein, iron, fiber, carbohydrates and sodium are ignored to the great extent.

TABLE 4: REASON FOR NOT READING NUTRITIONAL LABEL

Attributes	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lack of knowledge	56%	24%	10%	8%	2%
Usage of Small font size	24%	27%	28%	12%	9%
Lack of trust on nutritional label	21%	26%	14%	16%	23%
Brand loyalty	67%	13%	16%	3%	1%
Ignorance	70%	17%	10%	3%	0%

From the above table it is clear that people have ignorance attitude towards reading nutritional label. People are loyal to a particular brand when they buy food products online. Deliberate usage of small font size is a reason for the consumer's not reading nutritional label.

TABLE 5: READING FREQUENCY BETWEEN AGE GROUP & NUTRITIONAL LABEL

	15-25	25-35	35-45	45 & above
Fat	9	12	1	10
Calories	19	2	8	4
Cholesterol	9	11	8	4
Protein	14	6	8	4
Iron	8	17	5	2
Fiber	0	2	8	22
Carbohydrates	0	7	14	8
Sodium	0	0	18	14

Fat and calorie consciousness are equally distributed between the age group of 15-35. But the overall study shows that people with the age group of above 35 read nutrition label in their purchasing decision.

FINDINGS

1. In our study 56.67% of the respondents are female
2. Majority of the respondents fall under the age group of 35-45
3. According to the study Usage of online shopping for food products are more among house wives & students and working class of people.
4. The frequency of online food products shopping is more among those who have their family income between 400,000 to 600,000
5. From the study it is clear that 100% of the respondent read food label when they buy food product online but they are more focused on price & brand.
6. The study shows that only 27% of the respondents read nutritional label when they buy food products online. Out of 27% majority of the respondent focus only on fat & calories.
7. Lack of knowledge, brand loyalty & ignorance are the major reasons for not reading nutritional label
8. The study shows that people with the age group of above 35 read nutritional label.
9. The study indicates that people are able to interpret the information on food label but not on nutritional table.

SUGGESTIONS

- Online customization of nutritional label.
- Nutrition information should be displayed more intuitive, such as presented in graph.
- Provide explanations & instructions of nutrition information for each ingredients as well as suitable and unsuitable types of ingredients within the mixture.
- Provide online customer support, especially online nutritionist guidance & support.
- To increase customer satisfaction & attract them, provide nutrition knowledge education & guidance for consumer prior to shopping, but in the shopping process allow consumers to choose whether to use nutrition information freely, so as to reduce the negative impact of nutrition information labels in the maximum extent.

CONCLUSION

Consumers seek further simplification of food label. The knowledge that they use food label during buying can be used effectively as a branding strategy to induce purchase. However the food processing industry must be aware that the consumers are no longer naïve & tactics like writing 'No Fat' on food label will not succeed for long. The concept of nutrition label can be effective if it is combined with information campaign to educate consumers.

REFERENCES

1. Agricultural & Processed food products Export Development Authority (APEDA) <http://agriexchange.apeda.gov.in/news>
2. Consumers use of nutritional label <https://www.researchgate.net>.
3. Impact of food labelling information on consumer purchasing decision B.E.S Bandara,
4. Reeva Paul & Monica Bedi (April 2014) Indian Journal of Marketing, PP 25-32
5. www.fssai.gov.in/

COMMUNITY PERCEPTION ON PUBLIC SECTOR SERVICES: STUDY ON PALEMBANG CITY GOVERNMENT, SOUTH SUMATERA, INDONESIA

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ABSTRACT

Public service is any form of services, either in the form of public goods or public services, which in principle become the responsibility and implemented by the Government Agencies in, in the framework of efforts to meet the community needs and in the implementation of the provisions of legislation. This study is aimed to explore how society perceived to service quality in sub districts of Palembang city government. The respondents of this research are the people who have used services in the sub districts in Palembang city government. This research uses convenience-sampling technique. The number of sampling is 400. This research used a closed, structured questionnaire with 4 scales Likert scale. The Data Analysis used public satisfaction index (IKM) approach. The result of research showed that the consumer index value for public sector service in Palembang city government was categorized as "Good" with conversion value of 73.25. The highest score for the service element is the courtesy and hospitality officer with a score of 76.50 while the lowest score is the speed of service with a score of 69.

KEYWORDS

perception, public satisfaction index, public service.

JEL CODE

A19

INTRODUCTION

Public service becomes the role and main function of the government bureaucracy (Deddy Mulyadi, 2016). Therefore, public services must be managed properly to provide a quality public service for the community. Act no 25, 2009 explains that public service is an activity or series of activities to fulfill the needs of services in accordance with laws and regulations for every citizen and residents for goods, services and / or administrative services provided by public service providers.

It is very important for public organizations to satisfy society because of the trust of the community. The better service quality provided by government, the higher the public trust (Harbani Pasolong: 2010: 221-222). In other word, public trust will be higher if the society get good servants and they feel satisfied with the service. The main purpose of public service is to meet societies' satisfaction. It can be realized if the services provided in accordance with established service standards. The government as a public service provider is responsible to provide the best service to the community. The low quality of public services provided by the government apparatus creates a bad image. In addition, some people who have ever dealt with government bureaucracy often complain and are disappointed. As a result many societies take shortcuts to use brokers to deal with government bureaucracy.

The public's disappointment is often due to the services provided are too complicated for various reasons. Therefore, the services provided tend to be ineffective and inefficient. These circumstances lead to public dissatisfaction. All that resulted in people reluctant to take care directly everything related to government bureaucracy.

One of the government offices in Indonesia whose activities provide public services is the sub district office. The service provided relate to the administration of population, such as the establishment of family cards, Identity cards, establishment of building permit (IMB). In addition, they provided services related to government service facilities.

Empirical data shows that public services in Indonesia are still poor and apprehensive. A number of problems concerning with public services in Indonesia is the low quality of public services due to the government bureaucracy. The existence of a long bureaucratic process and overlapping tasks and authority led to the implementation of public services to be long and through a convoluted process.

The problem that is still often complained by some people is the time of service. The time of service processing is still relatively long, although the public service time standard has been stated in Act number 25, 2009. According to Gugun Gumilar, Executive Director of Institute Democracy and Education (IDE), the quality of public services in Indonesia in general is still very low, including in region, district and sub district.

The Ombudsmen of Republic of Indonesia report indicates that public complaints are relatively high in Indonesia. According to Ninik Rahayu, one of the Ombudsman Commissioner of Republic of Indonesia, in 2016, the number of public complaints increased to nearly 11,000 reporters compared the previous year. (Putra, 2017). The incoming complaints reports showed that land use cases occupy the highest positions, followed local government cases, such as the right for getting education and health as well as the judiciary.

According to head of the Ombudsman of South Sumatra representatives that the existing public services in Palembang city is still not good (Sumatra Deadline, 2017). The indication can be seen from the number of the incoming complaints during 2016. The complaints received as many as 134 reports, and 80 of them were in Palembang city.

The success of public service activities in each sub district office can be judged by how people perceive the level of satisfaction obtained by the society. Perception is an experience of objects, events, or relationships obtained by summing up information and interpreting messages (Jalaludin Rahmat, 2011). The perceived assessment of society determines the performance measures of public services.

Public Satisfaction Index (IKM) is one of the instruments that are used to measure the level of society satisfaction on service quality. The provision on public satisfaction index is contained in the Decree of the Minister of Administrative Reforms Act No 25/ KEP/M.PAN/2/2004, concerning the General Guidelines for Compilation of Public Satisfaction Index for Government Service Unit.

This study aims to find out how the public in Palembang city perceive the quality of the public sector service in sub districts within Palembang city government. In addition, it is also to find out the elements of service that dominantly affect the level of society satisfaction.

LITERATURE REVIEW

According to Apparatus Empowerment Ministry (KEPMENPAN) NO 63 of 2004 on general guidelines of public service implementation that all service activities undertaken by public service providers as an effort to meet the needs of service recipients and the implementation of the provisions of the legislation. The essence of public sector service is the provision of excellent service to the society which is the embodiment of the obligations of the state apparatus as a public servant.

FACTORS AFFECTING SERVICE QUALITY

Barata (2003) stated that there are two main factors affecting service quality. Firstly, the factors that affect the quality of internal services (interaction of employees), namely the organization's general management pattern, the provision of supporting facilities, human resources development, work climate and alignment of employment relationships, and incentive patterns. Secondly, factors that affect the quality of external services (external customers), namely the pattern of services and the procedures for the provision of services, the pattern of service/ distribution services, the pattern of service sales services, and service patterns in service delivery. While Gaspersz (2011) argues that factors influencing customer perception and expectation on service, are the needs and desires associated with things that customers feel when he is trying to make transactions with the company; Past experience when using the services of company; the experience of friends, where they will tell about service quality they are received and communication through advertising and marketing that also affects the customer's perception of the services to be received.

PUBLIC SATISFACTION INDEX

Public satisfaction with the performance of government services needs to be continuously measured and compared. One of the instruments to measure public satisfaction, by using public Satisfaction index (IKM), which shows the information about the level of customer satisfaction of services provided by a Government agency. The purpose of public satisfaction index is to determine the level of service unit performance on a regular basis as an ingredient to establish policies in order to improve the quality of Public services furthermore. Hence, public satisfaction Index can be used as picture about service performance of unit concerned. The purpose and objectives of the public satisfaction index can be summarized as a benchmark of service success and can be used as a description of the performance of service agencies

ASSESSMENT ELEMENTS IN THE PUBLIC SATISFACTION INDEX

Based on the principle of service as already stipulated in the Decree of the Minister of PAN No. 63, concerning General Guidelines for the Implementation of Public Service, which was then developed into 14 relevant, valid and reliable elements, as a minimum element that must exist for the measurement basis of the Satisfaction Index, they are as follows:

1. Service procedure which is ease of service stages given to the society seen from the simplicity of service flow
2. Terms of Service are technical and administrative requirements required to obtain services in accordance with the type of service
3. Clarity of service officers is the existence and certainty of officers who provide services (name, position and authority and responsibility)
4. Disciplinary officers, namely the seriousness of officers in providing services, especially on the consistency of working time in accordance with applicable provisions
5. Responsibility of officers, namely clarity of authority and responsibilities of officers in the implementation and completion of services
6. The officers' ability, namely the level of expertise and skills possessed by officers in providing or completing services to the community
7. Service speed, service time targets can be completed within the time specified by the service delivery unit
8. Justice of getting services, is the implementation of services without distinguish the class or status of the community served
9. Officers' courtesy and hospitality is the attitude and behavior of officers in giving services to the community in a polite way, friendly and respect each other
10. The fairness of service charge, the affordability of the community to the amount of fees set by the service unit
11. Certainty of service charge, the suitability between the fees paid and the cost that has been set
12. Certainty of schedule, namely the implementation of service time, in accordance with the provisions that have been determined
13. Environmental comfort, namely the condition of facilities and infrastructure services clean, neat, and regular so as to provide a sense of comfort to the recipient of the service
14. Service Safety is the level of environmental security of service providers or facilities used, so that people feel relaxed to get a service against the risks resulting from the implementation of services.

PREVIOUS RESEARCH

Ernani Hadiyati's research (2014) in the International Journal of Marketing Studies; vol. 6, no. 6 on quality of service and performance in the public sector. The study was conducted at the First Level of Immigration Office in Malang. This study highlights the public service in the government sector. This study aims to see the level of community satisfaction on the services given by the government sector in this case immigration office in Malang. The study used the Public Satisfaction Index (IKM) approach to measure the level of community satisfaction, issued by the State Apparatus Ministers, in accordance with the KEP/25/M.PAN/2/2004. This study shows that on average the highest score is the issue of costing and the lowest element score was a matter of speed of service. People need openness about the amount of costs set by the government.

Muhajir Abd Rahman's research (2016) in the Journal of Fikratuna volume 8 Number 2, entitled Public Perceptions of Public Service Post-Proliferation (Descriptive Study in west Leihitu sub-district of central Maluku district). It was found that public perception toward service procedure is easy to be understood and not complicated, as well as guidance about public service procedure. Sub-district officials are polite and friendly in serving the community. However, the commitment to carry out public services with timely management has not been fully implemented.

Icha Yulandani's research (2015), in eJournal of Public Administration, vol 3 (3) 833 - 844. The study highlights the public service in Kelurahan Klandasan Ilir, Balikpapan. This study uses community satisfaction index approach. This research aims to measure the level of Satisfaction of the Community to the public sector service at the kelurahan ilir office. The finding indicates that the services provided have been categorized well when viewed from 14 indicators of Satisfaction Index (IKM). However, it still needs to be improved.

OBJECTIVES OF THE STUDY

1. To analyze how society perceives the quality of public service of Palembang City Government, based on Public Satisfaction Index.
2. To find out indicators of Public Satisfaction Index that contribute greatly to the level of community satisfaction.

METHODOLOGY

This research was conducted in sub districts in Palembang city, South Sumatra, Indonesia. The population is the societies in six sub-districts within the Palembang city government that is as many as 857.661. The respondents are societies that have been at least 17 years old and have settled in those sub districts at least one year. The sample is taken by using convenience sampling technique. The number of sample is 400 respondents. The primary data were collected by distributing questionnaires with closed questions. The questionnaire used likert scale with four levels. Determination of respondents based on community willingness to be interviewed. The researchers met the respondents in each sub-district, and then asking their willingness to be interviewed.

Public Satisfaction Index (IKM) is used in this research. It is measured by using weighed score from each of service elements. In measuring Public Satisfaction Index, there are 14 elements or indicators which are under inspection. Every elements of service has the same weigh which is formulated as follows:

$$\text{Score Quality of weighed estimation} = \frac{\text{Sum of weight } 1}{\text{Sum of elements } 14} = 0.071 (1)$$

The formula to get the score of Public Satisfaction Index is:

$$\text{Satisfaction Index} = \frac{\text{Sum of perception score each elements}}{\text{Sum of filled element}} \times \text{weighted score } (2)$$

To simplify the interpretation of measuring Public Satisfaction Index which is around 25 – 100, the result of measurement above is converted with basic score 25, by using the following formula: Public Satisfaction Index of Service unit x 25. The results can be seen in Table 1.

TABLE 1: PERCEPTION VALUE, INTERVAL OF PUBLIC SATISFACTION INDEX, INTERVAL SCORE OF CONVERSION, PUBLIC SATISFACTION INDEX, QUALITY OF SERVICE, AND PERFORMANCE OF UNIT SERVICES

Perception Value	Interval of Satisfaction Index	Interval Score of conversion Public Satisfaction Index	Quality of Service	Performance of Unit
1	1, 00 – 1, 75	25, 00 – 43, 75	D	Poor
2	1, 76 – 2, 50	43, 76 – 62, 50	C	Not good
3	2, 51 – 3, 25	62, 51 – 81, 25	B	Good
4	3, 26 – 4, 00	81, 26 – 100, 00	A	Excellence

Source: KEPMENPAN No. KEP/25/M.PAN/2/2004

To obtain a weighted average value per service element, the average value per service item is multiplied by 0.071 as the weighted average weighted value. While the value of composite index (composite) for each service unit, is the sum of the average value of each service element multiplied by the same weighting that is 0,071. The results of the composite index value (combined) are the value of IKM.

RESULTS AND DISCUSSION

Profile of Respondents

The sampling area of this research is 6 out of 16 sub districts within Palembang City. This study used convenience sampling technique with 400 respondents. The 400 sample has different backgrounds, in terms of age, gender, level of education, and occupation. Data by gender showed that the number of male respondents is higher than that of female. The male respondents are 51 %, while women are 49 %. The highest percentage of age respondents are 21 – 30 years old as many as 27.5 %, then followed by age between 31- 40 years old, as many as 21 %, age between 41- 50 years old, as many as 19 %, and the lowest percentage of age respondents are exceed 50 years old, as many as 14 %. In addition, the highest percentage of respondents for level of education are senior high school, 44 %, and followed by undergraduate (S1), 28.2 %. The lowest percentage of respondents is elementary Scholl, 2.3 %. In line with respondents' job distribution showed that university students are dominant in this study, as many as 24.5 %, private employees, 18.8 %, public servant, 16.3 %, and laborer, approximately 9.3 %.

There are five stages in analyzing public satisfaction index. The stages are as follows:

1) Calculating the amount of each element service

The answer of each respondent from each element are summed, the result of the number of values of 14 elements is as shown in total score per element in Table 2.

2) Calculating the average score of each service element

$$\text{Average Score of Each Element} = \frac{\text{Total score per element}}{\text{Total questionnaire}}$$

3) Calculating the average weighted score of each service elements

$$\text{Average weighted score per elements} = \text{Average weighed score per elements} \times 0,071 (4)$$

TABLE 2: NUMBER OF SCORE PER SERVICE ELEMENTS

No	service elements	Total Score\ Per elements	Average Score per Elements	Average weight value per element
1	Service Procedure	1169.5	2.92	0.21
2	Terms of Service	1198.5	2.99	0.21
3	Clarity of Service Officer	1190	2.98	0.21
4	Disciplinary Officer	1175	2.94	0.21
5	Responsibilities of Officer	1211	3.03	0.22
6	Officer's Abilities	1222	3.05	0.22
7	Service Speed	1103.5	2.26	0.19
8	Justice of Getting Service	1198	2.97	0.21
9	Officers' Courtesy and Hospitality	1225.5	3.06	0.22
10	Fairness of Service Charges	1153	2.88	0.20
11	Certainty of Service Charges	1139	2.85	0.20
12	Certainty Schedule	1122.5	2.81	0.20
13	Environmental Comfort	1215.5	3.04	0.22
14	Service Safety	1209.5	3.02	0.22

Source: Primary data processed, 2017

4) Calculating the score Public Satisfaction Index (IKM Conversion Value)

To facilitate the interpretation of the Public Satisfaction Index assessment, which is among 25-100; then result of this research is converted by using 25 as a basic score, by applying the following formula:

Public Satisfaction Index after the score is converted = Score x Score Index Base = $2,93 \times 25 = 73.25$ Based on the above calculation, the score which is obtained for public satisfaction index after conversion is 73.25, so the quality of services in Palembang city government is B, which means good service performance.

5) Public Satisfaction Index's per Service Elements

Table 3 shows the results of Public Satisfaction index per service elements. It describes the value of IKM, The value IKM Conversion Value, The quality of Service as well as Performance of each service element.

TABLE 3: PUBLIC SATISFACTION INDEX'S PER SERVICE ELEMENT

No	Service Elements	The Value of IKM	The value of IKM Conversion	The Quality of service	Performance
1	Service Procedure	2.92	73.00	B	Good
2	Terms of Service	2.99	74.75	B	Good
3	Clarity of Service Officer	2.98	74.50	B	Good
4	Disciplinary Officer	2.94	73.50	B	Good
5	Responsibilities of Officer	3.03	75.75	B	Good
6	Officer's Abilities	3.05	76.25	B	Good
7	Service Speed	2.76	69.00	B	Good
8	Justice of Getting Service	2.97	74.25	B	Good
9	Officers' Courtesy and Hospitality	3.06	76.50	B	Good
10	Fairness of Service Charges	2.88	72.00	B	Good
11	Certainty of Service Charges	2.85	71.25	B	Good
12	Certainty Schedule	2.81	70.25	B	Good
13	Environmental Comfort	3.04	76.00	B	Good
14	Service Safety	2.02	75.50	B	Good

Source: Primary data processed, 2017

This section analyses and discusses the results of research of each indicator of 14 service elements of Public Satisfaction Index.

1. SERVICE PROCEDURES

Service procedures are described in two statements, namely in terms of ease of getting information and ease of procedure of service flow stages. It was found that the value of Public Satisfaction Index for service procedure of 2.92 with the value of IKM conversion of 73.00. Hence, the service quality for service procedures element, are categorized "B" with good performance.

The results above showed that the service procedures are at a good level. The society is easy to get information about service procedures and easy to understand procedures or stages of service flow. It was found that there are 23.8 percent of people who are still not satisfied relating to get information. Meanwhile, Only 8.2 percent people are not satisfied with the ease of understanding information

2. TERMS OF SERVICE

Terms of service is described in two statements. Firstly, whether the requirements for the service seem to be complicated and secondly, whether the requirements are in accordance with the existing provisions. It was found that the value of Public Satisfaction Index for terms of service of 2.99 with the value of IKM conversion of 74.00. So, the quality of service for the element of terms of service, are categorized "B" with good performance.

The results showed that the government service requirements in Palembang city are at good level. The people felt that they were not complicated when they had to deal with the sub district officials. In addition, the requirements requested by officers are in accordance with existing provisions. In other words, consumers are satisfied with the services provided. The results showed that there were 85.6 per cent of the people satisfied with the services related to the terms of service requirements. Meanwhile, the suitability of service requirements with existing rules, the level of public satisfaction was 82.8 percent.

3. CLARITY OF SERVICE OFFICER

The clarity of service personnel is described in two statements, namely the existence of service at the counter during the working hours and good service are provided by the officers to all societies'.

It was found that the value of Public Satisfaction Index for the clarity of service officer of 2.98 with the value of IKM conversion of 74.50. Hence, the service quality for the element of clarity of service officer, are categorized "B" with good performance.

The results showed that the clarity of government service personnel in Palembang city was at a good level. People feel that officers were always present when people need services and officers provided good service to anyone who needs service. In other words, public are satisfied with the services provided in the existing sub district office in Palembang city. It was found that 84 percent of people were satisfied with the presence of officers during the working hours. Meanwhile, there are 86.1 percent of the people satisfied with good service for all service users. The above description explains that the Government of Palembang city should have maintained the quality and service performance for the clarity of service personnel.

4. DISCIPLINARY OFFICER

Disciplinary officer is an important factor in providing services in the public sector. Two questions asked regarding the disciplinary officers are about the presence of officers during working hours and how services are provided to all service users. The research showed that the value of public Satisfaction Index for the disciplinary officer of 2.94 with the IKM conversion value of 73.50. Hence, the quality of service for the disciplinary element is "B" category with good performance

It was found that the discipline of sub district officials for the Palembang city government is at a good level. Societies are satisfied with the services provided by the service personnel. The results showed that the level of public satisfaction for the disciplinary officer during working hours is 81.8 Percent. Meanwhile, the level of satisfaction for officer's consistency in providing services to all society is 83.1 percent.

5. RESPONSIBILITIES OF OFFICER

The responsibilities of the officers are described in the statement regarding the seriousness of the service personnel in providing services. Two statements regarding with officer's responsibilities are the application of the authority as well as responsibility of the officer in accordance with the established rules when carrying out the duties as public servants. The results showed that the value of public Satisfaction Index for responsibilities officer of 3.03 with the value of IKM conversion of 75.75. Hence, the service quality for the officer's responsibility element is "B" category with good performance.

It was found that the officers have performed their responsibilities well. The society feels very satisfied with what they have done due to it was in accordance with their responsibilities in serving the community. The results showed that the level of public satisfaction for the officers' responsibilities during working hours is 90.3 percent. Meanwhile, the level of public satisfaction regarding with the authority of officers in servicing the community is 89.5 percent

6. OFFICER'S ABILITIES

The ability of service personnel in completing services is described in the statement regarding the officers' expertise and skill in completing services the community. The research showed that the service officers at the sub-district office in Palembang city government have performed their duties and functions in accordance with what has been determined. In other words, the ability of officers in serving society was in accordance with the public expectations. It was found that the value of Public Satisfaction Index of 3.05 with an IKM conversion value of 76.25. Hence, the service quality for Officer's Abilities element is categorized "B" with good performance.

It was found that public satisfaction on the service personnel expertise is 92.3 percent. Meanwhile, the level of public satisfaction regarding to the capability of officers in serving the community is 90.3 percent. The above description explains that the Government of Palembang city should maintain the quality of service and performance for the element of officers' ability. Governments should periodically provide training to improve staff skills in service quality.

7. SERVICE SPEED

The speed of service performed by officers within Palembang City Government is described service time targets can be completed within the time specified by the service delivery unit. The research showed that public satisfaction index for the service speed is still in accordance with existing provisions, even though it was still much smaller than the other service elements.

It was found that the value of Public Satisfaction Index for the service speed of 2.76 with the value of IKM conversion of 69.00. Hence, the service quality for service speed element is categorized "B" with good performance. The results showed that the service speed in the sub-district within the Palembang City government is still quite good. Although, the scores value was lower than other service elements.

It was found that the level of Public Satisfaction Index for the speed of service process is 71.1 percent. Meanwhile, the level of Public Satisfaction Index for the accuracy of service process is 69.1 percent. The above description explains that the Government of Palembang city should improve the performance of officers associated with the service speed.

8. JUSTICE OF GETTING SERVICE

The justice of getting services is described the implementation of services by not distinguish the class or status of the community served. It was found that officers have performed their duties and functions in accordance with the rules set. In other words, justice of getting services within Palembang city government was in accordance with community expectation. It can be seen from the value of Public Satisfaction Index where the score of 2.97 with IKM conversion value of 74.75. Hence, the service quality for Justice of Getting Service element is Categorized "B" with Good performance.

It was found that the community felt very satisfied with the service personnel. They have served the community as expected. This is reflected in the level of community satisfaction. The level of public satisfaction index for providing justice of getting service without distinguishes the class or status of society was 81.3 percent. Meanwhile, the level of public satisfaction for service justice was 82.5 percent.

9. OFFICERS' COURTESY AND HOSPITALITY

The ninth element of the public satisfaction index is the officers' courtesy and hospitality. It is concerning with the attitude and behavior of officers in providing services to the community in a polite and friendly and respect each other and respect. Based on public satisfaction index for officers' courtesy and hospitality in the sub district within Palembang city government is in accordance with the public expectations.

It was found that, the public felt that the officers of sub districts have served the community with a warm and friendly manner. The community likes the attitude of officers in serving them in every service. The element of officers' courtesy and hospitality is very important because it has a great influence on the level of community satisfaction. It can be seen from the value of public Satisfaction Index where the score value for Officers' Courtesy and Hospitality of 3.06 with the value of IKM conversion of 76.50. Hence, the service quality for the officers' courtesy and hospitality is categorized "B" with good performance

The research showed that the community felt satisfied for the ability of officers in serving the community. The level of public satisfaction was relating to the attitude of friendly officers was 90 percent. Meanwhile, the level of public satisfaction for the polite attitude of officers was 89.3 percent.

10. FAIRNESS OF SERVICE CHARGES

The tenth element of the public satisfaction index is the fairness of the service charge. It describes the affordability of the community to the amount of fees set by the service unit. The fairness of the costs imposed affects the level of public satisfaction.

The research showed that the cost for each service in the sub district office in accordance with fees set by the service unit. In other words, the fairness of the cost that the community pays for every service in Palembang city government is in accordance with community expectation. It can be seen from the value of Public Satisfaction Index for the fairness of service charge of 2.88 with the value of IKM conversion of 72. Hence, the service quality for Fairness of Service Charges is categorized "B" with good performance

The research also showed that the level of public satisfaction for the amount of service fees was 79.8 percent. Meanwhile, the level of public satisfaction for the details of service charges was 76.5 percent.

11. CERTAINTY OF SERVICE CHARGES

The eleventh element of the public satisfaction index is the certainty of service charges. It describes the suitability between the fees paid and the cost that has been set. Certainty of service charge is spelled out in two statements relating to the absence of any additional fees other than official fees and fees are clearly stated in accordance with the applicable provisions. It was found that the value of public Satisfaction Index for Certainty of Service Charges is 2.81 with the value of IKM conversion is 70.25 Hence, service quality for the element of certainty of service charge, can be categorized "B" with good performance

It was also found that the community is satisfied with the element of certainty of service charge. This is reflected in the communities' satisfaction. The level of public satisfaction for statements relating to the absence of additional fees for each service is 78.8 percent. Meanwhile, the level of public satisfaction for the clarity of service fees for each service is 75.5 percent.

12. CERTAINTY SCHEDULE

The twelfth element of the public satisfaction index is the certainty of the service schedule. It is one important factor for the public sector. Certainty of service schedule related to the implementation of service time, in accordance with the provisions that have been determined.

It was found that time of service for the community is carried out on time. Therefore, the certainty of the service schedule imposed in Palembang city the government is in accordance with community expectation. It was found that the value of Public Satisfaction Index the implementation of service time of 2.85 with an IKM conversion value of 71.25 Hence, the service quality for the certainty of service schedule is categorized "B" with good performance

The research also showed that people feel quite satisfied with the timing of the service. Research shows that the level of community satisfaction for the timing of service was 76.3 percent. Meanwhile, the level of public satisfaction for the suitability of service time was 75.5 percent.

13. ENVIRONMENTAL COMFORT

It is concerning with the condition of facilities and infrastructure services clean, neat, and regular so as to provide a sense of comfort to the recipient of the service. Two statements related to the environmental comfort are about the arrangement of a clean and neat office and the availability of office facilities that support the comfort during the service process takes place.

The research showed that the community was satisfied with the arrangement of a neat and clean room accompanied by supporting facilities during the service process took place. In other words, the environmental comforts of the Palembang City Government are in line with what the community expects. It can be seen from the value of Public Satisfaction Index of 3.04 with the value of IKM conversion of 76. Hence, the quality of service for environmental comfort the element is categorized "B" with good performance

It was found that the community satisfied on the environmental comfort. The level of public satisfaction for the clean and neat arrangement of the room was 87.8 percent. Meanwhile, the level of public satisfaction for supporting facilities was 87.8 percent.

14. SERVICE SAFETY

Service safety described the level of environmental security of service providers or facilities used, so that people feel relaxed to get a service against the risks resulting from the implementation of services.

The research found that the security guarantee during the service process at Palembang city the government of has been in accordance with what the community wants. It can be seen from the value of Public Satisfaction Index of 3.02 with the value of IKM conversion of 75.50. Hence, the service of quality for service safety elements is categorized "B" with good performance

It was found that that the security guarantees and complaints facilities provided by the government could make people comfort and feel satisfy. This can be seen in the level of community satisfaction.

The research found that the level of public satisfaction related to security watches during stay in the sub-district office was 89.8 percent. Meanwhile, the level of public satisfaction related to the availability of complaints facility in sub district office is 85.1 percent. The above description, explains that the Palembang city government should maintain the quality of service and performance for service safety element.

CONCLUSION

1. Public Satisfaction Index score of Palembang city government is 73.25, which are at interval 62, 51 - 81, 25, so the quality of public service is at level "B". This research shows that the performance of service officers of sub-district Office of Palembang city government in 2017 as a whole is included in either "Good" category.
2. The service quality for the 14 elements of customer satisfaction index is "B" category with good performance.
3. Courtesy and hospitality Element has the highest index value, with an IKM value of 76.50. It is categorized "B" with good performance. Meanwhile, service speed element has the lowest index value with the value of IKM is 69. It is also at category "B" with good performance

REFERENCES

1. Arawati, S. B., & Kandampully, J.(2007). "An exploratory study of service quality in the Malaysian public service sector," *International Journal of Quality and Reliability Management*, 24(2), 177-190.
2. Barata, Atep Adya, (2003), "Dasar-dasar Pelayanan Prima." Elex Media Komputindo. Jakarta.
3. Ernani, Hadiyati, (2014), "Service Quality and Performance of Public Sector: Study on Immigration Office in Indonesia," *International Journal of Marketing Studies*, Vol. 6, No. 6; ISSN 1918-719X E-ISSN 1918-7203
4. Harbani, Pasolong, (2010), "Kepemimpinan Birokrasi." CV Alfabeta, Bandung.
5. Icha,Yulandani, (2015), "studi tentang indeks kepuasan masyarakat (ikm) dalam pelayanan publik di kelurahan klandasan ilir Kota Balikpapan," *eJournal Administrasi Publik*, fisp-unmul, Vol 3 (3), 833 – 844 ISSN 0000-0000.
6. Jalaludin Rakhmat, (2011), "Psikologi Komunikasi." PT. Remaja Rosdakarya, Bandung.
7. Putra, Lutfy Mairizal, (2017), "Keluhan Masyarakat Terhadap Pelayanan Publik Semakin Meningkat", Retrieved: Kompas.com - 14/03/2017, 00:57 WIB
8. Sumatera Deadline, (2017), "Pelayanan Publik Kota Palembang Kurang Baik", Retrived : sumateradeadline.co.id, February 9, 2017.
9. Undang-undang No 25 Tahun 2009 tentang Pedoman Peningkatan Kualitas Pelayanan Publik dengan Partisipasi Masyarakat.
10. Undang-undang Nomor: 63/KEP/M.PAN/7/2003 tentang Pedoman Umum Penyelenggaraan Pelayanan Publik.
11. Undang-undang Nomor: KEP/25/M.PAN/2/2004 tentang Pedoman Umum Penyusunan Indeks Kepuasan Unit Pelayanan Instansi Pemerintah.
12. Vincent, Gaspesz, (2011), "Total Quality Management (untuk Praktisi Bisnis dan Industri)." Vinchristo Publication, Bogor.
13. Zamil, S. (2011). "Role of Measuring Customer Satisfaction in Improving the Performance in the Public Sector," *Organization. Journal of Business Studies Quarterly*, 2(3), 32-41

ANALYSIS OF WORKING CAPITAL MANAGEMENT OF STEEL AUTHORITY OF INDIA LTD

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ABSTRACT

As this paper is supposed to study about the Working capital management. it refers to the administration of all components of working capital-cash, marketable securities, debtors and stock and creditors. The aim of working capital management is to organize or manage the firm's current assets and current liabilities in a way that an effective or efficient Level of working capital is maintained. The efficient management of working capital minimizes the cost and increases the profitability and can do much more for the success of the business. To analyzing the performance of liquidity management, the management accounting techniques like ratio analysis and statistical techniques like t test is used to meet the requirement of this research study.

KEYWORDS

Working capital management, liquidity analysis.

JEL CODES

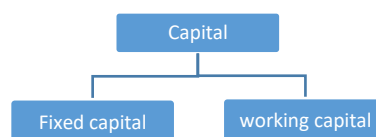
D24, E22, G31.

INTRODUCTION

Business organization requires adequate capital to establish business and operate their activities. The total capital of a business can be classified as fixed capital and working capital. Fixed capital is required for the purchase of fixed assets like building, land, machinery, furniture etc. Fixed capital is invested for long period, therefore it is known as long-term capital. Similarly, the capital, which is needed for investing in current assets, is called working capital. The capital which is needed for the regular operation of business is called working capital. Working capital is also called circulating capital or revolving capital or short-term capital. Working capital is used for regular business activities like for the purchase of raw materials, for the payment of wages, payment of rent and of other expenses. Working capital is kept in the form of cash, debtors, raw materials inventory, stock of finished goods, bills receivable etc.

MEANING OF WORKING CAPITAL

Working capital is a financial metric of operating liquidity which describes the amount of cash tied up in operations and defines the short term condition of a company. A positive working capital position is required for the continuous running of a company's operations, i.e. to pay short term debt obligations and to cover operational expenses. A company with a negative working capital balance is unable to cover its short-term liabilities with its current assets. Capital of the concern may be divided into two major headings.

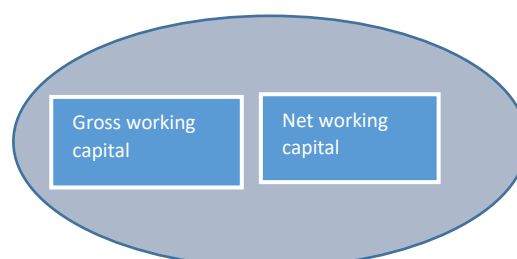
CHART 1

Fixed capital means that capital, which is used for long-term investment of the business concern. Long term funds are required to create production facilities through purchase of fixed assets such as plant and machinery, land, building, furniture, etc. investment in these assets represent that part of firm's capital which is blocked on a permanent or fixed basis.

Working Capital is another part of the capital which is needed for meeting day to day requirement of the business concern. In simple words, working capital refers to that part of the firm's capital which is required for financing short term or current assets such as marketable securities, debtors and inventories. Funds, thus, invested in current assets keep revolving fast and being constantly converted into cash and this cash flow out again for other current assets. Hence, it is also known as revolving or circulating capital or short term capital.

CONCEPT OF WORKING CAPITAL

Working capital can be classified or understood with the help of the following two important concepts.

CHART 2

➤ Gross Working Capital

Gross Working Capital is the general concept which determines the working capital concept. Thus, the gross working capital is the capital invested in total current assets of the business concern. Gross Working Capital is simply called as the total current assets of the concern.

$$\text{GWC} = \text{CA}$$

➤ Net Working Capital

Net Working Capital is the specific concept, which considers both current assets and current liability of the concern. Net Working Capital is the excess of current assets over the current liability of the concern during a particular period.

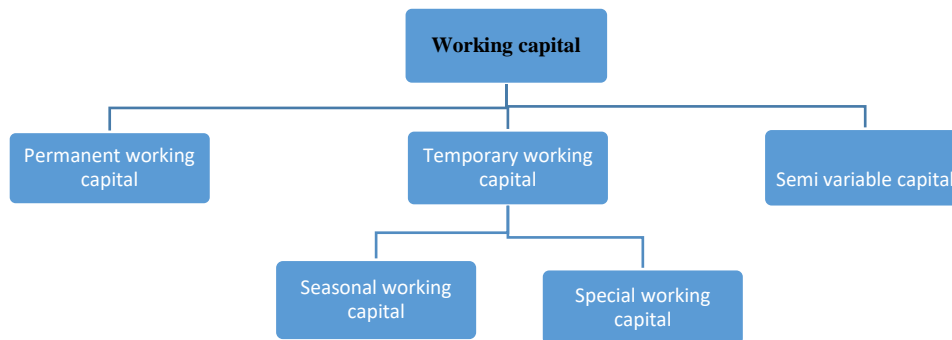
If the current assets exceed the current liabilities it is said to be positive working capital; it is reverse, it is said to be Negative working capital.

$$\text{NWC} = \text{CA} - \text{CL}$$

TYPES OF WORKING CAPITAL

Working Capital may be classified into three important types on the basis of time.

CHART 3



PERMANENT WORKING CAPITAL

It is also known as Fixed Working Capital. It is the capital; the business concern must maintain certain amount of capital at minimum level at all times. The level of Permanent Capital depends upon the nature of the business. Permanent or Fixed Working Capital will not change irrespective of time or volume of sales.

TEMPORARY WORKING CAPITAL

It is also known as variable working capital. It is the amount of capital which is required to meet the Seasonal demands and some special purposes. It can be further classified into Seasonal Working Capital and Special Working Capital.

The capital required to meet the seasonal needs of the business concern is called as

Seasonal Working Capital. The capital required to meet the special exigencies such as launching of extensive marketing campaigns for conducting research, etc.

SEMI VARIABLE WORKING CAPITAL

Certain amount of Working Capital is in the field level up to a certain stage and after that, it will increase depending upon the change of sales or time.

REVIEW OF LITERATURE

Theoretical and empirical research suggests that financial planner should plan optimal capital structure. In practices financial management a literature does not provide specified methodology for designing a firm's optimal capital structure.

A number of research studies have been conducted regarding the choices of debt equity mix in the total capitalization of a firm in the international as well as Indian context.

Sagan (1955), in his paper perhaps the first theoretical paper on the theory of working capital management, emphasized the need for management of working capital accounts and warned that it could vitally affect the health of the company. He realized the need to build up a theory of working capital management. He discussed mainly the role and functions of money manager inefficient working capital.

Walker (1964), in his study made a pioneering effort to develop a theory of working capital management by empirically testing, though partially, three propositions based on risk-return trade-off of working capital management. Walker studied the effect of the change in the level of working capital on the rate of return in nine industries for the year 1961 and found the relationship between the level of working capital and the rate of return to be negative.

Vanhorne (1969), in his study recognizing working capital management as an area largely lacking in theoretical perspective, attempted to develop a framework in terms of probabilistic cash budget for evaluating decisions concerning the level of liquid assets and the maturity composition of debt involving risk-return trade-off.

Welter (1970), in his study stated that working capital originated because of the global delay between the moment expenditure for purchase of raw material was made and the moment when payment was received for the sale of finished product. Delay centers are located throughout the production and marketing functions. The study requires specifying the delay centers and working capital tied up in each delay center with the help of information regarding average delay and added value.

Lambrix and Singhvi (1979) adopting the working capital cycle approach to the working capital management, also suggested that investment in working capital could be optimized and cash flows could be improved by reducing the time frame of the physical flow from receipt of raw material to shipment of finished goods, i.e. inventory management, and by improving the terms on which firm sells goods as well as receipt of cash.

Abramovitz (1950) and Modigliani (1957) highlighted the impact of capacity utilization on inventory investment. Existing stock of inventories is expected to take account of adjustment process to the desired levels. Thus the variable, existing stock of inventories, is postulated to be negatively related with the desired stock. The ratio of inventory to sales may affect inventory investment positively because a high ratio of stocks to sales in the past suggests the maintenance of high levels of inventories in the past and thus also calling for high investment in inventories in the current period.

Appavadhanulu (1971) recognizing the lack of attention being given to investment in working capital, analyzed working capital management by examining the impact of method of production on investment in working capital. He emphasized that different production techniques require different amount of working capital by affecting goods-in-process because different techniques have differences in the length of production period, the rate of output flow per unit of time and time pattern of value addition.

Chakraborty (1973) approached working capital as a segment of capital employed rather than a mere cover for creditors. He emphasized that working capital is the fund to pay all the operating expenses of running a business. He pointed out that return on capital employed, an aggregate measure of overall efficiency in running a business, would be adversely affected by excessive working capital. Similarly, too little working capital might reduce the earning capacity of the fixed capital employed over the succeeding periods.

Misra (1975) analyzed the problems of working capital with special reference to six selected public sector undertakings in India over the period 1960-61 to 1967-68. Analysis of financial ratios and responses to a questionnaire revealed somewhat the same results as those of NCAER study with respect to composition and utilization of working capital. In all the selected enterprises, inventory constituted the more important element of working capital.

Verma (1989) evaluated working capital management in iron and steel industry by taking a sample of selected units in both private and public sectors over the period 1978-79 to 1985-86. Sample included Tata Iron and Steel Company Ltd. (TISCO) in private sector and Steel Authority of India Ltd. (SAIL) and Indian Iron and Steel Company, a wholly owned subsidiary of SAIL, in public sector.

N.C. Gupta (1987) examined the determinants of total inventory investment in aluminum and non-ferrous semi firms in private sector. The data had been taken from Stock Exchange, Official Directory, and Mumbai for 9 years 1966-67 to 1974-75. variables considered were current sales change, one-lagged sales change, inventory stock at the beginning, gross fixed investment during the year, flow of net debt (external finance) and profits net of dividends and taxes but gross of depreciation provision (retained earnings or internal finance).

OBJECTIVES OF THE STUDY

1. To analyze the concept of working capital.
2. To analyze the current assets and current liabilities position of Steel Authority of India Ltd.
3. To give suggestions on the basis of findings.

HYPOTHESIS OF THE STUDY

H₀; there is no significant difference between current assets and current liabilities during the study period.

RESEARCH DESIGN

A research design is the arrangement of conditions for the collection and analysis of data. The research is the abstract within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Present study has been completed with the help of secondary data. The major sources are annual reports, published data, web-sites and journals. In the present study an attempt has been made to analyze the working capital management of Steel Authority of India Ltd.

LIMITATIONS OF THE STUDY

Due to constraints of time and resources, the study is likely to suffer from certain limitations, some of these are mentioned here under so that the topic may be understood in a proper perspective.

1. The study is based on secondary data and the limitations of using secondary data may affect the results.
2. Financial statements do not reveal all the information related to the financial operations of a firm.
3. Non-Availability of sufficient matter & literature
4. The reliability of data is totally depending on audit.

SCOPE OF THE STUDY

The study is on working capital management of selected Public enterprises. The study furnishes the management of idea about the performance of working capital of the company. Management of working capital refers to management of current assets, current liabilities and relationship between them. The basic goal of working capital is to maintain the satisfactory level of working capital. A sound working capital policy ensures higher profitability and proper liquidity of a firm. Every business needs funds for two purposes: for its establishment and to carry out its day to day operations. For this purpose it is important for the company to manage its short term assets and liability. Working capital is quite essential for the working of any business. For a good Manufacturing company, some basic capital for producing the goods is required before it starts selling them. It has to take care of production expenses, administration expenses as well as selling expenses. Moreover, since business is usually done on credit, there is a time lag between the date of sale and date of receipt of revenues, which can be as high as 90 days at times. Considering all these, it is essential that a company has sufficient capital to keep it going before it converts its purchases into goods and then finally into cash. Each and every study has its own scope. This paper intends to study the working capital position of the Public enterprises. This study helps to identify the areas that could be improved. Further suggestions were quoted which the company could use it in the future program enhancing better utilization of all resources.

TABLE 1: CONSOLIDATED BALANCE SHEET OF STEEL AUTHORITY OF INDIA LIMITED (Rs. in crores)

Particulars	Mar'2011 (Rs.)	Mar'2012 (Rs.)	Mar'2013 (Rs.)	Mar'2014 (Rs.)	Mar'2015 (Rs.)
LIABILITIES					
Equity share capital	4,142.28	4,132.85	4,133.45	4,135.74	4,161.60
Reserves	33,473.91	36,140.31	37,513.99	39,170.91	40,041.34
Secured Loans	12,854.59	8,337.10	9,491.49	12,169.54	17,412.50
Unsecured Loans	8,405.55	8,661.72	12,791.91	12,736.59	11,343.27
Minority Interest	1.20	-	-	-	-
Current liabilities and provisions					
Current Liabilities	13,169.80	15,227.48	15,673.63	19,668.94	21,795.23
Provisions	6,062.64	5,996.15	6,915.04	6,143.15	6,564.95
TOTAL LIABILITIES	78,109.97	78,495.61	86,519.52	94,024.87	1,01,318.89
ASSETS:					
Net block	16,630.60	18,764.30	18,388.30	28,295.32	37,736.06
Capital work in progress	22,581.21	28,315.67	36,154.94	33,958.51	29,327.76
Investment	60.80	68.54	72.93	56.45	453.79
Inventories	11,506.85	13,898.93	16,165.73	15,365.49	17,942.96
Sundry debtors	4,180.13	4,847.81	4,563.21	5,500.62	3,218.22
Cash and bank balance	187.46	6,662.28	4,176.32	3,157.97	2,606.34
Loans and advances	5,401.35	5,938.08	6,998.09	7,690.51	10,033.76
Fixed deposits	17,560.30	-	-	-	-
Miscellaneous expenses	1.27	-	-	-	-
TOTAL ASSETS	78,109.97	78,495.61	86,519.52	94,024.87	1,01,318.89

Source: - Annual reports of SAIL from 2011 to 2015

Interpretation: The purpose of the balance sheet is to show the resources that the company has i.e. assets and from where those resources come from i.e. its liabilities and investments by owners and outsiders. The above table shows the financial position of Steel Authority of India of last five years that is from 2011 to 2015. From last five years the current liabilities shows increasing trend such as in five years it was 19232.44, 21223.63, 22588.67, 25812.09 and 28360.18, while as net block also shows increasing trend except the year 2013 such as 16630.60, 18764.30, 18388.30, 28295.32 and 37736.06.

TABLE 2: CONSOLIDATED PROFIT AND LOSS ACCOUNT OF STEEL AUTHORITY OF INDIA LIMITED (Rs. in crores)

Particulars	2011(Rs.)	2012(Rs.)	2013(Rs.)	2014(Rs.)	2015(Rs.)
Net sales	42,673.76	46,658.16	45,087.24	47,101.15	45,951.95
Other income	2,034.76	1,342.58	715.80	1,760.11	982.99
Stock adjustments	1,531.10	1,357.41	2,019.60	-896.49	1,412.50
Total income	46,239.62	49,358.15	47,822.64	47,964.77	48,347.44
Less:					
Raw material	26,047.41	25,569.33	24,156.51	22,390.02	21,901.76
Power and fuel cost	3,314.80	3,300.01	3,666.28	3,730.69	4,229.04
Other manufacturing expenses	1,372.41	-	-	-	-
Gross profit	15,505.00	20,488.81	19,999.85	21844.06	22,216.64
Less:					
Employee cost	7,765.46	8,033.84	8,757.10	9,710.25	9,866.15
Selling and adm. Expenses	-2496.01	-	-	-	-
Miscellaneous expenses	814.28	4,696.08	5,446.66	6,024.98	6,380.05
Depreciation	1,602.94	1,685.90	1,529.68	1,841.94	1,882.96
Operating profit (PBIT)	7,818.33	6,072.99	4,266.41	4,266.89	4,087.48
Less: interest	581.64	778.17	846.53	1,057.27	1534.91
PBT	7,236.69	5,294.82	3,419.88	3,209.62	2,552.57
Add: extra ordinary items	198.73	-12.21	40.94	149.81	-88.60
PBT(post extra-ordinary items)	7,435.42	5,282.61	3,460.82	3,359.43	2,463.97
Less: tax	2,418.13	1,689.66	1,131.42	707.91	305.95
Net profit	5,017.29	3,592.95	2,329.40	2,651.52	2,158.02

Source: - Annual reports of SAIL from 2011 to 2015.

Interpretation: The above table shows operational position of the concern from year 2011 to 2015 it is a statement of revenues earned and the expenses incurred for earning that revenue. From the above table it is analyzed that net profit of the concern fluctuates year after year in first two years that is 5,017.29, 3,592.95, 2,329.40, 2,651.52, 2,158.02 in the year 2011, 2012, 2013, 2014 and 2015 respectively.

CASH TO CURRENT ASSETS RATIO

This ratio shows the relationship between cash to current assets and is calculated as;

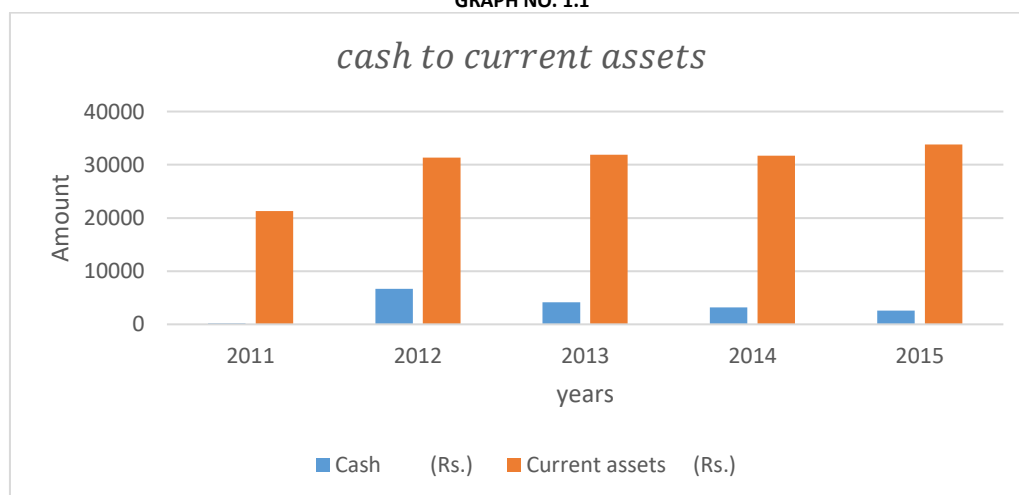
$$\text{cash to current assets ratio} = \frac{\text{cash}}{\text{current assets}}$$

TABLE 1: STATEMENT OF CASH TO CURRENT ASSETS (Rs. in crores)

Year	Cash(Rs.)	Current assets(Rs.)	Ratio
2011	187.46	21,275.79	0.008
2012	6,662.28	31,347.10	0.21
2013	4,176.32	31,903.35	0.13
2014	3,157.97	31,714.59	0.09
2015	2,606.34	33,801.28	0.07

Source: - Annual reports of SAIL from 2011 to 2015.

GRAPH NO. 1.1



Interpretation: The above table shows the relationship between cash to current assets. The ratio has been fluctuating year by year and it has not consistency in their values because it has 0.008, 0.21, 0.13, 0.09, and 0.07 respectively during the study period. This ratio was fluctuating year by year that is 2011, 2012, 2013, 2014, 2015.

CASH TO CURRENT LIABILITIES RATIO

This ratio shows the relationship between cash to current liabilities and is calculated as;

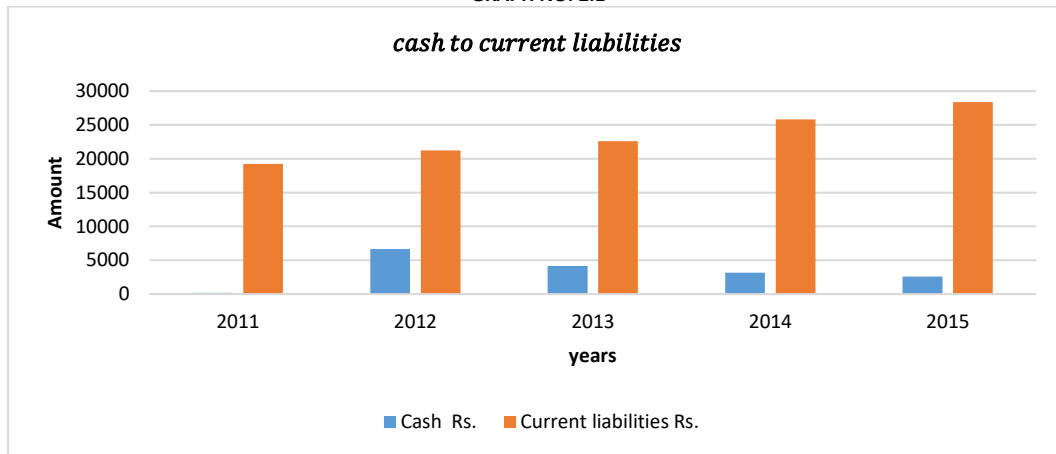
$$\text{cash to current liabilities} = \frac{\text{cash}}{\text{current liabilities}}$$

TABLE 2: STATEMENT OF CASH TO CURRENT LIABILITIES (Rs. in crores)

Year	Cash Rs.	Current liabilities Rs.	Ratio
2011	187.46	19,232.44	0.009
2012	6,662.28	21,223.63	0.31
2013	4,176.32	22,588.67	0.18
2014	3,157.97	25,812.09	0.12
2015	2,606.34	28,360.18	0.09

Source: Annual reports of SAIL from 2011 to 2015

GRAPH NO. 2.1



Interpretation: The above table shows the relationship between cash to current liabilities. the ratio has been fluctuating year by year and do not remain constant in their values as it has 0.009, 0.31, 0.18, 0.12 and 0.09 in the year 2011, 2012,2013, 2014, 2015 respectively which is not good for the company.

Cash to liquid assets ratio

This ratio shows the relationship between cash to liquid assets and is calculated as;

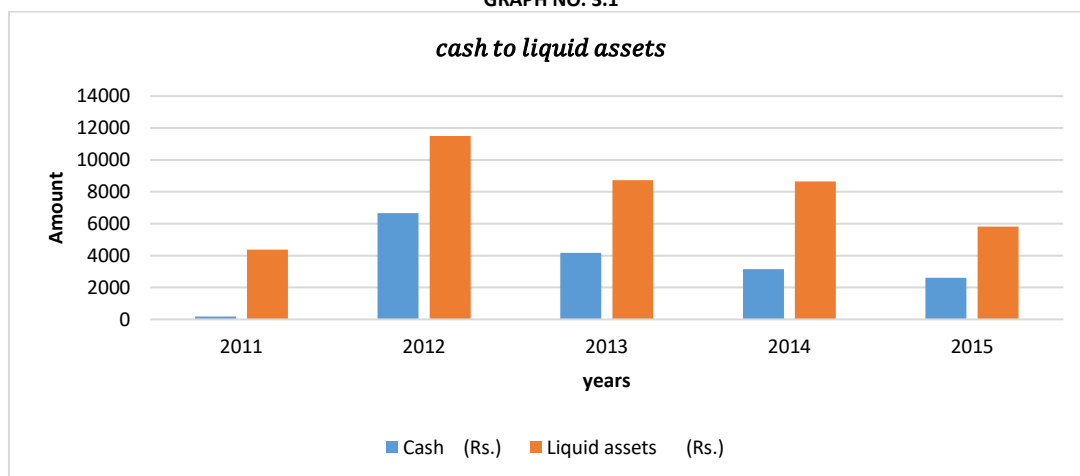
$$\text{cash to liquid assets ratio} = \frac{\text{cash}}{\text{liquid assets}}$$

TABLE 3: STATEMENT OF CASH TO LIQUID ASSETS (Rs. in crores)

Year	Cash (Rs.)	Liquid assets (Rs.)	Ratio
2011	187.46	4,367.59	0.04
2012	6,662.28	11,510.09	0.57
2013	4,176.32	8,739.53	0.47
2014	3,157.97	8,658.59	0.36
2015	2,606.34	5,824.56	0.44

Source: Annual reports of SAIL from 2011 to 2015

GRAPH NO. 3.1



Interpretation: The above table depicts the relationship between cash and liquid assets. The ratio indicates the cash is not satisfactory in 2011. Which is 0.04 but company has managed it in other years i.e. 2012, 2013, 2014, and 2015, which is 0.57, 0.47, 0.36, and 0.44.

CASH TO WORKING CAPITAL RATIO

This ratio shows the relationship between cash to working capital and is calculated as;

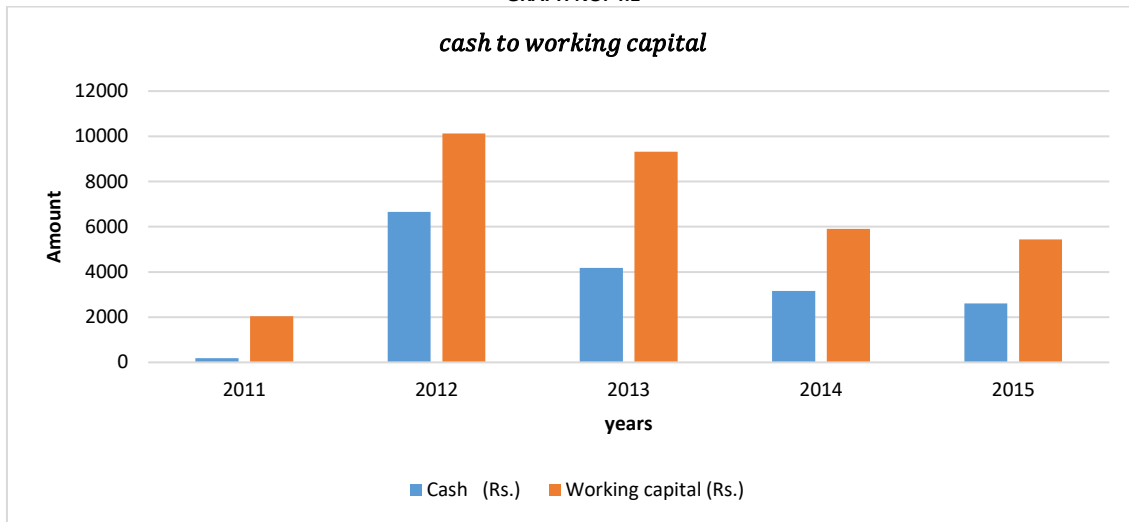
$$\text{cash to working capital} = \frac{\text{cash}}{\text{working capital}}$$

TABLE NO. 4: STATEMENT OF CASH TO WORKING CAPITAL (Rs. in crores)

Year	Cash (Rs.)	Working capital (Rs.)	Ratio
2011	187.46	2,043.35	0.09
2012	6,662.28	10,123.47	0.06
2013	4,176.32	9,314.68	0.44
2014	3,157.97	5,902.50	0.53
2015	2,606.34	5,441.10	0.47

Source: Annual reports of SAIL from 2011 to 2015

GRAPH NO. 4.1



Interpretation: The above table shows the relationship between cash and working capital. The ratio indicates that there is a satisfactory amount of cash in year 2013,2014,2015 which is 0.44,0.53 and 0.47 but in the year 2011 and 2012 the company has not satisfactory of cash with respect to other years

CURRENT RATIO

Current assets ratio can be calculated as;

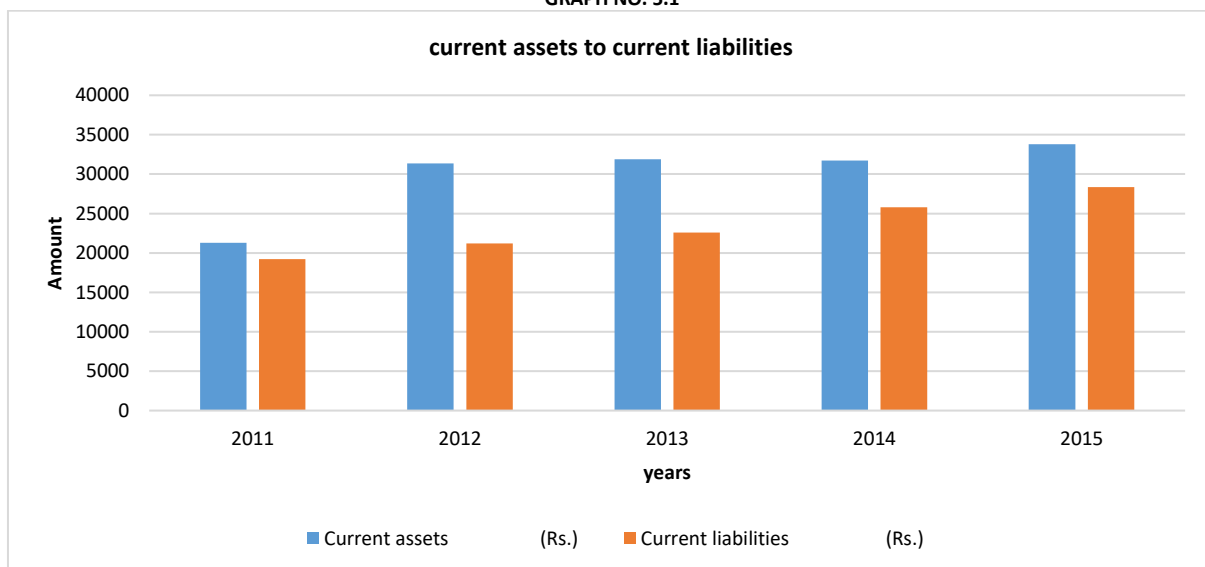
$$\text{current assets ratio} = \text{current assets}/\text{currentliabilities}$$

TABLE 5: STATEMENT OF CURRENT ASSETS TO CURRENT LIABILITIES (Rs. in Crores)

Year	Current assets (Rs.)	Current liabilities (Rs.)	Ratio
2011	21,275.79	19,232.44	1.10
2012	31,347.10	21,223.63	1.47
2013	31,903.35	22,588.67	1.41
2014	31,714.59	25,812.09	1.22
2015	33,801.28	28,360.18	1.19

Sources: Annual reports of SAIL from 2011 to 2015.

GRAPH NO. 5.1



Interpretation: The above table indicates the relationship between the current assets to current liabilities. The rule of thumb 2:1 is considered favorable and satisfactory ratio. The above table indicates the ratio is not favorable over the company.

TESTING OF HYPOTHESIS

For the purpose of the financial working capital management of Steel Authority of India Ltd. I have taken the following null Hypothesis.

H₀₁: there is no significant difference between in current assets and current liabilities of Steel Authority of India Ltd.

TABLE 6: COEFFICIENT OF CORRELATION BETWEEN CURRENT ASSETS AND CURRENT LIABILITIES

Year	x	Y	dx	Dy	dx ²	dy ²	dx dy
2011	21	19	-8	-4	64	16	+32
2012	31	21	+2	-2	4	4	-4
2013	31	22	+2	-1	4	1	-2
2014	31	25	+2	+2	4	4	+4
2015	31	28	+4	+5	16	25	+20
	$\sum X = 147$	$\sum Y = 115$	$\sum dx =$	$\sum dy =$	$\sum dx^2 = 92$	$\sum dy^2 = 50$	$\sum dx dy = 50$

Source: Annuals reports of SAIL from 2011 to 2015.

Calculation of mean

$$\bar{x} = \frac{147}{5} = 29.4 \text{ or } 29$$

$$\bar{y} = \frac{115}{5} = 23.$$

$$n = 5$$

where x is current assets and y is current liabilities

$$r = \frac{\sum dx dy}{\sqrt{\sum dx^2 * \sum dy^2}}$$

$$r = \frac{50}{\sqrt{92 * 50}}$$

$$r = \frac{\sqrt{4600}}{50}$$

$$r = \frac{67.82}{100}$$

$$r = 0.73$$

Now,

$$t = \frac{0.73}{\sqrt{1-0.53}} * \sqrt{10-2}$$

$$t = \frac{0.73}{\sqrt{0.47}} * \sqrt{8}$$

$$t = \frac{0.73 * 2.82}{0.68}$$

$$t = \frac{2.05}{0.68}$$

$$t = 3.01$$

$$t_{0.005} = 1.86$$

$$t_{0.005} < t$$

Interpretation: Hence, calculated value of the hypothesis is higher than table value, thus the hypothesis, which was taken, is in-significant and rejected. The hypothesis which was taken in this study is rejected. Thus the current assets are managed not only current liabilities. The currents assets are also managed by proprietary funds.

FINDINGS

1. The table no. 1 reveals the cash to current asset position. In this table, it is found that the cash position of SAIL is satisfactory because it has on average cash position more than 10%. It indicates during the study period the cash position was fluctuating year by year but overall cash position of SAIL is satisfactory.
2. The table no. 2 reveals the cash to current liabilities position. The cash to current liabilities show that the company has a satisfactory amount of cash available for payment of its liabilities.
3. The table no. 3 reveals the cash to liquid assets position. It indicates that during the study period, the cash position was fluctuating year by year but the cash to liquid assets ratio shows the company has a satisfactory amount of cash and the company's overall liquidity position is good.
4. The table no. 4 reveals the cash to working capital position. The cash to working capital ratio shows that there is good amount of cash available for its day to day operations.
5. The overall working capital position of Steel Authority of India Ltd. has been not satisfactory because the current ratio is less than 2:1 standard. The amount of working capital is not advocate due to it the short term solvency is also interrupted

SUGGESTIONS

1. The cash to current assets position is indicating that the cash position is satisfactory of the company therefore it should maintain its existing position also in future.
2. The cash to current liabilities position is indicating that the cash position is satisfactory of the company. There for company should maintain its cash level to pay off its current obligations.
3. There is optimum cash available for its production and day to day expenses and the company should maintain it. Cash is the basic input needed to record and keep the business running on the continuous basis. SAIL have efficient cash but it must bear in mind that cash should not so excess that cash remains ideal.
4. The company should not increase its debtors, as the present level of debtors is satisfactory. In case the SAIL increase its debts, there is chance of bad debts.
5. The inventory turnover ratio is good which shows the velocity of conversion of stock into sales and should maintain it.
6. The company should recover its loans and advances, as there is possibility of bad debts.
7. The company should not give excess loans and advances, as this is not good for the company.
8. The company is suggested to increase their current assets and current liabilities or proprietary funds so that working capital may be increased and it will have a positive impact on the business as well as short-term liquidity position are not interrupted.

CONCLUSION

Steel Authority of India is a public sector company. From the above study I have analyzed cash management, receivable management, inventory management and loans and advances management. I concluded that cash, receivable and inventory management are satisfactory which is good sign for the company. The company should keep it going in the future also. But in loan and advances I found that the companies have given excess loans and advances. Therefore it is suggested to recover its loans and advances because there is a possibility of bad debts.

REFERENCES

1. A.K.P.C Swain (2004) "Research Methodology", Kalyani Publishers New Delhi.
2. C.R.Kothari (2004), Research Methodology, New Age Publishers, New Delhi.
3. Chandra, Tata Mc-Graw Hill, New Delhi.
4. Ernest W. Walker, (1967) "Towards a Theory of Working Capital", the Engineering Economist, pp. 21-35.
5. Financial Management, (1998) Prasanna Amalendu Bhunia (2007), liquidity management of public sector Iron and Steel EEnterprise in India, vidyasagar University, journal of commerce, vol. 12 march p.p. 85-98
6. Franco Modigliani, (1957)"Business Reasons for Holding Inventories and Their Macro Economic Implications", Problems of Capital Formation, Studies in Income and Wealth, Vol. 19, NBER, pp. 495-511.
7. Harbans Lal Verma, (1989) Management of Working Capital, Deep and Deep Publication, New Delhi.
8. James C. Vanhorne, (1969) "A Risk-Return Analysis of a firm's Working Capital Position", The Engineering Economist, pp. 50-58.
9. John Sagan, (1955) "Towards a Theory of Working Capital Management", the Journal of Finance, pp. 121-129.
10. Moses Abramovitz, (1950) Inventories and Business Cycles – With Special References to Manufacturers' Inventories, NBER.
11. N.C. Gupta, (1987) Productivity, Investment and Import Substitution in Indian Industries (A Case Study of Non-Ferrous Metals), Anmol Publications, New Delhi.
12. Paul Welter, (1970) "How to Calculate Savings Possible Through Reduction of Working Capital", Financial Economist, pp. 50-58.
13. R. J. Lambrix and S.S. Singhvi, (1979) "Managing the Working Capital Cycle", Financial Executive, pp.32-41.
14. Ram Kumar Misra, (1975) Problems of Working Capital (With Special Reference to Selected Public Understandings in India), Somaiya Publications Private Limited, Mumbai.
15. S.K. Chakraborty, (1973) "Use of Operating Cycle Concept for Better Management of Working Capital", The Economic and Political Weekly, Vol.8, pp. M69-M76.
16. S.P. Gupta (2005) Management Accounting, Sahitya Bhawan, Publications, Agra.
17. Sharma & Gupta, (2006) Financial Management Kalyani Publishers, New Delhi.
18. Sharma & Gupta, Financial Management (2008) Kalyani Publishers, New Delhi.
19. V. Appavadhanulu, (1971) "Working Capital and Choice of Techniques", Indian Economic Journal, Vol. XIX, pp. 34-41.

WEBSITE

20. [www.money control.co.in](http://www.moneycontrol.co.in)

A STUDY ON LABOUR WELFARE PRACTICES AT BEML LTD., BENGALURU**K.B.RAVINDRA****RESEARCH SCHOLAR, TUMKUR UNIVERSITY, TUMKUR; &****GUEST FACULTY****GOVERNMENT FIRST GRADE COLLEGE & POST GRADUATION CENTRE****DODDABALLAPUR****ABSTRACT**

Labour Welfare and Social Security measures occupy a very important place in any Organisation. The study of various welfare and social security measures is very important as proper welfare schemes have a direct impact on the growth and success of an organization. Good welfare schemes improves the organisational climate and improves the well-being of the workforce both physically and psychologically. It enhances the employees/workers desire to work and also motivates the employees. Good Welfare schemes increases safety, health and hygiene in a organisation apart from creating loyalty among employees and workers. Good welfare schemes make employees and workers happy, thus making it easier to manage human resources at the work place. In the above background, a comprehensive study has been made on various welfare and social security measures being provided at BEML Ltd, Bengaluru and also the satisfaction level of employees and workers regarding these measures. Primary data collected from 100 respondents through a structured questionnaire reveal that most of the welfare and social security provisions are being satisfactorily provided at BEML Ltd but there are certain areas where respondents have expressed dissatisfaction and improvement is needed. The study would help the organization to take remedial measures in areas where the employees and workers have expressed dissatisfaction. The study would also help the company to manage the human resources in the Organisation in a better way.

KEYWORDS

human resources, labour welfare, organisation, safety, social security.

JEL CODE

M59.

INTRODUCTION**MEANING OF LABOUR WELFARE**

Labour Welfare implies the setting up of minimum desirable standards and the provision of facilities like health, food, clothing, medical assistance, education, insurance, job security, recreation and so on. These facilities enable the worker and his family to lead a good quality of work life, family life and social life.

DEFINITION OF LABOUR WELFARE

The term Labour Welfare has been defined by many experts.

The International Labour Organisation defines Labour Welfare as "Workers welfare should be understood as a meaning such as services, facilities, amenities which may be established in an organization to enable the workers employed in them to perform their work in healthy congenial surroundings and provide them amenities conducive to good health and moral".

ELEMENTS OF LABOUR WELFARE

1. To provide the workers a better life and health
2. To relieve the workers from industrial fatigue
3. To improve the intellectual and cultural conditions of living of employees
4. To make the workers happy, efficient and contented

AGENCIES FOR LABOUR WELFARE

Employers: Employers provide various labour welfare facilities voluntarily and also as per statutory obligations. They play an important role in providing various welfare facilities to industrial workers.

Central and State Government: A number of acts have been passed by the central government for the welfare of workers. There is also an implementation and administration of labour laws. The state government has the powers to check the implementation and compliance of various labour laws in the industry.

Trade Unions and Social Service Agencies: Apart from employer and Government, Trade Unions and various Social service agencies are also actively involved in providing welfare facilities to industrial workers.

LABOUR WELFARE LEGISLATIONS

Most of the constitutional directives in the matter of protection and welfare to workers have been followed up through central and state legislations. Benefits are available to workers and employees in Mines, Docks, Plantations, Factories, Shops and Hotels.

The various legislations include Factories Act, 1948, Payment of Wages Act, 1936, Payment of Bonus Act, 1965, Minimum Wages Act, 1948, Trade Unions Act, 1926, Industrial Disputes Act, 1947 etc.

SOCIAL SECURITY

In the present times, insecurities of life has increased to a great extent and to safeguard the individual and the society from these uncertainties, social security has become very essential.

The International Labour Organisation defines social security as "By Social Security, we undertake a programme of protection provided by the society against those contingencies against which a individual of small means can not effectively provide by his ability and foresight".

In India, social security is being provided through various legislations which include Workmens Compensation Act, 1923, Employees State Insurance Act, 1948, Employees Provident Fund Act, 1952, Payment of Gratuity Act, 1972 etc.

OBJECTIVES OF THE STUDY

1. To study the various welfare and social security measures being provided at BEML Ltd.
2. To find out the employees/workers level of satisfaction regarding various welfare measures.
3. To identify disparities in existing welfare measures and identify any evasion in implementation of various welfare and social security laws.
4. On the basis of findings, to make suitable recommendations for effective implementation of welfare and social security measures.

RESEARCH METHODOLOGY

The study is of a Descriptive nature and the sample size is 100 respondents covering all functional departments at BEML Ltd. Simple random sampling has been used to select the 100 respondents.

Both Primary data and Secondary data has been used in the study. Primary data has been collected by administering a structured questionnaire to employees/workers and secondary data has been collected through Journals, Company Reports, Text Books, Websites etc.

Data has been systematically analysed by use of statistical tools like tabulation and use of percentages.

REVIEW OF LITERATURE

1. Dr. I. Anand Pawar (2013) in the research article "Effectiveness of Employee Welfare Measures in Steel Industry- A case study of VSP (Vishakapatnam Steel Plant)" has conducted the study to analyse the awareness and satisfaction level of employees regarding welfare measures at the company. The sample size is 600 respondents and primary data has been collected through a structured questionnaire and also through personal interview. Secondary data has been collected through books, journals, reports, websites etc. Data has been analysed through tabulation and use of percentages. Based on the findings, the following suggestions have been given by the author:

- a) There should be a permanent display for information on welfare measures at main departments so that each employee/workers would know the welfare measures from time to time.
- b) Subsidised food should be provided at canteen and the quality of food and cleanliness in canteen should be improved.
- c) Periodical checkup of first aid kit should be made to maintain stock and Ozone purifier should be kept in each and every department.
- d) Maintenance of staff quarters should be improved and internal transport facility may be strengthened within the sectors.
- e) Since it was found that the availability of provisions in the employee's co-operative consumer stores was not adequate, necessary action may be taken to increase the quantity of provisions in the stores.
- f) A separate committee may be constituted with representatives from employees and management to monitor and enhance the existing welfare measures on a permanent basis

2. Srinivas.K.T (2013) in the article "A Study on Employee Welfare Facilities adopted at Bosch Ltd,Bangalore" has made a study on the various welfare measures provided by the company and the awareness and satisfaction level of employees regarding these welfare facilities provided to the employees/workers. Primary data has been collected from 100 respondents by adopting convenience sampling and by administering a structured questionnaire. Tabulation and Simple Percentages have been used to analyse data. The author have observed that a majority of the respondents are aware of the statutory and non-statutory welfare facilities provided by the company and the overall opinion of employees about various welfare measures is quite satisfactory. Based on the findings the author has put forth the following suggestions:

- a) The number of medical practitioners/physicians in the company has to be increased and there should be proper maintenance of medicines and first aid facilities.
- b) Special attention should be given for maintenance of rest room facilities and the number of toilets has to be increased. Sufficient provision of hot water, sanitizers and tissue papers have to be provided.
- c) The author has observed that recreational facilities should be improved in order to boost the morale of employees/workers and bring about a diversion from the continuous work and also reduce stress of employees/workers.
- d) The author has also observed that annual health checkup, employee counselling, health camps and hospitalization facilities have to be improved in order to maintain a strong and healthy work force.

3. Simion Nyakwara, John Shiundu and George Enock Gongera (2014) in the research article "Evaluation of Employee Welfare Facilities as an intervention strategy of Industrial Unrest on Organisational Performance-Case of Mumias Sugar Company" have analysed the impact of welfare facilities to solve industrial unrest and also improve organisational performance. Morgan and Krejcie formula was used to select 320 respondents out of a total of 1400 employees. Data was analysed using descriptive and inferential statistical analysis. SPSS package was used and Bivariate, Multivariate and Regression analysis along with Pearsons Chi-Squares was used to arrive at conclusions.

The study has clearly revealed that good welfare facilities are powerful tools to solve industrial unrest and also enhance organisational performance.

The authors have suggested that the organisation should make long term plans by formulating strategies and policies that address employees welfare rather than addressing the causes of industrial unrest within the organisation at an individual level leaving out the aggrieved parties.

The authors have also suggested that the organisation should implement intervention strategies that are unbiased and those that respond to all employees welfare for the good of the employees as well as the organisation.

The current study suggests the following as the possible areas of further research:

- a) The influence of national and local politics on employee's welfare and the organisational performance
- b) Examine the extent to which market competitors influence employee's perception of the employers responsibility towards their welfare and hence possibly causing unrest and affecting performance in an organisation.

MAJOR FINDINGS OF THE STUDY**I) PERSONAL DETAILS**

- a) 90% of the respondents are male and 10% of the respondents are female.
- b) 9% of the respondents are in the age group of 18-24, 34% are in the age group of 25-35, 28% are in the age group of 36-45 and 29% of the respondents belong to the age group of more than 46 years.
- c) 20% of the respondents have passed SSLC, 10% PUC, 26% Diploma, 20% Degree and 24% hold Post Graduate/Professional qualification.
- d) 70% of the respondents are permanent and 30% of the respondents are contract workers.
- e) 9% of the respondents have a work experience of less than 5 years, 17% have a work experience of 5-10 years, 17% have a work experience of 11-15 years, 14% have a work experience of 16-20 years and 43% of the respondents have a work experience of more than 20 years.

II) CANTEEN FACILITIES

- a) All respondents have stated that there is a canteen in the factory
- b) 84% of the respondents have expressed satisfaction regarding quantity of the food served in the canteen.
- c) 86% of the respondents have expressed satisfaction regarding price charged by the canteen management
- d) 68% of the respondents have expressed dissatisfaction regarding hygiene in the canteen. The respondents have stated that the canteen is not clean and servers were not wearing gloves and caps while serving.
- e) 52% of the respondents have stated that they need filtered drinking water. They also stated that there are no proper cups for drinking coffee and tea.
- f) 58% of the respondents have stated that the quality and nutritious content of the food and service in the canteen is not satisfactory and the menu is repetitive with less options.
- g) There are three types of canteen in the company. One for higher managers, one for officers and one for workers. Workers have complained about these disparities and have also stated that seating arrangements have to be improved.
- h) Employees and workers have complained that the canteen building is very old and recementing of interior and exterior including roofing is necessary.

III) MEDICAL FACILITIES

- a) All the respondents have stated that there is a doctor available in the factory premises.
- b) All the respondents have stated that there is a Ambulance in the factory premises.
- c) 42% of the respondents have stated that the resident doctor is not available in all shifts.
- d) All workers are getting ESI as per statutory norms.
- e) The company has a hospital in the factory premises. Majority of respondents (around 70%) have stated that the company hospital does not have proper medical equipment for major operations and diseases. The employees and workers were using the company hospital only for minor health problems and for major health issues and operations, they were using outside hospitals.

- f) The company has a policy of reimbursement of medical expenses for its employees and workers. Many respondents (around 60%) have complained that the reimbursement amount is very less as compared to the actual expenses. They have stated that the discharge summary is directly sent by the hospital to the company and the discharge summary is not being shown to the employees and workers. They have also stated that more number of good hospitals should be recognized covering all areas of Bengaluru.
- g) 64% of the respondents have stated that there is no regular medical checkup for employees and workers.
- h) Many respondents have stated that sometimes the first aid kit is empty and there is no proper replacement of first aid provisions after use.
- i) The workers have complained that the outpatient limit for medical reimbursement is fixed for them but there is no outpatient limit for higher level employees.

IV) SAFETY FACILITIES

- a) Around 42% of the respondents have stated that they are only moderately aware of company's safety policies
- b) Almost all respondents have stated that they are being provided safety equipment/Protective Equipment
- c) 90% of the respondents have stated that accidents are being properly investigated and preventive measures taken by the company
- d) 84% of the respondents have stated that safety instructions and slogans are displayed in the shop floor and other important areas
- e) 92% of respondents have expressed satisfaction regarding fencing of machinery, floors and stairs, excessive weights and uniforms
- f) 78% of the respondents have stated that the safety officer regularly visits the shop floor.
- g) 76% of the respondents have expressed satisfaction regarding Hoists & Lifts and Revolving Machinery.
- h) 53% of the respondents have complained about Pits, Sumps and opening in floors, Noise problem and lack of protection against dangerous fumes.
- i) Many of the respondents have complained about low stock of safety equipment like gloves, goggles etc.
- j) Many of the respondents have stated that the fire and safety department staff strength has to be improved and more number of fire extinguishers have to be procured for the unit.
- k) 52% of the respondents felt that the welding section should be well sheltered and away from other production areas.
- l) 54% of the respondents have stated that at the time of dressing of grinding machines, dust affects other people and protection is needed against dust.
- m) 72% of the respondents have stated that when there is heavy rain, water enters shop floor area causing lot of inconvenience to workers.
- n) Many of the respondents stated that there is lot of wood in the salvage area which may result in fire in the area.
- o) 44% of the respondents have stated that more number of safety awareness and safety training programmes should be introduced by the company.

V) OTHER WELFARE FACILITIES

- a) 80% of the respondents have expressed satisfaction regarding sitting facilities and toilet facilities.
- b) 74% of the respondents have expressed satisfaction regarding ventilation, lighting and disposal of wastes and effluents.
- c) 64% of the respondents have expressed satisfaction regarding maintenance of factory and office building
- d) Almost all respondents have expressed satisfaction regarding employment of young persons in the factory.
- e) 75% of the respondents have expressed satisfaction regarding leave facilities, working conditions/environment and prevention of over crowding.
- f) 74% of the respondents have expressed satisfaction regarding accident compensation, grievance handling procedure and employees/workers participation in management
- g) 82% of the respondents have expressed satisfaction regarding work timings and work load.
- h) All the employees other than contract staff are either provided with housing facilities or being provided with house rent allowance.
- i) 65% of the respondents have expressed satisfaction regarding transportation provided by the company.
- j) 66% of the respondents have expressed dissatisfaction regarding Washing facilities, Storing and Drying facilities for clothes and Rest Rooms.
- k) 68% of the respondents complained that during peak order season there is a lot of noise, dust, smoke, pollution etc making it very difficult to work.
- l) Many of the respondents have expressed dissatisfaction regarding Creches, Overtime, Flexitime, Sports and Recreation and Library.
- m) There is no Consumer Co-Operative Society in the Company.
- n) 52% of the respondents have stated that Educational, Training and Development programmes have to be conducted more often.
- o) 78% of the respondents have stated that Stress, Workplace Violence, Sexual Harassment, Alcoholism, Drug Abuse etc are very rare in the factory.
- p) 63% of the respondents have stated that the Labour Welfare Officer does not regularly visit the workplace and communicate with employees and workers. They have also complained that there is frequent transfer of Welfare Officers.
- q) All respondents have stated that there is a Trade Union on the Factory. Many of the respondents have stated that there is lot of political involvement in the running of the Trade Unions and there is no commitment among the union leaders. The respondents have also complained that it is very difficult for the workers to approach the Trade Union leaders of the company.
- r) Majority of the employees and workers (around 68%) felt that the Inspectors from Factory Inspectorates are rarely meeting the employees and workers to enquire about their difficulties.
- s) 56% of the respondents stated that they have only a moderate awareness of various labour welfare provisions.
- t) The company employs a large number of contract/temporary employees/workers. (Nearly 50%). The contract/temporary employees/workers complained about job security and lack of benefits under various labour laws.
- u) 73% of the respondents have stated that there is no proper feedback regarding assessment of satisfaction level of employees/workers regarding various welfare and social security benefits being provided by the company.

SUGGESTIONS**I) CANTEEN**

- a) As majority of the respondents have expressed dissatisfaction regarding cleanliness and hygiene in the canteen, the company should take immediate steps to maintain a clean and hygienic canteen. The company should procure modern dish washing machines, floor cleaning machines etc. The company should make it compulsory for the staff serving food to wear caps and gloves.
- b) The company should take steps to provide clean filtered drinking water to all employees/workers and should also provide cups for drinking coffee and tea.
- c) Health and nutrition experts should test the quality and nutrition of food served to the employees and workers. Steps should be taken to improve the service and seating arrangements in the canteen and more variety should be introduced in the menu.
- d) There are three types of canteen in the factory for higher managers, for officers and for workers. This type of discrimination should be stopped and one clean and hygienic canteen should be provided to all the employees and workers.
- e) As the canteen building is very old, the management should take immediate steps for recementing the interiors and exteriors including roofing.

II) MEDICAL FACILITIES

- a) A resident doctor should be made available for all shifts.
- b) The company should improve the infrastructure in the company run hospital. Modern operation equipment and specialist doctors should be made available. The hospital should be made more spacious with more number of beds. It should be ensured that employees and workers use the hospital both for minor and major health problems.
- c) As many employees and workers have complained that the medical reimbursement amount is very less, the management should look into this matter and ensure proper reimbursement of medical expenses. A copy of the discharge summary sent directly from the hospital to the company may be made available to employees and workers for their perusal. The company should also take steps to recognize more number of hospitals including Hi-Tech hospitals covering all areas of Bengaluru.
- d) The company should introduce a regular scheme of free medical checkup for all employees and workers.

- e) Steps should be taken for proper replacement of first aid provisions after use.
- f) At present the company prescribes a out patient limit regarding medical reimbursement for workers but there is no out patient limit for higher level employees. The management should take steps to stop this discrimination and remove the out patient limit for workers.

III) SAFETY FACILITIES

- a) The management should take steps to increase awareness among all employees and workers regarding safety policy of the company and also in the use of safety equipment.
- b) The company should take immediate steps in the areas of Pits, Sumps and Opening in floors, Noise problem and amenities for protection against dangerous fumes as many respondents have complained about the same.
- c) The company should take steps to prevent low stock of safety equipment like gloves, goggles etc. Periodical inspection and replacement of safety equipment is very much necessary for maintaining a safe working environment.
- d) Steps may be taken to increase the staff strength in the fire and safety department and the company should procure more number of Fire Extinguishers for the unit.
- e) Steps should be taken to ensure that the welding section is well sheltered and away from other production areas.
- f) Many of the respondents have stated that at the time of dressing of grinding machines, dust affects other people working nearby. Steps should be taken to provide protection to workers.
- g) When there is heavy rain, water is entering the shop floor area causing a lot of inconvenience to workers. The company should take immediate steps in this regard.
- h) There is a lot of wood in the salvage area increasing the chances of fire in the factory premises. Immediate steps should be taken to remove the wood from the salvage area.
- i) The company should conduct safety awareness and safety training programmes more often to create a safe working atmosphere in the factory.

IV) OTHER WELFARE FACILITIES

- a) The company should take immediate steps in the areas of Washing facilities, Storing & Drying facilities for clothes and provision for Rest Rooms.
- b) During peak order season there is a lot of noise, dust, smoke, pollution etc causing a lot of disturbance to employees and workers. Necessary steps may be taken to solve this problem.
- c) The management should take steps to improve the facilities of Creches, Overtime, Flexitime, Sports & Recreation and Library.
- d) As there is no Consumers Co-operative society in the factory, steps may be taken to introduce a society for the benefit of all employees and workers.
- e) The company should take steps to conduct Educational, Training and Development programmes more often for the benefit of all employees and workers.
- f) There are a lot of complaints about the Labour Welfare Officer. The Labour Welfare Officer should be more active and regularly visit the work place to interact with employees and workers and listen to their problems. Frequent transfer of welfare officers should be avoided.
- g) There should be no political involvement in the working of the Trade Unions. Union leaders should be more committed and should be easily available to meet workers and listen to their problems.
- h) The Inspectors from Factory Inspectorates are rarely meeting employees and workers. The Inspectors should meet employees and workers during their visit and listen to their grievances.
- i) The company should conduct periodical awareness programmes to increase awareness among employees and workers regarding various welfare and social security provisions both statutory and voluntary.
- j) The company employs a large number of contract/temporary staff. These contract and temporary staff have no job security and are also not entitled to benefits under various labour laws. The company should take steps to help the contract and temporary employees and workers.
- k) A large number of respondents have stated that there is no proper feed back system regarding assessment of satisfaction level of employees and workers regarding various welfare and social security benefits being provided by the company. A structured and periodical feedback system will go a long way in improving the welfare and social security benefits provided to employees and workers.

CONCLUSION

Labour Welfare and Social Security are two important tools, which enhances the quality of work life (QWL) of employees and workers and helps to keep them motivated and satisfied. A detailed study was conducted at BEML Ltd, Bengaluru on various welfare and social security provisions offered by the Company. There is no doubt that BEML Ltd is a top and prestigious Public Sector company in India and offers almost all welfare and social security benefits to its employees and workers. However, employees and workers have expressed dissatisfaction in certain areas and it is in the interest of the company to look into these areas and take steps to solve these problems. The article concludes by stating that effective implementation of various welfare and social security benefits will greatly help any organization to effectively manage its human resources at the work place.

REFERENCES**JOURNALS AND TEXTBOOKS**

1. Anand Pawar.I (2013), "Effectiveness of Employee Welfare Measures in Steel Industry-A case of VSP (Vishakhapatnam Steel Plant)" Summer Internship Society Journal, Vol V, Issue I.
2. Arpit Patel, Archana Gohil and Heli Shah (2017), " A Study on Labour Welfare Measures and Social Security in selected Engineering Units at Ahmedabad", IBMRD's Journal of Management and Research", Vol 6, Issue 1.
3. Ashwathappa.K (2011), "Human Resource Management-Text and Cases", Tata Mcgraw Hill Education Pvt. Ltd, New Delhi.
4. Bernardin John.H (2002), "Human Resource Management-An Experimental Approach", Tata Mcgraw Hill Education Pvt Ltd, New Delhi.
5. Kothari.C.R (2013), "Research Methodology-Methods and Techniques", New Age International Publishers, New Delhi.
6. Kumar.H.L (2013), "Labour Laws-Everybody should Know", Universal Law Publishing Company Pvt Ltd, New Delhi.
7. Manasa.B.R and Krishnanaik.C.N (2015), " Employee Welfare Measures – A study on Cement Corporation of India Units in Thandur and Adilabad", International Research Journal of Engineering and Technology, Vol 02, Issue 09.
8. Meena Pandey (2003), "Labour Welfare, Trade Unionism and Industrial Relations" Himalaya Publishing House, Mumbai.
9. Pradeep.M.D (2016), "Recent Trends on Labour Welfare in Industries to control Absenteeism- A Legal Intervention", Deeksha Bi-annual Journal of Social Work, Vol 14, No 01.
10. Rawat.B.D (1988), Labour Welfarism in India-Prospects and Problems", RBSA Publishers, Jaipur.
11. Saravanavel.P and Nagarajan.R (2011), "Labour Laws", Himalaya Publishing House, Mumbai.
12. Sarma.A.M (2012), Aspects of Labour Welfare and Social Security", Himalaya Publishing House, Mumbai.
13. Simion Nyakwara, John Shiundu and George Enock Gongera (2014), "Evaluation of Employee's Welfare Facilities as an Intervention Strategy of Industrial Unrest on Organisational Performance-Case of Mumias Sugar Company", European Journal of Business and Management, Vol 6, No 29.
14. Srinivas.K.T (2013), A Study on Employee Welfare Facilities adopted at Bosch Ltd, Bengaluru", Research Journal of Management Sciences, Vol 2, No 12.
15. Subba Rao.P (2010), Labour Welfare and Social Security", Himalaya Publishing House Mumbai.

REPORTS/STATUTES

16. International Labour Organisation (ILO), Conventions and Recommendations, 26th Conference of ILO, 1949
17. Malviya Report on Labour Welfare (1969)
18. National Commission on Labour Report, Government of India (2002)

19. The Employee's Provident Fund and Miscellaneous Provisions Act, 1952
20. The Employee's State Insurance Act, 1948
21. The Factories Act, 1948
22. The Trade Unions Act, 1926

WEBSITES

23. www.bemlindia.com
24. www.citehr.com
25. www.hrmanagement.com
26. www.ilo.org

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