



Liquidity Analysis of Selected Public Sector Undertakings

Abstract:

This paper aims to analyse the liquidity performance of selected five Public Sector Undertakings (PSUs) of Gujarat for the period of 05 years commencing from 2011-12 to 2015-16. For this purpose, the liquidity ratios like current ratio, quick ratio and current asset to total assets ratio are calculated. ANOVA is used for testing hypothesis. The result reveals that the liquidity position of DGVCL is good among all selected PSUs during the study period and GSECL and PGVCL is having lowest liquidity ratios during the study period.

Key Words: *Liquidity, Average Ratio, Public Sector Undertakings*

Introduction:

Liquidity management is essential for every organization. Liquidity management is the practice of managing finances in a way that allows organizations to meet their financial obligations and achieve their mission. Liquidity requirement depends on the nature and type of the firm. Public sector undertakings (PSUs) have played an important role in the development of the Indian economy. Gujarat is one of the most efficient states in terms of performance in public sector undertakings. In Gujarat As on 31 March 2016, the investment (Capital and Long-term loans) in 86 State Public Sector Undertakings (SPSUs) was Rs.1,29,178.86 crore. Out of the total investment of Rs.1,29,178.86 crore in SPSUs as on 31 March 2016, 99.38% was in working SPSUs. The remaining 0.62 % was in non-working SPSUs.

Literature review:

Amalendu Bhunia and Palash Bandyopadhyay (2015) study on “Liquidity Management of Selected Crude Oil and Natural Gas Companies in India” period of the study was 20 years from 1994 to 2013. The sample of the study was six crude oil and natural gas companies in India. For the data analysis they used Ratio analysis, descriptive statistics and Linear regression techniques. To test the hypotheses, t-test had utilized. The study revealed that liquidity position is satisfactory in case of ONGCVL, OIL and SETL but their overall liquidity management were not good every year. They also concluded that profitability and liquidity management indicators are associated, questionable in the case of management of inventory, credit policy and payment policy.

Ms. A.Nilafor Nisha, Dr. S. David Soundararajan (2016) examined “A study on liquidity analysis of selected automobile companies in India” The period of the study covered ten years from 2004-05 to 2013-14. They concluded that all the select companies in the Automobile Industry entered into foreign collaborations after liberalization of FDI policies which led to increase in performance of this industry. Government should encourage export of this industry by providing required infrastructure and reliefs to enhance performance.

Dr. (Smt.) A.N.Tamragundi, Purushottam N Vaidya (2016) study entitled Liquidity – Profitability Relationship: A Study of Ten Leading FMCG Companies In India” the period of the study was 2005-06 to 2014-15. The sample selected on the basis of sales turnover. The tools used for analysis were Spearman’s Rank correlation and t-tests. It was found that there was a very strong positive relationship between the liquidity and the profitability of the selected FMCG companies in India.

Research Methodology:**Objective of the study:**

The main objective of the study is to measure the liquidity position of selected PSUs.

Hypothesis of the study:

H₀: There is no significant difference in liquidity position among all selected PSUs

The scope of the present study:

Five Public Sector Undertakings of Gujarat have been taken for the purpose of the study during the period from 2011-12 to 2015-16.

Sample of the study:

The universe of the study is all PSUs in Gujarat. Five PSUs have been selected on the base of convenient sampling method. These Public Undertakings are:

- (1) Dakshin Gujarat Vij Company Ltd.(DGVCL)
- (2) Gujarat State Electricity Corporation Limited (GSECL)
- (3) Pachim Gujarat Vij Company Ltd.(PGVCL)
- (4) Madhya Gujarat Vij Company Limited.(MGVCL)
- (5) Uttar Gujarat Vij Company Limited (UGVCL)

Period of the study:

The researcher has undertaken the study is for 05years from 2010-11 to 2015-16.

Source of data:

This study mainly depends on the secondary data, researcher collected the data from Annual reports of the PSUs' websites.

Tools and techniques:

For the analysis of data in the form of various liquidity ratios, the statistical tools like average, SD ,CV and ANOVA has been employed. Following ratios have been used.

- (1) Current Ratio
- (2) Quick Ratio
- (3) Current Asset to Total Asset

Data Analysis:**Table 1. Current Ratio of the selected PSUs (in times)**

YEARS	DGVCL	GSECL	MGVCL	PGVCL	UGVCL
2011-12	3.09	0.72	1.80	0.77	1.09
2012-13	2.58	0.59	1.49	0.68	1.29
2013-14	1.93	0.51	1.10	0.62	0.98
2014-15	1.33	0.92	1.09	0.68	1.08
2015-16	1.60	0.87	1.41	0.75	1.36
Avg.	2.11	0.72	1.38	0.70	1.16
SD	0.72	0.18	0.30	0.06	0.16
CV	34.26	24.33	21.52	8.63	13.67

(Source: Computed from Annual Reports)

Table no. 1 indicates the current ratio of selected PSUs during the study period. It is observed that highest average current ratio is 2.11 times in DGVCL and lowest is 0.70% in PGVCL .In DGVCL SD and CV are 0.72 and 34.26% respectively. The lowest CV shows in PGVCL among all selected PSUs during the study period.

Testing of Hypotheses:

H_0 = There is no significant difference in the current ratio of selected PSUs

H_1 = There is significant difference in the current ratio of selected PSUs

Table No. 1 A Calculation of One Way ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	6.658664	4	1.664666	12.4569	3.02E-05	2.866081
Within Groups	2.67268	20	0.133634			
Total	9.331344	24				

From above table it can be analyze that the table value of F is 2.87 and the calculated value for this ratio is 12.46 so calculated value is higher than table value therefore null hypotheses is rejected. So, it can be concluded that there is a significant difference in the current ratio of selected PSUs

Table 2. Quick Ratio of the selected PSUs (in times)

YEARS	DGVCL	GSECL	MGVCL	PGVCL	UGVCL
2011-12	2.51	0.57	1.34	0.56	0.89
2012-13	2.00	0.31	1.07	0.51	1.01
2013-14	1.49	0.29	0.84	0.46	0.77
2014-15	1.03	0.68	0.82	0.50	0.74
2015-16	1.28	0.68	1.05	0.56	0.99
Avg.	1.66	0.51	1.02	0.52	0.88
SD	0.59	0.19	0.21	0.04	0.12
CV	35.70	38.23	20.61	8.24	14.01

(Source: Computed from Annual Reports)

Table no. 2 indicates the quick ratio of selected PSUs during the study period. It is observed that highest average quick ratio is 1.66 times in DGVCL and lowest is 0.51% in GSECL. In DGVCL SD and CV are 0.59 and 35.70% respectively. The lowest CV shows in PGVCL among all selected PSUs during the study period.

Testing of Hypotheses:

H_0 = There is no significant difference in the quick ratio of selected PSUs

H_1 = There is significant difference in the quick ratio of selected PSUs

Table No. 2 A Calculation of One Way ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	4.4798	4	1.11995	12.41492	3.09E-05	2.866081
Within Groups	1.8042	20	0.09021			
Total	6.284	24				

From above table it can be analyze that the table value of F is 2.87 and the calculated value for this ratio is 12.41 so calculated value is higher than table value therefore null hypotheses is rejected. So, it can be concluded that there is a significant difference in the Quick Ratio of selected PSUs during the study period.

Table 3. Current Assets to Total Assets Ratio of the selected PSUs (in times)

YEARS	DGVCL	GSECL	MGVCL	PGVCL	UGVCL
2011-12	0.37	0.18	0.26	0.24	0.35
2012-13	0.34	0.11	0.28	0.22	0.32
2013-14	0.28	0.11	0.25	0.21	0.30
2014-15	0.29	0.17	0.23	0.21	0.27
2015-16	0.27	0.19	0.19	0.18	0.26
AVG.	0.31	0.15	0.24	0.21	0.30
SD	0.04	0.04	0.03	0.02	0.04
CV	13.87	25.65	14.13	10.23	12.25

(Source: Computed from Annual Reports)

Table no. 3 indicates the current asset to total asset ratio of selected PSUs during the study period. It is observed that highest average ratio is 0.31 times in DGVCL and lowest is 0.15% in GSECL. In DGVCL the SD and CV are 0.04 and 13.87% respectively. The lowest CV shows in PGVCL among all selected PSUs during the study period.

Testing of Hypotheses:

H_0 = There is no significant difference in the current assets to total assets of selected PSUs

H_1 = There is significant difference in the current assets to total assets of selected PSUs

Table No. 3 A Calculation of One Way ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.084904	4	0.021226	16.68711	3.69E-06	2.866081
Within Groups	0.02544	20	0.001272			
Total	0.110344	24				

From above table it can be analyze that the table value of F is 2.87 and the calculated value for this ratio is 16.69 so calculated value is higher than table value therefore null hypotheses is rejected. So, it can be concluded that there is a significant difference in the current asset to total assets ratio of selected PSUs during the study period among all selected PSUs.

Limitation of Study:

- The study is mainly based on the published financial data, so finding will depend on the accuracy of such data.
- The researcher has restricted this study up to five selected Public Sector Undertakings for limited period, so findings may not be generalized to whole Public Sector Undertakings sector.
- The liquidity analysis is analysed on the basis of selected financial ratios, while other factors also affecting to liquidity are ignored by researcher.

Conclusion:

The role of Public Sector Undertakings is an important in Indian economy. The liquidity position of DGVCL is good among all selected PSUs during the study period and GSECL and PGVCL is having lowest liquidity ratios during the study period. In case of current ratio all selected PSUs (excluding DGVCL) not maintained standard ratio of 2:1. In case of consistency the lowest value of CV shows in PGVCL during the study period among all selected PSUs. The result of ANOVA shows that there is

significant difference in liquidity position of selected Public Sector Undertakings during the study period.

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