CHAPTER-7
CASH MANAGEMENT
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CASH MANAGEMENT

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7.1 INTRODUCTION

Cash is an important component of current assets and is most essential for business operations. Cash is the basic input needed to keep the business running on a continuous basis. It is also the ultimate output expected to be realised by selling the service and product manufactured by the firm.

7.2 MEANING AND DEFINITION OF CASH

In the words of I. M. Pandey:

“The term cash includes coins, currency and cheques held by the firm and balances in its bank accounts. Sometimes near-cash items such as marketable securities or bank time-deposits are also included in cash. The basic characteristics of near cash assets is that they can readily be converted into cash. Generally, when a firm has excess cash, it invests it in marketable securities. This kind of investment contributes some profits to the firm.”

Cash is both the beginning and the end of the working capital cycle, i.e., cash, inventories, receivables and cash. While the management of all firms should strive hard to secure larger cash at the end of the working capital cycle than what had been invested in to it at its beginning, they must also make it a best possible minimum. This is required to optimally utilise the cash and to avoid the situation of idle cash balances.

Its effective management is the key determinant of sufficient working capital management.

In the words of P. V. Kulkarni:

“Cash in the business enterprise may be compared to the blood of the human body; blood gives life and strength to the human body, and cash imparts life and strength to the business organisation”.

According to J. M. Keyens:

“It is the cash which keeps a business going. Hence every enterprise has hold necessary cash for its existence”.

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In a business firm, ultimately, a transaction results in either an inflow or an outflow of cash. In an efficiently managed business, static cash balance situation generally does not less. Cash shortage will disrupt the firm’s manufacturing operation, while excessive cash will simply remain idle, without contributing anything towards the firm’s profitability. Therefore, for its smooth running and maximum profitability proper and effective cash management in a business is of paramount importance.

7.3 MOTIVES FOR HOLDING CASH

J. M. Keynes, a prominent economist, pointed out three primary motives for holding cash.

- **The transaction motives;**
- **The precautionary motive; and**
- **The speculative motive.**

These motives are explained in the following paragraph:

**The transaction motives:**

The transaction motive requires a firm hold cash to conduct its business in the ordinary course. The firms need cash primarily to make payment for purchases, wages, operating expenses, taxes, dividends etc. A firm needs a pool of cash because its receipts and payments are not perfectly synchronised. A pool of cash is also known as ‘transaction balance’. A cash budget is often used to decide what the transaction balance should be.

**The precautionary motive:**

The precautionary motive is to hold cash to meet any contingencies in future. It provides a cushion or buffer to withstand some unexpected emergency. The precautionary amount of cash depends upon the predictability of cash flows. If cash flows can be predicted with accuracy, less cash will be maintained against an emergency. On other hand, unpredicted the cash flows, the larger the need for such balances.

**The speculative Motives:**

The financial manager would like to take advantage of unexploited opportunities. Some reserve of money is always essential to enable the firm to take advantage of cash when such opportunities arise. The speculative motives helps to take advantage of:
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- An opportunity to purchase raw materials at a reduced price on payment of immediate cash.
- A chance to speculate on interest rate movements by buying securities when interest rates are expected to decline.
- Delay purchases of raw materials on the anticipation of decline in prices.
- To make purchases at favourable prices
- Any other opportunity.

Of three primary motives of holding cash balance, the two of them are important viz.: the transaction motive and the precautionary motive. Business firm normally do not speculate and need not have speculative balances. The firm must decide the quantum of transitions and precautionary balance to be held. This depends upon the following factors:

- The expected cash inflows and outflows based on the cash budget and forecasts, encompassing long and short term cash requirements of the firm.
- The degree of deviation between the expected and actual net cash flows.
- The maturity structure of the firms liabilities.
- The firm’s ability to borrow at short notice, in the event of any emergency.
- The philosophy of management regarding liquidity and risk of insolvency.
- The efficient planning and control of cash.

All these factors, analysed together, will determine the appropriate level of the transactions and precautionary balances.

7.4 OBJECTIVES OF CASH MANAGEMENT

The basic objectives of cash management are as follows:

1) To meet the cash disbursement needs (payment schedule) and;
2) To minimise funds committed to cash balance

These are conflicting and mutually contradictory and the task of cash management is to reconcile them.
7.5 FUNCTIONS OF CASH MANAGEMENT

In order to resolve the uncertainty about cash flow prediction and lack of synchronization between cash receipts and payments, the firm should develop some strategies for cash management. Efficient cash management requires proper cash planning, an organization for managing receipts and disbursement, and an efficient control and review mechanism. The firm should evolve strategies regarding the following four functions of cash management:

1) Cash planning:
Cash planning can help anticipate future cash flows and needs of the firm and reduces the possibility of idle cash balances and cash deficits. Cash planning is a technique for planning and controlling the use of cash. Cash plans are very crucial in developing the overall operating plans of the firm. Cash planning may be done on daily, weekly or monthly basis. The period and frequency of cash planning generally depends upon the size of the firm and philosophy of management. Cash budget should be prepared for this proposes. Cash budget is the most significant device to plan for and control the cash receipts and payments.

In the words of Van Horne:
“A cash budget is a summary statement of the firm’s expected cash inflows and outflows over a projected time period. It gives information on the timing and magnitude of expected cash flows and cash balances over the projected period. The information helps the financial manager to determine the future cash needs of the firm, plan for financing of these needs, and exercise control over the cash and liquidity of the firm”.

Cash forecasts are needed to prepare cash budget. Cash forecasting may be done on a short-term or long-term basis. It is comparatively easy to make short-term forecasts. Short-term cash forecasts, routinely prepared by business firms, are helpful in:

- Estimating cash requirements;
- Planning short-term financing;
- Scheduling payments in connection with capital expenditure projects;
- Planning purchases of materials;
- Developing credit policies; and
- Checking the accuracy of long-term forecasts.
Long-term cash forecasts are generally prepared for a period ranging from 2 to 5 years and serve to provide a rough picture of firm’s financing needs and availability of investable surplus in future. Long-term cash forecasts are helpful in:

- Planning the outlays on capital expenditure projects and
- Planning the rising of long-term funds.

2) Managing the cash flows:

The twin objectives in managing the cash flows are: cash inflows and cash outflows. The inflows of cash should be accelerated while, as far as possible, the outflow of the cash should be decelerated.

A firm can conserve cash and reduce its requirements for cash balances, if it can speed up its cash collections. Cash collections can be accelerated by reducing the lay or gap between the time a customer pays his bills and the time the cheque is collected and funds become available for the firms use. Within this time gap, the delay is caused by the mailing time, e.g., the time taken by cheque in transit and the processing time, e.g., the time taken by the firm processing cheque for internal accounting purpose. The amount of cheques sent by customers but not yet collected is called deposit floats. The greater will be the firm’s deposit float, the longer the time taken in converting cheques into usable funds. In India, these floats can assume sizeable proportions, as cheques normally take a longer time to go realised, than in most countries. An efficient financial manager will attempt to reduce the firm’s deposits float by speeding up the mailing, processing and collections time. There are mainly two techniques which can be used to save mailing and processing times-decentralised collections and lock box system.

In decentralisation collection system affirm sets up collection centres in various marketing centres of the country instead of a single collection centre. The customers are instructed to remit their payments to the collection centre of their region. The collection centre deposits the cheques in the local bank. These cheques are collected quickly because many of them originate in the very city in which the bank is located. Surplus money of the local bank can then be transferred to the company’s main bank. Another technique of speeding up mailing processing and collection times is ‘Lock Box System’. In this system, the local post office box is rented by the company in a city and customers of the nearby area are asked to send their remittances to it. Local bank is authorised to pick up remittances from the box.
and deposit them in the account of the company, ultimately to be transferred to the central bank account of the company.

It may be concluded that the major advantage of accelerating collections is to reduce the firm’s total financing requirements.

3) Determining the optimum cash balance:

One of the primary responsibilities of the financial manager is to maintain a sound liquidity position of the firm so that dues may be settled in time. The test of liquidity is really the availability of cash to meet the firm’s obligations when they become due. Thus, cash balance is maintained for day to day transactions and an additional amount may be maintained as a buffer or safety stock. The financial manager should determine the appropriate amount of cash balance.

Such a decision is influenced by a trade off between risk and return. If the firm maintains a small cash balance, its liquidity position becomes week and suffers from a paucity of cash to make payments. But at the same time a higher profitability can be attained by investing runs out of cash it may have sell its marketable securities, released funds in some profitable opportunities. When the firm runs out of cash it may have to sell its marketable securities, if available, or borrow.

This involves transaction costs. On the other hand, if the firm maintains cash balance at a high level, it will have a sound liquidity position but forgo the opportunities to earn interest. The potential interest lost on holding large cash balance
involves an opportunity cost to the firm. Thus, the firm should maintain an optimum cash balance, neither a small nor a large cash balance. To find out the optimum cash balance, the transaction costs and risk of too small a balance should be matched with the opportunity costs of too large a balance. Figure 7.1 – Optimal size of cash balance Figure 7.1 shows this trade off graphically costs would decline, but the opportunity costs would increase. At point x the sum of the two costs is minimum. This is the point of optimum cash balance which a firm should seek to achieve.

4) Investing Idle Cash:

The idle cash or precautionary cash should be properly and profitably invested. The firm should decide about the division of cash balances between marketable securities and bank deposits. The management of the investment in marketable securities is an important financial management responsibility because of the close relationship between cash and marketable securities. Therefore, the investment in marketable securities should be properly managed. Excess cash should normally be invested in marketable securities which can be conveniently and properly managed. Excess cash should normally be invested in marketable securities which can be covalently and promptly converted into cash. Cash in excess of working capital cash balance requirements of firm may fluctuate because of the element of seasonality and business cycles. Secondly, excess cash may be as a buffer to meet unpredictable financial needs. A firm holds extra cash because cash-flows cannot be predicated with certainty. Cash balance held to cover the future exigencies is called the precautionary balance ad usually is invested in marketable securities until needed.

Instead of holding excess cash for the above mentioned purpose, the firm may meet its precautionary requirements as and when they arise by making short-term borrowings. The choice between the short-term borrowings and liquid asset holding will depend upon the firm’s policy regarding the mix of short-term and long-term financing. The excess amount of cash held by the firm to meet its variable cash requirements and future contingencies should be temporarily invested in marketable securities, which can be regarded as near currency of cash.

7.6 GENERAL PRINCIPLES OF CASH MANAGEMENT:

Harry Gross has suggested certain general principles of cash management that, essentially add efficiency to cash management. These principles reflecting cause and
effect relationship having universal applications give a scientific outlook to the subject of cash management. While, the application of these principles in accordance with the changing conditions and business environment requiring high degree of skill and tact which places cash management in the category of art. Thus, we can say that cash management like any other subject of management is both science and art for it has well-established principles capable of being skill fully modified as per the requirements. The principles of management are follows as

1. Determinable Variations of Cash Needs:

A reasonable portion of funds, in the form of cash is required to be kept aside to overcome the period anticipated as the period of cash deficit. This period may either be short and temporary or last for a longer duration of time. Normal and regular payment of cash leads to small reductions in the cash balance at periodic intervals. Making this payment to different employees on different days of a week can equalize these reductions. Another technique for balancing the level of cash is to schedule cash disbursements to creditors during that period when accounts receivables collected amounts to a large sum but without putting the goodwill at stake.

2. Contingency Cash Requirement:

There may arise certain instances, which fall beyond the forecast of the management. These constitute unforeseen calamities, which are too difficult to be provided for in the normal course of the business. Such contingencies always demand for special cash requirements that was not estimated and provided for in the cash budget. Rejections of wholesale product, large amount of bad debts, strikes, lockouts etc. are a few among these contingencies. Only a prior experience and investigation of other similar companies prove helpful as a customary practice. A practical procedure is to protect the business from such calamities like bad-debt losses, fire etc. by way of insurance coverage.

3. Availability of External Cash:

Another factor that is of great importance to the cash management is the availability of funds from outside sources. There resources aid in providing credit facility to the firm, which materialized the firm's objectives of holding minimum cash balance. As such if a firm succeeds in acquiring sufficient funds from external sources like banks or private financers, shareholders, government agencies etc., the need for mcash reserves diminishes.
4. Maximizing Cash Receipts

Every financial manager aims at making the best possible use of cash receipts. Again, cash receipts if tackled prudently results in minimizing cash requirements of a concern. For this purpose, the comparative cost of granting cash discount to customer and the policy of charging interest expense for borrowing must be evaluated on continuous basis to determine the futility of either of the alternative or both of them during that particular period for maximizing cash receipts. Yet, the under mentioned techniques proved helpful in this context:

(A) Concentration Banking: Under this system, a company establishes banking centres for collection of cash in different areas. Thereby, the company instructs its customers of adjoining areas to send their payments to those centres. The collection amount is then deposited with the local bank by these centres as early as possible. Whereby, the collected funds are transferred to the company's central bank accounts operated by the head office.

(B) Local Box System: Under this system, a company rents out the local post offices boxes of different cities and the customers are asked to forward their remittances to it. These remittances are picked by the authorized lock bank from these boxes to be transferred to the company's central bank operated by the head office.

(C) Reviewing Credit Procedures: It aids in determining the impact of slow payers and bad debtors on cash. The accounts of slow paying customers should be reviewed to determine the volume of cash tied up. Besides this, evaluation of credit policy must also be conducted for introducing essential amendments. As a matter of fact, too strict a credit policy involves rejections of sales. Thus, the curtailing the cash inflow. On the other hand, too lenient, a credit policy would increase the number of slow payments and bad debts again decreasing the cash inflows.

(D) Minimizing Credit Period: Shortening the terms are allowed to the customers would definitely accelerate the cash inflow side-by-side revising the discount offered would prevent the customers from using the credit for financing their own operations profitably.

(E) Others: Introducing various procedures for special handling of large to very large remittances or foreign remittances such as, personal! Pick up of large sum of cash using airmail, special delivery and scimitars techniques to accelerate such collections.
5. Minimizing Cash Disbursements:

The motive of minimizing cash payments is the ultimate benefit derived from maximizing cash receipts. Cash disbursement can be brought under control by preventing fraudulent practices, serving time draft to creditors of large sum, making staggered payments to creditors and for payrolls etc.

6. Maximizing Cash Utilization:

Although a surplus of cash is a luxury, yet money is costly. Moreover, proper and optimum utilization of cash always makes way for achievement of the motive of maximizing cash receipts and minimizing cash payments. At times, a concern finds itself with funds in excess of its requirement, which lay idle without bringing any return to it. At the same time, the concern finds it unwise to dispose it, as the concern shall soon need it. In such conditions, efforts should be made in investing these funds in some interest bearing securities. There are certain basic strategies suggested by Gitman, which prove evidently helpful in managing cash if employed by the cash management. They are: "Pay accounts payables as late as possible without damaging the firm's credit rating, but take advantage of the favourable cash discount, if any. Collect accounts receivables as early as possible without losing future loss sales because of high-pressure collections techniques. Cash discounts, if they are economically justifiable, may be used to accomplish this objective.

7.7 ADEQUACY OF CASH

Adequacy of cash resources has to be judged in relation to operational and liquidity requirements of a firm. Both these functions are of great significance for smooth functioning and well being. Sufficiency of cash for operational requirement of a firm’s judged by computation of turnover ratio of cash. The resultant turnover rate divided into 365, gives the number of days for which the available cash resources were sufficient to finance the normal operational requirements of the firm.

In the word of Hunt etal:

“Financial analyst uses various liquidity ratios as through indices of the likely most widely used ratio is the current ratios and acid test ratio.”

Professor James E. Walter:

Has proposed that instead of matching current assets with current liabilities, i.e. current ratio or quick assets with current liabilities, i.e. quick ratio, better results
can be obtained by matching current obligations with net cash flows. In growing concern net cash flows are more important since they are flows, whereas current liabilities only indicate the outstanding obligations on particulars date which are continuously being replaced. In this context, he has also suggested the computations of coverage of current liabilities ratio, which takes into account the turnover rate of current liabilities and margin of profit on sale. Coverage of current liabilities is the product of turnover of current liabilities and profit margin.

Professor Walter calls these computations as test actual liquidity while current and quick ratios are classified as test of only technical liquidity and solvency. Professor Walter has not laid down any standard as a cut off point to distinguish between liquid and illiquid firms or solvent and insolvent firms.

7.8 CONTROL OF CASH FLOWS

One of the major objectives of cash management, from the stand point of increasing return on investment, is to economize on the cash holding without impairing the overall liquidity requirement of the concern. This is possible by effecting higher control over cash flow. The following ratio has been calculated to analyse the control of cash flows:

- Cash to current assets ratio,
- Cash to sales ratio,
- Cash position ratio,

7.9 CASH TO CURRENT ASSETS RATIO

Holding of unnecessary cash affects adversely the profit ability of concern, since ‘idle’ cash as an assets is not only devoid of earning power, but on the contrary, it also involves cost, if to be retained in a business with current bank account or any account. Moreover, in an inflation-ridden economy, cash loss purchasing power as well. A downward trend in this ratio over a period indicates the better control whereas an upward trend reveals a slack control over cash resource. However, it is very difficult to lay down any standard norms in this regard. The adequacy of cash in respect of other components of current assets can be judged only from past experience. However, in a comfortably financed business it will probably run out less than 5% to 10% of current assets. Since current liabilities are not expected to exceed
one-half of current assets, cash percentage should not run under 10% to 20% of the
same. Cash to current assets ratio calculated as under this formula:

\[
\text{Cash to Current Assets Ratio} = \frac{\text{cash}}{\text{current assets}} \times 100
\]

The cash to current assets ratio in the selected paper companies in India are as
under table no: - 7.1

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COMPANY NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IAPPM</td>
</tr>
<tr>
<td>2005-'06</td>
<td>4.98</td>
</tr>
<tr>
<td>2006-'07</td>
<td>5.35</td>
</tr>
<tr>
<td>2007-'08</td>
<td>6.04</td>
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<tr>
<td>2008-'09</td>
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<td>6.50</td>
</tr>
<tr>
<td>2011-'12</td>
<td>9.36</td>
</tr>
<tr>
<td>Average</td>
<td>5.88</td>
</tr>
<tr>
<td>S.D.</td>
<td>1.83</td>
</tr>
<tr>
<td>C.V.</td>
<td>31.08</td>
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<tr>
<td>Min</td>
<td>3.38</td>
</tr>
<tr>
<td>Max</td>
<td>9.36</td>
</tr>
</tbody>
</table>

Graph:- 7.1
Cash to Current Assets Ratio in % from 2005 –’06 to 2011 –’12
The above mentioned Table No- 7.1 and Graph No- 7.1 show on the next page the indicated fluctuating trends of the Cash to current assets ratio of selected paper companies in India from 2005-2006 to 2011-2012.

1. International Andhra Pradesh Paper Mills Limited

The table no - 7.1 shows that the cash to current assets ratio of the International Andhra Pradesh Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to current assets ratio is 9.36% in the year 2011 –’12 and the lowest cash to current assets ratio is 3.38% in the year of 2008 –’09.

In the year 2005 –’06 to 2007 –’08 the cash to current assets ratios has been increased continuously from the beginning of the study period as 4.98%, 5.35% and 6.04% respectively. But in the year 2008 –’09 it has been decreased and reached at lowest as 3.38%. but, it has been again increased next three year of the study period from 2009 –’10 to 2011 –’12 as 5.54%, 6.50% and 9.36% respectively. It has been also shown in graph no – 7.1.

So, the average (AVG.) cash to current assets ratio is 5.88%, the standard deviation (S.D) is 1.83% and co-efficient variance (C.V) is 31.08% which is shown in table no - 7.1. Which solvency of International Andhra Pradesh Paper Mills limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

2. Ballarpur Paper Mills Limited

The table no - 7.1 shows that the cash to current assets ratio of the Ballarpur Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to current assets ratio is 37.77% in the year 2005 –’06 and the lowest cash to current assets ratio is 0.76 % in the year of 2008 –’09.

The above table no - 7.1 shows the cash to current assets ratio has been decreased trend for the first four year from 2005 –’06 to 2008 –’09 as 37.77%, 25.84%, 24.80% and 0.76% respectively. It has been increased in 2009 –’10 as 8.86% and it has been decreased at 1.72% in 2010 –’11. In the last year of the study period year 2011 –’12 is remaining as 1.72% same as previous year 2010 –’11. It has been also shown in graph no – 7.1.

So, the average (AVG.) cash to current assets ratio is 14.48%, the standard deviation (S.D) is 14.87% and co-efficient variance (C.V) is 102.66% which is shown
in table no - 7.1. Which solvency of Ballarpur Paper Mills limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

3. **JK Paper Mills Limited**

   The table no - 7.1 shows that the cash to current assets ratio of the J. K. Paper Mills Limited during the study period form 2005 – ‘06 to 2011 – ’12, the highest cash to current assets ratio is 21.04% in the year 2011 – ’12 and the lowest cash to current assets ratio is 0.86% in the year of 2007 – ’08.

   In the year 2005 – ’06 to 2007 – ’08 the cash to current assets ratios has been decreased continuously form the beginning of the study period as 1.90%, 1.25% and 0.86%. But in the year 2008 – ’09 it has been increased and reached at 8.13%. But, it has been again decreased next year of the study period in 2009 – ’10 at 1.97%. but last two year of study period form 2010 –’11 to 2011 –’12 it has been increased as 7.05% and 21.04% respectively. It has been also shown in graph no – 7.1.

   So, the average (AVG.) cash to current assets ratio is 6.03%, the standard deviation (S.D) is 7.23% and co-efficient variance (C.V) is 119.96% which is shown in table no - 7.1. Which solvency of J. K. Paper Mills Limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

4. **Orient Paper and Industries Limited**

   The table no - 7.1 shows that the cash to current assets ratio of the Orient Paper and Industries Limited during the study period form 2005 – ’06 to 2011 – ’12, the maximum cash to current assets ratio is 9.70% in the year 2010 –’11 and the minimum cash to current assets ratio is 5.00% in the year of 2006 – ’07.

   In the present the table no - 7.1 shows the cash to current assets ratio of Orient Paper and Industries Limited has been fluctuated in the whole study period. In 2005 –’06 cash to current assets ratio was 5.85 % and it has been decreased in 2006 –’07 and reached at lowest point at 5.00%. Next four year from 2007 –’08 to 2010 –’100 it has been increased as 7.60%, 8.61%, 9.36% and 9.70%. But it has been decreased in last year of the study period 2011 –’12 at 6.61%. It has been also shown in graph no – 7.1.

   So, the average (AVG.) cash to current assets ratio is 7.54%, the standard deviation (S.D) is 1.79% and co-efficient variance (C.V) is 23.80% which shows in table no - 7.1 are. Which solvency of Orient Paper and Industries Limited because of the average cash to current assets ratio shows dissatisfactory ratio during the study period.
5. **Seshasayee Paper and Boards Limited**

The table no - 7.1 shows that the cash to current assets ratio of the Seshasayee Paper and Boards Limited during the study period form 2005 –’06 to 2011 –’12, the maximum cash to current assets ratio is 40.37% in the year 2009 –’10 and the minimum cash to current assets ratio is 2.01% in the year of 2011 –’12.

In the table no - 7.1 shows the cash to current assets ratio of Seshasayee Paper and Boards Limited has been fluctuated trend for whole study period from 2005 –’06 to 20011 –’12 as 34.54%, 33.52%, 34.19%, 30.32%, 40.37%, 7.86% and 2.01% respectively. It has been also shown in graph no - 7.1.

So, the average (AVG.) cash to current assets ratio is 26.11%, the standard deviation (S.D) is 14.87% and co-efficient variance (C.V) is 56.94% which is shown in table no - 7.1. Which solvency of Seshasayee Paper and Boards Limited because of the average cash to current assets ratio shows satisfactory ratio during the study period.

6. **Sirpur Paper Mills Limited**

The table no - 7.1 shows that the cash to current assets ratio of the Sirpur Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, maximum cash to current assets ratio is 16.02% in the year 2006 –’07 and the minimum cash to current assets ratio is 3.59% in the year of 2009 –’10.

In the year 2005 –’06 the cash to current assets ratio was 4.47%. Cash to current assets ratio has been increased 16.02% in 2006 –’07 and it has been decreased 7.34% in 2007 –’08. Which has been increased in 2008 –’09 at 8.37% but, again cash to current assets ratio has been decreased from 2009 –’10 in 3.59%. It has been increased in last year for the study period form in 2010 –’11 to 2011 –’12 as 6.20% and 8.60%. It has been also shown in the graph – 7.1.

So, the average (AVG.) cash to current assets ratio is 7.80%, the standard deviation (S.D) is 4.09% and co-efficient variance (C.V) is 52.37 % which is shown in table no - 7.1. Which solvency of Sirpur Paper Mills Limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

7. **South India Paper Mills Limited**

The table no - 7.1 and graph no – 7.1 shows that the cash to current assets ratio of the South India Paper Mills Limited the study period form 2005 –’06 to 2011 –’12,
the maximum cash to current assets ratio is 9.33% in the year 2010 –’11 and the minimum cash to current assets ratio is 0.72% in the year of 2005 –’06.

In the table no - 7.1 shows the cash to current assets ratio of South India Paper Mills Limited. In the year form 2005 – ’06 cash to current assets ratio has been shown as 0.72%. It has been increased in year 2006 –’07 as 8.35%. But the next four years it has been increased form 2007 –’08 to 2010 –’11 as 5.87%, 6.08%, 6.83% and 9.33% respectively. Last year of the study period in 2011 –’12 it has been decreased and reached at 2.99%. It has been also shown in graph no - 7.1.

So, the average (AVG.) cash to current assets ratio is 5.75%, the standard deviation (S.D) is 2.99% and co-efficient variance (C.V) is 52.18% which is shown in table no - 7.1. Which solvency of South India Paper Mills Limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

8. Star Paper Mills Limited

The table no - 7.1 shows that the cash to current assets ratio of the Star Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current assets ratio is 4.01% in the year 2005 –’06 and the minimum cash to current assets ratio is 1.53% in the year of 2008 –’09.

The table no - 7.1 shows the cash to current assets ratio has been fluctuated trend of Star Paper Mills Limited for whole study period from beginning to end of the study period from 2005 –’06 to 2011 –’12 as 1.87%, 4.01%, 2.66%, 1.53%, 3.15%, 2.02% and 3.07% respectively. It has been also shown in graph no - 7.1. Which solvency of Star Paper Mills limited because the average cash to current assets ratio shows satisfactory ratio during the study period.


The table no - 7.1 shows that the cash to current assets ratio of the T. N. Newsprint Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current assets ratio is 5.90% in the year 2007 –’08 and the minimum cash to current assets ratio is 1.66% in the year of 2010 –’11.

The above table no - 7.1 shows cash to current assets ratio has been increased from year 2005 – ’06 to 2007 –’08 at 5.10%, 5.16% and 5.90%. It has been decreased
CASH MANAGEMENT

from 2008 –'09 to 2010 –'11 as 3.35%, 3.26% and 1.66%. But it has been increased in 2011 –’12 as 2.12%. It has been also shown in graph no – 7.1.

So, the average (AVG.) cash to current assets ratio is 3.79%, the standard deviation (S.D) is 1.63% and co-efficient variance (C.V) is 42.85% which is shown in table no - 7.1. Which solvency of T. N. Newsprint Paper Mills Limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

10. West Coast Paper Mills Limited

The table no - 7.1 shows that the cash to current assets ratio of the West Coast Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current assets ratio is 46.48% in the year 2007 –’08 and the minimum cash to current assets ratio is 2.55% in the year 2011 –’12.

In the West Coast Paper Mills Limited cash to current assets ratio has been increased study period from 2005 – ’06 to 2007 –’08, as 6.98% 21.81%, and 46.48%. But then after the cash to current assets ratio has been decreased for last four years from 2008 –’09 to 2011 –’12 as 46.27%, 22.72%, 13.13% and 2.55% respectively. It has been also shown in the graph no - 7.1.

So, the average (AVG.) cash to current assets ratio is 22.85%, the standard deviation (S.D) is 17.64% and co-efficient variance (C.V) is 77.19% which is shown in table no - 7.1. Which solvency of West Coast Paper Mills Limited because the average cash to current assets ratio shows satisfactory ratio during the study period.

ANOVA TEST OF CASH TO CURRENT ASSETS RATIO :

Hypothesis:

❖ Ho: Null Hypothesis:
   ➢ There is no significant difference in cash to current assets ratio of selected paper companies of India.

❖ H1: Alternative Hypothesis:
   ➢ There is significant difference in cash to current assets ratio of selected paper companies of India.

Level of Significance: 5%
Table 7.1.1
Cash to Current Assets Ratio - ANOVA: Single Factor

<table>
<thead>
<tr>
<th>Groups</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAPPM</td>
<td>7</td>
<td>41.15248</td>
<td>5.878925</td>
<td>3.337614</td>
</tr>
<tr>
<td>BILT</td>
<td>7</td>
<td>101.3732</td>
<td>14.48189</td>
<td>221.0196</td>
</tr>
<tr>
<td>JKPM</td>
<td>7</td>
<td>42.20029</td>
<td>6.028613</td>
<td>52.30171</td>
</tr>
<tr>
<td>OPIL</td>
<td>7</td>
<td>52.74536</td>
<td>7.535052</td>
<td>3.214934</td>
</tr>
<tr>
<td>SPBL</td>
<td>7</td>
<td>182.7917</td>
<td>26.1131</td>
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</tr>
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<tr>
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<td>WCPML</td>
<td>7</td>
<td>159.9331</td>
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<td>311.0603</td>
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</table>

Table 7.1.2
ANOVA (F- Test Result) of Cash to Current Assets Ratio

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<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>D.F</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
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<td></td>
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<td></td>
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</tbody>
</table>

- Degree of freedom = 70-1= 69
- Table Value of ‘F’ =2.0401
- Calculate Value of ‘F’ = 5.5380
  \[ F_{\text{calculate}} > F_{\text{table}} \]
  \[ 5.5380 > 2.0401 \]
  \[ F_{\text{calculate}} > F_{\text{table}} \]

Table No-7.1.2 indicates the calculate value of ‘F’ is 5.5380 and the table value of ‘F’ at 5% level of significance is 2.0401 so, the calculate value of ‘F’ which is greater than the table value. It indicates that the Null Hypothesis is rejected and Alternate Hypothesis is accepted. It indicates that there is significant in cash to current assets ratio of selected paper companies of India.

7.10 CASH TO SALES RATIO

A study of cash to sales ratio will provide a deep insight in to the cash balance held in the paper companies. This is an important ratio of controlling cash. Cash to
sales ratio is calculated by dividing the figure of total sales by the figures of total cash available at the end of the year. Greater cash to sales ratio indicates the effective and better utilisation of cash resources. Cash to sales ratio calculated as under this formula

\[
\text{Cash to Sales Ratio} = \frac{\text{cash and bank}}{\text{sales}} \times 100
\]

The cash to sales ratio in the selected paper companies in India are as under table no -7.2.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COMPANY NAME</th>
<th>IAPPM</th>
<th>BILT</th>
<th>JKPM</th>
<th>OPIL</th>
<th>SPBL</th>
<th>SPML</th>
<th>SIPL</th>
<th>SPM Ltd</th>
<th>TNNPL</th>
<th>WCPML</th>
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</thead>
<tbody>
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<td>27.81</td>
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<td>2.05</td>
<td>16.20</td>
<td>2.43</td>
<td>0.26</td>
<td>0.89</td>
<td>2.61</td>
<td>2.82</td>
</tr>
<tr>
<td>2006-'07</td>
<td></td>
<td>2.00</td>
<td>15.94</td>
<td>0.64</td>
<td>1.56</td>
<td>17.26</td>
<td>7.03</td>
<td>2.85</td>
<td>0.77</td>
<td>2.22</td>
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<tr>
<td>2007-'08</td>
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<td>38.91</td>
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<td>2.01</td>
<td>17.63</td>
<td>2.68</td>
<td>1.96</td>
<td>0.53</td>
<td>2.46</td>
<td>31.95</td>
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<tr>
<td>2008-'09</td>
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<td>1.29</td>
<td>1.04</td>
<td>3.18</td>
<td>2.21</td>
<td>13.10</td>
<td>3.32</td>
<td>2.12</td>
<td>0.31</td>
<td>1.66</td>
<td>45.89</td>
</tr>
<tr>
<td>2009-'10</td>
<td></td>
<td>2.12</td>
<td>8.05</td>
<td>0.71</td>
<td>2.88</td>
<td>18.00</td>
<td>1.40</td>
<td>2.59</td>
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<td>2010-'11</td>
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<td>5.08</td>
<td>2.27</td>
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<tr>
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<td>1.34</td>
<td>11.12</td>
<td>2.07</td>
<td>1.06</td>
<td>3.58</td>
<td>0.85</td>
<td>0.66</td>
<td>1.30</td>
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<tr>
<td>Average</td>
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<td>S.D.</td>
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<tr>
<td>C.V.</td>
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<td>54.05</td>
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<td>0.31</td>
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<td>1.08</td>
</tr>
<tr>
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<td>38.91</td>
<td>11.12</td>
<td>3.00</td>
<td>18.00</td>
<td>7.03</td>
<td>3.32</td>
<td>0.89</td>
<td>2.61</td>
<td>45.89</td>
</tr>
</tbody>
</table>

Graph : 7.2 Cash to Sales Ratio in % from 2005 –’06 to 2011 –‘12
The above mentioned Table No- 7.2 and Graph No- 7.2 show on the next page, show the indicated a fluctuating trends of the Cash to sales ratio of selected paper companies in India from 2005-2006 to 2011-2012.

1. **International Andhra Pradesh Paper Mills Limited**

The table no - 7.2 shows that the cash to sales ratio of the International Andhra Pradesh Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to sales ratio is 2.91% in the year 2011 –’12 and the lowest cash to sales ratio is 1.29% in the year of 2008 –’09.

In the year 2005 –’06 to 2007 –’08 the cash to sales ratios has been increased continuously form the beginning of the study period as 1.75%, 2.00% and 2.30% respectively. But in the year 2008 –’09 it has been decreased and reached at lowest as 1.29%. but, it has been again increased next three year of the study period from 2009 –’10 to 2011 –’12 as 2.12%, 2.59% and 2.91% respectively. It has been also shown in graph no – 7.2.

So, the average (AVG.) cash to sales ratio is 2.13%, the standard deviation (S.D) is 0.54% and co-efficient variance (C.V) is 25.10% which is shown in table no – 7.2. Which solvency of International Andhra Pradesh Paper Mills limited because the average cash to sales ratio shows satisfactory ratio during the study period.

2. **Ballarpur Paper Mills Limited**

The table no - 7.2 shows that the cash to sales ratio of the Ballarpur Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to sales ratio is 38.90% in the year 2007 –’08 and the lowest cash to sales ratio is 1.04% in the year of 2008 –’09.

In the year 2005 –’06 the cash to sales ratio was 27.81%, which has been decreased in 2006 –’07 and reached at 15.94%, it has been increased in 2007 –’08 and reached at highest point as 38.91%. But then after the cash to sales ratio continuously fluctuated from 2008 –’09 to 2011 –’12 to 1.04%, 8.05%, 1.17% and 1.34% for the last four year respectively. It has been also shown in graph no – 7.2.

So, the average (AVG.) cash to sales ratio is 13.47%, the standard deviation (S.D) is 14.95% and co-efficient variance (C.V) is 111.02% which is shown in table no – 7.2. Which solvency of Ballarpur Paper Mills limited because the average cash to sales ratio shows satisfactory ratio during the study period.

3. **JK Paper Mills Limited**
The table no - 7.2 shows that the cash to sales ratio of the J. K. Paper Mills Limited during the study period from 2005 –’06 to 2011 –’12, the highest cash to sales ratio is 11.12% in the year 2011 –’12 and the lowest cash to sales ratio is 0.58% in the year of 2007 –’08.

In the year 2005 –’06 to 2007 –’08 the cash to sales ratios has been decreased continuously form the beginning of the study period as 1.02%, 0.64% and 0.58% . But in the year 2008 –’09 it has been increased and reached at 3.18%. But, it has been again decreased next year of the study period from 2009 –’10 at 0.71%. but last two year of study period form 2010 –’11 to 2011 –’12 it has been increased as 2.51% and 11.12% respectively. It has been also shown in graph no – 7.2. So, the average (AVG.) cash to sales ratio is 2.82%, the standard deviation (S.D) is 3.80% and co-efficient variance (C.V) is 134.63% which is shown in table no – 7.2. Which solvency of J. K. Paper Mills Limited because the average cash to sales ratio shows satisfactory ratio during the study period.

4. Orient Paper and Industries Limited

The table no - 7.2 shows that the cash to sales ratio of the Orient Paper and Industries Limited during the study period form 2005 –’06 to 2011 –’12, the maximum cash to sales ratio is 3.00% in the year 2010 –’11 and the minimum cash to sales ratio is 1.56% in the year of 2006 –’07.

In the present the table no – 7.2 shows the cash to sales ratio of Orient Paper and Industries Limited is fluctuating in the whole study period. In 2005 –’06 cash to sales ratio was 2.05% and it has been decreased in 2006 –’07 and reached at lowest point as 1.56%. Next four year from 2007 –’08 to 2010 –’100 it has been increased as 2.01%, 2.21%, 2.88% and3.00%. But it has been decreased in last year of the study period 2011 –’12 at 2.07%. It has been also shown in graph no – 7.2.

So, the average (AVG.) cash to sales ratio is 2.26%, the standard deviation (S.D) is 0.51% and co-efficient variance (C.V) is 22.73% which is shown in table no – 7.2. Which solvency of Orient Paper and Industries Limited because of the average cash to sales ratio shows dissatisfactory ratio during the study period.

5. Seshasayee Paper and Boards Limited

The table no - 7.2 shows that the cash to sales ratio of the Seshasayee Paper and Boards Limited during the study period form 2005 –’06 to 2011 –’12, the
maximum cash to sales ratio is 18.00% in the year 2009 –’10 and the minimum cash to sales ratio is 1.06% in the year of 2011 –’12.

In the table – 7.2 shows the cash to sales ratio of Seshasayee Paper and Boards Limited has been increased for the first three year form 2005 –’06 to 2007 -08 as 16.20%, 17.26% and 17.63% respectively. It has been decreased in 2008 –’09 at 13.10% but, it has been increased in 2009 -10 and reached at highest as 18.00%. in the last two year of the study period it has been decreased trend from 2010 –’11 to 2011 –’11 as 5.08% and 1.06% respectively. It has been also shown in graph no - 7.2.

So, the average (AVG.) cash to sales ratio is 12.62%, the standard deviation (S.D) is 6.82% and co-efficient variance (C.V) is 54.05% which is shown in table no – 7.2. Which solvency of Seshasayee Paper and Boards Limited because of the average cash to sales ratio shows satisfactory ratio during the study period.


The table no - 7.2 shows that the cash to sales ratio of the Sirpur Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, maximum cash to sales ratio is 7.03% in the year 2006 –’07 and the minimum cash to sales ratio is 1.40% in the year of 2009 –’10.

In the year 005 –’06 the cash to sales ratio has been 2.43%. Cash to sales ratio has been increased 7.03% in 2006 –’07 and it has been decreased at 2.68% in 2007 –’08. Which has been increased in 2008 –’09 at 3.32% but, again cash to sales ratio has been decreased from 2009 –’10 in 1.40%. It has been increased in last year for the study period form in 2010 –’11 as 2.27% and 2011 –’12 as 3.58%. It has been also shown in the graph no – 7.2.

So, the average (AVG.) cash to sales ratio is 3.24%, the standard deviation (S.D) is1.82% and co-efficient variance (C.V) is 56.07% which is shown in table no – 7.2. Which solvency of Sirpur Paper Mills Limited because the average cash to sales ratio shows satisfactory ratio during the study period.

7. South India Paper Mills Limited

The table no - 7.2 and graph no – 7.2 shows that the cash to sales ratio of the South India Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to sales ratio is 3.32% in the year 2011 –’12 and the minimum cash to sales ratio is 0.26% in the year of 2005 –’06.
In the table no - 7.2 shows the cash to sales ratio of South India Paper Mills Limited. In the year form 2005 – ’06 cash to sales ratio was 0.26%. It has been increased in year 2006 – ’07 as 2.85%. But the next four years it has been increased form 2007 –’08 to 2010 –’11 as1.96%, 2.12%, 2.59% and 3.32% respectively. Last year of the study period in 2011 –’12 it has been decreased and reached at 0.85%. It has been also shown in graph no- 7.2.

So, the average (AVG.) cash to sales ratio is 1.99%, the standard deviation (S.D) is 1.09% and co-efficient variance (C.V) is 54.82% which is shown in table no – 7.2. Which solvency of South India Paper Mills Limited because the average cash to sales ratio shows satisfactory ratio during the study period.

8. Star Paper Mills Limited

The table no - 7.2 shows that the cash to sales ratio of the Star Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to sales ratio is 0.89% in the year 2005 –’06 and the minimum cash to sales ratio is 0.31% in the year of 2008 –’09.

The table no – 7.2 shows the cash to sales ratio has been decreased for first four year of the study period during 2005 –’06 to 2008 –’09 as 0.89%, 0.77%, 0.53% and 0.31% respectively. In the year 2009 –’10 it has been increased as 0.66% but, it has been again decreased and reach at 0.43% in 2010 –’11. In last year 2011 –’12 it has been again increased and reached at 0.66%. It has been also shown in graph no - 7.2.

So, the average (AVG.) cash to sales ratio is 0.61%, the standard deviation (S.D) is 0.20% and co-efficient variance (C.V) is 33.00% which is shown in table no – 7.2. Which solvency of Star Paper Mills limited because the average cash to sales ratio shows satisfactory ratio during the study period.


The table no - 7.2 shows that the cash to sales ratio of the T. N. Newsprint Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to sales ratio is 2.61% in the year 2005 –’06 and the minimum cash to sales ratio is 1.03% in the year of 2010 –’11.

The above table no – 7.2 and graph no – 7.2 show fluctuated trend in cash to sales ratio from 2005 – ’06 to 2011 –’12. In 2005 –’06 the cash to sales ratio has been 2.61%. It has been decreased in the year 2006 –’07 at 2.22%. But then after it has
been increased in 2007 –’08 at 2.46%. But it has been decreased in the year 2008 –’09 as 1.66%. For the next year in 2009 –’10 increased at 1.89%, in 2010 –’11 it has been also 1.03% and 2011 –’12 it has been increased to 1.30%. It has been also shown in graph no – 7.2.

So, the average (AVG.) cash to sales ratio is 1.88%, the standard deviation (S.D) is 0.59% and co-efficient variance (C.V) is 31.38% which is shown in table no – 7.2. Which solvency of T. N. Newsprint Paper Mills Limited because the average cash to sales ratio shows satisfactory ratio during the study period.

10. West Coast Paper Mills Limited

The table no - 7.2 shows that the cash to sales ratio of the West Coast Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to sales ratio is 45.89% in the year 2008 –’09 and the minimum cash to sales ratio is 1.08% in the year 2011 –’12.

In the West Coast Paper Mills Limited cash to sales ratio has been increased study period from 2005 – ’06 to 2008 –’09, A cash to sales ratio has been increased 2.82% 10.86%, 31.95%, and 45.89%. But then after the cash to sales ratio has been decreased at 18.69% in 2009 –’10. But again it has been decreased in at 7.22% in 2010 –’11. At the last year of the study period the cash to sales ratio has been decreased at 1.08% in 2011 –’12. It has been also shown in the graph no - 7.2.

So, the average (AVG.) cash to sales ratio is 16.91%, the standard deviation (S.D) is 16.59% and co-efficient variance (C.V) is 98.07% which is shown in table no – 7.2. Which solvency of West Coast Paper Mills Limited because the average cash to sales ratio shows satisfactory ratio during the study period.

➢ ANOVA TEST OF CASH TO SALES RATIO :

Hypothesis:

Ho: Null Hypothesis:

≠ There is no significant difference in cash to sales ratio of selected paper companies of India.

H1: Alternative Hypothesis:

≠ There is significant difference in cash to sales ratio of selected paper companies of India.

Level of Significance: 5%
Table 7.2.1
Cash to Sales Ratio - ANOVA: Single Factor

<table>
<thead>
<tr>
<th>Groups</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
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Table 7.2.2
ANOVA (F-Test Result) of Cash to Sales Ratio

<table>
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<th>Source of Variation</th>
<th>SS</th>
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<th>MS</th>
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<td></td>
</tr>
</tbody>
</table>

- Degree of freedom = 70-1= 69
- Table Value of ‘F’ =2.0401
- Calculate Value of ‘F’ = 4.50107

\[
\begin{align*}
\text{F}_{\text{calculate}} & > \text{F}_{\text{table}} \\
4.50107 & > 2.0401 \\
\text{F}_{\text{calculate}} & > \text{F}_{\text{table}}
\end{align*}
\]

Table No-7.2.2 indicates the calculate value of ‘F’ is 4.50107 and the table value of ‘F’ at 5% level of significance is 2.0401 so, the calculate value of ‘F’ which is greater than the table value.

It indicates that the Null Hypothesis is rejected and Alternate Hypothesis is accepted. It indicates that there is significant difference in cash to sales ratio of selected paper companies under study for the period.
5.11 CASH RATIO / ABSOLUTE LIQUIDITY RATIO

The cash ratio is generally a more conservative look at a company's ability to cover its liabilities than many other liquidity ratios. This is due to the fact that inventory and accounts receivable are left out of the equation. Since these two accounts are a large part of many companies, this ratio should not be used in determining company value, but simply as one factor in determining liquidity.

The cash ratio is the most stringent and conservative of the three short-term (current, quick and cash). It only looks at the most liquid short-term assets of the company, which are those that can be most easily used to pay off current obligations. It also ignores inventory and receivables, as there are no assurances that these two accounts can be converted to cash in a timely manner to meet current liabilities. Very few companies will have enough cash and cash equivalents to fully cover current liabilities, which isn’t necessarily a bad thing, so don’t focus on this ratio being above 1:1. A cash ratio of 0.5:1 or higher is preferred. It is also show in percentage.

The cash ratio is seldom used in financial reporting or by analysts in the fundamental analysis of a company. It is not realistic for a company to purposefully maintain high levels of cash assets to cover current liabilities. The reason being that it's often seen as poor asset utilization for a company to hold large amounts of cash on its balance sheet, as this money could be returned to shareholders or used elsewhere to generate higher returns. While providing an interesting liquidity perspective, the usefulness of this ratio is limited. The cash ratio measures the absolute liquidity of the business. This ratio considers only the absolute liquidity available with the firm.

This ratio calculated as:

\[
\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liabilities}} \times 100
\]

Cash ratio is the most conservative look at a company's liquidity since is taking in the consideration only the cash and cash equivalents. Cash ratio is used by Creditors’ when deciding how much credit, if any, they would be willing to extend to the company.

The cash ratio of selected cement industries is being described in table no.7.3
### Table 7.3
Cash to current liabilities ratio in % from 2005–'06 to 2011–'12

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COMPANY NAME</th>
<th>IAPPM</th>
<th>BILT</th>
<th>JKPM</th>
<th>OPIL</th>
<th>SPBL</th>
<th>SPML</th>
<th>SIPL</th>
<th>SPML Ltd</th>
<th>TNNPL</th>
<th>WCPML</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-'06</td>
<td></td>
<td>5.36</td>
<td>140.09</td>
<td>5.34</td>
<td>11.21</td>
<td>48.72</td>
<td>5.47</td>
<td>16.42</td>
<td>1.57</td>
<td>8.80</td>
<td>13.75</td>
</tr>
<tr>
<td>2006-'07</td>
<td></td>
<td>7.74</td>
<td>78.83</td>
<td>2.72</td>
<td>9.35</td>
<td>51.46</td>
<td>19.38</td>
<td>20.75</td>
<td>5.00</td>
<td>7.36</td>
<td>56.32</td>
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<td>2007-'08</td>
<td></td>
<td>9.96</td>
<td>102.05</td>
<td>2.05</td>
<td>14.52</td>
<td>48.38</td>
<td>6.82</td>
<td>14.93</td>
<td>3.44</td>
<td>7.42</td>
<td>135.63</td>
</tr>
<tr>
<td>2008-'09</td>
<td></td>
<td>5.05</td>
<td>2.80</td>
<td>22.37</td>
<td>12.23</td>
<td>54.50</td>
<td>19.33</td>
<td>2.05</td>
<td>5.49</td>
<td>137.92</td>
<td></td>
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<td>15.11</td>
<td>16.80</td>
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<td>30.23</td>
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<td>27.43</td>
<td>6.46</td>
<td>2.11</td>
<td>7.74</td>
<td>55.40</td>
<td>1.96</td>
<td>1.42</td>
<td>1.91</td>
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<tr>
<td>Average</td>
<td></td>
<td>7.68</td>
<td>48.97</td>
<td>11.33</td>
<td>12.20</td>
<td>45.42</td>
<td>8.83</td>
<td>25.48</td>
<td>2.78</td>
<td>5.60</td>
<td>62.68</td>
</tr>
<tr>
<td>S.D.</td>
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<td>2.15</td>
<td>57.34</td>
<td>10.34</td>
<td>3.54</td>
<td>26.09</td>
<td>4.96</td>
<td>14.07</td>
<td>1.19</td>
<td>2.63</td>
<td>54.44</td>
</tr>
<tr>
<td>C.V.</td>
<td></td>
<td>27.97</td>
<td>117.08</td>
<td>91.29</td>
<td>29.05</td>
<td>57.43</td>
<td>56.19</td>
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<td>42.91</td>
<td>46.97</td>
<td>86.85</td>
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<tr>
<td>Min</td>
<td></td>
<td>5.05</td>
<td>1.38</td>
<td>2.05</td>
<td>6.46</td>
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<tr>
<td>Max</td>
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<td>10.72</td>
<td>140.09</td>
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<td>86.63</td>
<td>19.38</td>
<td>55.40</td>
<td>5.00</td>
<td>8.80</td>
<td>137.92</td>
</tr>
</tbody>
</table>

The above mentioned Table No- 7.3 and Graph No- 7.3 show on the next page, shows the indicated a fluctuating trends of the Cash to current liabilities ratio or cash position ratio of selected paper companies in India from 2005-2006 to 2011-2012.

1. **International Andhra Pradesh Paper Mills Limited**
The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the International Andhra Pradesh Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to current liabilities ratio or cash position ratio is 10.72% in the year 2009 –’10 and the lowest cash to current liabilities ratio or cash position ratio is 5.05% in the year of 2008 –’09.

In the year 2005 –’06 to 2007 –’08 the cash to current liabilities ratio or cash position ratios has been increased continuously for the beginning of the study period as 5.36%, 7.74% and 9.96% respectively. But in the year 2008 –’09 it has been decreased and reached at lowest as 5.05%. But, it has been again increased in 2009 –’10 as 10.72%. But, it has been decreased as 6.82% in 2010 –’11. It has been increased in year 2011 –’12 reached at 8.14%. It has been also shown in graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 7.68%, the standard deviation (S.D) is 2.15% and co-efficient variance (C.V) is 27.97% which is shown in table no – 7.3. Which solvency of International Andhra Pradesh Paper Mills limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

2. Ballarpur Paper Mills Limited

The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the Ballarpur Paper Mills Limited during the study period form 2005 –’06 to 2011 –’12, the highest cash to current liabilities ratio or cash position ratio is 140.09% in the year 2005 –’06 and the lowest cash to current liabilities ratio or cash position ratio is 1.38% in the year of 2010 –’11.

The above table no - 7.3 shows the cash to current liabilities ratio or cash position ratio has been fluctuated trend for the whole study period from 2005 –’06 to 2011 –’12 as 140.09%, 78.83%, 102.05%, 2.8%, 15.69%, 1.38% and 1.96% respectively. It has been also shown in graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 48.97%, the standard deviation (S.D) is 54.37% and co-efficient variance (C.V) is 117.08% which is shown in table no – 7.3. Which solvency of Ballarpur Paper Mills limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

3. JK Paper Mills Limited
The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the J. K. Paper Mills Limited during the study period from 2005 –’06 to 2011 –’12, the highest cash to current liabilities ratio or cash position ratio is 27.43% in the year 2011 –’12 and the lowest cash to current liabilities ratio or cash position ratio is 2.05% in the year of 2007 –’08.

In the year 2005 –’06 to 2007 –’08 the cash to current liabilities ratio or cash position ratios has been decreased continuously form the beginning of the study period as 5.34%, 2.72% and 2.05%. But in the year 2008 –’09 it has been increased and reached at 22.37%. But, it has been decreased next year of the study period in 2009 –’10 at 4.27%, but last two year of study period from 2010 –’11 to 2011 –’12 it has been increased as 15.11% and 27.43% respectively. It has been also shown in graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 11.33%, the standard deviation (S.D) is 10.34% and co-efficient variance (C.V) is 91.29% which is shown in table no – 7.3. Which solvency of J. K. Paper Mills Limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

4. Orient Paper and Industries Limited

The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the Orient Paper and Industries Limited during the study period form 2005 –’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 16.80% in the year 2010 –’11 and the minimum cash to current liabilities ratio or cash position ratio is 6.46% in the year of 2011 –’12.

In the present the table no – 7.3 shows the cash to current liabilities ratio or cash position ratio of Orient Paper and Industries Limited has been fluctuated in the whole study period. In 2005 –’06 cash to current liabilities ratio or cash position ratio was 11.21% and it has been decreased in 2006 –’07 and reached at 9.35%. Next four year from 2007 –’08 to 2011 –’12 it has been fluctuated as 14.52%, 12.23%, 14.81%, 16.80% and 6.46%. It has been also shown in graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 12.20%, the standard deviation (S.D) is 3.54% and co-efficient variance (C.V) is 29.05% which shown in table no – 7.3 are. Which solvency of Orient Paper and
Industries Limited because of the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

5. Seshasayee Paper and Boards Limited

The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the Seshasayee Paper and Boards Limited during the study period form 2005 – ’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 86.63% in the year 2009 –’10 and the minimum cash to current liabilities ratio or cash position ratio is 2.11% in the year of 2011 –’12.

In the table no – 7.3 shows the cash to current liabilities ratio or cash position ratio of Seshasayee Paper and Boards Limited has been fluctuated trend for whole study period from 2005 – ’06 to 20011 –’12 as 48.72%, 51.46%, 48.38%, 54.50%, 86.63%, 26.17% and 2.11% respectively. It has been also shown in graph no - 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 45.42%, the standard deviation (S.D) is 26.09% and co-efficient variance (C.V) is 57.43% which is shown in table no – 7.3. Which solvency of Seshasayee Paper and Boards Limited because of the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.


The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the Sirpur Paper Mills Limited during the study period form 2005 – ’06 to 2011 –’12, maximum cash to current liabilities ratio or cash position ratio is 19.38% in the year 2006 –’07 and the minimum cash to current liabilities ratio or cash position ratio is 4.68% in the year of 2009 –’10.

The table no – 7.3 shows that the year in 2005 –’06 the cash to current liabilities ratio or cash position ratio was 5.47%. Cash to current liabilities ratio or cash position ratio has been increased at 19.38% in 2006 –’07 and it has decreased at 6.82% in 2007 –’08. Which has been increased in 2008 –’09 at 10.09% but, again cash to current liabilities ratio or cash position ratio has been decreased from 2009 –’10 in 4.68%. It has been increased in last two years of the study period form in 2010 –’11 to 2011 –’12 as 7.66% and 7.74%. It has been also shown in the graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 8.83%, the standard deviation (S.D) is 4.96% and co-efficient variance (C.V) is
56.19% which is shown in table no – 7.3. Which solvency of Sirpur Paper Mills Limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

7. South India Paper Mills Limited

The table no - 7.3 and graph no – 7.3 show that the cash to current liabilities ratio or cash position ratio of the South India Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 55.40% in the year 2011 –’12 and the minimum cash to current liabilities ratio or cash position ratio is 14.93% in the year of 2007 –’08.

In the table no - 7.3 shows the cash to current liabilities ratio or cash position ratio of South India Paper Mills Limited. In the year form 2005 – ’06 cash to current liabilities ratio or cash position ratio was 16.42%. It has been increased in year 2006 – ’07 as 20.75%. But the next five years it has been increased form 2007 –’08 to 2011 – ’12 as 14.93%, 19.33%, 21.33%, 30.23% and 55.40% respectively. It has been also shown in graph no - 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 25.48%, the standard deviation (S.D) is 14.07% and co-efficient variance (C.V) is 55.23% which is shown in table no – 7.3. Which solvency of South India Paper Mills Limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

8. Star Paper Mills Limited

The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the Star Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 5.00% in the year 2006 –’07 and the minimum cash to current liabilities ratio or cash position ratio is 1.57% in the year of 2005 –’06.

The table no – 7.3 shows the cash to current liabilities ratio or cash position ratio has been fluctuated of Star Paper Mills Limited for whole study period from beginning to end of the study period from 2005 –’06 to 2011 –’12 as 1.57%, 5.00%, 3.44%, 2.05%, 3.19%, 2.22% and 1.96% respectively. It has been also shown in graph no - 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 2.78%, the standard deviation (S.D) is 1.19% and co-efficient variance (C.V) is
42.91% which is shown in table no – 7.3. Which solvency of Star Paper Mills limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.


The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the T. N. Newsprint Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 8.80% in the year 2005 –’06 and the minimum cash to current liabilities ratio or cash position ratio is 1.42% in the year of 2011 –’12.

The above table no – 7.3 shows cash to current liabilities ratio or cash position ratio was 8.80% in year 2005 –’06. It has been decreased in 2006 –’07 as 7.36% but next year in 2007 –’08 it has been increased as 7.42%. Cash to current liabilities ratio or cash position ratio has been increased from year 2008 –’09 to 2009 –’10 as 5.49% and 5.80%. It has been decreased from 2010 –’11 to 2011 –’12 as 2.90%, and 1.42%. It has been also shown in graph no – 7.3.

So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 5.60%, the standard deviation (S.D) is 2.63% and co-efficient variance (C.V) is 46.97% which is shown in table no – 7.3. Which solvency of T. N. Newsprint Paper Mills Limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

10. **West Coast Paper Mills Limited**

The table no - 7.3 shows that the cash to current liabilities ratio or cash position ratio of the West Coast Paper Mills Limited the study period form 2005 –’06 to 2011 –’12, the maximum cash to current liabilities ratio or cash position ratio is 137.92 % in the year 2008 –’09 and the minimum cash to current liabilities ratio or cash position ratio is 1.91% in the year 2011 –’12.

In the West Coast Paper Mills Limited cash to current liabilities ratio or cash position ratio has been increased study period from 2005 – ’06 to 2008 –’09, as cash to current liabilities ratio or cash position ratio has been shown as 13.75%, 56.32%, 135.63%, and 137.92%. But then after the cash to current liabilities ratio or cash position ratio has been decreased for last four years from 2009 –’10 to 2011 –’12 as 55.55%, 37.71% and 1.91% respectively. It has been also shown in the graph no - 7.3.
So, the average (AVG.) cash to current liabilities ratio or cash position ratio is 62.68%, the standard deviation (S.D) is 54.44% and co-efficient variance (C.V) is 86.85% which is shown in table no – 7.3. Which solvency of West Coast Paper Mills Limited because the average cash to current liabilities ratio or cash position ratio shows satisfactory ratio during the study period.

- **ANOVA TEST OF CASH TO CURRENT LIABILITIES RATIO OR CASH POSITION RATIO :**

  **Hypothesis:**

  - **Ho: Null Hypothesis:**
    - There is no significant difference in cash to current liabilities ratio or cash position ratio of selected paper companies of India.
  - **H1: Alternative Hypothesis:**
    - There is significant difference in cash to current liabilities ratio or cash position ratio of selected paper companies of India.

  **Level of Significance: 5%**

<table>
<thead>
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<th>Count</th>
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<th>Variance</th>
</tr>
</thead>
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Degree of freedom = 70-1 = 69

Table Value of ‘F’ = 2.0401

Calculate Value of ‘F’ = 4.4382

\[
\frac{F_{\text{calculate}}}{F_{\text{table}}} > \quad \frac{4.4382}{2.0401}
\]

Table No-7.3.2 indicates the calculate value of ‘F’ is 4.4382 and the table value of ‘F’ at 5% level of significance is 2.0401 so, the calculate value of ‘F’ which is greater than the table value. It indicates that the Null Hypothesis is rejected and Alternate Hypothesis is accepted. It indicates that there is significant in cash to current liabilities ratio or cash position ratio of selected paper companies in India.

7.12 CONCLUSION

The present chapter was related to cash management. In this chapter researcher had discuss various points of cash management like as introduction, meaning and definition of cash, motive for holding cash, objective of cash management, functions of cash management, general principle of cash management, adequacy of cash, control of cash flows, and another three ratio related to cash management as under:

- Cash to current assets ratio
- Cash to sales ratio
- Cash ratio / Absolute liquidity ratio
7.13 REFERENCES


11. I. M. Pandey, op.cit. pp.311


14. I. M. Pandey, op.cit. pp.313


