Chapter V
CHAPTER-V

MANAGEMENT OF CASH

(1) MEANING AND IMPORTANCE OF CASH MANAGEMENT

Cash management is one of the key areas of working capital management. Apart from the fact that it is the most liquid current asset, cash is the common asset to which all current assets can be reduced because the other major liquid assets like receivable and inventory get eventually converted into cash. This underlines the significance of cash management.

The term cash with reference to cash management is used in two senses – in its narrow sense it is used broadly to cover currency and generally accepted equivalents of cash like cheques, drafts and demand deposits in bank.

The broader view of cash also includes near cash assets like marketable securities and time deposits in bank. The main characteristic of these is that they can be readily sold and converted into cash. They serve as reserve pool of liquidity that provides cash quickly when needed and the excess cash provides outlet for short-term investments. This reserve pool is also useful for meeting planned outflow of funds. Generally the meaning of cash management is taken in the broader sense. Cash is the asset which does not earn any return but still held as cash balance for primary
motives – (1) Transaction motive, (2) Precautionary motive, (3) Speculative motive and (4) Compensation motive.

An organisation has to enter into a number of transactions to accomplish its objectives which have to be paid for, in the form of cash. This type of requirement can be met out, out of the holdings from the cash. The routine expenses are also to be paid out of this cash holding. It is not only the outflow of cash but the inflow of cash also needs management. Sometimes inflows can exceed outflows and sometimes outflows can exceed inflows. Both outflow and inflow do not meet exactly. Therefore question of management of cash arises. With the efficient management of cash the organisation neither feels shortage of cash in the hours of need nor the pinch of excess cash holding in the times when the cash requirement goes low. Transaction motive refers to holding cash to meet anticipated obligations whose timing is not synchronised with cash receipts.

Under precautionary motive the cash balance are held in reserve for random and unforeseen fluctuations in cash flows for example, failure of an important customer, earlier presentation of bills for presentation, unexpected sharp decline in the collection rate of accounts receivable (debtors) and the sharp increase in cost of raw materials. Precautionary cash balances serve to provide a cushion to meet unexpected contingencies.

Speculative motive refers to the desire of a business organisation to take advantage of opportunities which present themselves at unexpected moments and which are typically outside the normal course of business. An organisation always aim to grab
profitable opportunities and keep cash in reserve to do so. The main advantage of speculative motive may be in the form of discounts received for cash payments, purchase of raw material in price falling market and to make purchases at favourable prices.

Compensation motive is important for the payment to banks for providing certain services and loans. Banks provide number of services such as clearance of cheque, supply of credit information and transfer of funds. For all these services bank charges commission, fee or service charge and sometimes indirect compensation is also charged. Usually bank's customers are required to maintain a minimum balance of cash at the bank. Since this amount cannot be withdrawn therefore practically this amount is handed to bank for banks use. The compensating balance can take either of two forms – (1) an absolute minimum below which the actual bank balance will never fall. (2) a minimum average balance over the month.

Of the four primary motives of holding cash balances, the two most important are the transaction motive and the compensation motive. Business organisations normally do not speculate and therefore need not to have speculative balance. The requirement of precautionary balance can be meet out of short – term borrowings also. However short – term borrowings have a financial cost to the business.

**Importance of Cash Management :**

Basic objective of cash management is two fold :
To meet the cash disbursement needs (payment schedule).

To minimise funds committed to cash balances.

These two are conflicting and mutually contradictory and the task of cash management is to reconcile them.

**Payment Schedule**

A business organisation requires cash on continuous and regular basis for payment to suppliers of goods, employees and so on. At the same time there used to be constant inflow of cash through collection from debtors. It is rightly remarked that cash is the oil to lubricate the ever turning wheels of business without it the process grinds to stop. The importance of sufficient cash to meet the payment schedule can hardly be over emphasised. The advantages of adequate cash are:

1. It prevents insolvency arising out of the inability to meet its obligations.
2. The relationship with the banker are not strained.
3. It helps in fostering good relations with the trade creditors and suppliers of raw materials as prompt payment may facilitate them in managing their cash.
4. A trade discount can be availed if the payment is made within due date.
5. It leads to a strong credit rating which enables the organisation to purchase goods on favourable terms and conditions.
With the sufficient cash balance organisation may meet unanticipated cash expenditure with a minimum of strain.

The advantage of sufficient cash balance attracts an organisation to keep the cash in abundance but in fact real advantages can be availed by sufficient cash and not excessive cash, as keeping the excessive cash causes cost to the organisation in the form of losing the interest on it.

**Minimising Funds**

The second objective of the cash management is to minimise cash balances and to reduce idle cash balance. Neither there should be extra cash (unusable) nor there should be shortage of cash. In fact there should be optimum cash balance with the organisation. For retaining optimum cash one should determine the need for cash balance in the business. This is also known as cash planning.

**(2) CAUSES OF CONCENTRATION OF CASH**

Cash occupies an important place in the structure of working capital. Cash, even though the rupee investment in cash, typically is less than any of the other assets of the firm, is the most important asset as cash must be available for paying all suppliers and sources of financing, whether short-term or long-term.

There is never a time in the life cycle of business enterprise when cash or ready access to it, is not important. An inadequacy of cash is injurious to the operative health of an enterprise. Cash is both a means and an end of business enterprise. Cash is one of the most important tools of day to day operations because it is the most liquid
asset, which is available for assignment to any new use. Return on investment usually takes the form of payment of cash dividends; and in the event of liquidation cash becomes the final medium by which claims are discharged.

A business should, in general, keep cash balances (1) that will be sufficient in relation to other current assets and the current liabilities to avoid unfavourable comparisons with similar businesses by creditors, (2) that will support a satisfactory line of credit with commercial bank, if that is desirable and (3) that will be enough to prevent trouble in meeting bills and expenses as they mature.

Cash, however, is a non-earning asset. This calls for the need to ask a question as to what is the optimum level of this idle resource. The optimum point depends on the various factors such as the manufacturing cycle, the sales and collection cycle, age of the enterprise, maturity of the debt, etc. Prudence demands that no more cash should be kept than the optimum required for handling miscellaneous transactions over the counter. This becomes more important under inflationary conditions as cash suffers purchasing power loss due to inflation.

(3) DETERMINATION OF LEVEL OF CASH BALANCE

The need for having a balance of cash mainly arises when there used to be disorder between the inflows and outflows of cash. If the cash revenue is equal to cash payments every moment during the business there is no need for having cash balances however this is not always possible that is why a need for cash balance
maintenance arises. While determining the cash balance requirement
the first and the foremost factor to be understood is disbalance or
non-matching of inflow and outflow of cash. This has to be
estimated on the forecast basis during the certain period on the basis
of planning horizon and the technique adopted in cash budget. A
technically sound cash budget will pin - point the period when the
cash will either be in shortage or in excess.

While determining the cash needs another factor related with
cost is to be considered. Though the well framed cash budget will
disclose periods of cash shortages but still in addition to that there
may be some unexpected shortfalls. Every shortage of cash has a
cost depending upon the duration, frequency and urgency and the
manner in which the cash shortage is covered. Shortage costs may
include following :

(1) Transaction costs associated with the raising cash to tie over
the shortage. This is usually in the form of brokerage in
relation to the sale of near cash assets such as marketable
securities.

(2) Borrowing costs associated with borrowing to cover the
shortage. These include interest on loan, committment charges
and other expenses relating to the loan.

(3) Loss of trade discount may arise due to temporary shortage of
cash.
(4) Cost associated with the deterioration of organisation’s credit rating which is reflected in higher bank charges on loans, stoppage of supplies, refusal to sell and loss of image.

(5) Penalty rates imposed by the banks to meet a shortfall in compensating balances.

**Excess Cash Balance Costs**

There is also a cost for excessive cash. The cost of having excessive large funds may be in the form of losing interest and returns which should otherwise have been earned. Beside this there is apprehension of thefts, embezzlement and misappropriation in cash transactions which may be traced at a later stage as there used to be no immediate requirement of the cash.

**Cost Of Procurement And Managements**

There used to be cost of operation and activities of cash management staff in the form of salary, incidental charges and handling of securities.

**Uncertainty In Cash Management**

If there is uncertainty factor prevailing on cash management strategy as the cash flows cannot be predicted with complete accuracy. A precautionary cushion to cope with irregularities in cash flows, unexpected delays in collection and disbursement defaults and unexpected cash needs. The impact of uncertainty on cash management can however be narrowed through:
(1) Improved forecasting of tax payments, capital expenditure and dividends, etc.

(2) Increased ability to borrow through overdraft facility.

This is clear from the above discussion that neither the excessive cash nor the shortage of cost is good for the health of the organisation. Cash budget may be used to control and plan the use of cash. Cash budget is a statement showing the estimated cash income (cash inflow) and cash expenditure (cash outflow) over the firm’s planning period. This way balance is reflected either as shortage or excess for a particular period.

The objects of cash budgets are:

(i) to co-ordinate the timings of cash needs. It identifies the periods when there might either be a shortage of cash or an abnormally large cash requirement;

(ii) it pinpoints the periods when there is likely to be excess cash;

(iii) it enables a firm which has sufficient cash to take advantage of cash discounts on its accounts payable, to pay obligations when due, to formulate dividend policy, to plan financing of capital expansion and to help unify the production schedule during the year so that the firm can smooth out costly seasonal fluctuations,

(iv) it helps to arrange needed funds on the most favourable terms and prevents, the accumulation of excess funds.
With adequate time to study his organisational needs, the manager can select the best alternative. In contrast, an organisation which does not budget its cash requirements may suddenly find itself short of funds. With pressing needs and little time to explore alternative avenues of financing, the management is forced to accept the best terms offered in a difficult situation. These terms will not be as favourable, since the lack of planning indicates to the lender that there is an organisational deficiency. The organisation, therefore, represents a higher risk.

(4) SCOPE OF CASH MANAGEMENT

In a business enterprise it is not impossible but difficult to accurately estimate the cash flow because there cannot be complete coordination between internal and external cash flow. In the absence of such coordination there is uncertainty in the quantity and period of inflow and outflow of cash. Therefore in today's competitive era every organisation with the help of new technique of cash management manages its cash related transactions in such a way that there is always available a minimum level of cash balance and excess cash can be invested in beneficial opportunities. Main factors included in the scope of cash management are as follows:

(1) **Cash planning:** By using the cash budget, the management of inflow and outflow of cash is done in such a manner that the organisation is able to foreseen surplus or deficit of the cash in a given period of time. In the condition of forecast the management mechanism of the organisation properly plans cash.
(2) **Cash flow manager**: For the better management of internal and external cash flow, finance managers should try to enhance internal cash flow as far as possible and should try to reduce external flows of cash.

(3) **Optimum cash level**: Optimum cash level is determined by establishing coordination between behaviour cost and opportunity cost.

(4) **Investment of idle cash**: For earning profit, managers should think on the aspects of investing idle cash balance temporarily in bank deposits, marketable securities or in any other profit earning plan.

(5) **COMPOSITION OF CASH MANAGEMENT**

Sound management of cash is the main and basic responsibility of financial management but creation of efficient and effective cash organisation is related to the policies of top management. Cash management in its own is not an independent work rather cash management is properly arranged adjustment of specific activities related to cash planning and control. For better cash organisation, it should be based on coordination, rapid control, small expansion of control and principle of unity of command and obeying procedures and rules decided by cash organisation for inflow and outflow of cash.

Cash organisation is made under finance department which is controlled and directed by Director of Finance and Chief accounts manager. These officials are assisted by various subordinates. On the
enquiry it was revealed by the officers of HPCL that proper financial planning is not possible because of lack in communication effectively. Due to this there used to be a gap between the planned and actual cash. This gap is fulfilled either by bank loans and overdrafts or by acquiring short-term loans from the government. It was noticed that officials of the company are willing to exercise effective management of cash but untrained associates, negligence of employees by the management in this regard and lack of effective communication system prevent them from doing so.

Following are the main components of cash in HPCL:

1. Cash in hand
2. Cheques awaiting deposit
3. With Scheduled Banks:
   - On Current Accounts
   - On Non-Operative Current Accounts
   - On Fixed Deposit Accounts
4. With others:
   - In Current Account with Municipal Co-operative Bank Ltd.

(6) SIZE AND ADEQUACY OF LIQUIDITY IN HINDUSTAN PETROLEUM CORPORATION LIMITED

Size of cash is the only means to clarify the probable relationship between cash and sales, working capital and financial structure. It also helps in checking various aspects of working
capital management. Prof. William T. Carleton\(^1\) says that “Cash balance should decrease on the expansion of the size of the business.” Some scholars also say that increase in sales is connected with enormous cash balance. According to John Sagar\(^2\) who gives recognition to the above opinion, “Increase in sales is accompanied with huge cash and bank balance.” It is essential for sound cash management that rate of increase in cash collection should be less than rate of increase in sales because fixed expenses always remain stable in connection with the increase of sales.

In the table no. 5.1 trend of cash increase and sales increase of Hindustan Petroleum Corporation Limited is shown which is as follows:

<table>
<thead>
<tr>
<th>Years</th>
<th>Cash and Bank Balances</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>%</td>
</tr>
<tr>
<td>2003-04</td>
<td>197.06</td>
<td>100</td>
</tr>
<tr>
<td>2004-05</td>
<td>201.63</td>
<td>102.32</td>
</tr>
<tr>
<td>2005-06</td>
<td>42.59</td>
<td>21.61</td>
</tr>
<tr>
<td>2006-07</td>
<td>86.79</td>
<td>44.04</td>
</tr>
<tr>
<td>2007-08</td>
<td>294.01</td>
<td>149.20</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Balance</th>
<th>Debtors</th>
<th>Current Liability</th>
<th>Interest Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>608.31</td>
<td>308.69</td>
<td>124752.42</td>
<td>242.16</td>
</tr>
<tr>
<td>2009-10</td>
<td>243.17</td>
<td>123.40</td>
<td>114888.63</td>
<td>223.01</td>
</tr>
</tbody>
</table>

**Source**: Compiled from various Annual Reports of HPCL

By the observation of the table no. 5.1 it is clear that during the period under review [2003-04 to 2009-10 (2003-04 as base)] the highest of the cash balance (308.69%) was in the year 2008-09 while the lowest one was 21.61% in the year 2005-06. The reasons for sudden decline in this year were low recoveries and increase in expenditure. However the cash position increased immediately in the following year. The sales of the company is constantly increasing upto the year 2008-09 and the highest percent change is also observed in this very year. In the year 2009-10 this figure declined marginally by Rs. 9863.79 crores. This is also very interesting to note that inspite of sudden sinking of cash funds in the year 2005-06 the sales in the same year increased by 38.66% as compared to the base year. Infact the zigzag cash position of the company reflects under recoveries, increasing expenditure and investment policy of unstable nature.

**Adequacy Of Liquidity**:  
For continuous liquidity and maintenance of solvency enterprise should have adequate cash so that periodical and current liability can be paid off at the date of maturity. There are three main approaches for the measurement of adequacy of cash with reference to liquidity and solvency of the enterprise: -
Traditional Approach:

On the basis of this approach two most popular ratios – (i) current ratio and (ii) liquidity ratio are calculated for determining the cash adequacy of the enterprise to pay off current liabilities.

Liquidity and solvency of Hindustan Petroleum Corporation Limited are studied through current ratio and liquidity ratio in the table no. 5.2:

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Ratio</td>
<td>1.23</td>
<td>1.36</td>
<td>1.38</td>
<td>1.13</td>
<td>1.55</td>
<td>1.36</td>
<td>1.25</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>0.53</td>
<td>0.55</td>
<td>0.40</td>
<td>0.33</td>
<td>0.59</td>
<td>0.61</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Source: Compiled from various Annual Reports of HPCL

By the analysis of the table no. 5.2 it is clear that in current ratio there is a fluctuating trend. The magnitude of this ratio is spread over within the range of 1.13 (2006-07) to 1.55 (2007-08) which is not up to the mark and is nowhere the standard ratio of 2:1. This indicates that current liabilities are not properly covered with their security standards.
There is a big decline in the year 2006-07 in the liquidity ratio. Incidentally the current ratio is also lowest in the same year. It is interesting to note that the liquidity ratio was at the peak in the year 2008-09, the year immediately one year later the year of lowest liquid ratio (2006-07). However, this situation could not be maintained and in the year 2009-10 the liquidity ratio came down to 0.49. This indicates that the company has tried to convert the inventory into cash in an effective manner. However it has failed to meet the full short – term liabilities.

**Technical Approach:**

Modern financial analyst Prof. James E. Walter\(^3\) has started this method. According to this opinion matured current liabilities should be matched or verified with the net cash flow. He is of the opinion that correct and true conclusion of liquidity and solvency of the firm can be known through correct cash analysis.

Through traditional approach liquidity and solvency are known whereas technical approach clears the real liquidity condition of the enterprises. According to Prof. Walter future significance of technical approach is the utmost but he has not precised any such standard or proof on the basis of which after verifying net cash flow and current liabilities solvency and insolvency and liquidity and non – liquidity of the enterprise can be differentiated. In this reference Dr. R.K. Mishra is of the opinion that enterprise should actually be considered as liquid and solvent which

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has hundred percent or more net cash flow to pay off current liabilities. He is of the opinion that in above situation the concern becomes capable to pay off matured current liabilities through its cash generating power.

In technical approach ratio of net cash flow with current liabilities is calculated to measure liquidity and solvency of the enterprise which has been made clear in the table no. 5.3:

**Table No. 5.3**

**Ratio of Net Cash flow with current liabilities**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash flow</td>
<td>2.25.95</td>
<td>(174.76)</td>
<td>(315.28)</td>
<td>(25.12)</td>
<td>239.23</td>
<td>519.29</td>
<td>(182.52)</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>7655.15</td>
<td>6988.67</td>
<td>7954.89</td>
<td>10119.49</td>
<td>12433.69</td>
<td>11755.81</td>
<td>16555.11</td>
</tr>
<tr>
<td>Ratio</td>
<td>2.95</td>
<td>(2.50)</td>
<td>(3.96)</td>
<td>(0.25)</td>
<td>1.92</td>
<td>4.42</td>
<td>(1.10)</td>
</tr>
</tbody>
</table>

*Source*: Compiled from various Annual Reports of HPCL

By the analysis of table no. 5.3 it is clear that there is a shortage of funds for meeting out their current liabilities. Therefore from technical point of view the company cannot be considered as solvent from liquidity point of view. However through fresh fund raising, by the way of increase in capital or overdraft and other borrowings the company may pay out existing liabilities but in lieu of that fresh liabilities shall be created. This means the company should try to generate resources from other avenues and should not depend on borrowings.
Other Approach:

In other approaches checking of cash adequacy is done through methods like cash turnover ratio, number of days for withholding cash and paying off current liabilities through profit.

Cash Turnover Ratio:

Following formula is used to calculate this ratio:

\[
\text{Cash Turnover Ratio} = \frac{\text{Sales}}{\text{Cash}}
\]

Following formula is used to calculate number of days for the payment of which cash is available or average cash period:

\[
\text{Average Cash Period} = \frac{\text{Cash} \times 365}{\text{Net Sales}}
\]

For paying current liabilities calculation of cash for available days is a way to measure cash adequacy. Though through this measure no standard for cash adequacy is fixed but a firm should have sufficient cash to pay current liability of 30 days immediately. According to S.G. Guthman\(^4\), Level of cash adequacy is different in different industries due to difference in items like quantity of production, model of demand, payment of wages, availability of short-term, medium term or long term credit and increase in the prices of raw material. Therefore, total of cash and reserves equivalent to cash in business enterprise should be less than aggregate of total general expenses or it should be equal to total general expenses of one month of the enterprise. If cash and cash

\(^4\) Guthman, Merry G. and Dogal, Harwart E. Corporate Financial Policy, p. 395
equivalent reserve is more than above amount then surplus amount should be carried out of the enterprise.

Table No. 5.4

Cash Turnover Ratio and Number of days for which cash was withheld

<table>
<thead>
<tr>
<th>Years</th>
<th>Cash Turnover Ratio</th>
<th>Number of days</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>264.42</td>
<td>2</td>
</tr>
<tr>
<td>2004-05</td>
<td>298.39</td>
<td>2</td>
</tr>
<tr>
<td>2005-06</td>
<td>1677.19</td>
<td>1</td>
</tr>
<tr>
<td>2006-07</td>
<td>1033.82</td>
<td>1</td>
</tr>
<tr>
<td>2007-08</td>
<td>354.79</td>
<td>2</td>
</tr>
<tr>
<td>2008-09</td>
<td>205.08</td>
<td>2</td>
</tr>
<tr>
<td>2009-10</td>
<td>472.46</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Compiled from various Annual Reports of HPCL

Following can be interpreted from the table no. 5.4: -

During the period under review in the table it is clear that cash turnover ratio has a tendency of increase up to the year 2005-06 but after that it has a decreasing trend very rapidly up to the year 2008-09. However, it has again increased in the year 2009-10. Number of days are much less than the standard days (30 days). During the period under review the cash was available for the payment of current liabilities maximum up to 2 days. This shows a very grim situation of the company on the cash funds and the company is suffering from the immediate non-payment problem.
Payment Of Current Liabilities Through Profit :

It is known from this ratio that what percent part of current liability is paid off through annual profits of the enterprise or for paying current liabilities how much quantity of cash is being generated through profits. Thus this ratio informs about the safety shield of short - term creditors.

For its calculation following formula is used :

\[
\text{Percentage of payment of current liability through profit} = \frac{\text{Profit} \times 100}{\text{Current Liability}}
\]

With this reference table no. 5.5 shows the position of Hindustan Petroleum Corporation Limited regarding payment of current liabilities through profit :

<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>24.87</td>
</tr>
<tr>
<td>2004-05</td>
<td>18.28</td>
</tr>
<tr>
<td>2005-06</td>
<td>5.10</td>
</tr>
<tr>
<td>2006-07</td>
<td>15.53</td>
</tr>
<tr>
<td>2007-08</td>
<td>9.13</td>
</tr>
<tr>
<td>2008-09</td>
<td>4.89</td>
</tr>
<tr>
<td>2009-10</td>
<td>7.86</td>
</tr>
</tbody>
</table>

**Source** : Compiled from various Annual Reports of HPCL
The trend of percentage of payment of current liabilities through profit as shown in the table no. 5.5 is very much fluctuating. As it is clear from the table that in the year 2003-04 it stood at 24.87 (highest) and 4.89 (lowest) in the year 2008-09. However the immediate following year of 2006-07 made three fold recovery (15.53) but could not sustain this level in the year 2007-08 and came down to 9.13 and it further went down a new low at 4.89 in the year 2008-09. However, in the year 2009-10 this has increased to 7.86. The reason for fluctuating trend is the competition in the market and the development plan of the company.

(7) PLANNING AND CONTROL OF CASH IN HINDUSTAN PETROLEUM CORPORATION LIMITED

(a) General Study:

Cash planning and control are the central point of finance function in the cash management system of the enterprise. Efficient management of cash funds is the symbol of liquidity and profitability of financial resources of the enterprise. Inadequate quantity of cash or unavailability of cash on the requirement can become a cause for untimely winding up of the enterprise. Therefore planning and control of cash have their own importance.

Planning of cash

Planning of cash means forecasting of necessary quantity of cash for future so that future liabilities can be paid off on the
right time. The main purpose of planning of cash is to determine the proper quantity of cash for future which is desirable on the basis of outflow and inflow of cash.

**Control of cash**

Control of cash is a part of planning of cash. All those procedures and methods related to cash are included in control of cash through which maximum quantity of cash can be attained at the right time and liability can be paid off at the right time and after that a sound management of cash may be exercised.

HPCL has earned profit in all the years under study. This has created cash in the organisation. The company has contributed to the current liabilities through profit in the tune of 24.87% in the year 2003-04, 18.28% in the year 2004-05, 5.10% in the year 2005-06, 15.53% in the year 2006-07, 9.13% in the year 2007-08, 4.89% in the year 2008-09 and 7.86% in the year 2009-10. On an average 12.23% current liabilities are met through this contribution. Companies having high percentage of this contribution used to have more cash generation capacity and can have short – term credit at easy terms and conditions. Thus from cash management point of view this percentage is very significant.
(b) **Instruments Of Planning And Control Of Cash**

Net cash forecast, cash budget etc. are significant as instruments for cash planning. Analysis of cash control is exercised with the help of cash budget, inflow and outflow of cash, ratio analysis etc. Description of planning and control of cash in public sector enterprise - Hindustan Petroleum Corporation Limited is based on the following questions: -

(i) How planning of cash is done in HPCL?

(ii) Who is responsible for cash control?

(iii) What instruments are used for planning and control of cash?

As per discussion with the officials of Hindustan Petroleum Corporation Limited following information could be collected:-

(1) The company exercises cash transactions through various banking companies of public, private and cooperative sectors.

(2) The company has overdraft and other credit facilities from these banking institutions.

(3) Finances are managed by the finance manager with the help of his subordinates under the leadership of executive director – corporate finance.

(4) Top level executives of finance are normally entrusted the job relating to production, purchases and sales.
(5) For cash control periodical cash budgets are prepared and cash reporting is exercised.

(6) Minimum and maximum of cash balance is not pre-determined which results into lesser use of these assets in the income generation.

(8) LIQUIDITY RATIO ANALYSIS IN HINDUSTAN PETROLEUM CORPORATION LIMITED

Following ratios have been used for measuring the work efficiency of planning and control of cash in Hindustan Petroleum Corporation Limited:

(a) Ratio Of Cash With Current Assets:

Unnecessary accumulation of cash adversely affects the profitability of the enterprise. Unnecessary with holding which is a part of assets of the enterprise reduces the earning capacity of the concern, increases the cost of capital and decreases the purchasing power in economy suffering from inflation. In this reference the direction of decline in ratio is the symbol of effective control of cash and the direction of increase in ratio shows laxity in the control of cash. According to V.E. Ramamorthi meaning of analysis of high ratio is to manage unused cash and invalid high liquidity.5

5 V.E. Ramamorthi : Working capital Management, p. 125
In the table no. 5.6 percentage of cash with current assets of Hindustan Petroleum Corporation Limited is shown which is as follows:

Table No. 5.6
Percentage of cash with current assets

<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>2.09</td>
</tr>
<tr>
<td>2004-05</td>
<td>2.12</td>
</tr>
<tr>
<td>2005-06</td>
<td>0.38</td>
</tr>
<tr>
<td>2006-07</td>
<td>0.75</td>
</tr>
<tr>
<td>2007-08</td>
<td>1.52</td>
</tr>
<tr>
<td>2008-09</td>
<td>3.80</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.18</td>
</tr>
</tbody>
</table>

Source: Compiled from various Annual Reports of HPCL

From the analysis and interpretation of the table no. 5.6 it is clear that the percentage of cash with current assets is not very attractive and particularly in the year 2005-06 it was very low (0.38%). The trend is fluctuating during the period under review in the table which indicates that the management could not exercise the very effective planning and control on cash. This also reflects that management is confident to procure cash for their needs as and when they require it and therefore do not see any advantage in keeping high percentage of cash in the current assets. Expansion and development plans may also be held responsible for low percentage of cash with the current assets.
(b) **Ratio Of Cash Payment With Current Liabilities:**

In the assessment of cash position this ratio occupies a significant place. 1:2 is considered as the satisfactory theoretical standard of this ratio. Ratio less than standard ratio shows shortage of cash or funds. Contrary to this, the situation shows surplus of funds which are not utilised in the generation of income and are lying idle.

Following formula is used for the calculation of this ratio:

\[
\text{Ratio of cash payment with current liabilities} = \frac{\text{Cash (Cash balance, bank balance and cash equivalent items)}}{\text{Current Liability}}
\]

Table no. 5.7 shows the ratio of cash payment with current liabilities in Hindustan Petroleum Corporation Limited which is as follows:

<table>
<thead>
<tr>
<th>Years</th>
<th>In terms of times</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>0.03</td>
</tr>
<tr>
<td>2004-05</td>
<td>0.03</td>
</tr>
<tr>
<td>2005-06</td>
<td>0.01</td>
</tr>
<tr>
<td>2006-07</td>
<td>0.01</td>
</tr>
<tr>
<td>2007-08</td>
<td>0.02</td>
</tr>
<tr>
<td>2008-09</td>
<td>0.05</td>
</tr>
<tr>
<td>2009-10</td>
<td>0.01</td>
</tr>
</tbody>
</table>
This is clear from the observation and interpretation of table no. 5.7 that under the period of review the ratio of cash with current liabilities is much below the standard. To conclude it can be said that current liabilities have increased with faster speed than the increase of cash.

(c) **Ratio Of Cash With Sales:**

This ratio highlights the effective use of cash. If this ratio is high it is an indication of this fact that volume of turnover has increased due to effective use of cash. Contrary to this if the ratio is less it shows that the organisation is not using its financial resources correctly and fairly. Following formula is used to calculate this ratio:

\[
\text{Ratio of cash with sales} = \frac{\text{Sales}}{\text{Cash (Cash and bank balance and other items equivalent to cash)}}
\]

Ratio of cash with sales in HPCL is shown in table no. 5.8 which is as follows:

**Table No. 5.8**

<table>
<thead>
<tr>
<th>Years</th>
<th>In terms of times</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>261.42</td>
</tr>
<tr>
<td>2004-05</td>
<td>298.39</td>
</tr>
<tr>
<td>2005-06</td>
<td>1677.17</td>
</tr>
<tr>
<td>2006-07</td>
<td>1033.82</td>
</tr>
<tr>
<td>Year</td>
<td>Value</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>2007-08</td>
<td>354.79</td>
</tr>
<tr>
<td>2008-09</td>
<td>205.08</td>
</tr>
<tr>
<td>2009-10</td>
<td>472.46</td>
</tr>
</tbody>
</table>

**Source:** Compiled from various Annual Reports of HPCL

This is clear from the observation of the table no. 5.8 that there is a fluctuating trend in the ratio of cash with sales. There is a wild increase in this ratio in the years 2005-06 and 2006-07. Deviations from average (614.73) are also higher in these two years. This shows that the relationship of cash with sales is not properly controlled.

**9) Calculation of Cash Turnover on the Basis of the Need of Cash**

As per table no. 5.4 this is clear that the trend of number of days is much below than the standard days (30 days). This represents a very poor situation of the company regarding immediate payments.

**10) Problems of Management of Cash**

Cash is the most crucial component of the working capital of an organisation. Its effective management is the key determinant of efficient working capital management. Cash, like blood stream in the human body, gives vitality and strength to a business enterprise. The steady and healthy circulation of cash throughout the entire business operation is the basis of business solvency. In a business enterprise, ultimately, a transaction results in either an inflow or an outflow of cash. In an efficiently - managed business, static cash balance
situation does not generally exist. Adequate supply of cash to meet the needs of the business is essential. Its shortage may degenerate a firm into a state of technical insolvency and even to liquidation. There was a time when the financial officer’s sole concern regarding cash management was how to maintain sufficient amount of cash. Though idle cash is sterile, its retention is not without cost. Holding of cash balance has an implicit cost in the form of its opportunity cost. It varies directly with the quantity of cash held. The higher the amount of idle cash, the greater is the cost of holding it in the form of loss of interest which could have been earned either by investing it in some interest bearing securities or by reducing the burden of interest charges by paying off the past loans, especially in the present era of ever increasing cost of borrowings. If the cash balance is surplus with the firm, it is obvious that the finances are mismanaged. Besides, excessive cash involves loss of credit contacts. Therefore, for smooth running of, and maximum profitability in, a business, proper and effective cash management is of utmost importance. Cash management includes management of marketable securities also, because, in modern terminology money comprises marketable securities and actual cash (in hand or in a bank).

Cash in hand is a non-earning asset and idle cash involves some opportunity cost to a business concern. The main problem regarding cash balance is related with the optimum level of cash holdings. There is, however, no readymade formula available to determine the amount of cash which a company should carry. Cash
levels of a company are affected by various factors such as nature of business, size of credit sales and the status of receivable and stock of the company.

The cash balance kept by Hindustan Petroleum Corporation Limited is based on its day to day obligations and no advance provision for contingencies or to take advantage of favourable markets. This is very well reflected that the ratio of cash with current assets in HPCL never crossed the limit of 3.80%. Similarly in the year 2005-06 this percentage was lowest at 0.38% level. The company appears to be casual in this regard. HPCL determines its cash balances by making cash forecast. This is done by means of a cash budget. Normally relationship of cash with other variables like current assets, sales, etc. is generally taken into account while identifying cash needs but does not take into account the mathematical cash management models. Most of the decisions relating to cash balances are taken by employing methods of budgeting and forecasting of cash needs. Benefit of executive's experience and judgment is also taken into account, keeping in view rule of thumb and the desire to retain the goodwill of bankers. It can thus be concluded that despite of all the procedures and techniques adopted by the company for the management of cash, has failed in controlling and utilising liquid funds effectively.