Information Booklet

Accounting & Finance

5

ASSESSING WORKING CAPITAL REQUIREMENT

for SMEs

SMEDA

NBDP

National Business Development Program for SMEs

Introduction

Small and Medium Enterprises Development Authority (SMEDA) works under the Ministry of Industries and Production, Government of Pakistan and was established in 1998 with the objective to propel economic growth through development of SMEs. SMEDA serves as an SME strategy-advisory body for the Government of Pakistan and facilitates partners in meeting their SME development agendas.

SMEDA envisions growth of a globally competitive SME sector, through creating an enabling environment and support services for increase in the national economy. SMEDA strives to achieve this vision by providing assistance in employment generation and value addition to the national income, through development of the SME Sector, by helping increase the number, scale and competitiveness of SMEs.

National Business Development Program for SMEs (NBDP) is a project of SMEDA which intends to provide hands-on support services to SMEs. The aim of this business development support provided by NBDP is to advance new businesses and improve efficiencies in existing SME value chains to empower them to contend in global market. NBDP expects to facilitate around 314,000 SME beneficiaries over the period of five years.

Disclaimer

This information memorandum has been compiled to introduce the subject matter and to provide a general idea and information on the said matter. The information has been provided on as is where is basis without any warranties or assertions. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors. NBDP/SMEDA, its employees or agents do not assume any liability for any financial or any other loss resulting from the information, as contained in this memorandum. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information. For more information on services offered by NBDP/SMEDA, please visit http://www.nbdp.org.pk/ and www.smeda.org.pk

Objectives

- To highlight the importance and methodologies of managing invoicing and payments.
- To streamline regular cash flows for smooth operations and sustainability of the business.

Table of Contents

a Working Capital - Concept and Importance

Working capital is the money available to a business for day-to-day operations. Working capital measures liquidity, efficiency and overall health of the business. It includes cash, inventory, accounts receivable, accounts payable, the portion of debt due within one year and other short-term accounts. Working capital is a daily requirement for all businesses, as they require a regular amount of cash to make routine payments, cover unexpected costs and purchase basic materials used in the production of goods.

A working capital is lifeline of any business as a business cannot operate without it. In case the business has considerable working capital, it shows that the business has potential of investment and growth.

Working Capital Formula

Following formula can be used to calculate the working capital of a business:

Working Capital = Current Assets - Current Liabilities

Importance of Working Capital:

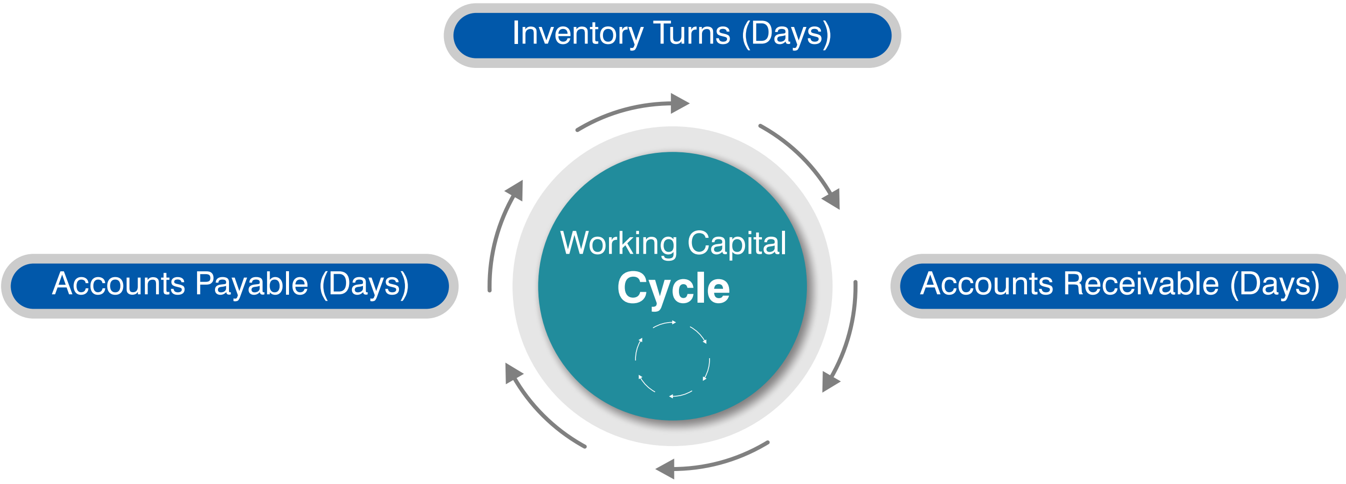
Working capital is one of the most significant aspect of any business. All businesses need a regular amount of cash to make routine payments, cover unexpected costs and purchase basic materials used in the production of goods or providing services. Effective management of working capital helps to maintain smooth operations and it can also help to increase the income of a business.

Three key objectives of working capital management are given below:

1. To maximize operational efficiency
2. To maintain and improve smooth operations, earnings and profitability
3. To manage inventory, accounts receivables and account payables

b Working Capital Cycle - Concept and Importance

The Working Capital Cycle for a business is the time duration it takes to convert net working capital (current assets less current liabilities) into cash. Businesses typically try to manage this cycle by selling inventory rapidly, collecting revenue from customers timely, and paying bills gradually, to optimize cash flow.



Steps in the Working Capital Cycle:

For most businesses the working capital cycle works as follows:

- The business purchases, on credit, materials to manufacture a product (for example, this business may have 90 days to pay for the raw materials).
- The business sells its inventory in 85 days, on average (days payable outstanding).
- The business receives payment from customers for the products sold in 20 days, on average.

In the first step of the process, the business purchase the materials it needs to produce inventory but doesn't initially have any cash expense (purchased on credit under accounts payable). In 90 days' time, it will have to pay for those materials. Eighty-five (85) days after buying the materials, the finished goods are sold, but the business does not receive cash for them initially (sold on credit under accounts receivable). Twenty (20) days after selling the goods, the business receives cash and the working capital cycle is complete.

Working Capital Cycle Formula:

Based on the above steps we can see that the working capital cycle formula is:

Working Capital Cycle = Inventory Days + Receivable Days – Payable Days

Example of Working Capital Calculation:

Based on the steps of working capital cycle and the above information, the example is stated below:
- Inventory days = 85
- Receivable days = 20
- Payable days = 90

Working Capital Cycle = 85 + 20 – 90 = 15
This implies the business is out of cash for 15 days before accepting the full installment.

c Main Components of Working Capital[1]

Working capital management includes following four main components:

i Cash or Cash Equivalents:

It includes cash, checking accounts, and the set down cheque received from customers.

ii Accounts Receivable:

Account receivables are the due payments or the amount owed to a business by its customers for sales that have already been made. Receiving payments on time is necessary for the smooth financial operations of a business. Accounts receivable are usually stated as assets on a balance sheet of a business.

iii Accounts Payable:

Accounts payable is the money that a business has committed to pay out over the short term. It is a key segment of working capital management. Businesses try to achieve a balance between keeping maximum cash flow (by delaying payments as long as is practically possible for them) and the need to maintain positive credit ratings while maintaining positive relations with suppliers and creditors.

iv Inventory:

Inventory is an asset which can be converted into sales revenues. The rate at which a business sells and restocks its inventory is indicative of its success. Inventory turnover rate indicates the volume of sales and it also measures the efficiency in purchasing and manufacturing process of business. Low inventory can be a reason that a business loses out on sales but high inventory levels show inefficient utilization of working capital.

d Different Sources of Working Capital

The sources of working capital can be short term or long-term.

- Unplanned working capital deals with trade credit such as the sundry creditor, bills payable and notes payable.
- Tax provisions, dividend provisions, bank overdraft, cash credit, trade deposits, public deposits, bills, short-loans and commercial papers are short-term sources.
- Long-term sources are retained profits, provision for depreciation, share capital, long-term loans and debentures.

Own Funds/Equity: i

To meet the long-term minimum needs of a business, the required amount of current assets is referred to as equity, which is the main source of working capital. It may be funded through long-term financing in which owner uses personal funds.

[1] **Investopedia, 2019. Available at:** https://www.investopedia.com/ask/answers/041015/what-are-components-associated-working-capital-management.asp [Accessed at 19th August 2019]

Bank Borrowings/Short Term Borrowing: ii

Bank borrowings is the amount that varies with seasonal requirements of a business. This includes trade credit and other payables and accruals that arise unexpectedly in the everyday operations of a business. When a business borrows from banks for short period of time (one month to one year), it is called short term bank borrowing.

Sundry Creditors/Trade Payables: iii

Sundry creditor is also known as trade creditor. It is the supply of goods/services or consumable items that a business provides to another business on credit basis and that business is supposed to pay the outstanding amount as per terms and conditions agreed upon by both the parties.

Advances from Customers[2]: iv

To ensure that a business has funds to start its operations to work on big orders, most businesses prefer that the customers pay in advance for buying goods or services. This usually occurs when there are large orders that require a long time to complete. This helps in fulfilling of working capital requirement and to maintain the business cash flow.

Deposits Due in a Year: v

Many businesses obtain a full-fledged long-term loan from a bank that allows them to meet all their working capital needs for two, three or more years. The amount of loan can be paid at once or in installments as per agreed terms and conditions.

Other Current Liabilities: vi

Current liabilities are the debts or obligatory amounts of a business which are due within a year or within a regular operating cycle. Current liabilities are settled using current asset, such as cash or by creating a new current liability. Current liabilities are mentioned on the balance sheet and these also includes short-term debt, accounts payable, accrued liabilities and other similar debts.

Assessing Needs and Sources of Working Capital: vii

Knowledge of working capital sum is required for proficiently running small and medium businesses. It is extremely critical for a business to estimate this amount to operate efficiently and remain completely functional. There are several other factors that need to be measured before reaching at a more or less accurate figure. Following are some of the factors that determine the amount of liquid cash and assets required for any business to ensure smooth operations:

Nature of Business/Industry Norms:

Some businesses need tremendous working capital while others may require less working capital. Essential and key ventures, open utilities and so on require low working capital because these have a steady demand and constant money inflow to satisfy present liabilities.

---

[2]**Senthal Kumaran, 2015. Available at:** https://www.invensis.net/blog/finance-and-accounting/sources-of-short-term-and-long-term-financing-for-working-capital/ [Accessed on 19th August 2019]

[3]**Martin, 2015. Available at:** https://www.cleverism.com/working-capital-management-everything-need-know/ [Accessed 19th August 2019]

Size of a Business Unit:

The amount required for working capital depends upon the volume of a business. For small and medium business units, the need of working capital will be lower and vice versa.

Terms of Purchase and Terms of Sale:

Use of trade credit may lead to lower working capital while cash purchases need larger working capital. Likewise, credit sales require larger working capital while cash sales require lower working capital.

Turnover of Inventories:

If the turnover of large inventories is slow then the larger capital will be required but if inventories are small and their turnover is fast then lower working capital is needed.

Process of Manufacture/Rating Cycle:

Long-running and more complex production process requires larger working capital, however, short-term production process requires lower working capital.

Wages and Salaries:

Industries having fewer human resources and working on automated or machinery system usually require low working capital while labor intensive businesses and industries such as small scale cottage industries require larger working capital.

Tips for Working Capital Management: viii

Seven tips mentioned below will improve the business's working capital in ways that helps the management of both assets and liabilities.

1 Invest Smartly in Operations:

Business owners might be investing the working capital in the wrong areas of business. If a business is spending more in production processes and less in marketing and sales, it will not help generate new customers who are responsible for increasing the cash flow. For this reason, it is important to analyze the business closely to ensure that funds are invested in areas which give the maximum financial benefit.

Eliminate Wasteful Spending: 2

It may seem that spending money to fix worn out equipment is cheaper than purchasing or leasing new equipment. However, this results in high expenditure to keep a damaged piece of equipment in working condition that might be affecting the productivity of a business. Money related survey in such circumstance may uncover that the underlying price tag and long haul Return on Investment (ROI) is more financially savvy than constantly fixing destroyed gear.

3 Avoid Overstocking in Merchandise:

Overstocking can be dangerous for a business as it might lead to a stock of goods that will sit on shelves for long periods of time. This results in increasing the holding costs of the business, as well as having outdated items that will not have a resale value. Better management of stock operations and engaging in just-in-time inventory strategies can lessen the amount of working capital spent on merchandise.

4 Outsource Certain Operations:

Outsourcing certain elements of a business can help to cut costs and allow employees to concentrate on being productive in more important areas of the business. This strategy is best for small and medium businesses with minimum number of staff that does not possess working knowledge or skills to effectively work in specific departments. There is another option to outsource various operations like selling, customer services, accounting and technical support etc.

5 Make Debt Arrangements with Creditors:

Taking control of debts can result in more free cash flow. Making timely payments helps to avoid penalties and paying extra interest. Mostly the creditors will work with businesses to devise the right payment arrangements such as extending payment terms or making other payment arrangements.

6 Get More Accurate Bookkeeping Reports:

A major issue in tracking working capital is unavailability of the data required to make accurate reports and being unaware about expenditures. Streamlining the accounting department can decrease inaccuracies and help in making more informed decisions for the business.

7 Have Better Collection Procedures:

An efficient business operation means solicitations are covered on schedule and without relying upon clients to make installments. For this purpose, ensure that reminders are sent to customers that are falling behind on their payments and develop better payment schedules for such customers. However, do not go overboard with discounts to the point that it negatively impacts the cash flow.

e Calculating Working Capital Requirement

Following is an example of working capital requirement for a business (ABC Co.):

Turnover for the year	PKR 3000,000

Costs as percentages of sales

Direct materials	**40 %**
Direct labour	**30 %**
Variable overheads	**15 %**
Fixed overheads	**10%**
Selling and distribution	**5 %**

On average:

(a) Accounts receivable take 3 months before payment
(b) Raw materials are in inventory for two months
(c) Work-in-progress represents two months' worth of half produced goods
(d) Finished goods represent half month's production

Following credit has been taken:

▪ Materials	**2 months**
▪ Labor	**2 week**
▪ Variable overheads	**1 month**
▪ Fixed overheads	**1 month**
▪ Selling and distribution	**0.5 months**

Work-in-progress and finished products are valued at material, labour and variable expense cost.

Requirement: Calculate the requirement of working capital for ABC Co. assuming the labour force is paid for 52 working weeks in a year.

1 Amount Required for Total Current Assets

Accounts receivable + Material + Amount required for work in process + Amount required for finished goods PKR 750,000 **(a)** + PKR 200,000 **(b)** + PKR 337,500 **(c)** + PKR 118,750 **(d)** = PKR 1406,250

a Amount Required for Accounts Receivables:

Sales PKR 3000,000 x accounts receivables months 3/12= PKR 750,000

b Amount Required for Material:

Sales PKR 3000,000 x Material 40%= PKR 1200,000
The requirement is for 2 months so,
PKR 1200,000 x 2/12 = PKR 200,000

c Amount Required for Work in Process:

Item	Working	Amount Required
Material	Sales PKR 3000,000 x **Material** 40%= PKR 1200,000 The requirement is for 2 months so, PKR 1200,000 x 2/12= PKR 200,000	PKR 200,000
Labour	Sales PKR 3000,000 x **Labour** 30%= PKR 900,000 The requirement is for two months' worth of half produced goods so, PKR 900,000 x 2/12 x 1/2= PKR 75,000	PKR 5,000
Variable Overhead	Sales PKR 3000,000 x **Variable overhead** 15% = PKR 450,000 The requirement is for 1 month so, PKR 450,000 x 2/12 x 1/2= PKR 37,500	PKR 37,500
Fixed Overhead	Sales PKR 3000,000 x **Fixed overhead** 10% = PKR 300,000 The requirement is for two months' worth of half produced goods so, PKR 300,000 x 2/12 x 1/2= PKR 25,000	PKR 25,000
	Total Work in Process	PKR 337,500

d Amount Required for Finished Goods (Finished goods represent half month's production):

Item	Working	Amount Required
Material	Sales PKR 3000,000 x **Material** 40%= Rs 1200,000 PKR 1200,000 x 0.5/12 = PKR 50,000	PKR 50,000
Labour	Sales PKR 3000,000 x **Labour** 30%= Rs 900,000 PKR 900,000 x 0.5/12 = PKR 37,500	PKR 37,500
Variable Overhead	Sales PKR 3000,000 x **Variable overhead** 15% = PKR 450,000 PKR 450,000 x 0.5/12 = PKR 18,750	PKR 18,750
Fixed Overhead	Sales PKR 3000,000 x **Fixed overhead** 10% = PKR 300,000 PKR 300,000 x 0.5/12 = PKR 125,00	PKR 12,500
	Total Finished Goods	PKR 118,750

2 Amount Required for Total Current Liabilities

Item	Working	Amount Required
Material	Sales PKR 3000,000 x **Material** 40% = PKR 1200,000 The requirement is for 2 months so, PKR 1200,000 x 2/12 = PKR 200,000	PKR 200,000
Labour	Sales PKR 3000,000 x **Labour** 30%= Rs 900,000 The requirement is for 2 week so, Rs 900,000 x 2/52= PKR 34,615	PKR 34,615
Variable Overhead	Sales PKR 3000,000 x **Variable overhead** 15% = PKR 450,000 The requirement is for 1 month so, PKR 450,000 x 1/12= PKR 37,500	PKR 37,500
Fixed Overhead	Sales PKR 3000,000 x **Fixed overhead** 10% = PKR300,000 The requirement is for 1 month so, PKR 300,000 x 1/12= 25,000	PKR 25,000
Selling and Admin	Sales PKR 3000,000 x **Selling and admin** 5% = PKR 150,000 The requirement is for 0.5 month so, PKR 150,000 x 0.5/12= PKR 6,250	PKR 6,250
	Total Current Liabilities	PKR 303,365

Total net working capital required =	Current Asset	–	Current Liabilities
	PKR 1,406,250	–	PKR 303,365
=	PKR 1,102,885		

ABC Co. need to PKR 1,102,885 for working capital financing. It may be arranged from different sources mentioned above.

SMEDA

National Business Development Program for SMEs

HEAD OFFICE

Address:	$3^{rd}/4^{th}$ Floor, 3rd Building, Aiwan-e-Iqbal Complex, Egerton Road, Lahore
Tel:	(042) 111-111-456, 99204701-12
Fax:	(042) 36304926-27
Email:	helpdesk@smeda.org.pk

REGIONAL OFFICES

Balochistan

Address:	Bungalow No. 15-A, Chaman Housing Scheme, Airport Road, Quetta
Tel:	(081)-2831623 - 2831702
Fax:	(081)-2831922
Email:	helpdesk.balochistan@smeda.org.pk

Punjab

Address:	4th Floor, 3rd Building, Aiwan-e-Iqbal Complex, Egerton Road, Lahore
Tel:	(042)-111-111-456
Fax:	(042)-36304926, 36304927
Email:	helpdesk.punjab@smeda.org.pk

Khyber Pakhtunkhwa

Address:	Ground Floor, State life Building, The Mall, Peshawar
Tel:	(091)-111-111-456, 091-9213046-7
Fax:	(091)- 5286908
Email:	helpdesk.KhyberPakhtunkhwa@smeda.org.pk

Sindh

Address:	5th Floor, Bahria Complex II, M.T. Khan Road, Karachi
Tel:	(021)-111-111-456
Fax:	(021)-35610572
Email:	helpdesk.sindh@smeda.org.pk