

# Factors Determining Working Capital Requirements of Power Distribution Utilities in India

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## ARTICLE INFO

## ABSTRACT

The working capital management of firms is very important in determining the level of working capital required by the firm. The nature of the business or industry influences working capital requirement of a firm. These specific factors which are unique to each Industry will help in deciding the level of working capital requirements of the firm / utility. This study has focused on power distribution utilities which run to cater to the needs of the public, requires less working capital. Therefore, the study attempts to fill this gap by examining the key factors that influence working capital requirement of select power distribution utilities in India. Data was collected from 44 general managers in finance and accounting department. According to the respondents, the study found that the major factors that influence working capital requirement in power distribution utilities are industry effect, business and economic environment, government rules & regulations, credit policy, inventory management policy, and payable policy. The study suggests that the managers of power distribution utilities should consider these factors while formulating working capital requirement, to manage these funds effectively.

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## I. Introduction

The working capital management of firms is very important in determining the level of working capital required by the firm. The level of working capital influences the performance of businesses. Therefore efficient management of working capital is always a concern for the smooth running of the enterprises. In case the management is inefficient in managing working capital, it will lead to interruption in cash flows and notched supply and procurement of raw material, irregularity in payments of wage and salaries and

ultimate leading to virtual stoppage of operations of the businesses (Rathod, 2008).

There are numbers of factors determining the working capital requirements. The operational scope of working capital management is broader, and involves consideration of multiple internal and external factors; consequently little is known about working capital management practices in complex organizational settings (Darun, 2011). Both internal, as well as external factors have an influence on the volume of working capital required by a utility.

The nature of the business or industry influences working capital requirement of a firm. According to Al-Shubiri (2010), it is found that there is difference between industries in the management of working capital practices. Moreover, these working capital practices, themselves, change significantly within industries over time. According to Jingmeng (2013), a management system for efficient management practices has not been constructed, although working capital management has been widely accepted by the academia. Hence working capital management should be effectively and efficiently followed. The management should make appropriate working capital policies to improve optimization of current assets and minimize the wastage of funds.

These specific factors which are unique to each Industry will help in deciding the level of working capital requirements of the firm / utility. Service firms like power distribution utilities which run to cater to the needs of the public, requires less working capital. But in the case of heavy manufacturing industries, the operating cycle is quite longer, blocking most of the funds in stock and debtors, and therefore the requirement are proportionately high. This study attempts to fill this gap by examining the key factors that influence working capital requirement of select power distribution utilities in India.

## II. Significance of the Study

Infrastructure is required for overall growth of a country, especially in power sector which generates and distributes electricity to other sectors for developing the economy. Electricity is a prime mover of economic growth and the expansion of the Indian economy would depend heavily on the availability of quality infrastructure, including electricity (Singh, 2006).

The specific reason to choose distribution companies is that they are the only revenue earners in power sector. Therefore, their performance has a direct impact on the financials

of power generation and transmission utilities. Indeed, there is also a need to know whether the power distribution utilities are performing better in state-owned utilities or privately owned utilities. Therefore, there is a need to study the working capital management of selected power distribution utilities in India.

## III. Scope of the Study

The scope of the study is restricted to select seven states in India. The sample respondents are selected from twenty-three power distribution utilities in Andhra Pradesh, Telangana, Gujarat, Karnataka, Rajasthan, Madhya Pradesh and Odisha. The study attempts to understand the working capital policy and factors determining working capital requirements.

## IV. Objective of the Study

1. To identify the factors influencing working capital of select power distribution utilities in India.

## V. Research Methodology

The study is descriptive and analytical in nature. The sample of 23 power distribution was selected using Judgmental sampling method. The state electricity boards which have unbundled prior to 2005 were selected, except for Delhi, Assam, Uttar Pradesh and Haryana. The study is based on primary data using survey method. The data was collected using questionnaire from two general managers from each sample power distribution utilities in India, totaling a sample respondent of 44 general managers in finance and accounting department. Percentages were used to analyze data using Microsoft excel.

## VI. Results

This section deals with the factors that are influence the working capital management. There are numerous factors that influence working capital. The operational scope of working capital

management is broader, and involves consideration of multiple internal and external factors; consequently little is known about working capital management practices in complex organizational settings (Darun, 2011). Both internal, as well as external factors, have an influence on the volume of working capital required by a utility. The nature of the business or industry influences working capital requirement of a firm. These specific factors which are unique to each Industry will help in deciding the level of working capital requirements of the firm / utility. Service firms like power distribution utilities which run to cater to the needs of the public, requires less working capital. But in the case of heavy manufacturing industries, the operating cycle is quite longer, blocking most of the funds in stock and debtors, and therefore the requirement are proportionately high.

#### **Political Intervention**

The Table 7.15 shows whether political intervention or influence is an important factor in determining working capital requirements. 31.9% of the respondents agree while a majority of them i.e., 63.6% disagree that political Intervention/ influence is a determinant of working capital management. Only 4.5% said that they neither agree nor disagree. Though political intervention or influence is an important determinant of working capital needs, respondents were hesitant to put it on paper.

#### **Industry effect**

Hawawini, Viallet, and Vora (1986) stated that there is a substantial industry effect on firm working capital management practices that are stable over time. Since different industry requires a different level of capital intensity depending on

their business model, one would logically expect to find different working capital requirements. When asked about whether Industry effect is a determinant of working capital, 68.2% of them agreed, while 22.7% disagreed and 9.1% neither agree nor disagreed. It can be concluded that industry effect is a major factor in determining of working capital.

#### **Business and Economic Environment**

One of the major determinants of working capital is business and economic environment as 100% of the respondents agreed to the statement.

#### **Government Rules and Regulations**

The Table 7.15 shows the influence of government rules and regulations in determining working capital. About 86.4% of the respondents agree, 4.5% neither agree nor disagree and 9.1% disagree with the statement whether government rules and regulations is a factor in determining working capital.

#### **Consumer Requirements**

The Table 7.15 shows the influence of consumer requirements in determining working capital. About 63.6% of them agree while 4.5% neither agree nor disagree and 31.9% of them disagree with the statement.

#### **Financing Methods**

When asked to respondents, whether financing methods is a determinant's of working capital management. About 54.6% of them agreed while 4.5% disagreed and 40.9% neither agreed nor disagreed with the statement. This shows that financial methods have a positive impact on determining working capital management.

**Table No.7.15:** Factors Influencing Working Capital Management

	Agree	Neither Agree or Disagree	Disagree
Political Intervention	31.9	4.5	63.6
Industry Effect	68.2	9.1	22.7
Business & Economic Environment	100.0	0.0	0.0
Government rules and Regulations	86.4	4.5	9.1
Consumer requirements	63.6	4.5	31.9
Financing Methods	54.6	40.9	4.5
Technology Usage	72.7	4.5	22.7
Collaborations with Suppliers	54.6	22.7	22.7
Competitors Effect	31.9	5.4	22.7
Management System/Method	77.3	18.2	4.5
Organizational Behavior	50.0	45.5	4.5
Investment Policy	45.5	36.3	18.2
Supply Chain Management	63.6	27.3	9.1
Inventory Management Policy	95.4	4.5	0.0
Employees Finance Knowledge	22.7	50.0	27.3
Credit Policy	100.0	0.0	0.0
Payable Policy	95.5	4.5	0.0

### Technology Usage

One of the key factors that determine working capital requirements is technology, as in this day and age, modern technology is preferred to older methods of techniques in any sector. When asked about it most of the respondents i.e., 72.7% of them agreed, while 4.5% of them neither agree nor disagree and about 22.7% of them disagree with the statement.

### Collaboration with Suppliers

Collaborations with other companies and with different divisions of that sector will enhance and improve the functioning of the business. Collaborations with suppliers are important as delays will have an impact on production and supply of the product or service. About 54.6% of the respondents agreed that collaborations with suppliers have an effect on the working capital while 22.7% disagreed and 22.7% neither agreed nor disagreed.

### Competitor's Effect

The power sector is one of the major parts in building infrastructure for the development of the nation. The large scale government utilities enjoy monopoly; therefore mostly competition does not exist. Among the sample respondents, 45.4% of them felt that competitor's effect is a determinant or not, while 31.9% and 22.7% of them agreed and disagreed respectively.

### Management System

Management system plays a key role in policy making for all the section of the utilities. It is the framework of policies, processes and procedures used by an organization to ensure that it can accomplish all the tasks required to meet its objectives.

The Table 7.15 shows whether management system determines the working capital requirement. Among the sample respondents, 77.3% of them agreed while 18.2%

neither agreed nor disagreed and the remaining 4.5% of them disagreed with the statement.

### **Organizational Behavior**

When asked whether the organizational behavior is one of the factors in determining the working capital, about 50% of them agreed while 4.5% disagreed and 45.5% neither agreed nor disagreed.

### **Investment Policy**

The Table 7.15 shows respondent's view on whether investment policy is a factor of working capital. About 45.4% of respondents agreed, 36.3% of them neither disagreed nor agreed and 18.2% disagreed with the statement that investment policy is an important determinant of working capital management.

### **Supply Chain Management**

The Table 7.15 shows supply chain management in determining the working capital. About 63.6% of the respondents agree, 27.3% of neither agree or disagree and 9.1% disagree with the statement.

### **Inventory Management**

Idle Inventory is a cost to the utility. In utilities, inventories are not stock which is sold to the end consumer, but they are spares, fittings etc. which are used for installation or maintenance. Therefore the level of inventory does not have any relationship with sales in this specific sector.

The Table 7.15 shows that 95.5% of the respondents agreed that inventory is a determinant of working capital management whereas 4.5% neither agreed nor disagreed. The power distribution utilities are not influenced by seasonal variation. The utilities maintaining a high proportion of inventory will lead to block of funds, hence increasing the carrying cost of utility.

### **Employee's Financial Knowledge**

The Table 7.15 shows that financial knowledge has very little to do with the factors determining

the working capital of the utility. 22.7% of respondents agreed, while 50% neither agreed nor disagreed and 27.3% disagreed with the statement that employee's financial knowledge is important determinant of working capital.

### **Credit Policy**

The credit policy of a firm largely depends upon industry norms and firm-specific policies in issuing credit to customers. The credit policy will have a direct effect on the size of the debtors. In case if the firm follows a nominal credit policy, it protects the firm from bad debts and decreases the requirement of working capital. The Table 7.15 shows the view of respondents on whether credit policy influences working capital management. All the respondents agreed that credit policy of the utility is an important factor in determining working capital management. Credit policy is a major factor in determining working capital requirements as 100% of the respondents agree to the statement.

### **Payable Policy**

The utility which receives credit from creditors for the purchase of raw material requires less working capital and vice-versa. Generally, the utilities delay their payments to generation and transmission utilities. Most of the times, the utilities have a higher payable period when compared to debtor's period.

The Table 7.15 shows whether there is influence of payable policy on working capital. A majority (95.5%) of the respondents agreed that payable policy of utilities has an influence in managing working capital whereas, 4.5% of them neither agreed nor disagreed.

## **VII. Conclusion**

There are numerous factors that influence working capital. In the economic scenario, it is important for the businesses to effectively and efficiently manage finance. Especially, managing short term

finance is cumbersome. In power distribution utilities, the major factors that are important according to respondent are industry effect, business and economic environment, government rules and regulations, credit policy, inventory management policy, and payable policy. The study suggest that the managers of power distribution utilities consider these factors while formulating working capital requirement, to manage these funds effectively.

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