CHAPTER V
SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

The Public sector enterprises were set up in the states as a deliberate strategy for ensuring development of the state and to further the objectives of the state’s industrial policy. Existence and promotion of a competent and responsive public sector within a liberalized economy is the need of the hour. The PSEs will have to develop a sharp focus on global benchmarks. Liberalization should not be construed to mean withdrawal of government and replacing it with free market forces across the board. It must instead be perceived as reordering the role of the Government vis-à-vis market forces. The Government’s policy of giving a fillip to competition in industry will have a profound effect on PSEs. The efficient financial management forms the crux of success of PSEs.

Accordingly this study is undertaken to examine the financing pattern of PSEs during the liberalization period, to evaluate the investment decisions of selected PSEs in Kerala during the liberalization period, to evaluate the long term and short term solvency of selected PSEs in Kerala during the liberalization period, to study the operating performance of selected PSEs in Kerala during the liberalization period and to identify the major variables in the financial management decisions of selected PSEs under liberalization.

The method of study is an evaluative one and it examines the solvency, profitability and return on investment based on secondary data. In addition an opinion survey is carried out to know the perception of managers on the financial management practices of PSEs during the liberalization period.
The summary of the analysis on the financial performance by using the ratios such as Debt Equity Ratio, Current Ratio, Receivables to Sales, Stock of Finished Goods to Sales, Stock of Raw Materials to Consumption, Consumption to Sales, Net Profit to Sales and Return on Investment and the opinion of respondents on the Financial Management of Public Sector Undertakings under liberalization, are illustrated here in two sections: Section 1 depicts company wise financial performance indicators and Section 2 highlights the perception of managers.

Section 1: Company wise Analysis

1. Kerala Financial Corporation

a. **Net Worth**: The position of net worth for a period of 20 years study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 730.17x + 2628.4 \). There is an increase in the net worth of KFC during the liberalization period.

b. **Capital Employed**: The capital employed of the KFC revealed a fluctuating trend of increase for a period of 20 years under study from 1990-91 to 2009-2010. The trend line (linear trend of first degree) of the Capital Employed from 1990-91 to 2009-2010 is \( Y = 2799.2x + 15386 \).  

c. **Capital Invested**: The position of Capital invested for a period of 20 years study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Capital Invested from 1990-91 to 2009-2010 is \( Y = 2667.1x + 32457 \).
d. **Working Capital:** The overall position of working capital for a period of 20 years of study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Working Capital from 1990-91 to 2009-2010 is $Y = 2788.2x + 15585$. There is an increase in the working capital of KFC during the liberalization period.

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio:** Debt Equity ratio clearly indicates that the long term borrowings to paid up capital is declining in all the years from 1990-91 to 2009-10 periods.

ii. **Current Ratio:** The overall trend is a fluctuating one with decline in certain years and an abnormal increase in other years.

iii. **Return on Investment:** The return on investment of KFC during the whole period of 20 years of study from 1990-91 to 2009-10 is not a promising one.

iv. **Net Profit to Sales:** The net profit to sales of KFC during the whole period of 20 years of study from 1990-91 to 2009-10 is not satisfactory.

2. **Kerala Tourism Development Corporation**

a. **Net Worth:** The position of net worth for a period of 20 years from 1990-91 to 2009-2010 shows a trend of increase with exception of 2007-08. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is $Y = 439.85x - 375.74$. 

303
b. **Capital Employed:** The position of Capital employed for a period of 20 years study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is $Y = 271.98x + 840.37$.

c. **Capital Invested:** The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is $Y = 397.19x + 405.93$.

d. **Working Capital:** The position of working capital for a period of 20 years from 1990-91 to 2009-2010 shows an increasing trend in most of the years and negative trend in certain years. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is $Y = -21.271x + 1001.2$.

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio:** The long term borrowings to paid up capital is declining from 1990-91 to 2009-10 periods. It is an indication that they do not depend too much on borrowings but stick on to paid up capital as the base.

ii. **Current Ratio:** In the initial years the current ratio was favourable but declined sharply during 2006-07 to 2009-10. These ratios are not satisfactory because in most of the years the ratios are less than the ideal one.
iii. **Return on Investment**: The ratio of the return on investment of KTDC during the whole period of 20 years of study from 1990-91 to 2009-10 is not a promising one.

iv. **Net Profit to Sales**: Net profit to sales makes it clear that the profit to sales of KTDC during the whole period of 20 years of study from 1990-91 to 2009-10 is not a promising one.

v. **Receivables to Sales**: In the case of receivables to sales, a fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Raw materials to Consumption**: In the case of stock of raw materials to consumption, a fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Consumption to Sales**: The consumption to sale shows fluctuating trend during 1990-91 to 2009-10, the whole 20 year period under analysis.

3. **The Kerala Ceramics Limited**

a. **Net Worth**: The position of net worth for a period of 20 years of study from 1990-91 to 2009-2010 shows a fluctuating trend. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \[ Y = -67.888x - 131.8. \] There is a decline in net worth of Kerala Ceramics Limited during the liberalization period.
b. **Capital Employed:** The overall position of capital employed for a period of 20 years of study from 1990-91 to 2009-2010 shows a declining trend. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = -46.77x + 103.73 \).

c. **Capital Invested:** The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested from 1990-91 to 2009-2010 is \( Y = 33.865x + 1341.3 \).

d. **Working Capital:** The overall position of working capital for a period of 20 years of study from 1990-91 to 2009-2010 shows a trend of decline. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = -39.937x - 19.602 \).

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio:** The debt to equity ratio clearly indicate that the long term borrowings to paid up capital is increasing year after year with a slight fluctuations.

ii. **Current Ratio:** The overall trend in the current ratio is a highly fluctuating one in all the years and ideal ratio is seen only in 1999-2000. These ratios are not satisfactory because in most of the years the ratios are less than the ideal one.

iii. **Return on Investment:** The ratio of return on investment of Kerala Ceramics Limited from 1990-91 to 2009-10 is not a promising one.
iv. **Net Profit to Sales:** The net profit to sales of Kerala Ceramics Limited from 1990-91 to 2009-10 is not satisfactory.

v. **Receivables to Sales:** In the case of receivables to sales, a fluctuating trend is noticed from 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Finished Goods to Sales:** In the case of stock of finished goods to sales a fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption:** In this case of stock of raw materials to consumption, a fluctuating trend of increase is noticed in all the 20 year from 1990-91 to 2009-10.

viii. **Consumption to Sales:** In the case of consumption to sales, a fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis. The trend shows either a marginal increase or decrease.

4. **The Kerala Minerals and Metals Limited**

a. **Net Worth:** The position of net worth from 1990-91 to 2009-2010 is a fluctuating one. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \( Y = 3470.3x - 15465 \).

b. **Capital Employed:** The position of capital employed from 1990-91 to 2009-2010 shows a trend of decline. There is a decrease in net worth of KMML during the initial period of liberalization but afterwards there is an
increase. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is $Y = 2983.7x - 7765.1$.

c. **Capital Invested:** The capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is $Y = 677.11x + 13505$.

d. **Working Capital:** The position of working capital for a period of 20 years under study from 1990-91 to 2009-2010 shows a trend of increase. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is $Y = 1505.1x + 232.16$.

**Analysis of Solvency and Profitability:**

i. **Current Ratio:** The current ratio shows a trend of high fluctuations with a declining trend in the last few years under study.

ii. **Return on Investment:** The return on investment of KMML during the whole period of 20 years of study from 1990-91 to 2009-10 is not satisfactory.

iii. **Net Profit to Sales:** The analysis of net profit to sales of KMML revealed that even though they are earning profit, the profit is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.
iv. **Receivables to Sales**: Receivables to sales shows a fluctuating trend during 1990-91 to 2009-10, the whole 20 year period under analysis. The lower ratio is really a good indication of efficiency in cash realization.

vi. **Stock of Finished Goods to Sales**: A fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption**: Stock of Raw materials to Consumption shows a fluctuating trend of increase in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: In this case of consumption to sales a fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis. The trend is somewhat high and it indicates that consumption depends on sales.

5. **Travancore Titanium Products Limited**

a. **Net Worth**: The overall position of net worth for a period of 20 years under study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \[ Y = 92.783x + 3428.7. \]

b. **Capital Employed**: The position of capital employed for a period of 20 years study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \[ Y = 354.56x + 1352.5. \]
c. **Capital Invested:** The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows a fluctuating trend of increase. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is $Y = 231.86x - 1331.3$.

d. **Working Capital:** The overall position of working capital for a period of 20 years under study from 1990-91 to 2009-2010 shows a trend of fluctuation. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is $Y = -42.989x + 2255.8$. There is decrease in the working capital of Travancore Titanium Products Limited during the liberalization period.

**Analysis of Solvency and Profitability**

i. **Current Ratio:** In the case of current ratio, it is not ideal in most of the years.

ii. **Return on Investment:** It is clear indication from the ratios of return on investment of Travancore Titanium Products limited that it is not satisfactory during the period from 1990-91 to 2009-10.

iii. **Net Profit to Sales:** The net profit to sales analysis of Travancore Titanium Products Limited shows that they are earning profit in certain years but the profit earned is not up to the mark in majority of the years under study from 1990-91 to 2009-10.
iv. **Receivables to Sales**: The ratio of receivables to sales shows a fluctuating trend during the period from 1990-91 to 2009-10. The lower the months in the receivable to sales is really an indication of efficient management.

v. **Stock of Finished Goods to Sales**: In this case a fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Raw materials to Consumption**: In the case of stock of raw materials to consumption a fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

vii. **Consumption to Sales**: In respect of consumption to sales ratio, a fluctuating trend of increase is noticed during 1990-91 to 2009-10. The trend is somewhat high and it indicates that consumption depends on sales.

6. **Transformers and Electrical Kerala Limited**

a. **Net Worth**: The net worth for a period of 16 years was negative and positive net worth is seen only for 4 years under study. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 460.6x - 5481.4 \).

b. **Capital Employed**: The position of capital employed for a period of 20 years under study from 1990-91 to 2009-2010 shows a declining trend for most of the years. There is an increase in certain years. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 267.13x - 757.7 \).
c. **Capital Invested**: The overall position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 12.864x + 5281.6 \).

d. **Working Capital**: The position of working capital for a period of 20 years under study from 1990-91 to 2009-2010 shows a trend of increase except in certain years. There is a decline in working capital in certain years. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 269.22x – 1113.3 \).

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio**: The overall trend in debt equity ratio shows a trend of high fluctuations. In the initial years the ratio of debt to equity was high but during the latter years it declined.

ii. **Current Ratio**: The current ratio reveals a trend of high fluctuations. In the initial years the ratio was not equal to ideal but it reached to ideal position during 2008-09 and 2009-10 periods.

iii. **Return on Investment**: The return on investment of Transformers and Electrical Kerala Limited during certain years is not at all promising but in certain years an appreciable result is seen.

iv. **Net Profit to Sales**: The analysis of net profit to sales of Transformers and Electrical Kerala Limited shows that they are earning profit in certain years but the profit earned is not up to the mark during the period under study.
v. **Receivables to Sales:** In respect of receivables to sales, a fluctuating trend is noticed from 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Finished Goods to Sales:** A fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption:** The stock of raw materials to consumption shows a fluctuating trend of increase in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales:** A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

7. **Kerala State Electronics Development Corporation Limited**

a. **Net Worth:** The net worth remains negative from 1995 – 96. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 1262.1x + 2803.2 \).

b. **Capital Employed:** The capital employed during the entire period under analysis is seen increasing but with fluctuations. The trend line (linear trend of first degree) of the capital employed is \( Y=30.029x+1781.7 \).

c. **Capital Invested:** The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 1484.9x + 7604 \).
d. **Working Capital:** The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 79.444x - 40.051 \).

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio:** This ratio reveals that the debt to equity was lower in the initial periods but slightly increased in the liberalization periods.

ii. **Current Ratio:** The ratio was not ideal in any of the years under study.

iii. **Return on Investment:** It is clear indication from the ratios that the return on investment of Kerala State Electronics Development corporation is not a promising one during the entire period of 20 years from 1990-91 to 2009-10.

iv. **Net Profit to Sales:** It is clear from the analysis of profit to sales that even though there is profit in certain years the profit earned is not up to the mark during the whole period of 20 years under study.

v. ** Receivables to Sales:** A fluctuating trend is noticed from 1990-91 to 2009-10. The lower the months in the receivable to sales is really an indication of higher cash realization.

vi. **Stock of Finished Goods to Sales:** In this case a fluctuating trend is noticed from 1990-91 to 2009-10. The lower the months in the stock of finished goods to sales is an indication of increased sales.

vii. **Stock of Raw materials to Consumption:** In this case a fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.
viii. **Consumption to Sales**: In this case also a fluctuating trend of increase is noticed from 1990-91 to 2009-10. The trend is somewhat high and it indicates that consumption depends on sales.

8. **Kerala Agro Machinery Corporation Limited**

   a. **Net Worth**: The net worth position shows an increasing trend except for three years under study. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 498.2x - 1490. \)

   b. **Capital Employed**: The position of capital employed for a period of 20 years study from 1990-91 to 2009-2010 shows a trend of increase. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 465.46x - 113.3. \)

   c. **Capital Invested**: The position of capital invested shows a stagnant one from 1990-91 to 2006-07 and then shows a significant increase. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 1.5827x + 151.04. \)

   d. **Working Capital**: The position of working capital for a period of 20 years study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 435.12x - 1392.5. \)
Analysis of Solvency and Profitability:

i. Debt to Equity Ratio: The overall trend shows a trend of fluctuations. The ratio gives an indication that the debt in their capital structure is low.

ii. Current Ratio: In most of the years under study the ratio is higher than ideal one.

iii. Return on Investment: The position of return on investment shows an increasing trend but with minor fluctuations.

iv. Net Profit to Sales: The analysis of net profit to sales of Kerala Agro Machinery Corporation Limited shows that even though they are earning profit in all years, the profit earned is not up to the mark.

v. Receivables to Sales: A fluctuating trend is noticed during 1990-91 to 2009-10, the entire period under analysis.

vi. Stock of Finished Goods to Sales: A fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. Stock of Raw materials to Consumption: A fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. Consumption to Sales: In this case a fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.
9. Kerala Automobiles Limited

a. Net Worth: The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 93.393x - 1203.1 \)

b. Capital Employed: The position of capital employed for a period of 20 years of study from 1990-91 to 2009-2010 is a fluctuating one. The trend line (linear trend of first degree) of the Capital Employed from 1990-91 to 2009-2010 is \( Y = 29.101x + 382.55 \).

c. Capital Invested: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows a decreasing trend. The trend line (linear trend of first degree) of the Capital Invested from 1990-91 to 2009-2010 is \( Y = -23.72x + 1894.1 \).

d. Working Capital: The position of working capital for a period of 20 years study from 1990-91 to 2009-2010 shows a trend of increase. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 37.281x + 53.565 \).

Analysis of Solvency and Profitability:

i. Debt to Equity Ratio: In the initial years the ratio was lower and increased gradually.

ii. Current Ratio: The ratio shows a fluctuating trend and the ratio was not ideal in majority of the cases.
iii. **Return on Investment**: The return on investment of Kerala Automobiles Limited is not a promising one during the entire period from 1990-91 to 2009-10.

iv. **Net Profit to Sales**: The analysis of profit to sales of Kerala Automobiles Limited shows that even though they are earning profit in certain years the profit earned is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: A fluctuating trend is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Finished Goods to Sales**: A fluctuating trend of increase is noticed from 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption**: A fluctuating trend is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

10. **Kerala Agro Industries Corporation Limited**

a. **Net Worth**: In most of the period under analysis the net worth shows a negative one. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is $Y = -21.593x + 309.07$.

b. **Capital Employed**: The position of capital employed for a period of 20 years from 1990-91 to 2009-2010 is a fluctuating one. The trend line
(linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = -4.5619x + 258.3 \).

c. **Capital Invested**: The overall position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 25.885x + 428.54 \).

d. **Working Capital**: The position of working capital for a period of 20 years study 1990-91 to 2009-2010 shows a trend of decline. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = -35.685x + 184.7 \).

**Analysis of Solvency and Profitability**:

i. **Debt to Equity Ratio**: The trend shows an increase but with fluctuations.

ii. **Current Ratio**: The trend shows fluctuations and the ratio is not ideal in majority of the cases.

iii. **Return on Investment**: It is a clear indication from the ratios that the return on investment of the Kerala Agro Industries Corporation Limited is not a promising one during the period from 1990-91 to 2009-10.

iv. **Net Profit to Sales**: It is clear from the analysis of net profit to sales of the Kerala Agro Industries Corporation Limited that even though they are earning profit in certain years the profit earned is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.
v. **Receivables to Sales:** A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vi. **Stock of Finished Goods to Sales:** A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption:** A fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales:** A fluctuating trend of increase is noticed.

11. **Travancore Sugars and Chemicals Limited**

a. **Net Worth:** There is negative net worth in all the years under analysis except for two years. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = 1.6153x - 208.54 \).

b. **Capital Employed:** The capital employed for a period of 20 years under study from 1990-91 to 2009-2010 shows a negative growth. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 1.6081x - 119.77 \).

c. **Capital Invested:** The capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 7.5166x + 49.107 \).

d. **Working Capital:** The trend line (linear trend of first degree) of the Working Capital from 1990-91 to 2009-2010 is \( Y = 2.8472x - 179.24 \). The
working capital of the Travancore Sugars and Chemicals Limited is found to be negative during all the years under liberalization period.

Analysis of Solvency and Profitability

i.  **Debt to Equity Ratio**: The trend shows an increase but at a slow rate. In the initial years the ratio of debt to equity was lower and slightly increased in the liberalization periods.

ii. **Current Ratio**: The overall trend shows a trend of increase with fluctuations.

iii. **Return on Investment**: The ratio on the return on investment is not a promising one during the entire period of 20 years from 1990-91 to 2009-10.

iv.  **Net Profit to Sales**: The analysis indicates that Travancore Sugars and Chemicals Limited is earning profit in certain years but the profit is not up to the mark during the whole period from 1990-91 to 2009-10.

v.  **Receivables to Sales**: A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vi.  **Stock of Finished Goods to Sales**: A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii.  **Stock of Raw materials to Consumption**: A fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.
viii. **Consumption to Sales**: In this case, a fluctuating trend of increase is noticed in the initial years and a very high consumption level is noticed from 2002-03 onwards during the period under analysis.

12. **Sitaram Textiles Limited**

   a. **Net Worth**: The net worth of Sitaram Textiles was negative in almost all the years under analysis. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \( Y = -174.71x - 464.39 \)

   b. **Capital Employed**: The position of capital employed for a period of 20 years from 1990-91 to 2009-2010 is negative. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = -17.725x - 2.7364 \).

   c. **Capital Invested**: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the capital invested during 1990-91 to 2009-2010 is \( Y = -174.49x - 746.48 \).

   d. **Working Capital**: The working capital is negative for all the years. The trend line (linear trend of first degree) of the Working Capital is \( Y = -15.132x - 149.61 \).

**Analysis of Solvency and Profitability**:

i. **Debt to Equity Ratio**: The overall trend shows a trend of increase but with fluctuations in certain years in the liberalized era.
ii. **Current Ratio**: An increasing current ratio with fluctuations is noticed during the study period.

iii. **Return on Investment**: The return on investment of the Travancore Sugars and Chemicals Limited is a negative one during the entire period of 20 years.

iv. **Net Profit to Sales**: The profit to sales of the Sitaram textiles Limited shows that even though they are earning profit in certain years, the profit earned is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: In case of receivables to sales a fluctuating trend of increase is noticed during the whole 20 year period under analysis.

vi. **Stock of Finished Goods to Sales**: In this case also a fluctuating trend of increase is noticed during the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption**: In the case of stock of raw materials to consumption, a fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: In the case of consumption to sales a fluctuating trend of increase is noticed in all the 20 years under analysis.

13. **Handicrafts Development Corporation Limited**

a. **Net Worth**: The picture of net worth shows a positive one in some years but turns negative in some other years under analysis. The trend line (linear
trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = -10.724x + 122.83 \).

b. **Capital Employed**: The position of capital employed for a period of 20 years from 1990-91 to 2009-2010 is an increasing one with fluctuations. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 28.745x + 12.655 \).

c. **Capital Invested**: The overall position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 45.486x + 72.659 \).

d. **Working Capital**: The working capital during the entire period under analysis shows an increasing trend but with fluctuations. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 26.969x - 14.114 \)

**Analysis of Solvency and Profitability**:

i. **Debt to Equity Ratio**: The debt to equity ratio shows an increasing trend but with fluctuations during certain years under study.

ii. **Current Ratio**: The overall trend shows an increasing one with fluctuations for some years under study.

iii. **Return on Investment**: The return on investment during the period under analysis shows an increasing trend but turns negative in certain years.
iv. **Net Profit to Sales**: The analysis of profit to sales reveals that it is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: A trend of increase with fluctuations is noticed. The lower the months in the receivable to sales is really good for increasing the amount of cash by way of sales.

vi. **Stock of Finished Goods to Sales**: A fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis. The lower the months in the stock of finished goods to sales is an indication of increased sales.

vii. **Stock of Raw materials to Consumption**: A fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: A fluctuating trend of increased is noticed in all the 20 years period under analysis.

14. **Kerala State Bamboo Corporation Limited:**

(a) **Net Worth**: The trend in the net worth shows positive one till 2003--04 but negative net worth after that. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is $Y = -37.171x + 648.49$.

b. **Capital Employed**: The capital employed for a period of 20 years study from 1990-91 to 2009-2010 is in an increasing trend with fluctuations. The
trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is $Y = 11.134x + 462.08$.

c. **Capital Invested**: The capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is $Y = 60.954x + 119.37$.

d. **Working Capital**: The working capital during the entire period under analysis shows an increasing trend of fluctuations during the liberalized era. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is $Y = 2.3632x + 412.02$.

**Analysis of Solvency and Profitability**:

(i) **Debt to Equity Ratio**: The overall trends in the debt equity ratio shows a trend of increase but with fluctuations in the liberalized era.

(ii) **Current Ratio**: The overall trend shows a trend of increase with fluctuations in the liberalized era.

(iii) **Return on Investment**: The return on investment during the period under analysis shows an increase in certain years but turns negative in some years.

(iv) **Net Profit to Sales**: The analysis of profit to sales reveals that it is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.
v. **Receivables to Sales:** A trend of increase with fluctuations in seen during the study period.

vi. **Stock of Finished Goods to Sales**: In the case of stock of finished goods to sales a fluctuating trend of increase is noticed during 1990-91 to 2009-10.

vii. **Stock of Raw materials to Consumption**: In this case a fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: In the case of consumption to sales a fluctuating trend of increase is noticed in most of the years.

15. **Kerala State Civil Supplies Corporation Limited**

   a. **Net Worth**: The overall picture of net worth shows negative in all the years under study. The trend line (linear trend of first degree) of the Net worth from 1990-91 to 2009-2010 is \( Y = -2646.5x + 1112.5 \). The net worth turns negative during the last few years under study.

   b. **Capital Employed**: The position of capital employed for a period of 20 years study from 1990-91 to 2009-2010 shows an increasing trend with fluctuations in certain years. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 861.52x - 1387.5 \).

   c. **Capital Invested**: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 3509.5x - 1664.2 \).
d. **Working Capital**: Working capital during the entire period under analysis shows an increasing trend but with fluctuations in certain years. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 801.8 \times -1693.9 \).

**Analysis of Solvency and Profitability:**

i. **Debt to Equity Ratio**: The trend in debt to equity ratio shows fluctuations in the liberalized era.

ii. **Current Ratio**: The trend shows fluctuations in the liberalized era.

iii. **Return on Investment**: A fluctuating trend of increase is noticed but turns negative in certain years under study.

iv. **Net Profit to Sales**: It is clear from the analysis of profit to sales that it is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: In this case a trend of increase with fluctuations is seen.

vi. **Stock of Finished Goods to Sales**: A fluctuating trend of increase is noticed during 1990-91 to 2009-10 the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption**: A fluctuating trend of increase is noticed in all the 20 years from 1990-91 to 2009-10.

viii. **Consumption to Sales**: A fluctuating trend of increase is noticed in most of the years under analysis.
16. Kerala State Artisans Development Corporation Limited

a. **Net Worth**: The picture of net worth shows negative one in the initial years and latter there shows an increase. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \( Y = 7.2693x - 59.234 \).

b. **Capital Employed**: The position of capital employed for a period of 20 years from 1990-91 to 2009-2010 shows an increasing trend with fluctuations in certain years. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 21.004x - 53.631 \).

c. **Capital Invested**: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 32.485x - 4.835 \).

d. **Working Capital**: The trend line (linear trend of first degree) of the Working Capital from 1990-91 to 2009-2010 is \( Y = 20.888x - 58.468 \). There is an increase in working capital of the Kerala Artisans Development Corporation during all the years under liberalization period.

**Analysis of Solvency and Profitability**:

i. **Debt to Equity Ratio**: The trend in debt to equity ratio shows a trend of increase but with fluctuations in the liberalized era.

ii. **Current Ratio**: The trend in current ratio shows a trend of increase with fluctuations in the liberalized era.
iii. **Return on Investment**: The return on investment during the period under analysis shows a decline in all most all the years.

iv. **Net Profit to Sales**: It is clear from the analysis of profit to sales that it is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: In the case of receivables to sales a trend of increase with fluctuations is noticed.

vi. **Stock of Finished Goods to Sales**: In this case also a fluctuating trend of increase is noticed during 1990-91 to 2009-10 the whole 20 year period under analysis.

vii. **Stock of Raw materials to Consumption**: This ratio reveals the trends in stock of raw materials to consumption and a negligible impact is seen from 1990-91 to 2009-10.

viii. **Consumption to Sales**: In this case a fluctuating trend of increase is noticed in most of the years under analysis except negative trend in certain other years.

17. **Kerala State Palmyrah Development and Workers Welfare Corporation**

a. **Net Worth**: The net worth shows negative trend in the initial years and latter there was an increase. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \( Y = 2.0487x + 27.576 \).
b. **Capital Employed**: The position of capital employed for a period of 20 years from 1990-91 to 2009-2010 shows an increasing trend with fluctuations in certain years. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 3.6959x + 23.288 \).

c. **Capital Invested**: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 9.8858x + 9.6742 \).

d. **Working Capital**: Working capital during the entire period under analysis shows an increasing trend with fluctuations during the liberalized era. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y = 1.367x + 13.335 \).

**Analysis of Solvency and Profitability**:

i. **Debt to Equity Ratio**: The trend in the debt to equity is a fluctuating one in the liberalized era.

ii. **Current Ratio**: The trend shows an increase with fluctuations in the liberalized era.

iii. **Return on Investment**: The return on investment during the period under analysis shows a declining trend in almost all the years.
iv. **Net Profit to Sales**: The analysis of profit to sales is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales**: A trend of increase with fluctuations is noted.

vi. **Stock of Finished Goods to Sales**: In this case a fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

vii. **Stock of Raw Materials to Consumption**: In the case of stock of raw materials to consumption a fluctuating trend of increase is noticed during 1990-91 to 2009-10, the whole 20 year period under analysis.

viii. **Consumption to Sales**: In this case a fluctuating trend of increase is noticed in all the 20 years period under analysis.

18. **Kerala Shipping Inland Navigation Corporation**

a. **Net Worth**: The position of net worth shows a trend of increase with fluctuations. The trend line (linear trend of first degree) of the Net worth 1990-91 to 2009-2010 is \( Y = 41.726x + 497.74 \).

b. **Capital Employed**: The position of capital employed for a period of 20 years study from 1990-91 to 2009-2010 shows an increasing trend with fluctuations in certain years. The trend line (linear trend of first degree) of the Capital Employed during 1990-91 to 2009-2010 is \( Y = 36.284x + 585 \).

c. **Capital Invested**: The position of capital invested for a period of 20 years under study from 1990-91 to 2009-2010 shows an increasing trend. The
trend line (linear trend of first degree) of the Capital Invested during 1990-91 to 2009-2010 is \( Y = 72.528x + 355.28 \). There is an increase in the capital invested by Kerala Shipping Inland Navigation Corporation Limited during the liberalization period.

d. **Working Capital:** The working capital during the entire period under analysis shows that it is increasing but with minor fluctuations. The trend line (linear trend of first degree) of the Working Capital during 1990-91 to 2009-2010 is \( Y=21.637x + 412.26 \).

**Analysis of Solvency and Profitability**

i. **Debt to Equity Ratio:** The trend shows fluctuations in the liberalized era.

ii. **Current Ratio:** The trend shows fluctuations in the liberalized era.

iii. **Return on Investment:** It clearly indicates that the return on investment during the period under analysis shows a declining trend in all most all the years.

iv. **Net Profit to Sales:** The profit to sales is not up to the mark during the whole period of 20 years under study from 1990-91 to 2009-10.

v. **Receivables to Sales:** In this case a trend of increase with fluctuations is noticed during the entire period under analysis.

vi. **Stock of Finished Goods to Sales:** It shows a negligible figure from 1990-91 to 2009-10 the whole 20 year period under analysis.
vii. **Stock of Raw materials to Consumption**: In this case an appreciable result is not seen for the period from 1990-91 to 2009-10.

viii **Consumption to Sales**: In the case of consumption to sales a fluctuating trend of increase is noticed in almost all the 20 years period under analysis except negative trend in certain other years.

Section 2: Managers Perception on Financial Management Practices of PSEs

1. **Profitability and Return On Investment**: The sub variables identified and analysed are:

1. **Growth in Sales**: The mean marked level in this case is 60 per cent. In this case majority of the respondents recorded a level between 50 and 100 per cent which shows that growth in sales is needed for increasing profits during the periods of liberalization.

2. **Variability in Returns**: The return available to PSEs in Kerala are not steady as is clear from the mean marked level of opinion in 54 per cent.

3. **Buyer Characteristics**: There is change in the buying habits of customers on account of liberalization. The mean marked level of opinion of respondents is 66 per cent which makes it clear that there is greater impact on buyer characteristics on account of liberalization.

4. **Order Size**: The mean marked level of opinion of respondents in this case is 35 per cent which shows that there is no impact in size of order in the liberalization period.
5. **Ineffective Advertisement:** The mean marked level of 28 per cent makes it clear that the advertisement now given is effective.

6. **Dividend Policy:** There is no change in the dividend policy of PSEs during the period of liberalization as is clear from the mean marked level of respondents at 53 per cent.

7. **High Operating Cost and Other Costs:** A large majority viewed that there is increase in operating and other costs even during the periods of liberalization as is seen from the mean marked level of opinion of respondents at 81 per cent.

8. **Consumer Type:** As far as PSEs are concerned there are selected consumers. The profits depends on the type of consumers as far as PSEs are concerned even during the periods of liberalization as is clear from the mean marked level of opinion of 53 per cent.

9. **Negative Return On Investment:** The ROI is very low or even negative in majority of the PSEs in Kerala which is clear from the mean marked level of opinion at 50 per cent.

10. **Negative Net Worth:** There is the negative Net worth and is basically on account of less or no profit. The same position continues even during the periods of liberalization as is clear from the mean marked level of 55 per cent of respondents in the sample.
11. **Gross Margin**: The gross margin is not in an increasing trend but a declining one according to respondents which is clear from the mean marked level at 37 per cent.

12. **Variability in Stock Price**: There is variability in stock price in the period of liberalization as is seen from the mean recorded level of 65 per cent.

13. **Employee Turn Over and Absenteeism**: The mean recorded level in this case is 53 per cent which makes it clear that there is absenteeism and employee turnover even in the liberalized era.

14. **Product Customization**: There is lack of product customization even in the liberalized era according to respondents who recorded a mean level at 65 per cent.

15. **Competition**: High competition is faced by PSEs even during the periods of liberalization as is clear from the mean recorded level of 56 per cent.

16. **Imports**: The import of goods at cheaper rate affect the industries and their products in the periods of liberalization as is seen from the mean recorded level of 63 per cent.

17. **Less Quality of Products or Services**: The importance of quality of products or services is very prominent during the periods of liberalization. This is clear from the mean recorded level of 63 per cent.
Less Export: The value of export and its effect in the liberalization period are looked into and is seen that there is less export during liberalization period by PSEs (mean marked level in this case is 79 per cent).

Price Cost Gap: The price of products is not matched with the cost that leads to loss. There exists price cost gap even during the periods of liberalization as is clear from the mean marked level which is 70 per cent.

Sales Turnover: The sub variables identified and analyzed revealed the following:

1. Poor Sales Forecasting: There is poor sales forecasting even during the liberalized era as is seen from the mean marked level of 54 per cent.

2. Limited number of Customers: There is no change in the number of customers even during the periods of liberalization as is noticed from the mean marked level of 56 per cent.

3. Less production: It is seen from their opinion level that there is no hike in production during the periods of liberalization as is noticed from the mean marked level of 50 per cent.

4. Under Utilisation of Capacity: The mean recorded level of opinion in this case is 52 per cent which shows that the trend in under utilisation of capacity remains even during the periods of liberalization.
5. **Poor Labour Productivity:** In Kerala especially in the PSEs there is less labour productivity and the same trend continues during the periods of liberalization as is seen from the mean recorded level of 51 per cent.

6. **High Input Cost:** There is high input cost even during the periods of liberalization as is clear from the mean marked level of opinion of 69 per cent.

7. **Uneconomic Size of Project:** The size of project selected is sometimes uneconomic which leads to lag in production and sales. But this trend does not pose any unfavourable effects during the periods of liberalization as is seen from the mean recorded level of 48 per cent.

8. **High Wastage:** There is high wastage in PSEs on account of improper care and lack of control in handling materials. But it is not so significant in the liberalized era as is noticed from the mean recorded level of 38 per cent.

9. **Inadequate Maintenance and Replacement:** Poor maintenance and replacement leads to less sales on account of less production due to disruptions or break downs of machinery and is serious according to majority of the respondents as mean marked level in this case is 61 per cent.

10. **Lack of Market Feed Back:** There is insufficient market feed back as is opined by respondents with the mean marked level of 51 per cent.
11. **New Products Sale:** The mean marked level of the new products sale is 73 per cent which shows that there is sufficient impact in the liberalized era in respect of new product sale.

12. **Less Pricing:** The impact on less pricing is continuing in the liberalized era as is opined by respondents which is clear from the mean marked level of 51 per cent.

13. **Break Even Point too High:** The Break Even Point fixed is very high than the actual as is seen from mean marked level of 40 per cent, which shows that there is no serious impact in the liberalized era.

14. **Lack of Investment:** Production can be increased by incurring of capital expenditure or fixed cost thereby increasing sales but as far as PSEs are concerned there is less investment even during the periods as is seen from the mean marked level of opinion of respondents (76 per cent).

15. **Poor Sales Realisation:** The sales realization is not enough according to large majority of the respondents in the sample as is seen from the mean recorded level of 61 per cent.

16. **Inadequate Technological Knowhow:** The technical knowhow in PSEs are inadequate and they are not introducing the modern technologies in use even during the periods of liberalization as is clear from the mean recorded level of 51 per cent.
17. **Less Value Addition:** Even during the periods of liberalization, the PSEs in Kerala are not adding extra value to the products produced for meeting the competition as is clear from the mean marked level which is 73 per cent.

18. **Less Market Share Growth:** Less value addition, less improvement in production process and technology, all these leads to less market share growth in the PSEs of Kerala. This is very significant during the periods of liberalization as is seen from the mean marked level of 81 per cent.

III. **Management of Funds:** The sub variables analysed reveals the following:

1. **Sources of Funds:** Share capital and debts sources are the important long term sources of the PSEs in Kerala. As is seen from the mean recorded level (60 per cent) that the sources of funds available are in plenty in the liberalized era but the PSEs use only a few sources of funds.

2. **Capital Budgeting:** Long term decision for investment is based on capital budgeting. The mean recorded level of opinion is 55 per cent which shows that the capital budgeting decisions have changed a lot in the liberalized era.

3. **Financial Strategy:** About financial strategy, the mean recorded level of opinion (37 per cent) shows that it has not influenced much in the liberalized era.

4. **Attitude of Government:** The attitude of government and its impact in the periods of liberalization makes it clear that there is change in the attitude of the government on account of liberalization according to 143 respondents (79 per cent).
5. **Credit Policy**: The mean recorded level of opinion in this case is 45 per cent. Its impact in the liberalization period is not influenced much according to 73 respondents (41 per cent) by recording a level at 40 per cent and less.

6. **Attitude of Banks**: The mean recorded level of opinion of 55 per cent makes it clear that there is change in the attitude of banks in the liberalized era.

7. **Attitude of Financial Institutions**: In this case 134 respondents (74 per cent) marked their level between 50 per cent and 100 per cent in which the mean recorded level is 55 per cent.

8. **Decline in Net Worth**: In the case of PSEs majority are working with negative net worth on account of accumulated losses. The mean recorded level in this case is 56 per cent.

9. **Length of Production Cycle**: If the length of production cycle is more working capital required is also more. In this case the mean marked level is 53 per cent. It means that there is impact in this case also on account of liberalization but not so high.

10. **Length of Flow of Working Capital**: The mean recorded level is 41 per cent which shows that no impact has been noticed in this case due to liberalization.

11. **Unplanned /Untimely Investments**: In this case 113 respondents (63 per cent) recorded a level at 40 per cent and less. The mean recorded level is 41.
per cent which means that there is an impact on unplanned / untimely investment in the liberalized era.

12. **Technological Advancement**: The mean recorded level is 71 per cent which means that the use of advanced technology in the liberalized era is an urgent necessity.

13. **Fixed Assets Management**: The mean recorded level of 42 per cent states that this impact purely depends on the ability to use high technology assets.

14. **Current Asset Management**: There is considerable impact in current asset management in the liberalized era according to 150 respondents (83 per cent). The mean marked level of opinion is 55 per cent.

15. **Board Decision and Responsibility**: There is no impact in special as far as Board decision and responsibility are concerned in the PSEs as is clear from the mean marked level of opinion which is 35 per cent.

16. **Mismanagement**: The mean recorded level of opinion is 48 per cent which makes it clear that there is no major impact on mismanagement during the liberalized scenario.

17. **Poor Retained Earnings**: The mean recorded level of 62 per cent states that the earnings position is poor even during the liberalized era.

18. **Incurrence of Loss**: Loss in PSEs are a major cause for less development. Majority of the PSEs in Kerala are incurring cash losses. This situation still
continues in the liberalized era as is seen from the mean marked level of opinion at 54 per cent.

19. **Use of Debt Funds:** Debt funds are used for benefiting the owners. Majority of the PSEs in Kerala are using ownership capital. The mean marked level of opinion in this respect is 43 per cent which makes it clear that they are less dependent on debt capital.

20. **Inventory Management:** The mean marked level of opinion on it makes it clear that there is no impact on inventory management.

21. **Minimum Efficient Scale:** The mean recorded level (43 per cent) as regards minimum efficient scale in the wake of liberalization is not affected much according to respondents.

22. **Diversification of Products:** The mean recorded level of opinion marked in this case is 52 per cent which shows that there is sufficient impact in it on account of liberalization.

23. **Asset TurnOver:** In this case the mean marked level (36 per cent) shows that there is no special impact on it in the liberalized era.

24. **Professionalism:** About lack of professionalism the views recorded is only a lesser percentage which is clear from the mean recorded level of opinion (38 per cent).
25. **Over Centralisation.** The mean marked level of opinion is 60 per cent which shows that there is too much centralization in the liberalization period according to majority of the respondents in the sample.

26. **Inadequate Mobilisation of Funds:** 105 respondents (59 per cent) opined that there is inadequacy in mobilization of funds in PSEs in the liberalized era. The mean marked level in this case is 40 per cent.

27. **Lack of Efficient Collection of Machinery:** In the liberalized scenario there is no impact in collection of machinery by PSEs on account of liberalization as is seen from the mean recorded level of 22 per cent.

IV **Operating Costs and Other Costs:** The following sub variables are identified and analysed:

1. **Marketing Cost:** The mean recorded level in this case is only 31 per cent which makes it clear that there is no much impact on this variable in the liberalized era.

2. **High Labour Cost:** The mean marked level of opinion of 58 per cent revealed that the cost of labour is very high in the liberalized era.

3. **Poor Capacity Utilisation:** Capacity utilisation of plant is very low in PSEs in Kerala and the mean recorded level of opinion of 50 per cent shows that there is less capacity utilization in the liberalized era.
4. **Sales Force Expenditure**: The mean marked level of 50 per cent makes it clear that the cost is high in the liberalized era. In this case 119 respondents (67 per cent) recorded a level between 50 and 100 per cent.

5. **Interest Burden**: Interest payment on debts capital is another important variable which increases cost and leads to reduction in profit. The mean marked level of 52 percent gives an indication that the loss or less profit in PSEs is on account of interest burden according to large majority of the respondents in the sample.

6. **Cost of Advertising and its Variability**: Another important variable which affects the cost of PSEs is cost of advertising and its variability. The mean recorded level in this case is 51 per cent which means the cost of advertising is increasing in the liberalization period.

7. **High Operating Cost**: The mean marked level of opinion is 64 per cent which shows that the operating cost is too high during the liberalized era.

8. **Excessive Expenditure on Research and Development**: As far as excessive expenditure of Research and Development are concerned there is not much impact in the liberalized era as is seen from the mean marked level at 41 per cent.

9. **Lack of Cost Controls**: The mean recorded level of opinion on lack of control is not significant (mean marked level is 27 per cent).

10. **High Cost of Production**: The mean marked level of 63 per cent shows that the cost of production is very high even during the periods of liberalization.
11. **Out Dated Production Process:** The production process in PSEs is outdated and leads to increased cost of production and the mean marked level of opinion is 61 per cent which reveals that the production process is outdated.

12. **Production Capacity:** The mean marked level of 46 per cent shows that the respondents are of the view that the production capacity has not changed during the period of liberalization.

13. **Work Flow:** The mean marked level is 44 per cent which means that there is no change in work flow concept even during the period of liberalization.

14. **Geographical Dispersal of Production:** The mean marked level of 42 per cent reveals that this is not a significant variable in the liberalized era.

15. **Age of the Firm:** One of the important factor which determines the cost is age of the firm. The mean marked level of opinion of 52 per cent revealed that there is much impact in the liberalized era as far as age of the firm is concerned while determining the cost.

16. **Competition:** The mean recorded level of 64 per cent shows that competition is very important factor which leads to change in cost even in the period of liberalization.

17. **Nature of Product or Service:** The mean marked level of 66 per cent shows that its impact is significant in the periods of liberalization according to large majority of the respondents in the sample.
18. **Locking up of Inventory:** The mean marked level of opinion is 72 per cent which is an indication that unnecessary locking up of funds in inventory increases cost.

19. **Quality of Products or Services:** In this case the mean marked level of opinion of respondents is 57 per cent which highlights the need for maintaining proper quality of products or services.

20. **Tariff Policy:** According to large majority of the respondents (109 respondents) the reduction in tariff has not increased the cost.

21. **Other Expenses:** The mean marked level in this case is 55 per cent. In this case 135 respondents (75 per cent) marked a level between 50 and 100 per cent.

22. **Cost of Social Responsibility:** The mean marked level is 59 per cent which shows that there is high cost on account of undertaking social responsibility activities in the liberalized era.

23. **Depreciation:** The mean marked level of opinion on depreciation is 40 per cent which means that the incurrence of such expense is usual even in the liberalized era.
V  **External Factors**: The following external factors identified and analysed reveals the following:

1. **Multiplicity of Trade Unions**: The mean marked level of opinion of respondents (54 percent) indicates that there is multiplicity of trade unions and its effect is more in the periods of liberalization.

2. **Volatile Environment**: The mean marked level of opinion is 56 percent which shows that there is unfavourable environment during the periods of liberalization.

3. **Merger and Acquisition**: The mean recorded level of opinion of 69 percent shows that there is merger and acquisition which leads to development and growth of other sectors.

4. **Less International Involvement**: There is less international involvement during the periods of liberalization which is clear from the mean recorded level of 60 percent.

5. **Inflation and its Control**: The mean marked level of opinion of 42 percent shows that inflation and its control is a significant variable which creates an impact on PSEs in Kerala.

6. **Infrastructural Bottle Necks**: The views of respondents clearly indicate that there exists infrastructural bottlenecks as is clear from the mean marked level of opinion of 53 percent.
7. **Financial Bottlenecks**: Another problem faced by PSEs in Kerala is the problems in getting finance. It is a crucial problem according to respondents which is clear from the mean marked level of 60 per cent.

8. **Extraneous Factors**: The impact of this variable is significant in the liberalized era according to majority of respondents by marking a level between 50 and 80 per cent (151 respondents). The mean marked level of opinion of respondents is 56 per cent.

9. **Government Controls**: The mean marked level of 63 per cent also makes it clear that there is too much control from government even during the periods of liberalization.

10. **Abrupt Changes in Government Practices**: Government changes its policies abruptly causing problems to PSEs in Kerala. It is clear from the mean marked level at 73 per cent.

11. **Natural Calamities**: Another reason enquired is natural calamities. Its impact in the liberalized era is not significant as is clear from the mean marked level of 29 per cent.

12. **Market Constraints**: There exists market constraints in the periods of liberalization according to majority of the respondents in the sample (112 respondents). The mean marked level of opinion is 56 per cent.

13. **Number of Contacts**: The number of contacts have no impact during the periods of liberalization according to respondents which is clear from the
mean recorded level of 37 per cent. In this case majority of them marked a level less than 40 per cent.

14. **Government Price Control:** Another serious problem pointed out by respondents in the sample is price control by government. The mean marked level of opinion in this case is 64 per cent which makes it clear that its impact is crucial in the liberalized era.

15. **Fall in Domestic Demands:** The impact of liberalization is crucial to home made products to find market because numerous products are available now. The mean marked level of opinion is 50 per cent.

16. **Fall in Export Demands:** The views of respondents exhibits that there is no fall in demand in export market as is seen from the mean marked level of 44 per cent.

17. **Recession Risk:** In the liberalized era it is a significant variable as is seen from the mean recorded level of opinion of 51 per cent.

18. **Concentration:** Now in the liberalized era all industries sell their products through pooling it under certain places. Its impact is more during the periods of liberalization as is clear from the mean marked level of opinion of 72 per cent.

19. **Less Shared Marketing:** Most often the articles are sold by companies by means of joint sales. But its impact in the liberalized era is only less as is noticed from the mean marked level of opinion of 42 per cent.
20 **Patents**: Another important factor determining the progress of the industry is the patent rights. This is not a significant variable in changing the spheres of activities during the liberalization period as is clear from the mean recorded level of 48 per cent.

21 **Organizational form and Size of Business**: Under liberalization, larger the size of business and quality products can survive according to large majority of the respondents in the sample (109 respondents). The mean marked level of opinion in this case is as high as 76 per cent.

22 **Less Employee Co-operation**: There is external pressure from trade unions and political parties to change the attitude and co-operation of employees in the organization. In this case 172 respondents (96 per cent) recorded a level between 50 and 60 per cent. The mean recorded level in this case is 58 per cent which makes it clear that there is less support and co-operation from the part of employees in the globalised era.

23. **Less Communication Effectiveness**: There is less effective communication in PSEs according to majority of the respondents in the sample (149 respondents). The mean marked level of opinion is 53 per cent.

24. **Need for Auxiliary Services**: In the liberalized era there is a need for auxiliary service. The mean marked level of opinion in this respect is 76 per cent which shows its importance.
REGRESSION MODEL ON FINANCIAL MANAGEMENT OF PUBLIC SECTOR ENTERPRISES:

From the analysis on the Main variables and Sub variable items, the extent of influence of the Independent variables on Dependent variables in relation to the Financial Management in liberalization era was predicted by Regression Analysis.

In one variable Predictor Equation, there are Five Combinations of Variables \(5C_1 = 5\). In Two Variable Predictor Equation there are Ten combinations of variables \(5C_2=10\). In Three Variable Predictor Equation there are Ten combinations of Variables \(5C_3=10\). In Four Variable Predictor Equation there are Five Combination of Variables \(5C_4=5\). In Five variable Predictor Equation there is One Combination of Predictor Equation \(5C_5=1\). Altogether there are Hundred and Eleven Combinations of equations in Five Predictor Equation groups and from each such group of variables the best fit predictor equation is selected. The general predictor equation based upon Independent variable is given below:

\[
\hat{V}_6 = \beta_0 + \beta_1 V_1 + \beta_2 V_2 + \beta_3 V_3 + \beta_4 V_4 + \beta_5 V_5 + \epsilon
\]

1. **One Variable Predictor Equation**: All the correlation of the various equations are statistically significant when compared with table values. The best fit one variable predictor independent variable is the Management of funds \(V_3\), since it has the highest correlation of 0.73 and correlation square of 0.85 with the independent variable Financial management under liberalization \(V_6\) among all other combinations. The Best fit equations with the independent variable superior Relationship \(V_3\)' is: \(\hat{V}_6 = \beta_0 + \beta_3 V_3 + \epsilon\). After the calculation of the constant, the Beta
coefficient of the variable $V_3$ and the standard error, the best fit one variable predictor equation is: $\hat{V}_6 = 33.6 + 0.39V_3 + 1.88$

2. **Two Variable Predictor Equation**: In the two variable predictor equation, there are ten combinations of Independent variables with dependent variables, the best fit two variable predictor equation is the combination of the Management of Funds ($V_3$) and External Factors ($V_5$); since it has the highest correlation (0.86) and correlation square (0.73) with the dependent variable Financial Management under liberalization ($V_6$). $\hat{V}_6 = \beta_0 + \beta_3V_3 + \beta_5V_5 + \epsilon$ and after the calculation of the constant, the beta coefficient of the variable $V_2$ and $V_4$, and the standard error, the best fit two variable predictor equation is: $\hat{V}_6 = 19.0 + 0.35V_3 + 0.30V_5 + 1.45$.

3. **Three Variable Predictor Equation**: In three variable predictor equations there are Ten combinations of Independent variables. The Correlation ($r$) and Correlation Square ($r^2$) and the best fit three variable predictor equation is the combination with the Management of funds ($V_3$), Operating and Other cost ($V_4$) and External factors ($V_5$). Since it has the highest correlation value of 0.92 and correlation square of 0.84 with the dependent variable Financial management under liberalization ($V_6$): $\hat{V}_6 = \beta_0 + \beta_3V_3 + \beta_4V_4 + \beta_5V_5 + \epsilon$, after the calculation of the constant, the Beta Coefficient of variables $V_3$, $V_4$ and $V_5$ and the standard error, the best fit three variable predictor equation for the Financial Management under Liberalization is: $\hat{V}_6 = 12.8 + 0.28V_3 + 0.24V_4 + 0.24V_5 + 1.12$

4. **Four Variable Predictor Equation**: In this variable Predictor Equation, there are Five combinations of Independent variables. The Correlation ($r$) and
Correlation Square ($r^2$), the best fit Four variable predictor equation is the combination with Profitability and Return on Investment ($V_1$), Sales Turn Over ($V_2$), Management of Funds ($V_3$) and Operating and Other Costs ($V_4$), since it has the highest correlation value of 0.96 and correlation square of 0.91 with the dependent variable Financial Management under liberalization ($v6$) is:

$$\hat{V}_6 = \beta_0 + \beta_1 V_1 + \beta_2 V_2 + \beta_3 V_3 + \beta_4 V_4 + \epsilon$$

and the beta coefficient of variables $V_1$, $V_2$, $V_3$ and $V_5$ and the standard error, the best fit from variable predictor equation is:

$$\hat{V}_6 = 4.8 + 0.17V_1 + 0.19V_2 + 0.29V_3 + 0.26V_5 + 0.84$$

5. **Five Variable Predictor Equation**: The regression equation is formed with the Independent Variables Profitability and ROI ($V_1$), Sales Turnover ($V_2$), Management of Funds ($V_3$), Operating and Other costs ($V_4$) and External Factors ($V_5$). The multiple correlation ($r$) with a correlation square ($r^2$) between all independent variable and dependent variable is 1.000. The best fit equation for the five independent variables $V_1$, $V_2$, $V_3$, $V_4$, $V_5$ is:

$$\hat{V}_6 = \beta_0 + \beta_1 V_1 + \beta_2 V_2 + \beta_3 V_3 + \beta_4 V_4 + \beta_5 V_5 + \epsilon$$

After the calculation of the constant, beta coefficient of the variables $V_1$, $V_2$, $V_3$, $V_4$, $V_5$ and $\epsilon$, the best fit five variable predictor equation is:

$$\hat{V}_6 = 0.13 + 0.17V_1 + 0.16V_2 + 0.24V_3 + 0.21V_4 + 0.21V_5 + 0.32.$$  

The Multiple Regression Model is depicted in Table 5.1.
Table 5.1

The Multiple Regression Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Predictor Equations</th>
<th>R</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>$V_3$</td>
<td>$\hat{V}_6 = 33.6 + 0.39V_3 + 1.88$</td>
<td>0.73</td>
<td>0.55</td>
</tr>
<tr>
<td>$V_3, V_5$</td>
<td>$\hat{V}_6 = 19.0 + 0.35V_3 + 0.30V_5 + 1.45$</td>
<td>0.86</td>
<td>0.73</td>
</tr>
<tr>
<td>$V_3, V_4, V_5$</td>
<td>$\hat{V}_6 = 12.8 + 0.28V_3 + 0.24V_4 + 0.24V_5 + 1.12$</td>
<td>0.92</td>
<td>0.84</td>
</tr>
<tr>
<td>$V_1, V_2, V_3, V_5$</td>
<td>$\hat{V}_6 = 4.8 + 0.17V_1 + 0.19V_2 + 0.29V_3 + 0.26V_5 + 0.84$</td>
<td>0.96</td>
<td>0.91</td>
</tr>
<tr>
<td>$V_1, V_2, V_3, V_4, V_5$</td>
<td>$\hat{V}_6 = 0.13 + 0.17V_1 + 0.16V_2 + 0.24V_3 + 0.21V_4 + 0.21V_5 + 0.32$</td>
<td>0.99</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Source: Computed Values

There exist factors like Profitability and ROI, Sales Turn Over, Management of Funds, Operating and Other Costs and External Factors as the main variables in the Financial management of PSEs under liberalization. The regression analysis is made to know the relationship of the independent variables and the dependent variable Financial Management under liberalization through one variable, two variable, three variable, four variable and five variable predictor equations (regression model). It shows that there exist all the variables but most important among the five variables are Management of Funds and External Factors. The other three namely Profitability and ROI, Operating and other costs and Sales Turn Over are equally important and are dependent on each other.

Conclusions

It is seen from the analysis on the financial performance by taking into account the major variables such as net worth, capital employed, capital invested and working capital that the position is not up to the mark. It means that there exists increase in some cases in some industries but with a fluctuating trend or some times it goes even negative in certain cases. It is clear from the analysis on the operating
performance through the use of variables such as Net profit to sales, ROI, Current ratio, Debt equity ratio, receivables to Sales, Stock of Finished Goods to Sales, Stock of Raw materials to Consumption and Consumption to sales that there is poor net profit and return on investment. This itself clarifies that the result is not up to the mark in majority of the PSEs in Kerala. Management of funds and external factors are very prominent from the analysis of perception of managers.

Based on these analyses, the researcher rejects the hypothesis that Public Sector Enterprises failed to attract ownership funds during liberalization but all other hypotheses stated below stands accepted.

1) There exists disparity in fund invested and the capital employed in Public Sector Enterprises in Kerala during liberalization period.

2) During the liberalization era, the Public Sector Enterprises failed to attract debt funds into the business.

3) The Public Sector Enterprises in Kerala failed to manage short term funds during the liberalization period.

4) Lack of adequate return on investment hinders the development of Public Sector Enterprises in Kerala.

5) Profit earned by majority of the Public Sector Enterprises is meagers.

Suggestions

The industrial climate of Kerala can be changed during the period of liberalization and globalization with due consideration of corporate governance practices in general and financial management in particular. The following suggestions are made in the light of the summary of findings and conclusions of the study:
1. It is found that some PSEs have huge investment in current assets whereas a large number of companies have inadequate working capital. The boards of these companies need to discuss the working capital management issues and lay down policies and procedures. Management of working capital need to be strengthened for which professionally qualified expertise personnel should be employed and work on a team spirit.

2. The use of current liabilities as a source of finance is less in PSEs. So the management of PSEs should try to use current liabilities as a source of finance because its cost of capital is almost nil.

3. In the liberalized environment the PSEs should try to raise maximum debt capital in their capital structure so as to enjoy the benefit of trading on equity.

4. The main criteria for judging the performance of PSEs should be financial and working results. Accountability should be based on the principle: greater the autonomy, greater the accountability.

5. It is essential to have objective performance appraisal criteria for PSEs. For this purpose the best way is to introduce performance audit and revise the performance indicators.

6. Motivate the employees and the trade unions to become loyal to Public Sector Enterprises and utilize their productive ability in general and machine capacity in particular.
7. Improve the sales position by increasing the utilization of capacity production and reduce the expenditure by avoiding wastages for improving the profit position.

8. Reform measures such as fixed tenure for managing directors need to be ensured.

9. Employees Stock Option Scheme should be considered in PSEs so as to retain the interest of the employees in the growth of the organization.

10. The marketing wing of PSEs needs to be further strengthened. A special cell should be created and should be charged with the duty of giving wide publicity to the various schemes through the media.

11. PSEs should be compensated adequately for carrying out social obligations and this compensation should be through explicit budgetary provisions.

12. MOU system akin to Central PSEs should be introduced to state PSEs.

13. The incidence of project failure in PSEs has got to be curtailed. Economy, efficiency and effectiveness in PSEs are the need of the hour to improve overall performance of the state economy.

14. The management information system should be systematised in order to assist decision making on the one hand and effective control over the PSEs on the other.

15. Some of the PSEs suffer from underutilization of their capacities because of non-materialisation of expectations of demand. There should be a systematic and scientific market survey so as to assess the demand correctly before a project is conceived.
16. Many of the PSEs have been characterised by delay in commissioning of their projects mainly because of Governmental delays in decision making. The Government should constitute a Committee of Secretaries of the concerned departments to expedite the setting up of projects in public sector, once they are planned by the Government.

17. The extent of financial control of all the PSEs need not be uniform. The type of environment (competitive and non-competitive), internal resource generation and age of the PSE should be kept in mind while deciding about the degree of financial autonomy. There should be greater deal of financial autonomy for PSEs financially viable and operating in competitive environment.

18. Special budgeting controlling tools like performance budgeting and zero based budgeting are to be used by PSEs so as to make efficient utilization of resources.

**Topics for Further Research**

The following areas are suggested for further research:

1. Public Sector Undertakings in Kerala – A Sickness Prediction Model

2. A Study on Public Sector Undertakings in Kerala to identify Viable and Non-viable Units

3. Public Sector Undertakings in Kerala - A Study on Labour Productivity
