Eastern Indian varieties are typically late. Some of the local mango varieties originating from agriculture and related industries. Some agricultural products are not consumable directly, and before hitting the final consumption basket, they go for value addition. The process of value addition varies from preservation such as drying, grading, storage by modern capital intensive methods to the production of high-value goods.

The market for mango pulp is expected to grow exponentially as India is the leader among major mango growers. Mango pulp or concentrate is perfectly suited for conversion to juice, jams, fruit cheese and various other kinds of beverages. It is used in puddings, bakery filings, and soft drinks. Mango pulp is used as a raw material, and before hitting the final consumption basket, they go for value addition.

From the results, it is evident that the case firm must maintain appropriate bank balance, cash at hand, and short-term investment in current assets in order to increase the good liquidity position. Lower total asset turnover ratio of the case firm indicates too much capital is tied up in assets and that asset is not being used efficiently in generating revenue. It is suggested that the case firm has to increase its profitability by managing its operating cost.

Keywords: Mango pulp processing unit, ratio analysis, financial performance & position

Introduction
India has numerous agro-climatic conditions and enjoys an enviable location for all forms of horticultural crops to be cultivated. In recent years, India has witnessed an increase in the development of horticulture. Significant progress has been made in expanding the region, which has led to higher production. At present, India is one of the largest producers of fruits and ranks second to China in fruit production. Horticulture area has grown by 2.6 percent per annum over the last decade and annual production has increased by 4.8 percent. Horticulural crop production accounts for 311.71 MT from an area of 25.43 million hectares during 2017-18. Fruit production from 2004-05 to 2017-18 rose from 50.9 MT to 97.35 MT. In India, horticultural production in Uttar Pradesh (392.48 lakh tonnes) was the largest, followed by West Bengal (324.2 lakh tonnes). Total fruit production in Andhra Pradesh (152.15 lakh tonnes) is the largest, followed by Maharashtra (117.28 lakh tonnes). (Source: Horticultural statistics at a glance, 2019).

Indian mango is a special commodity that confirms the high quality standards and the abundance of nutrients packed in it. Mangos are strong protector against heart disease, cancer and cholesterol, and can provide up to 40 percent of the daily dietary fibre requirements. India is the birthplace to around 1,000 varieties. However, in India, only a few varieties are commercially cultivated. For optimum growth and yield, most of the Indian mango varieties have particular eco-geographical requirements. Compared to the Southern and Western Indian varieties, the Northern/Eastern Indian varieties are typically late. Some of the local mango varieties in the extreme southern parts of India bear fruit throughout the year. Andhra Pradesh, Uttar Pradesh, Karnataka, Bihar, Gujarat and Tamil Nadu are the major mango-growing states. With a share of 23.47 percent and the highest productivity, Uttar Pradesh ranks first in mango production. India is also a leading exporter of fresh mangoes.

The agro-based industry is a sub-set of the manufacturing sector and processes raw materials originating from agriculture and related industries. Some agricultural products are not consumable directly, and before hitting the final consumption basket, they go for value addition. The process of value addition varies from preservation such as drying, grading, storage by modern capital intensive methods to the production of high-value goods.

The market for mango pulp is expected to grow exponentially as India is the leader among major mango growers. Mango pulp or concentrate is perfectly suited for conversion to juice, jams, fruit cheese and various other kinds of beverages. It is used in puddings, bakery filings,
fruit meals for children and flavour industry, and also to make the most delicious ice creams, yoghurt and confectionery. India is largest mango pulp exporter in the world and has exported 85,725.55 MT of Mango pulp to the world for the worth of Rs.584.32 crores or $8.88 USD millions during the year 2019-20. The major export destinations are Saudi Arab, Yemen Republic, Netherland, Kuwait, USA (2019-20). (Source: APEDA, 2015) In nature, mango is perishable and large amounts of mango fruits are wasted every year due to the unavailability of storage and transport facilities. Processing of fresh mangoes into various items is one of the strategies to prevent such losses in mango fruits. A number of processing firms operate in Tamil Nadu, with the largest share of mango processing in Krishnagiri districts. Processing mango pulp creates revenue and job opportunities in the region. The present study has examined the following objectives; i) To analyse the liquidity condition of a case firm. ii) To examine the solvency, activity and profitability condition of the case firm. iii) To give suggestions and recommendations based on the study.

Methodology
Due to the larger area under mango cultivation in Tamil Nadu, Krishnagiri district was selected purposely, as it had more pulp processing units. Secondary data such as company’s annual report during the years 2014 – 19 were directly obtained from the factory and analysed to know about the financial performance of the company.

Tools of analysis
Financial ratios explain relationships between different aspects of a company's operations and provide relative measures of the firm's position and performance. Financial ratios are also used by investors to assess various attributes of a company's financial strength or operating results. A firm's ability to obtain financing or equity financing will depend on the company's financial ratios. Financial ratios are categorized into Liquidity ratios, Activity ratios, Solvency ratios and Profitability ratios.

Liquidity ratio
1. Current ratio = Current assets/Current liabilities
2. Quick ratio = (Current assets- Inventories)/Current liabilities

Activity ratio
1. Inventory turnover = Cost of goods sold/average inventory
2. Receivables turnover = Total revenue/average receivables
3. Total asset turnover = Total revenue/average total assets
4. Working capital turnover = Total revenue/average working capital

Solvency ratio
1. Debt-asset ratio = Total debt/Total asset
2. Debt-equity ratio = Total debt/Total shareholder’s equity

Profitability ratio
1. Gross profit margin = Gross profit/Total revenue
2. Net profit margin = Net profit/Total revenue
3. Return on Asset = Net profit/Total asset
4. Return on Equity = Net profit/Total shareholder’s equity

Results and Discussion
The results and discussion of the study are given under following categories.

i) Liquidity position
Liquidity is the ability to satisfy the company’s short-term obligations using assets that can be most readily converted into cash. It can be classified into current and quick ratio. Current ratio is ability to satisfy current liabilities using current assets and Quick ratio is ability to satisfy current liabilities using the most liquid of current assets. The liquidity position of Mango pulp processing unit over the period of five years (2014-19) is presented in Table 1.

| Year   | Financial Year | Current Ratio | Quick Ratio |
|--------|----------------|---------------|-------------|
| 2014-15| 0.717          | 0.466         |
| 2015-16| 0.729          | 0.414         |
| 2016-17| 0.658          | 0.387         |
| 2017-18| 0.569          | 0.582         |
| 2018-19| 0.833          | 0.835         |
| Average| 0.701          | 0.537         |

An increase in the current ratio represents improvement in the liquidity position of a firm while a decrease in the current ratio indicates there has been deterioration in the liquidity position of the firm. Table 1. Showed that the company had lowest value of current ratio during the year 2017 (0.57) and highest value in 2019 (0.83) and lowest value of quick ratio during the year 2016 (0.39) and highest value in 2019 (0.84). The ideal quick ratio is ‘1’, and a lower quick ratio represents that firm’s liquidity position is not good. Higher the current ratio indicates good quality and also a satisfactory debt repayment capacity of the firm. It also ensures the safety of the investments made by the creditors.

Current ratio of the case firm for the year 2016-17 & 2017-18 is lower than the average and might indicate a higher risk of distress or default. The average quick ratio of the case firm is also lesser than the ideal ratio which indicated that the case firm may not be using their assets efficiently.

ii) Activity ratios
Activity ratios reflect the number of times assets flow into and out of the company during the period. It can be classified into inventory, receivable, total asset and working capital turnover. A turnover is a gauge of the efficiency of putting assets to work. Inventory turnover indicates how efficiently a company is able to manage its inventory during the period, receivables turnover indicates how many times accounts receivable are created and collected during the period, total asset turnover indicates the extent to which total assets create revenues during the period, working capital turnover indicates the efficiency of putting working capital to work. Activity ratios of Mango pulp processing unit over the period of five years (2014-19) is presented in Table 2.

| Year   | Financial Year | Inventory Turnover | Receivable Turnover | Total Asset Turnover | Working Capital Turnover |
|--------|----------------|--------------------|---------------------|----------------------|-------------------------|
| 2014-15| 1.415          | 9.251              | 1.297               | 4.476                |
| 2015-16| 1.235          | 7.964              | 1.621               | 4.912                |
| 2016-17| 1.105          | 10.025             | 1.723               | 7.026                |
| 2017-18| 1.123          | 9.650              | 1.153               | 2.672                |
| 2018-19| 1.354          | 9.218              | 1.086               | 2.629                |
| Average| 1.246          | 9.222              | 1.376               | 4.343                |
A high ratio indicates that a company is using its total assets very efficiently or that it does not own many assets, to begin with. A low ratio indicates that too much capital is tied up in assets and that the assets are not being used efficiently in generating revenue. Table 2. showed that the company had the lowest value of inventory turnover during 2016 (1.11) and the highest value in 2014 (1.42), the lowest value of receivable turnover during 2015 (7.96) compared with highest value during 2016 (10.03), the lowest value of total asset turnover during 2018 (1.09) compared with highest value during 2016 (1.72) and the lowest value of working capital turnover during 2018 (2.63) compared with highest value during 2016 (7.03).

The inventory turnover ratio of the case firm during the year 2015-17 was lower than the average value, indicating that the inventory is moving too slowly and is tying up capital. The receivable turnover ratio of the case firm during the year 2018-19 is comparatively lesser than the average value, which signals that the company is not able to convert its receivables as fast as it should. The total asset turnover ratio of the case firm during the year 2014-15 & 2017-19 is lower than the average value, indicating that too much capital is tied up in assets and that the assets are not being used efficiently in generating revenue. The working capital turnover of the case firm during the year 2017-19 that is lower than the average value however achieving a positive working capital is essential and not to be too large in order to not tie up capital that can be used elsewhere.

### iii) Solvency ratio

A company’s business risk is determined, in large part, from the company’s line of business. Financial risk is the risk resulting from a company’s choice of how to finance the business using debt or equity. Solvency ratios used to assess a company’s financial risk. It can be classified into Debt-asset ratio and Debt-equity ratio. Debt-asset ratio indicates proportion of assets financed with, debt-equity ratio indicates debt financing relative to equity financing. The solvency ratios of Mango pulp processing unit over the period of five years 2014-19 is presented in Table 3.

| Financial Year | Debt-Asset ratio | Debt-Equity ratio |
|----------------|------------------|-------------------|
| 2014-15        | 0.705            | 19.940            |
| 2015-16        | 0.617            | 17.656            |
| 2016-17        | 0.610            | 18.477            |
| 2017-18        | 0.437            | 18.718            |
| 2018-19        | 0.502            | 19.445            |
| Average        | 0.574            | 18.847            |

Higher debt-asset ratio indicates that a company is significantly funded by debt and may have difficulty meeting its obligations. Debt-equity ratio is similar to debt-asset ratio looks at how much of the debt can be covered by equity. Table 3. Showed that the company had the lowest value of debt-asset ratio during 2017-18 (0.44) and the highest value during 2014-15 (0.71) and the lowest value of debt-equity ratio during 2015-16 (17.67) and the highest value during 2014-15 (19.94).

The debt-asset ratio of the case firm for the five years is below 1, indicating the well-organized use of funds. Debt-equity ratio of the case firm for the year 2015-18 is lower than the average value, which is favourable condition because it indicates less risk and less depends on external.

### Profitability ratio

Margins and return ratios provide information on the profitability of a company and the efficiency of the company. A margin is a portion of revenues that is a profit. A return is a comparison of a profit with the investment necessary to generate the profit. Each margin ratio compares a measure of income with total revenues and return ratios compare a measure of profit with the investment that produces the profit. Profitability ratios of Mango pulp processing unit over the period of five years 2014-19 is presented in Table 4.

| Financial Year | Gross Profit Margin | Net Profit Margin | Return on Investment | Return on Equity |
|----------------|---------------------|-------------------|----------------------|------------------|
| 2014-15        | 0.129               | 0.051             | 0.057                | 1.625            |
| 2015-16        | 0.085               | 0.029             | 0.049                | 1.430            |
| 2016-17        | 0.082               | 0.026             | 0.045                | 1.367            |
| 2017-18        | 0.128               | 0.028             | 0.033                | 1.417            |
| 2018-19        | 0.144               | 0.037             | 0.040                | 1.571            |
| Average        | 0.113               | 0.034             | 0.045                | 1.482            |

The above table depicted that the gross profit ratio during 2018-19 (0.14) was maximum whereas the ratio was in decline phase during the year 2014-17. The net profit ratio in 2014-15 (0.05) was maximum and later it decreases in sales which indicates the inefficient management of the business. The highest value of ROA and ROE were during 2014-15 (0.06 and 1.625 respectively).

The gross profit margin of the case firm for the year 2015-16 is lower than the average value, the net profit margin of the case firm for the year 2015-17 is lower than the average value, ROI and ROE of the case firm for the year 2017-19 and 2015-17 is lower than the average value.

### Conclusion

The results indicate that the current ratio was not at the satisfactory level. Hence, the company has to increase its current assets or decrease its current liabilities. Quick ratio was found to be very low in all the years, hence the firm must maintain an adequate level of bank balance, cash at hand, and short-term investment in current assets. The company can be maintained inventory turnover ratio at desirable level. Lower total asset turnover ratio of the case firm indicates too much capital being-tied up in assets and that the asset is not being used efficiently in generating revenue. Lower debt equity ratio of the case firm indicates that the company is relying much on equity to finance the business, which could be costly and inefficient. Low profitability of the case firm indicates low selling price, low sales and adverse purchasing policies. It is suggested to follow good management practices which will improve the profitability of the company by managing its operating costs.

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