

## Modern Textiles

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In recent times, Serena Khan, the dynamic CEO and primary stakeholder of Modern Fibres, Ltd. (Modern Fibres), encountered a challenging scenario as she arrived at the company's plant one crisp morning. The urgency of meeting customer demands for rolls of fibre yarn was palpable, yet trucks loaded just the night before remained immobilized. The government tax inspector, stationed at the warehouse, adamantly refused to clear the trucks for departure due to unpaid excise tax. This predicament shed light on a deeper issue: Modern Fibres had overdrawn its bank account for the third time in as many weeks, leaving it cash-strapped. Victor Sharma, the astute financial controller, grappled with reconciling the company's financial position amid mounting pressure from irate truck drivers, who voiced their discontent loudly. With the shipment delayed for at least another two days, Khan braced herself for the inevitable task of explaining the setback to frustrated customers.

The looming financial crisis prompted the branch manager of the All-India Bank & Trust Company to urgently request a meeting with Khan to discuss Modern Fibres' financial condition and strategies for restoring liquidity. Khan expressed her bewilderment to Sharma, questioning the incongruity between the company's profitability and its escalating dependence on bank loans. She stressed the urgent need to address the cash shortfall promptly, especially with the company entering its peak selling season, and emphasized the critical importance of avoiding a recurrence of past financial missteps.

### About Modern Textiles

Modern Fibres, Ltd. specializes in the manufacturing of a diverse range of textile products including cotton yarn, knitted fabric, cottonseed oil, and oilcakes. The company's journey began in 1997 with the establishment of a cotton ginning plant, focusing initially on processing cotton bales and seeds. Subsequent expansions saw the incorporation of a crushing unit in 2000 to extract oil from cotton and mustard seeds, thereby introducing cottonseed oil, mustard oil, and oilcake to the product portfolio.

In 2011, Modern Fibres ventured into cotton yarn manufacturing by setting up a spinning plant, followed by the installation of a knitting machine in 2014 to enter the production of knitted fabric. Under the visionary leadership of Serena Khan, the company has experienced significant growth, culminating in operational revenue of Rs. 11,536.49 lakhs during the fiscal year 2021.

Modern Fibres operates from a single manufacturing facility located in Jaitu (Dist Faridkot), Punjab. As of the latest disclosure, the company boasts an installed capacity of 18,000 spindles for cotton yarn manufacturing, 441 mt per annum for knitted fabric, and 6,750 mt per annum for seed oil/oilcake production. The company has consistently invested in its manufacturing infrastructure to meet the evolving demands of its product portfolio and market reach.

While Modern Fibres primarily caters to the domestic market, its revenue from operations has witnessed steady growth. Domestic sales accounted for 100.00% of the total revenue for the three months ended June 30, 2021, and for the fiscal years ended March 31, 2021, 2020, and 2019. Majority of the company's customers are situated in Punjab and Haryana. As of June 30, 2021, Modern Fibres manages its supply chain operations through two warehouses and one shop cum godown, ensuring efficient distribution and customer service.

## **Overview of the Industry**

The "India Cotton Industry Outlook 2017-2030" has been meticulously crafted based on thorough industry analysis conducted by seasoned industry experts. This comprehensive report delves into various aspects of the India cotton industry, covering the competitive landscape and the current positioning of key players within the sector. It encompasses a wide array of analytical tools including Porter's five forces model, SWOT analysis, company profiling, and examination of business strategies and models adopted by industry players. Furthermore, the report employs value chain analysis to dissect cost differentiations and pricing models, offering valuable insights to both existing stakeholders and potential entrants.

The global economic landscape experienced a downturn in FY 20, marked by sluggish growth attributed to weaknesses in certain emerging economies, leading to a deceleration in global manufacturing and trade. Factors such as the uncertainties surrounding Brexit and the ongoing trade tensions between the United States and China further compounded the challenges, exacerbating already subdued macroeconomic conditions. According to the International Monetary Fund's (IMF) World Economic Outlook for April 2020, global economic growth plummeted to 2.9% in 2019, a significant decline from the 3.6% growth recorded in 2018. The outbreak of the COVID-19 pandemic ushered in an unprecedented era of uncertainty, with economies worldwide grappling with restrictions on movement, disruptions to trade, and widespread business disruptions. The potential for further disruptions in developed economies due to tariffs, embargoes, and other trade restrictions, coupled with heightened volatility in commodity prices, including oil and metals, poses additional challenges to the near-term economic outlook. The IMF projects a contraction in global growth by 3% in 2020, underscoring the severity of the economic challenges faced globally.

## Production and Distribution system

In the context of Modern Fibres Ltd., a company specializing in the production of textile fibres and related products, the production and distribution processes are crucial components of its operations. Let's delve into each aspect:

### Production Process:

**Raw Material Sourcing:** Modern Fibres sources raw materials such as cotton, synthetic fibres, and other materials necessary for textile production. This involves procuring high-quality raw materials from reliable suppliers to ensure the consistency and quality of the final products.

**Manufacturing:** The manufacturing process at Modern Fibres involves various stages, including spinning fibres into yarn, weaving or knitting the yarn into fabric, and finishing processes like dyeing and printing. The company may also engage in specialized processes such as blending fibres, adding finishes for specific functionalities, or incorporating innovative technologies into the production process.

**Innovation and Technology:** Modern Fibres incorporates modern technologies and innovations into its production processes to enhance efficiency, quality, and sustainability. This may include the use of advanced machinery, automation, and digitalization to optimize production processes, as well as the adoption of eco-friendly practices and materials to minimize environmental impact.

**Quality Control:** Quality control measures are implemented throughout the production process to ensure that the fibers and textiles meet industry standards and customer requirements. This involves rigorous testing and inspection of raw materials, intermediate products, and finished goods to maintain consistent quality and performance.

### Distribution Channels:

**Retail and Wholesale:** Modern Fibres distributes its products through a combination of retail and wholesale channels. This may include selling directly to retailers, textile manufacturers, and other businesses in the industry, as well as through online platforms and e-commerce channels to reach end consumers.

**Supply Chain Management:** Efficient supply chain management is essential for Modern Fibres to ensure the timely delivery of its products to customers. This involves managing inventory, logistics, transportation, and warehousing activities to optimize efficiency and minimize costs.

**Global Reach:** As a modern textile company, Modern Fibres operates in a global market, serving customers both domestically and internationally. This may involve establishing distribution networks and partnerships with suppliers, distributors, and retailers in various regions to expand its market reach and meet the demands of diverse customer segments.

**Sustainability and Ethical Practices:** Modern Fibres is committed to sustainability and ethical practices in its production and distribution processes. This includes initiatives to reduce environmental impact, promote fair labor practices, and ensure transparency and accountability throughout the supply chain.

In summary, the production and distribution processes of Modern Fibres involve a combination of advanced technologies, quality control measures, and strategic distribution channels to deliver high-quality textile fibers and products to customers while upholding principles of sustainability and ethical responsibility.

## **Company Performance (Exhibit 1)**

The financial data for Modern Fibres, Ltd. reveals a significant growth trajectory from 2022 to 2023. Gross sales increased from 644.8 million to 796.6 million Indian rupees, reflecting robust revenue generation. Despite a rise in excise tax and operating expenses, the company saw a substantial boost in net sales, indicating effective cost management strategies. Moreover, gross profits surged from 76.1 million to 111.6 million rupees, underscoring improved operational efficiency and profitability. Notably, net profit experienced a remarkable surge from 5.5 million to 26.9 million rupees, signifying enhanced bottom-line performance. Additionally, there was a marginal decrease in cash reserves, accounts receivable, and inventory, suggesting efficient working capital management. The company's balance sheet also exhibited healthy growth, with total assets increasing from 146.5 million to 162.7 million rupees. Overall, these financial indicators reflect a positive outlook for Modern Fibres, demonstrating its ability to capitalize on market opportunities and deliver strong financial results.

## **Financial Forecast (Exhibit 2)**

The monthly sales data for Modern Fibres, Ltd. in 2023 and the forecast for 2024 showcase a consistent pattern of growth and seasonality. In 2023, sales steadily increased throughout the year, peaking in June and gradually declining towards the end of the year. The forecast for 2024 indicates a continuation of this trend, with projected sales surpassing the previous year's figures. Notably, sales are expected to peak during the middle months of the year, particularly in May and June, reflecting heightened demand during these periods, possibly driven by seasonal factors or market dynamics. The forecasted increase in sales aligns with the company's growth trajectory, suggesting optimism regarding market demand and the company's ability to capture opportunities. Overall, this sales data provides valuable insights for strategic planning and resource allocation within Modern Fibres, guiding decision-making to capitalize on sales trends and maximize revenue potential.

## Exhibit 1

**MODERN FIBRES, LTD.**

Modern Fibres Annual Income Statements (in millions of Indian rupees)

|  | 2022  | 2023  |
|--|-------|-------|
| Gross Sales                                | 644.8 | 796.6 |
| Excise Tax                                 | 101.5 | 119.5 |
| Net Sales                                  | 543.3 | 677.1 |
| Cost of Goods                              | 467.2 | 565.5 |
| Gross Profits                              | 76.1  | 111.6 |
| Operating Expenses                         | 36.7  | 50.7  |
| Depreciation                               | 8.1   | 9.5   |
| Interest Expense                           | 9.6   | 13.0  |
| Profit Before Tax                          | 21.7  | 38.3  |
| Income Tax                                 | 16.2  | 11.4  |
| Net Profit                                 | 5.5   | 26.9  |
|  | 0.0   |       |
| Cash                                       | 9.4   | 8.0   |
| Accounts Receivable                        | 25.1  | 28.0  |
| Inventory                                  | 31.2  | 36.2  |
| Total Current Assets                       | 65.7  | 72.3  |
| Gross Plant, Property, and Equipment (PPE) | 93.1  | 105.9 |
| Accumulated Depreciation                   | 12.3  | 15.5  |
| Net PPE                                    | 80.8  | 90.4  |
| Total Assets                               | 146.5 | 162.7 |
|  | 0.0   |       |
| Accounts Payable                           | 6.3   | 8.6   |
| Notes to Bank                              | 0.0   | 8.4   |
| Accrued Taxes                              | -0.7  | -0.9  |
| Total Current Liabilities                  | 5.7   | 16.1  |
| Owners' Equity                             | 140.9 | 146.6 |
| Total Liabilities and Equity               | 146.5 | 162.7 |

Source: All exhibits created by case writer.

## Exhibit 2

**MODERN FIBRES, LTD.**

Modern Fibres Monthly Sales, 2023 Actual and 2024 Forecast  
(in millions of Indian rupees)

|           | 2023<br>(Actual) | 2024<br>(Forecast) |
|-----------|------------------|--------------------|
| January   | 21.1             | 27.5               |
| February  | 24.3             | 30.4               |
| March     | 35.9             | 46.7               |
| April     | 74.0             | 92.4               |
| May       | 126.8            | 145.8              |
| June      | 160.6            | 184.7              |
| July      | 149.0            | 171.3              |
| August    | 75.0             | 90.0               |
| September | 42.3             | 52.8               |
| October   | 35.9             | 46.7               |
| November  | 28.5             | 37.1               |
| December  | 23.2             | 29.1               |
| Year      | 796.6            | 954.4              |

**Exhibit 3**

**MODERN FIBRES, LTD.**

**Modern Fibres Annual Income Statements (in millions of Indian rupees)**

| <u>Assumptions</u>                          |        |        |        |        |        |        |        |        |        |        |        |        | Full year |        |        |        |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------|--------|--------|
|   | Nov-23 | Dec-23 | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24    | Dec-24 | Jan-25 | Feb-25 |
| Excise Tax Rate                             |        |        |        | 18%    |        |        |        |        |        |        |        | 8.0    |           |        |        |        |
| Annual Operating Expenses / Annual Gr Sales |        |        |        | 5.0%   |        |        |        |        |        |        |        |        |           |        |        |        |
| Depreciation / Gross PPE                    |        |        |        | 10%    |        |        |        |        |        |        |        |        | 42%       |        |        |        |
| Interest Rate on Borrowings (and Deposits)  |        |        |        | 13.5%  |        |        |        |        |        |        |        |        | 58%       |        |        |        |
| Income Tax Rate                             |        |        |        | 25%    |        |        |        |        |        |        |        |        | 52%       |        |        |        |
| Dividends Paid (in March, June, Sep, Dec)   |        |        |        | 5.0    |        |        |        |        |        |        |        |        | 32%       |        |        |        |
|   |        |        |        |        |        |        |        |        |        |        |        |        | 3.25      |        |        |        |
| Implied Operating Margin                    |        |        |        | 31.4%  |        |        |        |        |        |        |        |        | 52%       |        |        |        |
|   |        |        |        |        |        |        |        |        |        |        |        |        |           |        |        |        |
| Gross Sales                                 | 28.5   | 23.2   | 27.5   | 30.4   | 46.7   | 92.4   | 145.8  | 184.7  | 171.3  | 90.0   | 52.8   | 46.7   | 37.1      | 29.1   | 954.4  | 36.2   |
| Excise Taxes (1)                            |        |        | 4.9    | 5.5    | 8.4    | 16.6   | 26.2   | 33.2   | 30.8   | 16.2   | 9.5    | 8.4    | 6.7       | 5.2    | 171.8  |        |
| Net Sales                                   |        |        | 22.5   | 24.9   | 38.3   | 75.8   | 119.5  | 151.4  | 140.5  | 73.8   | 43.3   | 38.3   | 30.4      | 23.8   | 782.6  |        |
| Cost of Goods Sold (2)                      |        |        | 18.9   | 20.8   | 32.1   | 63.5   | 100.1  | 126.8  | 117.6  | 61.8   | 36.3   | 32.1   | 25.4      | 19.9   | 655.1  |        |
| Gross Profit                                |        |        | 3.7    | 4.1    | 6.2    | 12.4   | 19.5   | 24.7   | 22.9   | 12.0   | 7.1    | 6.2    | 5.0       | 3.9    | 127.5  |        |
| Operating Expenses (3)                      |        |        | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0    | 4.0       | 4.0    | 47.7   |        |
| Depreciation (4)                            |        |        | 0.8    | 0.8    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9       | 0.9    | 10.7   |        |
| Interest Expense (5)                        |        |        | 0.1    | 0.2    | 0.5    | 1.3    | 2.3    | 3.4    | 3.8    | 3.0    | 1.6    | 0.7    | 0.3       | 0.1    | 17.3   |        |
| Profit Before Taxes                         |        |        | -1.2   | -0.9   | 0.9    | 6.2    | 12.3   | 16.4   | 14.2   | 4.2    | 0.5    | 0.6    | -0.3      | -1.1   | 51.8   |        |
| Income Taxes                                |        |        | -0.3   | -0.2   | 0.2    | 1.6    | 3.1    | 4.1    | 3.6    | 1.0    | 0.1    | 0.2    | -0.1      | -0.3   | 13.0   |        |
| Net Profit                                  |        |        | -0.9   | -0.7   | 0.7    | 4.7    | 9.2    | 12.3   | 10.7   | 3.1    | 0.4    | 0.5    | -0.2      | -0.9   | 38.9   |        |
| Dividend                                    |        |        |        |        | 5.0    |        |        | 5.0    |        |        | 5.0    |        |           |        |        |        |

**Exhibit 3  
(Continued)**

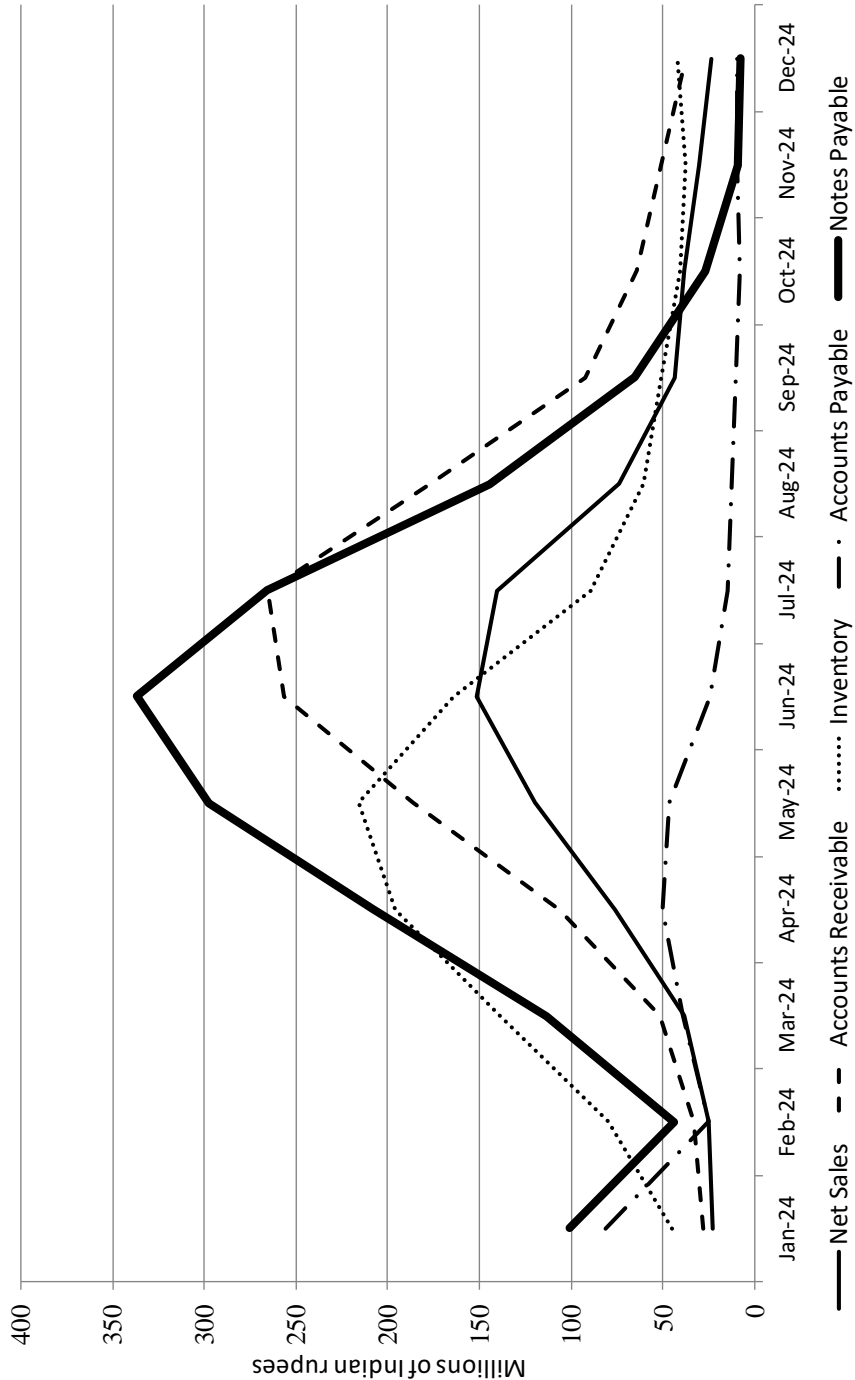
|                                       | Dec-23 | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |        |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cash                                  | 7.6    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    | 8.0    |        |
| Accounts Receivable (6)               | 26.7   | 27.9   | 33.3   | 51.3   | 106.5  | 186.4  | 256.2  | 265.4  | 176.4  | 92.0   | 64.3   | 51.1   | 37.5   |        |
| Inventory                             | 34.5   | 45.0   | 80.0   | 139.1  | 196.0  | 215.7  | 164.3  | 89.1   | 60.4   | 51.2   | 40.4   | 37.5   | 42.0   |        |
| Total Current Assets                  | 68.8   | 80.9   | 121.2  | 198.4  | 310.5  | 410.1  | 428.5  | 362.5  | 244.8  | 151.2  | 112.7  | 96.6   | 87.5   |        |
| Gross PPE (7)                         | 100.9  | 100.9  | 100.9  | 104.2  | 104.2  | 104.2  | 107.4  | 107.4  | 107.4  | 110.7  | 110.7  | 110.7  | 113.9  |        |
| Accumulated Depreciation              | 14.8   | 15.6   | 16.5   | 17.3   | 18.2   | 19.1   | 20.0   | 20.9   | 21.8   | 22.7   | 23.6   | 24.5   | 25.5   |        |
| Net PPE                               | 86.1   | 85.3   | 84.4   | 86.8   | 85.9   | 85.1   | 87.4   | 86.5   | 85.6   | 88.0   | 87.0   | 86.1   | 88.4   |        |
| Total Assets                          | 154.9  | 166.1  | 205.7  | 285.2  | 396.4  | 495.1  | 515.9  | 449.0  | 330.4  | 239.2  | 199.7  | 182.7  | 175.9  |        |
| Accounts Payable (8)                  | 8.2    | 12.6   | 25.0   | 39.4   | 49.9   | 46.3   | 24.3   | 14.3   | 12.6   | 10.0   | 7.9    | 9.2    | 9.8    |        |
| Note Payable (9)                      | 8.0    | 16.0   | 44.1   | 113.3  | 207.8  | 297.9  | 336.6  | 265.6  | 144.5  | 65.1   | 27.2   | 9.1    | 7.9    |        |
| Accrued Taxes (10)                    | -0.9   | -1.2   | -1.4   | -1.2   | 0.3    | 3.4    | 0.0    | 3.6    | 4.6    | 0.0    | 0.2    | 0.1    | -0.2   |        |
| Total Current Liabilities             | 15.3   | 27.4   | 67.7   | 151.5  | 258.1  | 347.6  | 361.0  | 283.5  | 161.7  | 75.1   | 35.2   | 18.4   | 17.4   |        |
| Shareholders' Equity (11)             | 139.6  | 138.7  | 138.0  | 133.7  | 138.3  | 147.6  | 154.9  | 165.6  | 168.7  | 164.1  | 164.5  | 164.4  | 158.5  |        |
| Total Liabilities and Equity          | 154.9  | 166.1  | 205.7  | 285.2  | 396.4  | 495.1  | 515.9  | 449.0  | 330.4  | 239.2  | 199.7  | 182.7  | 175.9  |        |
| Full year                             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Inventory Detail                      | Nov-23 | Dec-23 | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
| Purchases (12)                        | 14.3   | 15.8   | 24.3   | 48.1   | 75.8   | 96.0   | 89.1   | 46.8   | 27.5   | 24.3   | 19.3   | 15.1   | 17.7   | 18.8   |
| Direct Labor and Other Mfg Costs (13) |        | 4.6    | 5.1    | 7.8    | 15.4   | 24.3   | 30.7   | 28.5   | 15.0   | 8.8    | 7.8    | 6.2    | 4.8    | 5.7    |
| Cost of Goods Sold                    |        |        | 18.9   | 20.8   | 32.1   | 63.5   | 100.1  | 126.8  | 117.6  | 61.8   | 36.3   | 32.1   | 25.4   | 19.9   |
| Inventory (14)                        |        | 34.5   | 45.0   | 80.0   | 139.1  | 196.0  | 215.7  | 164.3  | 89.1   | 60.4   | 51.2   | 40.4   | 37.5   | 42.0   |

Notes:

- (1) Gross Sales  $\times$  Exercise Tax Rate
- (2) Gross Sales  $\times$  (Raw Material Cost % + Direct Labor Cost %)
- (3) Annual Operating Expenses  $\div$  12
- (4) Gross PPE  $\times$  Depreciation Rate  $\div$  12
- (5) Notes Payable  $(t - 1) \times$  Interest Rate  $\div$  12
- (6)  $AR(t - 1) + GSales(t) - 40\% \times GSales(t - 1) - 60\% \times GSales(t - 2)$
- (7)  $GPPE(t - 1) + Capex(t)$
- (8)  $50\% \times Purchases(t)$
- (9) Total Assets  $- AP - AccTax - ShrEquity$
- (10)  $AccTax(t - 1) + IncTax(t)$  or 0 if positive balance and month of quarterly payment
- (11)  $ShrEquity(t - 1) + NetProfit(t) - Dividend(t)$
- (12)  $55\% \times GSales(t + 2)$
- (13)  $35\% \times Purchases(t - 1)$
- (14)  $Inventory(t - 1) + Purchases(t) + Direct Labor(t) - COGS(t)$



**Exhibit 4**  
**MODERN FIBRES, LTD.**  
Forecast of Accounts by Month



|                     |        |        |        |        |        |        |        |        |        |        |        |        |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Net Sales           | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
| Accounts Receivable | 23     | 25     | 38     | 76     | 120    | 151    | 140    | 74     | 43     | 38     | 30     | 24     |
| Inventory           | 28     | 33     | 51     | 106    | 186    | 256    | 265    | 176    | 92     | 64     | 51     | 38     |
| Accounts Payable    | 45     | 80     | 139    | 196    | 216    | 164    | 89     | 60     | 51     | 40     | 37     | 42     |
| Notes Payable       | 81     | 25     | 39     | 50     | 46     | 24     | 14     | 13     | 10     | 8      | 9      | 10     |
|                     | 101    | 44     | 113    | 208    | 298    | 337    | 266    | 144    | 65     | 27     | 9      | 8      |