DCF Modelling Case Study

Q1. What factors can affect the composition of a company's current assets vs. long-term assets?

A company's current assets vs. long-term assets can be influenced by a number of things. The company's operational strategy, industry traits, financial standing, and overarching objectives are all reflected in the mix of various asset classes. The following are the crucial elements:

1. Features of the Industry

- **Nature of the Business:** The requirements for both short-term and long-term assets vary by industry. For instance, manufacturers may have more long-term assets (property, facilities, and equipment) than retail enterprises, which may have more current assets (inventory and receivables).
- **Capital-Intensive Industries:** Businesses in capital-intensive sectors, like manufacturing, utilities, and telecommunications, frequently have a higher percentage of long-term assets (e.g., buildings, machinery). However, the proportion of current assets may be larger for technology or service-based businesses.

2. Business Size and Development Stage

- **Startups vs. Established Businesses:** Because they depend on cash and receivables to support growth, startups and quickly expanding businesses could have greater current assets. Over time, more long-term assets may be accumulated by established businesses as a result of investments in real estate, infrastructure, or intellectual property.
- **Plans for Expansion:** A business that intends to grow may invest more in long-term assets, such as new buildings or machinery, changing the makeup of its assets.

3. Cash Management and Needs for Liquidity

- **Liquidity Requirements**: Businesses that place a high priority on liquidity will keep more cash and receivables on hand to cover unforeseen expenses and seize opportunities.
- **Cash Flow Stability:** While businesses with more erratic cash flows might prefer to retain more current assets for flexibility, companies with steady and predictable cash flows might feel more at ease maintaining more long-term assets.

4. Credit and Receivables Management:

- **Accounts Receivable:** A larger percentage of receivables, which are a component of current assets, may be seen in businesses with extended payment cycles or lax credit terms.
- **Inventory control:** Companies that sell tangible goods may have substantial stockpiles, which are also considered current assets. This balance can be lowered and the asset composition changed with effective inventory management.

5. Funding Long-Term Initiatives

- **Capital Expenditures:** Businesses that make significant investments in long-term initiatives, including infrastructure, new production facilities, or research and development, will experience an increase in their long-term assets.
- **Mergers and Acquisitions:** Long-term assets like goodwill, real estate, or equipment will rise as a result of purchasing other businesses or making large capital investments.

6. The state of the market

- **Economic Cycles:** Businesses may cut back on long-term investments and capital expenditures during a downturn, increasing the share of current assets. They might make larger investments in long-term assets to grow their business in a rising economy.
- **Interest rates:** While high interest rates may lead to a preference for keeping liquid current assets, low interest rates may encourage businesses to finance long-term asset purchases.

7. Write-offs and Depreciation of Assets

- **Depreciation:** Over time, long-term assets such as buildings and machinery lose value, lowering their book value on the balance sheet. In comparison to current assets, this may have an impact on the overall composition of long-term assets.
- **Asset Write-Downs or Sales:** The percentage of long-term assets will be decreased by writing down impaired assets or selling long-term assets.

8. Strategy for Working Capital

- **Working Capital Management:** Businesses with active working capital management will probably have less current assets since they are minimizing surplus cash or inventory. On the other hand, businesses with significant liquidity needs or inadequate working capital management might have a lot of current assets.

9. Asset Ownership vs. Leasing

- **Leasing:** Businesses who opt to lease rather than buy assets (such buildings or machinery) will have fewer long-term assets included on their balance sheet.
- **Owning:** Businesses with a preference for outright asset ownership will have a larger percentage of long-term assets, such real estate and machinery.

10. Policies for Accounting

- **Intangible Asset Valuation:** Businesses that invest in intangible assets, such as goodwill, patents, or trademarks, will record these as long-term assets on the balance sheet.
- **Asset Reclassification:** Depending on anticipated use or the timing of rewards, some businesses may reclassify specific assets as current or long-term.

Asset Composition Analysis and Key Financial Ratios for the given data:

	Sep. 02, 2018	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total current assets	$20,289	$23,485	$28,120	$29,505
Other long-term assets	$860	$1,025	$2,841	$3,381
TOTAL ASSETS	$40,830	$45,400	$55,556	$59,268
Total current liabilities	$19,926	$23,237	$24,844	$29,441
Total revenue		$152,703	$166,761	$195,929
Current Ratio	1.02	1.01	1.13	1.00
Asset Turnover Ratio		3.36	3.00	3.31
Current Assets/Total Assets	0.50	0.52	0.51	0.50
Long-Term Assets/Total Assets	0.02	0.02	0.05	0.06

Insights:

- **Stable Current Asset Composition:** Over the course of four years, the percentage of current assets to total assets stays relatively constant, averaging 50%, suggesting a balanced approach to long-term investment and liquidity management.
- **Growing Long-Term Assets:** The percentage of long-term assets (as a percentage of total assets) rose from 2% in 2018 to 6% in 2021, indicating that the business is progressively increasing its investments in long-term growth prospects such as real estate, machinery, or other capital projects.
- **Variable Current Ratio:** As a result of better liquidity during that time, the current ratio rose from 1.01 in 2019 to 1.13 in 2020. It fell to 1.00 in 2021, though, indicating that the business might not have as much cash on hand to cover its immediate obligations.
- **Consistent Asset Turnover:** The asset turnover ratio showed effective utilization of assets to produce income, staying strong and rising little from 3.00 in 2019 to 3.31 in 2021. This indicates robust operational effectiveness in spite of variations in the asset mix.
- **Increase in Current Liabilities:** Particularly between 2020 and 2021, current liabilities increased dramatically, which is probably due to either increased short-term borrowing or a larger reliance on short-term funding for operations.

Recommendations:

- **Keep an eye on the current ratio:** The Company may have liquidity strain in the future, as shown by the falling current ratio in 2021. By striking a balance between short-term liabilities and adequate current assets, it should concentrate on keeping the current ratio over 1.0.
- **Optimize Long-Term Asset Investment:** To maintain long-term financial stability and growth, the organization should keep assessing the return on investment for its growing percentage of long-term assets.
- **Preserve Asset Efficiency:** The business is making effective use of its assets, as seen by the high asset turnover ratio. Profitability can be maintained by continuing to concentrate on optimizing asset usage while controlling operating expenses.
- **Handle Short-Term Liabilities:** In order to maintain steady cash flow and financial flexibility, the business should think about ways to lower short-term debt or extend payment terms when current liabilities increase.

Q2.How can a company's debt-to-equity ratio impact its creditworthiness and access to capital?

One important financial indicator that affects a company's creditworthiness and ability to obtain financing is the debt-to-equity (D/E) ratio. It shows how a company's debt (loan money) and equity from shareholders are balanced. It can affect capital access and creditworthiness in the following ways:

1. **Creditworthiness:**

Greater D/E Ratio:

- **Enhanced Risk to Finance:** A high D/E ratio indicates more financial leverage because it shows that the corporation has more debt than equity. Because the business has greater debt repayment commitments and may not be able to make enough money to cover those obligations, creditors may see this as dangerous.
- **Reduced Credit Rating:** Since rating agencies utilize debt levels to gauge credit risk, a greater D/E ratio may have a detrimental effect on the company's credit rating. Borrowing money may be more difficult or costly if your credit score is lower.
- **Possibility of Insolvency:** The business may experience liquidity problems or even insolvency if its earnings are not high enough to pay off debt and interest. Lender risk rises as a result, and obtaining loans or other credit facilities becomes more difficult.

Lower D/E Ratio:

- **Greater Financial Stability:** A low D/E ratio shows that a business is mostly backed by equity rather than debt, which is viewed as less hazardous by creditors. This implies that the business has a better balance sheet and is less dependent on borrowing.
- **Better Creditworthiness:** Since a company with a low D/E ratio is seen as more financially secure and less likely to default on debt, it typically has a higher credit rating. Favorable terms are more likely to be offered by creditors.

2. **Capital Accessibility:**

High D/E Ratio:

- **Limited Access to New Capital:** Because a company with a high D/E ratio already has a large amount of debt, lenders may be hesitant to give it more credit. To counteract the perceived risk, even if funding is available, it might have tougher loan terms and higher interest rates.
- **Higher Cost of Borrowing:** Due to the increased default risk, lenders usually charge higher interest rates to businesses with a high D/E ratio. This might put a strain on cash flow and raise the cost of capital.
- **The Hesitancy of Equity Investors:** Because it could indicate instability or inadequate financial management, potential equity investors could be hesitant to participate in a heavily leveraged company. Additionally, if the business finds it difficult to control its debt.

Low Ratio of D/E:

- **Simpler Access to Capital:** Businesses with a low D/E ratio are more likely to be viewed as financially sound, which facilitates the acquisition of debt finance on advantageous terms. Lenders have greater faith in the company's ability to fulfill its repayment commitments.
- **Reduced Cost of Capital:** Better borrowing conditions, such as reduced interest rates, are usually the outcome of a lower D/E ratio. As a result, the cost of capital is lowered, freeing up funds for operations or other investments.
- **Attractive to Equity Investors:** A low D/E ratio indicates sound financial management and stability, which increases the company's attractiveness to equity investors. The company's ability to take on more debt if necessary to support growth may help reassure equity investors.

3. Effect on Investment Choices:

- **Debt Financing:** Businesses with a high D/E ratio may find it difficult to get additional debt financing without raising red flags regarding excessive leverage. Existing investors may become cautious about future profitability and further debt loads if the ratio is large.
- **Stock Financing:** Businesses with lower D/E ratios could be able to finance initiatives by issuing stock without materially reducing the control or returns of current shareholders. They also have the choice to more readily take on fresh debt without overleveraging the business.

4. Effect on Business Strategy:

- **Conservative vs. Aggressive Growth:** Businesses with low D/E ratios may choose to pursue more cautious growth strategies, depending more on equity, whereas businesses with high D/E ratios may use more debt to expand quickly, taking on the risk of greater leverage.

- **Risk Tolerance:** The D/E ratio of a business indicates how much risk it can tolerate. While a lower D/E ratio denotes a more conservative strategy centered on long-term financial stability, a higher ratio demonstrates a readiness to take on greater risk in the quest of growth.

5. **Considerations for Regulation and Covenants:**

- **Debt Covenants:** Businesses with high D/E ratios may be subject to covenants from lenders, which restrict their capacity to take on additional debt or require them to maintain specific financial ratios (such as the interest coverage ratio). Penalties or loan recalls may result from breaking these covenants.
- **Industry Standards:** Due to the capital-intensive nature of their operations, some businesses (such as utilities) have higher D/E ratios by nature, and creditors may accept larger ratios as standard. Companies with equally high D/E ratios that are not in these areas, however, might come under further scrutiny.

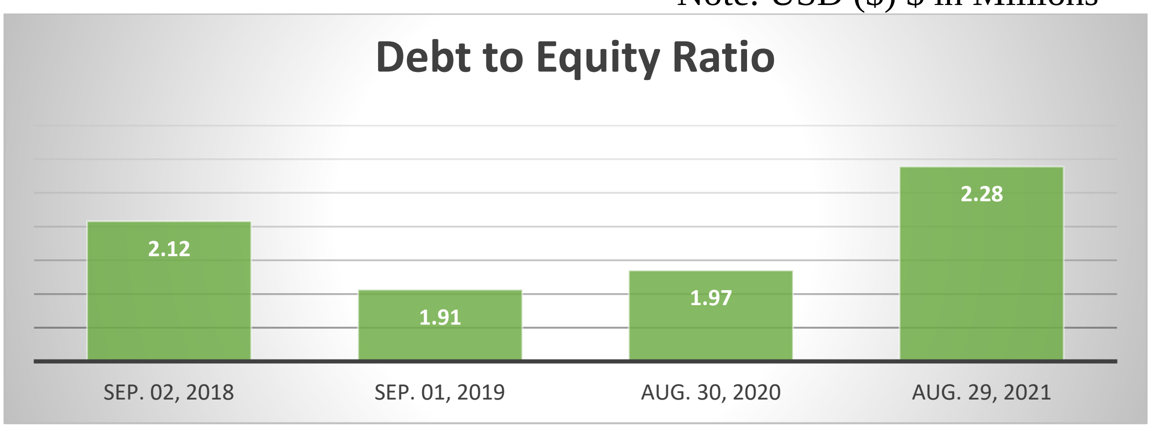
In **conclusion**, a company's creditworthiness and capacity to obtain funding are directly impacted by its debt-to-equity ratio:

- Securing additional capital is made more difficult and costly by high D/E ratios, which indicate more financial risk, worse credit ratings, and higher borrowing rates.
- Better creditworthiness, better access to finance, frequently on more favorable terms, and financial stability are all linked to low D/E ratios.
- Maintaining creditworthiness and financial stability while balancing growth prospects requires careful D/E ratio management.

Q3.Debt-to-Equity Ratio: How has the debt-to-equity ratio changed over the four years? (Take in consideration total liabilities and total equity)Is the company relying more on debt financing or equity financing?

	Sep. 02, 2018	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total liabilities	27,727	29,816	36,851	41,190
Total equity	13,103	15,584	18,705	18,078
Debt to Equity Ratio	2.12	1.91	1.97	2.28

Note: USD ($) $ in Millions



Knowing the Ratio of Debt to Equity:

In relation to equity, the debt-to-equity ratio shows how much debt the business is utilizing to finance its assets. The corporation is employing more debt than equity if the D/E ratio is greater than 1, and more equity than debt if the ratio is less than 1.

All of the D/E ratios in this instance are higher than 1, suggesting that during the course of the four years, the company has continuously used more debt financing than equity financing.

Perspectives:

- **High Dependency on Debt:** The Company has continuously maintained a high debt-to-equity ratio over the last four years, with all readings above 1.9. This suggests that rather than using equity to support its operations, the corporation primarily uses debt financing.
- **Growing Debt Usage:** Although the ratio declined marginally in 2019, it rose once more in 2020 and 2021, hitting 2.28 in 2021. This implies that the business is taking on more debt than stock, perhaps in order to fund operations or expand.
- **Possible Risk Exposure:** The Company's financial risk is a cause for concern given the D/E ratio's upward trend. An increased dependence on debt can result in increased interest costs, less financial flexibility, and potential strain on the company's debt servicing capacity, particularly in times of economic recession.

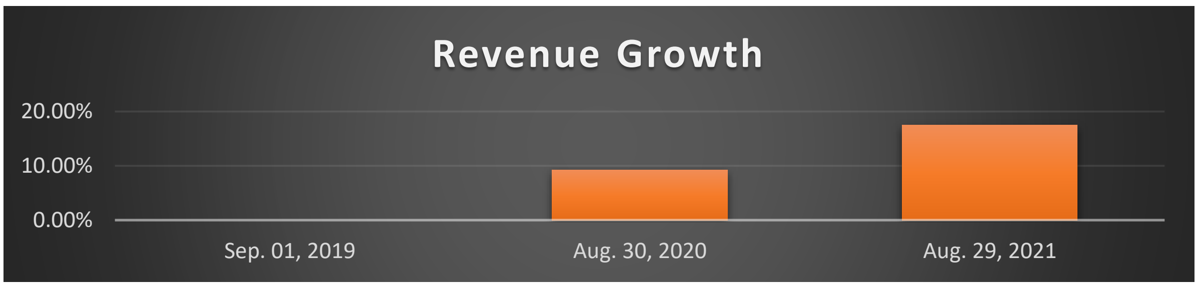
Suggestions:

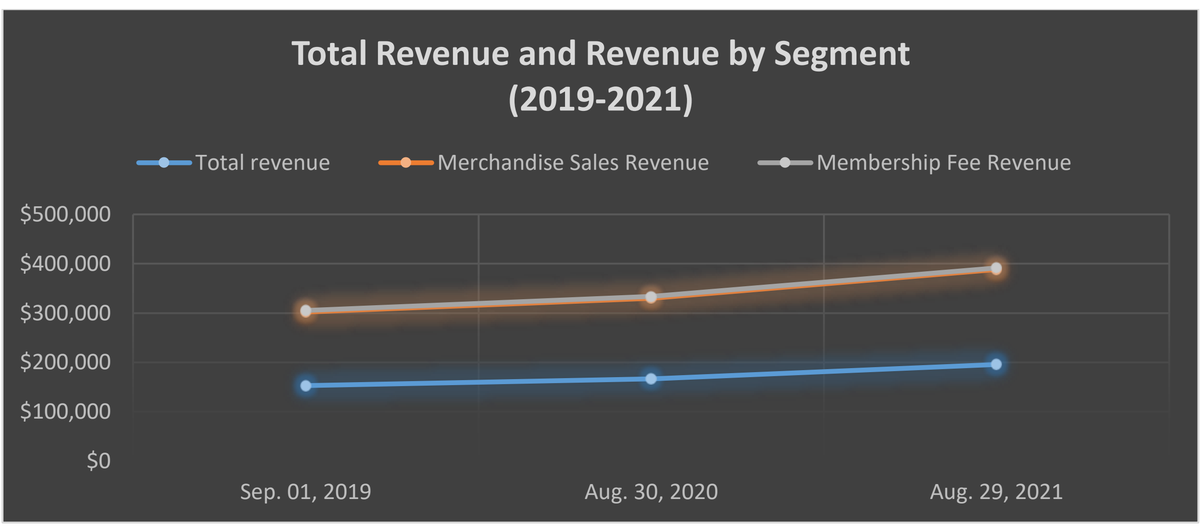
- **Decrease Debt Reliance:** By either raising equity or paying down current debt, the company should try to lessen its reliance on debt funding. This can entail issuing new shares or holding onto more earnings.
- **Diversify Funding Sources:** To balance its capital structure and prevent over-leveraging, the business may want to look into different financing options, such as issuing convertible bonds or preferred equity.
- **Keep an eye on your financial leverage:** Maintain a healthy balance between debt and equity by setting internal goals and routinely monitoring the D/E ratio. This will reduce financial risk and increase creditworthiness.
- **Optimize Cost of Capital:** To raise the company's total cost of capital and boost profitability, think about concentrating on lowering debt with higher interest rates.

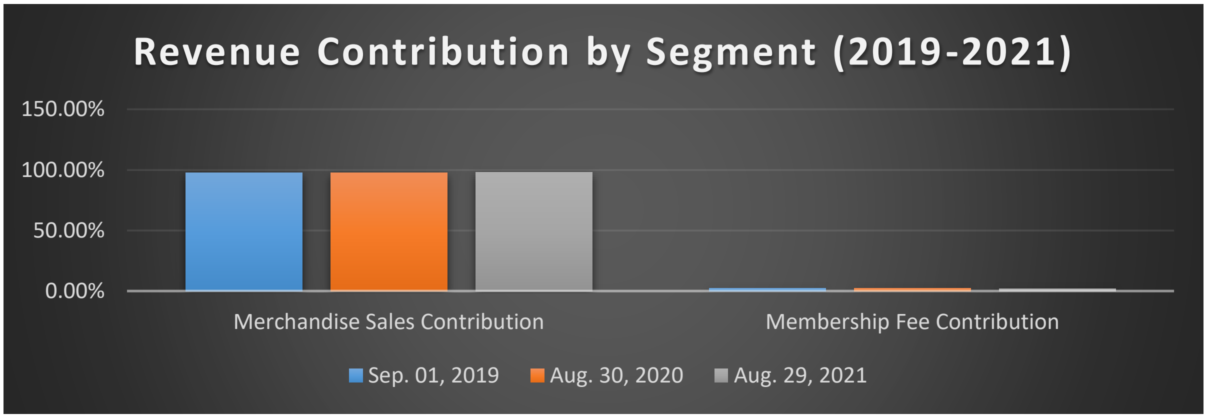
In **conclusion**, even if the business has been able to function with a high debt load, the rising D/E ratio raises the possibility of overleveraging. It is advised that the business think about increasing equity, reorganizing debt, and concentrating on revenue development in order to preserve financial stability and enhance access to future funding. Maintaining long-term financial health and lowering the hazards associated with excessive debt can be achieved through careful management of cash flow and debt levels.

Q4. Revenue Growth: How has the company total revenue grown over the three years? What segments are driving this growth (merchandise sales, membership fees)?

USD ($) shares in Thousands, $ in Millions			
	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total revenue	$152,703	$166,761	$195,929
Merchandise Sales Revenue	$149,351	$163,220	$192,052
Membership Fee Revenue	$3,352	$3,541	$3,877
Revenue Growth		9.21%	17.49%
Merchandise Sales Contribution	97.80%	97.88%	98.02%
Membership Fee Contribution	2.20%	2.12%	1.98%







Perspectives:

- **Growth in Total Revenue:** Between 2019 and 2020, the company's total revenue increased by 9.21%, and between 2020 and 2021, it increased by 17.49%. From $152.7 billion in 2019 to $195.9 billion in 2021, the overall revenue grew.
- **Merchandise Sales Growth:** The majority of revenue growth was driven by merchandise sales, which increased by 9.29% between 2019 and 2020 and 17.67% between 2020 and 2021. In 2021, 98.02% of total revenue came from merchandise sales.
- **Membership Fee Growth:** Between 2019 and 2020, membership fees increased by 5.64%, and between 2020 and 2021, they increased by 9.48%. This growth was small. Despite this, membership payments only accounted for 1.98% of total revenue in 2021, a smaller and declining share.
- **Growth-Driven Segments:** Merchandise sales, which often account for more than 97.8% of total revenue, are the main engine of the company's revenue growth. Although they continue to be a reliable source of income, membership fees are growing more slowly and making up a smaller portion of total revenue.

Suggestions:

- **Focus on Merchandise Expansion:** To maintain this growth, keep investing in increasing product options and enhancing the customer experience, as merchandise sales are the primary growth engine.
- **Diversify Revenue Streams:** To boost membership revenue and further diversify income streams, think about improving membership benefits or implementing tiered membership plans, even though membership fees make up a smaller portion of total revenue.

Conclusion:

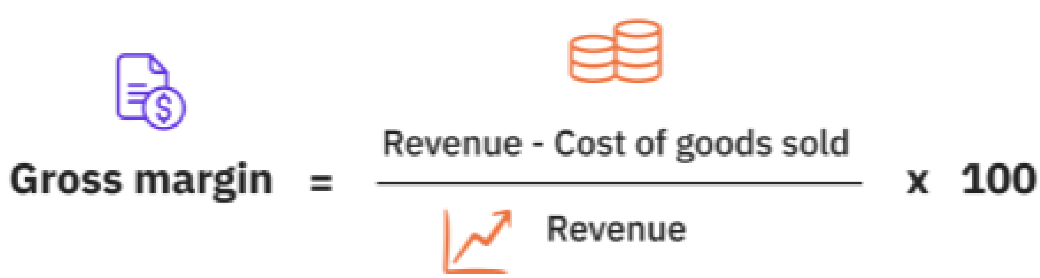
- Over the course of the three years, the company's total revenue increased substantially, rising 9.21% between 2019 and 2020.
- A higher 17.49% rise in 2021 compared to 2020.
- From 2019 to 2021, the overall revenue increased by 28.32%, indicating strong financial performance.

Merchandise Sales: Consistently accounting for more than 97.8% of total income, merchandise sales have been the main engine of growth. Between 2019 and 2021, merchandise sales rose by 28.63%, which closely reflects the growth in overall revenue.
Membership Fees: Although revenue from membership fees has increased, their share of overall revenue has decreased. Membership fees increased by 15.66% between 2019 and 2021, which is less than the growth in item sales.

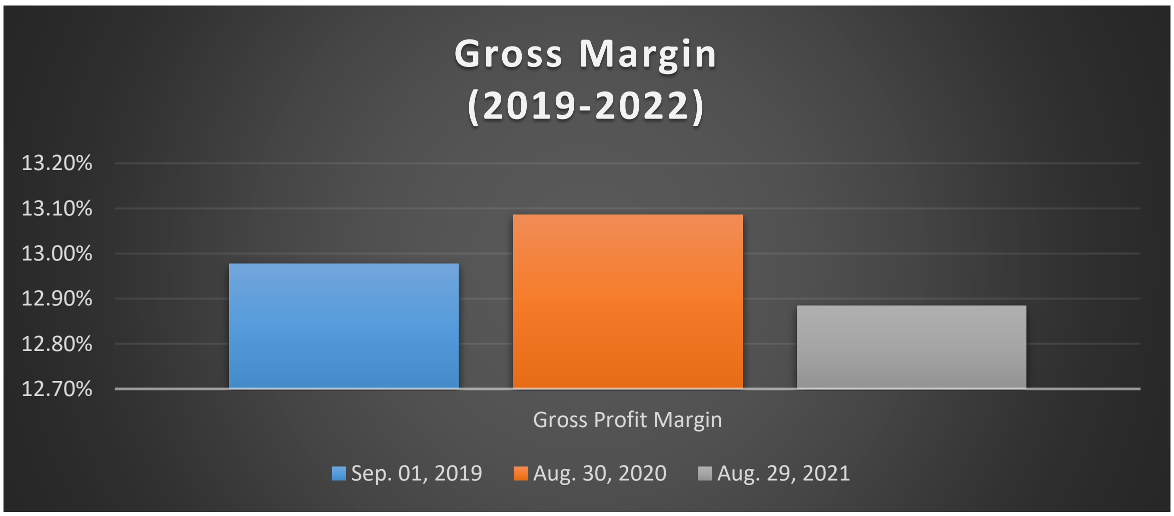
Formula to find percentage growth
Percentage Growth= ((New Value−Old Value)/Old value) ×100
New value- 2021
Old value – 2019

Q5. Gross Margin: Calculate and compare the gross margin (consider total revenue and total expense) across the three years. Is the company able to maintain or improve its margins?

A crucial indicator of profitability, gross margin represents the proportion of total revenue that surpasses the cost of goods sold (COGS), also known as total production or operating expenses. The equation is:



Consolidated Statements Of Income - USD ($) shares in Thousands, $ in Millions			
	Sep. 01, 2019	Aug. 30, 2020	Aug. 29, 2021
Total revenue	$152,703	$166,761	$195,929
COGS	$132,886	$144,939	$170,684
Gross Profit	$19,817	$21,822	$25,245
Gross Margin	12.98%	13.09%	12.88%



Gross margin analysis:

For 2019–2020:

- The gross margin improved from 12.98% to 13.09%, indicating a modest increase in profitability.
- This implies that, in comparison to 2019, the company was able to increase its profit margin in 2020, presumably through better sales efficiency or COGS control.

From 2020 to 2021:

- The gross margin went from 13.09% to 12.88%, a little decline.
- Despite a notable 17.49% growth in total income, this reduction shows that COGS expanded more quickly, which may predict greater manufacturing or operating costs in 2021.

General Pattern (2019–2021):

- The Company's gross margin remained within a narrow range of 12.88% to 13.09% over the course of the three years.
- The business saw some modest ups and downs, with a slight improvement in 2020 and a slight fall in 2021. Even though revenue increased significantly, the company struggled to manage costs in line with revenue growth, as seen by the gross margin being within a narrow range.

Perspectives:

- **Stable Margins:** In spite of notable sales growth, the company has kept its gross margins comparatively steady. The modest drop in 2021, however, indicates that growing COGS is beginning to hurt profitability.
- **Revenue Growth:** From 2019 to 2021, total revenue climbed by 28.32%, demonstrating robust top-line growth. The business hasn't been able to completely translate this into higher gross margins, either.
- **Challenges in Cost Management:** The greater COGS in 2021 could be a sign of supply chain interruptions, inflationary pressures, or higher production or sourcing expenses.

Suggestions:

- **Cost Efficiency:** Given the increased COGS in 2021, the corporation should concentrate on increasing operational efficiency and reducing production costs.
- **Strategic Sourcing:** To manage the rising costs of goods, take into account tactics like supply chain optimization or supplier contract renegotiation.
- **Pricing Plan:** To counteract growing expenses, look for ways to raise prices somewhat without having a detrimental effect on sales volumes.
- **Product Mix:** Pay attention to higher-margin goods and services that can boost profitability and keep the margin strong as sales rise.

Q6. How can investors utilize free cash flow analysis to compare different companies in the same industry?

By comparing businesses in the same industry, investors can use free cash flow (FCF) analysis to assess how well these businesses generate cash after deducting capital expenditures. One important measure of a business's financial health and capacity to finance operations, reinvest, and provide value to shareholders is free cash flow (FCF). Investors can use FCF analysis to compare several companies in the following ways:

1. Comprehending FCF (free cash flow):

The formula for free cash flow is:

FCF=Operating Cash Flow−Capital Expenditures

FCF is the amount of money a business makes after investing in maintaining or growing its asset base.

2. Comparison of the Efficiency of Cash Generation:

FCF as a Revenue Percentage: Investors are able to compare FCF among companies as a percentage of total sales. Better efficiency in turning revenue into cash is indicated by a larger percentage.

FCF Margin (%) = (FCF/ Total Revenue)×100

By comparing FCF margins, one may determine which businesses are better at turning a profit from their sales.

3. Evaluating Flexibility in Finance:

- Businesses with greater free cash flow (FCF) are better able to pay off debt, invest in expansion plans, or give back to shareholders in the form of dividends or stock buybacks.
- By comparing the amount of free cash flow (FCF) each firm has available for these operations, investors can determine how resilient the company is to periods of high capital expenditure needs or economic downturns.

4. Assessing Capital Effectiveness:

- Investors can see how businesses handle their capital expenditures (CapEx) by using FCF analysis. Strong FCF-generating businesses with lower capital expenditures are frequently regarded as more capital efficient, which is crucial in sectors that require a lot of capital.
- Investors can determine if businesses are overspending or effectively managing their resources by examining the CapEx to FCF ratios.

5. Cash Flow Stability vs. Growth Potential:

- **Established vs. High-Growth Businesses:** Due to their higher reinvestment requirements, high-growth companies in an industry may have lower free cash flow (FCF), while established companies may have higher FCF because of their more established operations. Investors can analyze a company's current cash flow stability and growth prospects using FCF.
- Investors can choose between more stable businesses that produce more free cash flow for dividends and buybacks and growth-oriented businesses that reinvest profits with the aid of FCF research.

6. Solvency and Debt Management:

- FCF is a tool that investors can use to evaluate a company's debt servicing capacity. Strong free cash flow increases a company's likelihood of paying off debt or avoiding taking on too much leverage.
- Investors can determine whether businesses are better equipped to manage financial obligations and lower risk by comparing FCF to debt levels.

7. Valuation Comparison:

FCF Yield:

$$\text{FCF Yield} = (\text{Free Cash Flow}/\text{Market Capitalization}) \times 100$$

- Investors can use this indicator to analyze the amount of free cash flow generated by a firm in relation to its market valuation. More free cash flow for every dollar invested is indicated by a greater FCF yield, which may imply a better value investment.
- Investors can identify undervalued businesses with robust cash generation by comparing FCF yields across companies.

8. Sustainability of Dividends:

FCF is a crucial indicator of dividend sustainability for businesses that pay dividends. Dividend payout ratios, or the amount of dividends paid as a percentage of free cash flow, allow investors to compare firms. More space for future dividend increases is frequently indicated by a lower payout ratio.

9. Trade-off between Growth and Free Cash Flow:

Businesses may have to choose between producing FCF and reinvesting profits for expansion. Businesses that balance cash generation and growth investments can be found by investors using FCF analysis, which may indicate future profitability.

In **conclusion**, free cash flow analysis and comparison allow investors to learn more about a company's:

- Operational effectiveness and cash-generating capacity.
- Financial adaptability to repay shareholders, cut debt, or reinvest.
- Capital efficiency with regard to capital expenditure management.
- Valuation in relation to its cash flow (as measured by the FCF yield).

In the end, FCF research gives investors a more realistic picture of a company's long-term viability and financial health by comparing businesses in the same industry based on their capacity to create and spend capital.