Fisker Inc.

Group -1

Supply Chain Analytics - Case Study

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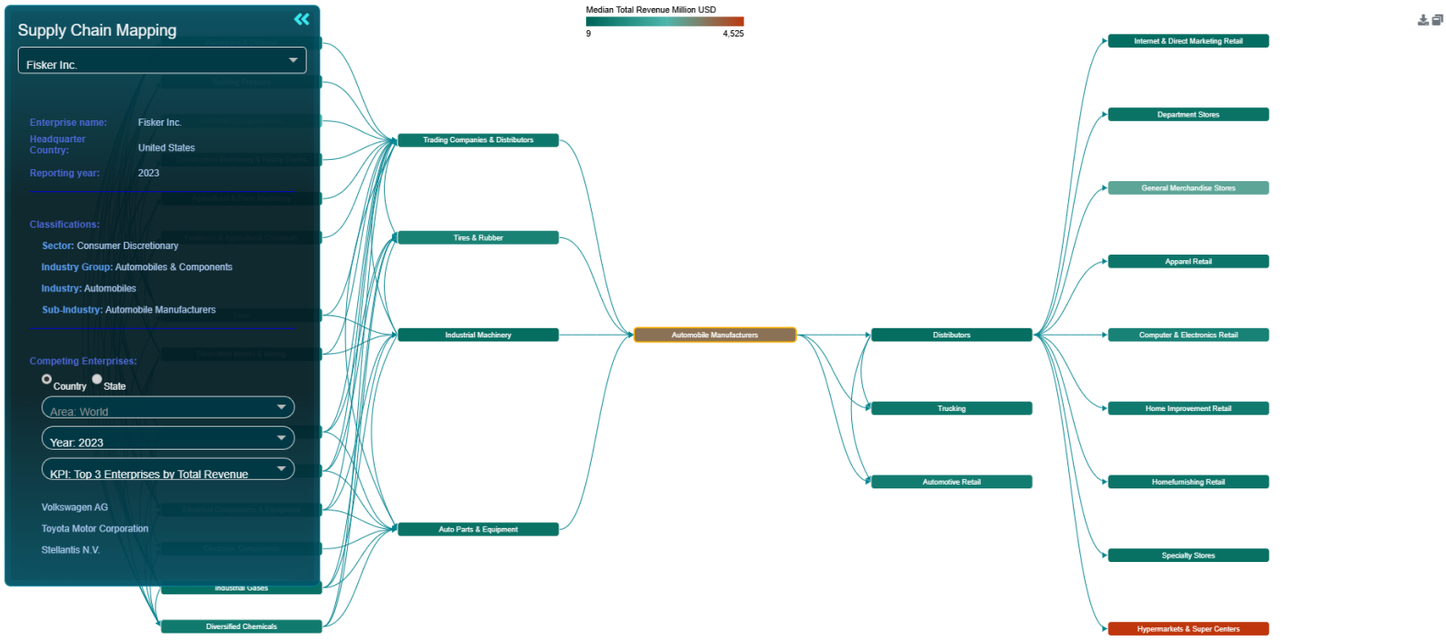
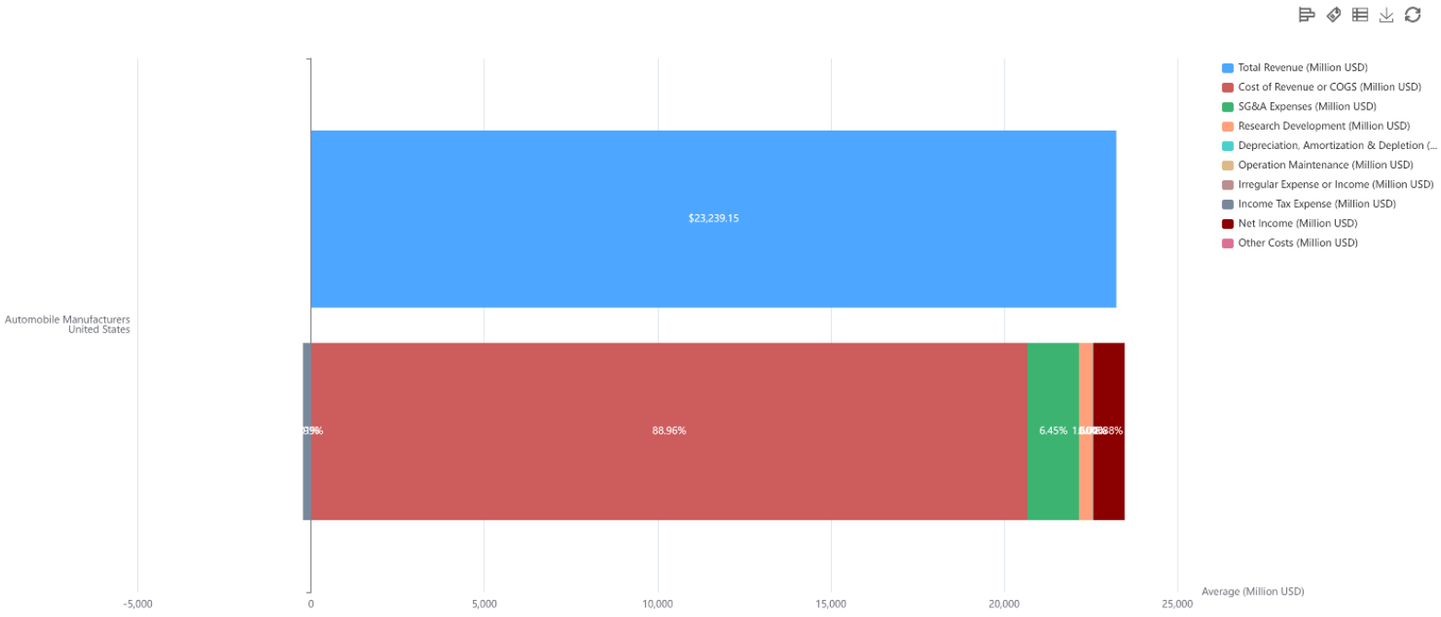
Fis er Inc. (Electric Vehicle Manufacturer)



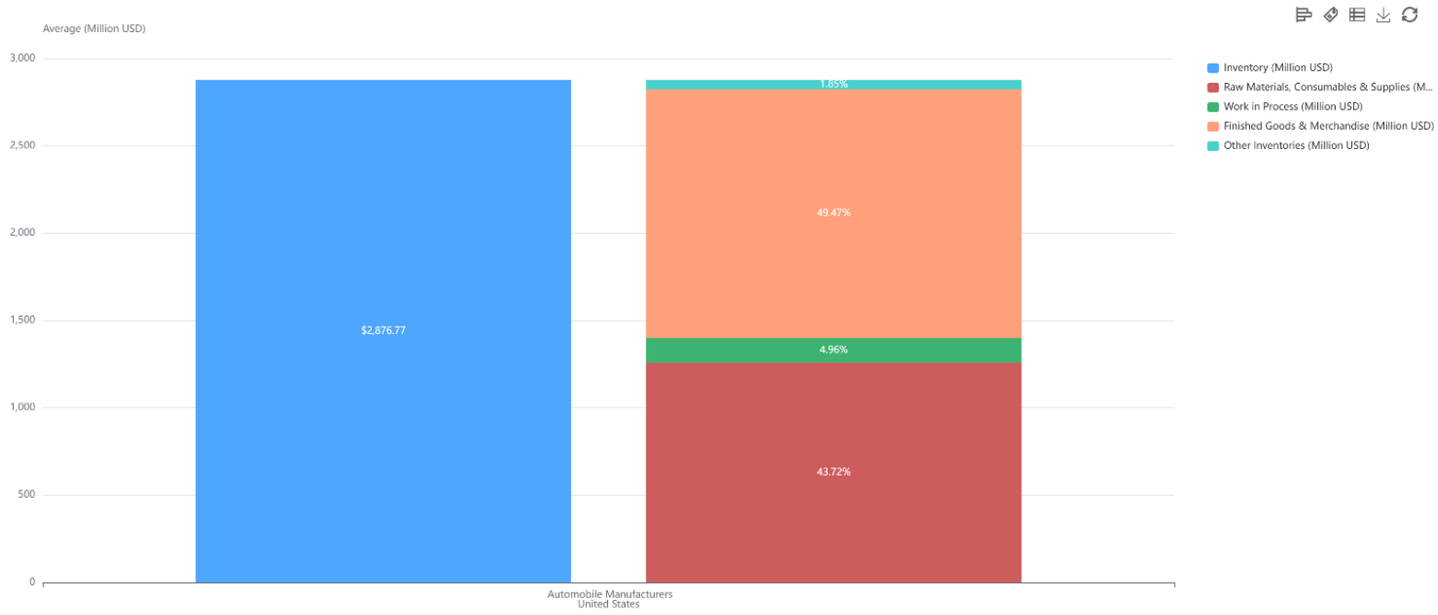
Reason: Focus on sustainable automotive supply chains, innovative partnerships (e.g., battery suppliers, contract manufacturing), and rapid scaling in the EV sector.

Industrial Brea down - Revenue



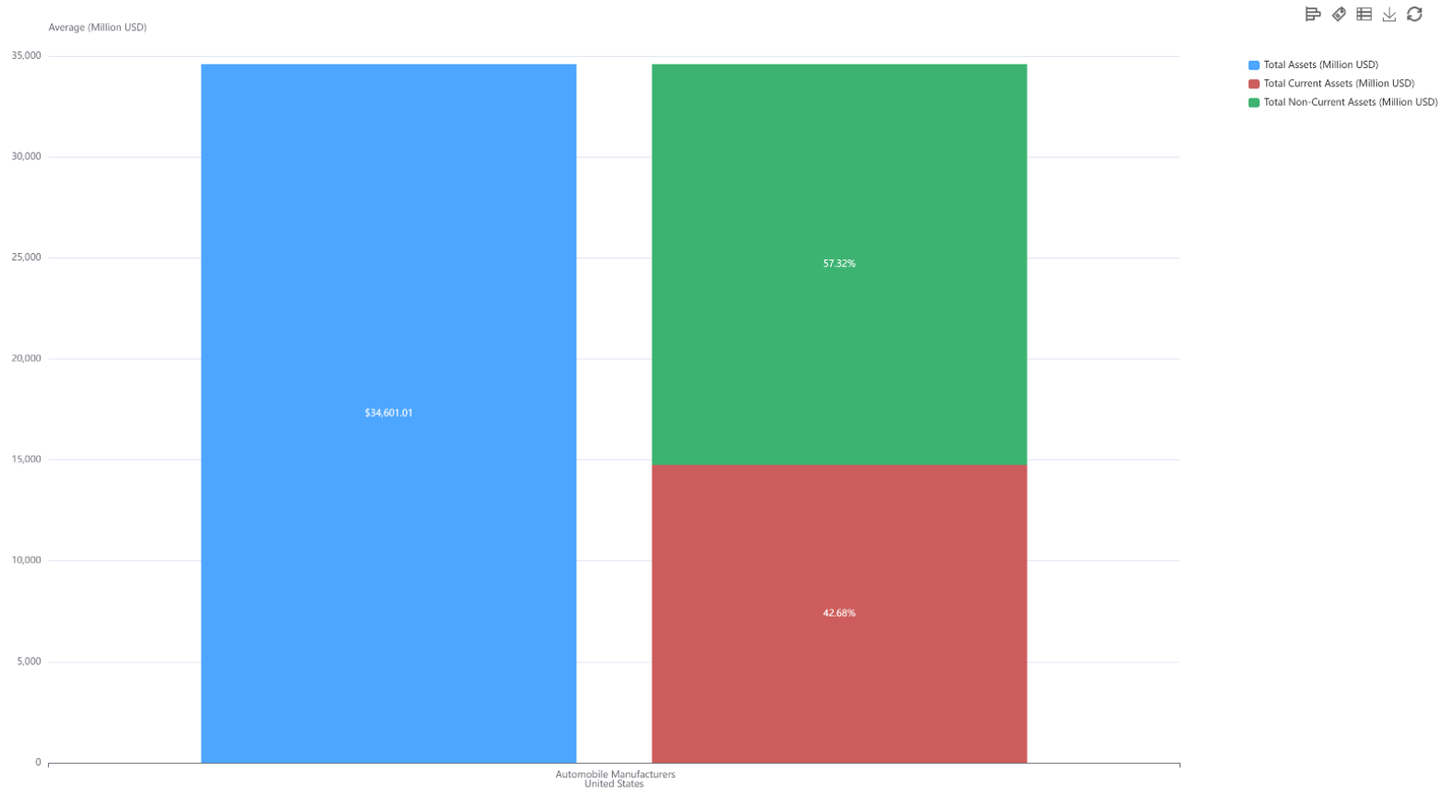
The average total revenue for US automobile manufacturers is $23,239.15 million, highlighting the large scale of operations within the industry. A significant 88.96% of revenue is consumed by the Cost of Goods Sold (COGS), reflecting the sector’ s high production and material costs. Selling, General & Administrative (SG&A) expenses account for 6.45%, and Research & Development (R&D) expenditures represent 1.50%, demonstrating the relatively smaller, but critical, investments in operational management and innovation. Despite the massive revenues, the net income margin remains slim at 2.88%, underlining the tight profitability conditions that automobile manufacturers face. Other expenses, including depreciation and tax, form minor proportions of the revenue structure. This brea down illustrates the industry's operational challenges, where maintaining efficiency and controlling production costs are crucial to sustaining profitability. For Fis er Inc., comparing its revenue structure to these industry benchmar s is essential. A lower COGS percentage or higher R&D allocation compared to these averages could signal stronger production efficiency or a greater emphasis on technological advancement, both of which could enhance Fis er's competitiveness and financial stability.

Industrial Brea down - Inventory



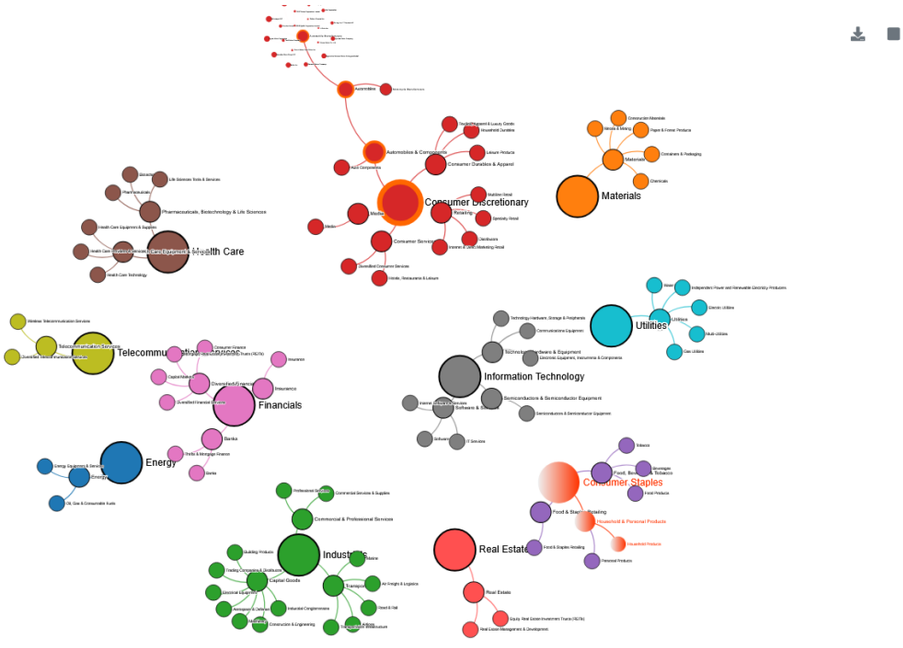
The average inventory value for US automobile manufacturers is $2,876.77 million, reflecting the industry's heavy dependence on maintaining substantial stoc . The inventory brea down shows a strategic distribution: Finished Goods and Merchandise ma e up the largest portion at 49.47%, ensuring availability for immediate sales. Raw Materials, Consumables, and Supplies account for 43.72%, indicating significant investment to sustain production activities. Wor in Process represents only 4.96%, suggesting efficient manufacturing flows with minimal bottlenec s. Meanwhile, Other Inventories form a negligible 1.85%, highlighting tight control over non-essential inventory categories. This composition demonstrates a balance between production readiness and sales preparedness, critical in an industry with complex supply chains and long manufacturing lead times. For Fis er Inc., benchmar ing against these inventory proportions is important. A higher proportion of finished goods might point to slower sales or overproduction, while excessive raw materials could hint at supply chain inefficiencies or forecast inaccuracies. Monitoring inventory structure closely will be vital for Fis er to optimize wor ing capital, streamline operations, and maintain a competitive edge in the evolving automotive mar et.

Industrial Brea down - Assets



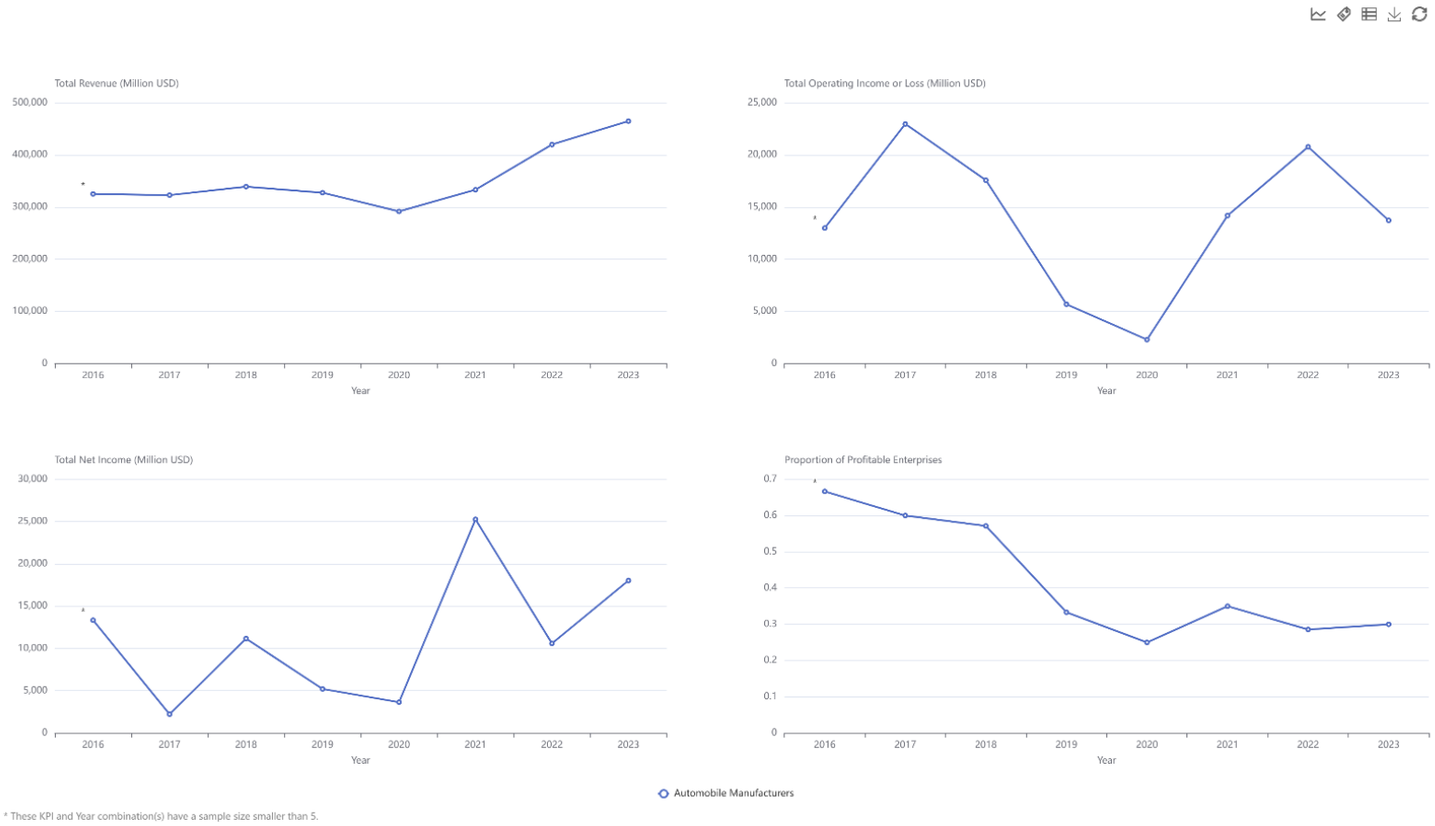
The average total assets for US automobile manufacturers stand at $34,601.01 million, showcasing the industry's capital-intensive nature. Analyzing the asset brea down, 57.32% of assets are tied up in non-current assets, including long-term investments such as manufacturing plants, equipment, and intellectual property. This significant share highlights the industry's reliance on heavy infrastructure and long production cycles. In contrast, current assets account for 42.68%, comprising short-term resources li e cash, inventory, and accounts receivable, which are crucial for maintaining day-to-day operations and liquidity. The higher weighting toward non-current assets indicates a strong commitment to long-term operational capacity and product development, essential for competing in the global automotive mar et. For Fis er Inc., evaluating its asset composition against these industry averages is vital. A significantly lower proportion of non-current assets might suggest limited production capabilities or heavy outsourcing, while a higher proportion of current assets could indicate liquidity strength but potentially less investment in production infrastructure. Monitoring and balancing asset structures carefully will be crucial for Fis er to enhance operational efficiency, support innovation, and achieve sustainable growth in a highly competitive landscape.

Net Income



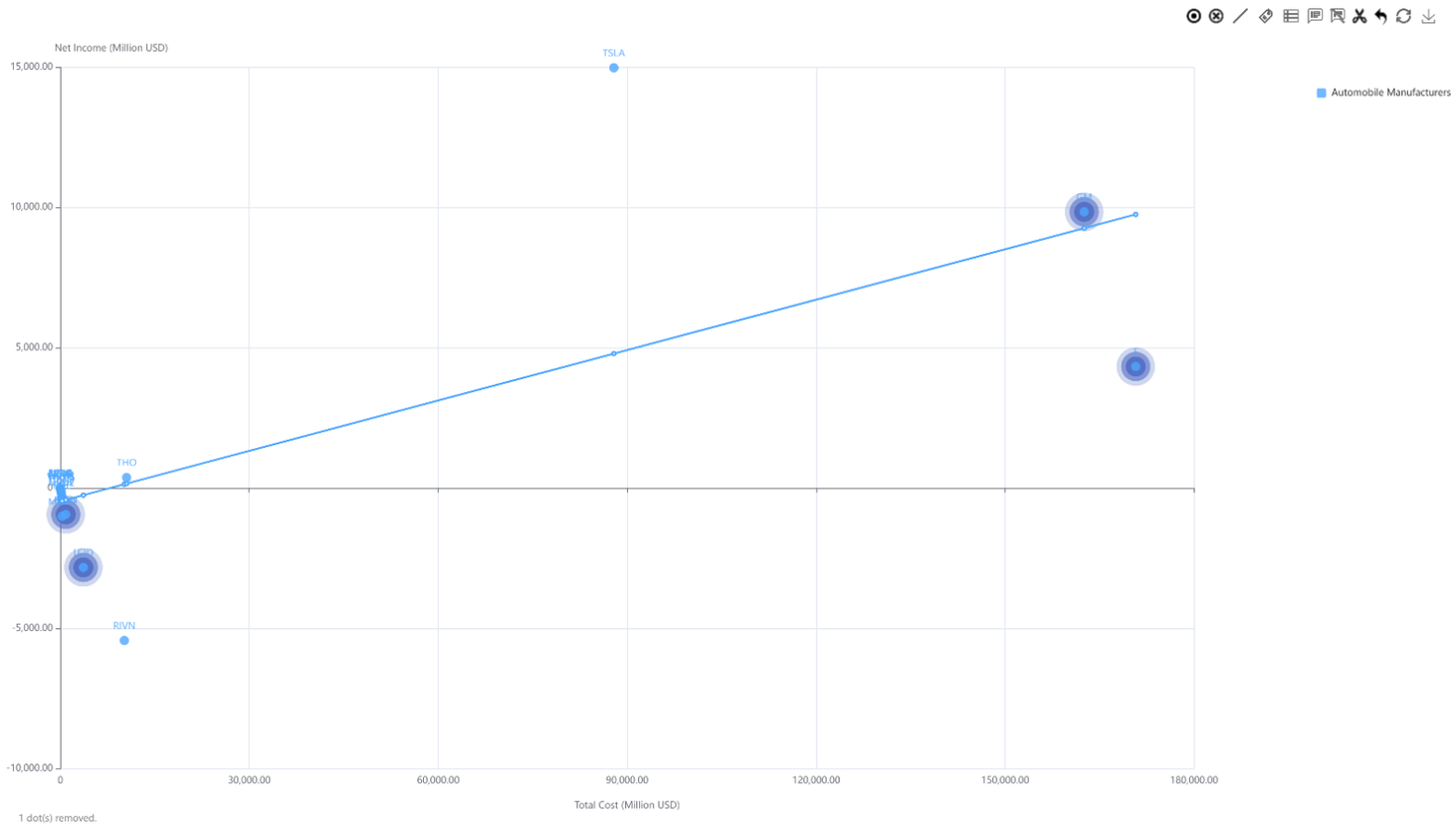
In the Global Competitive Positioning System (GCPS) analysis for 2023, Fis er Inc. is classified under the Consumer Discretionary sector within the Automobile Manufacturers sub-industry. Benchmar ing Fis er's performance by Net Income highlights a significant contrast against top global players: Stellantis N.V., Vol swagen AG, and Toyota Motor Corporation. These companies represent the highest net income generators in the automobile sector worldwide, emphasizing the scale, operational maturity, and profitability gap Fis er faces as an emerging electric vehicle manufacturer. The networ visualization further situates Fis er within a broader industry cluster dominated by diversified, well-established firms. Understanding this positioning is critical for Fis er's strategic planning, as competing against giants with massive resources requires differentiation through innovation, efficiency, and focused mar et targeting. Closing the net income gap will involve optimizing Fis er's cost structures, enhancing production capabilities, and accelerating mar et expansion, particularly as global EV competition intensifies.

Industrial Trend - Industry Total Size



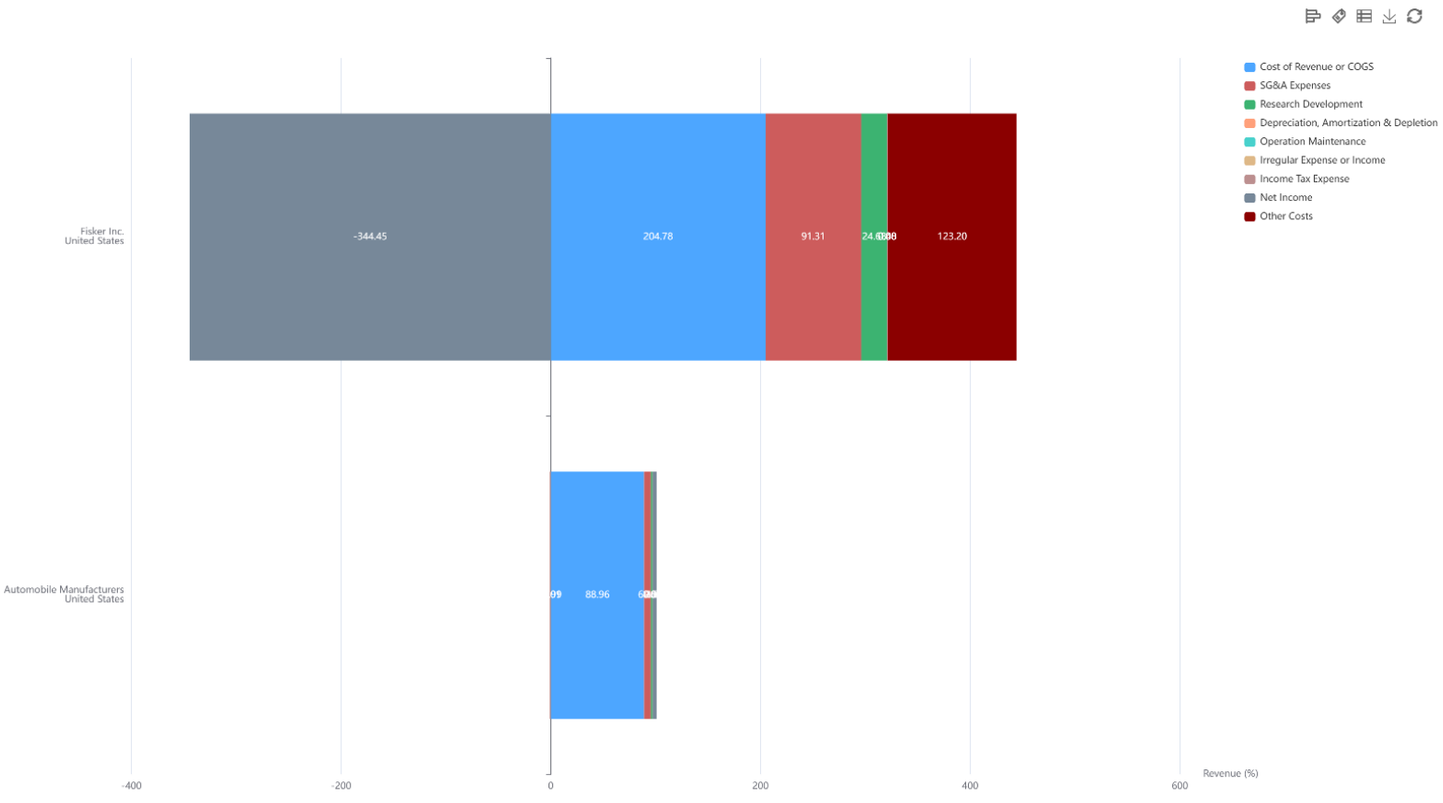
Between 2016 and 2023, the US automobile manufacturing industry experienced significant fluctuations in total revenue, profitability, and operational strength. Total revenue remained relatively stable until 2019 but declined sharply in 2020, li ely reflecting the impact of the COVID-19 pandemic and associated supply chain disruptions. A strong recovery followed, with revenue climbing steadily to approximately $460 billion by 2023. Operating income and net income followed similar volatile patterns, pea ing around 2017 and 2021 but falling notably during 2020 and 2022. Despite revenue recovery, the proportion of profitable enterprises declined steeply from 67% in 2016 to around 27% in 2020, and has only slightly improved since, stabilizing at 32–35% by 2023. This trend suggests that while top-line revenue growth has returned, many manufacturers continue to face profitability challenges, possibly due to rising costs, technological investments, and mar et competition. For Fis er Inc., operating in such a volatile environment emphasizes the need for operational resilience, cost efficiency, and strategic differentiation to achieve sustainable profitability.

Profit vs. Cost - Net Income



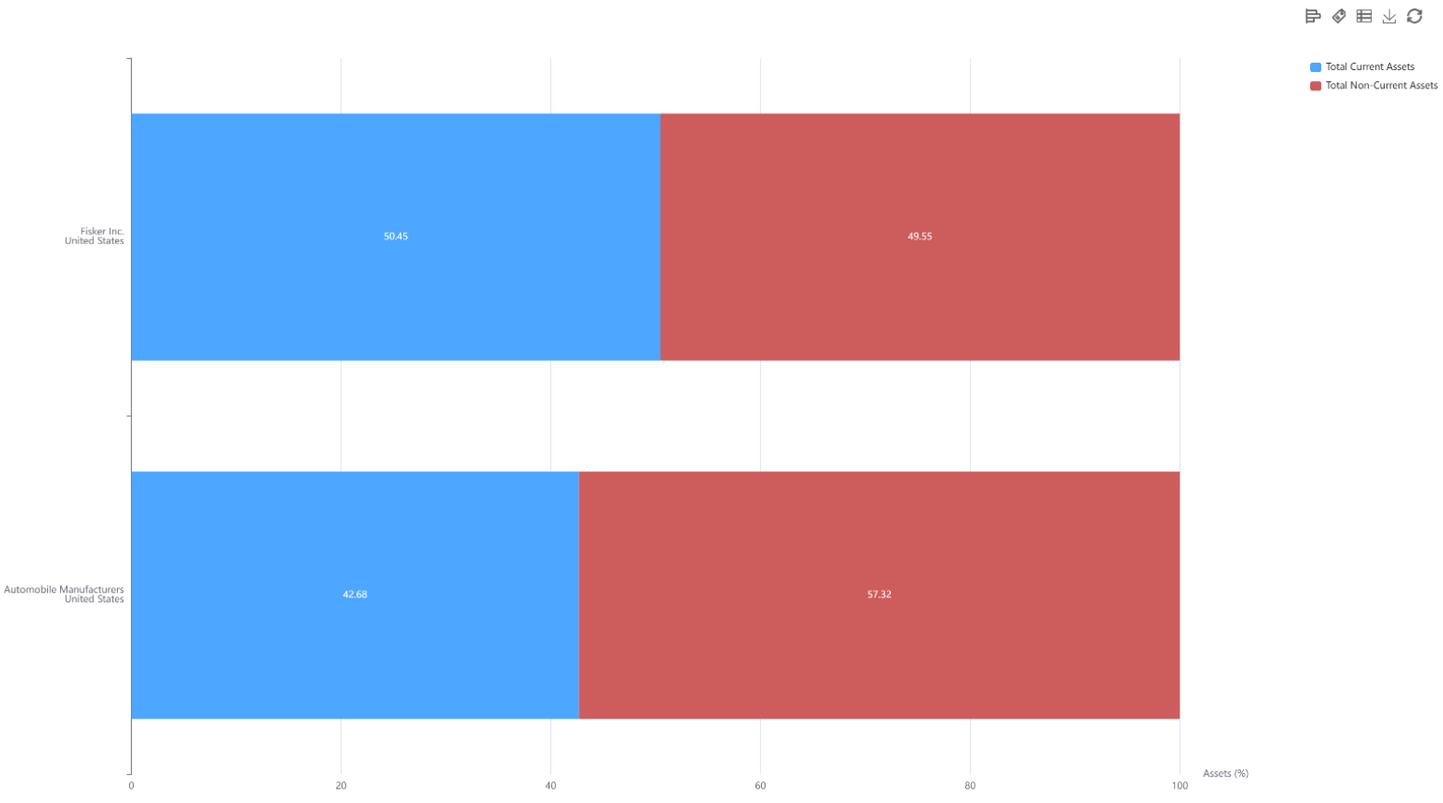
The Profit vs. Cost analysis for US automobile manufacturers shows a positive correlation between total costs and net income, but with significant variations across companies. Major players li e General Motors and Ford exhibit high costs accompanied by strong net incomes, reflecting operational scale and mar et strength. Tesla (TSLA) stands out with a comparatively lower total cost yet achieving the highest net income among the group, showcasing its superior cost efficiency and profitability relative to traditional manufacturers. In contrast, emerging electric vehicle companies such as Rivian (RIVN) and Lucid (LCID) demonstrate substantial total costs but report negative net incomes, highlighting the financial challenges faced by newer entrants in achieving profitability. The trend line emphasizes that, generally, higher spending correlates with higher earnings, but achieving positive net income is dependent on operational efficiency and mar et positioning. For Fis er Inc., this comparison underlines the importance of managing production costs tightly while scaling operations to move toward sustainable profitability, especially in a highly competitive environment dominated by financially strong incumbents.

Enterprise Brea down - Revenue



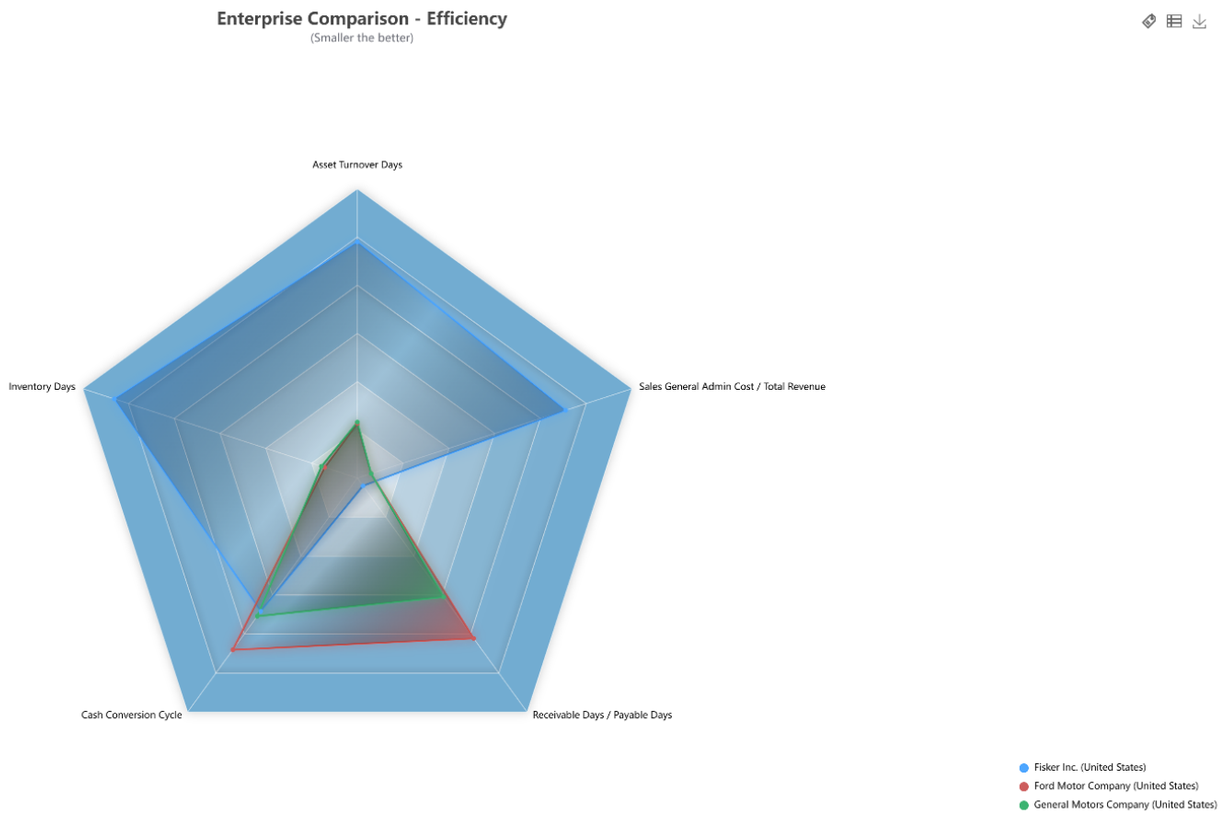
The revenue structure comparison between Fis er Inc. and the US automobile manufacturing industry highlights significant operational differences. For Fis er, Cost of Goods Sold (COGS) is $204.78 million, but notably, Selling, General & Administrative (SG&A) expenses and Research & Development (R&D) costs are substantial at $91.31 million and $24.03 million, respectively, reflecting heavy investment in scaling operations and innovation. Most stri ingly, Fis er reports a large negative income tax expense (-$344.45 million), suggesting accumulated tax losses or deferred tax benefits common among early-stage companies. In contrast, the broader industry shows a traditional structure where COGS consumes about 88.96% of revenue, with much lower proportional expenses in SG&A and R&D. Fis er's cost distribution indicates a focus on future growth rather than current profitability, differing sharply from mature manufacturers optimized for operational efficiency. Understanding this divergence is crucial for assessing Fis er's competitive positioning, where long-term investment strategies must eventually translate into efficient production, stronger margins, and positive net income as the company scales.

Enterprise Brea down - Assets



The asset structure comparison between Fis er Inc. and the US automobile manufacturing industry reveals important strategic differences. Fis er's assets are split almost equally, with 50.45% held in current assets and 49.55% in non-current assets. In contrast, the industry average shows a heavier reliance on long-term investments, with 57.32% in non-current assets and only 42.68% in current assets. Fis er's higher proportion of current assets suggests a focus on liquidity, flexibility, and short-term operational readiness, typical of a scaling or early-growth stage company. Meanwhile, mature automobile manufacturers allocate more of their resources into long-term, capital-intensive assets li e manufacturing facilities, equipment, and intellectual property, supporting sustained production and innovation capabilities. This structural difference highlights that Fis er is still in a phase where maintaining liquidity and funding operational scaling is critical, whereas traditional manufacturers have already built the foundational infrastructure required for mass production. Monitoring Fis er's asset evolution over time will be essential to assess its transition from liquidity management toward building durable competitive advantages through fixed asset investments.

Enterprise Comparison - Efficiency



The enterprise efficiency comparison highlights a significant gap between Fis er Inc. and traditional automa ers such as Ford Motor Company and General Motors Company. Across all five ey metrics — Asset Turnover Days, SG&A Cost as a Percentage of Revenue, Receivable/Payable Days, Cash Conversion Cycle, and Inventory Days — Fis er exhibits notably higher values, indicating lower operational efficiency. Fis er's elevated Inventory Days and Cash Conversion Cycle suggest slower inventory turnover and delayed cash recovery compared to its more established peers. Additionally, Fis er's higher SG&A expenditure relative to revenue reflects greater overhead costs, characteristic of a company still scaling operations. In contrast, Ford and GM demonstrate tighter, more centralized performance on the radar chart, reflecting optimized, mature processes critical to sustaining profitability in a competitive mar et. For Fis er, bridging these efficiency gaps will be essential to improving financial performance, reducing wor ing capital pressure, and enhancing competitive positioning against industry giants.

Enterprise Comparison - Key Indicators

Enterprise Comparison - Key Indicators

Measure Name	Fisker Inc. (United States)	Ford Motor Company (United States)	General Motors Company (United States)
Net Margin	-3.44	0.02	0.06
Gross Margin	-1.05	0.09	0.11
Return on Assets	-0.51	0.02	0.04
Total Revenue Growth Rate	796.90	0.11	0.10
Inventory Turnover	1.37	10.23	9.28
Payable Days / Receivable Days	4.93	0.24	0.33
Return on Equity		0.10	0.14
Current Ratio	1.02	1.20	1.08
1 / Liability Asset Ratio	0.95	1.19	1.33

The ey indicator comparison reveals that Fis er Inc. is in a high-growth but high-ris phase compared to traditional automa ers Ford Motor Company and General Motors Company. Fis er's Net Margin (-3.44%), Gross Margin (-1.05%), and Return on Assets (-0.51%) are all negative, indicating ongoing losses at multiple operational levels. However, its Total Revenue Growth Rate stands at a remar able 796.90%, reflecting rapid expansion efforts. In contrast, Ford and GM show modest but stable growth rates (~0.10%) with positive profitability metrics. Fis er’ s Inventory Turnover (1.37) is significantly lower than Ford (10.23) and GM (9.28), suggesting slower inventory movement and potential operational inefficiencies. Furthermore, Fis er’ s Payable/Receivable Days ratio (4.93) is much higher, implying challenges in cash flow management. Although Fis er's Current Ratio (1.02) indicates basic liquidity, it is wea er compared to Ford (1.20) and GM (1.08), while its 1/Liability Asset Ratio (0.95) shows a relatively higher reliance on liabilities. Overall, Fis er's financial indicators reflect a company investing heavily in growth but facing substantial operational and financial challenges relative to its established competitors.

· Payable Days/Receivable Days mar et power

Class	The Value of Fisker Inc.	The Percentile Rank of Fisker Inc.	90th Percentile	3rd Quartile (75th Percentile)	Median	1st Quartile (25th Percentile)	10th Percentile	Status	Unit
Efficiency									
Payable Days / Receivable Days	**4.928**	**0.71**	**91.82**	**5.01**	**1.37**	**0.72**	**0.19**	**Normal**	

The Payable Days/Receivable Days ratio measures a company's mar et power in managing cash flows — higher values indicate stronger bargaining power over suppliers relative to customers. Fis er Inc.’ s ratio is 4.928, which is significantly above the median industry value of 1.37 and places it close to the 75th percentile (5.01). This suggests that Fis er is relatively strong in stretching its payables longer than its receivables cycle compared to peers. In practical terms, Fis er appears able to delay payments to suppliers while collecting cash from customers relatively faster, improving its short-term liquidity. Despite its early-stage challenges, this "normal" status indicates that Fis er has negotiated reasonably favorable credit terms with suppliers or has lower receivable exposure. However, while a high ratio is positive for cash management, it must be monitored: relying heavily on delayed payments could strain supplier relationships if not balanced carefully as Fis er scales. Compared to industry benchmar s, Fis er demonstrates better-than-average wor ing capital leverage, an encouraging sign for managing its liquidity during growth.

Revenue/No. of Employees labor productivity

Class	The Value of Fisker Inc.	The Percentile Rank of Fisker Inc.	90th Percentile	3rd Quartile (75th Percentile)	Median	1st Quartile (25th Percentile)	10th Percentile	Status	Unit
Profitability									
Total Revenue	**272.883**	**0.62**	**164335.1**	**4198.18**	**14.11**	**0.81**	**0.38**	**Normal**	**Million USD**
Efficiency									
Number of Employees	**1560**	**0.62**	**160747.3**	**14217.5**	**473**	**65.75**	**9.5**	**Normal**	**Person**

The labor productivity of a company can be assessed by evaluating Total Revenue per Employee. For Fis er Inc., total revenue is reported at $272.883 million with 1,560 employees. This translates to approximately $175,000 revenue per employee. Compared to the broader automobile manufacturing industry, Fis er is still positioned at a relatively low productivity level. Top-performing (90th percentile) companies generate over $160,747 million revenue with more than 160,000 employees, reflecting a very different scale. The industry median stands at $14.11 million total revenue with 473 employees, implying a higher revenue-to-employee ratio at the median level.

Fis er's employee base size is considered “normal” relative to peers, but its per capita revenue output remains modest compared to the giants. This is typical for a startup-phase company li e Fis er that is still ramping up production and sales volumes. To improve labor productivity over time, Fis er must focus on increasing vehicle output and revenue without proportionally expanding its wor force. Achieving higher revenue per employee will be critical as it scales operations and competes with more efficient, established players.

Asset turnover days: 365/asset turnover ratio

Class	The Value of Fisker Inc.	The Percentile Rank of Fisker Inc.	90th Percentile	3rd Quartile (75th Percentile)	Median	1st Quartile (25th Percentile)	10th Percentile	Status	Unit
Efficiency									
Asset Turnover	**0.149**	**0.52**	**1.41**	**0.64**	**0.14**	**0.01**	**0**	**Normal**	

Asset turnover measures how efficiently a company uses its assets to generate revenue. Fis er Inc.’ s asset turnover ratio is 0.149, meaning for every dollar of assets, Fis er generates about $0.15 in revenue. To calculate asset turnover days (how many days it ta es to turn over its assets), we apply the formula 365 ÷ Asset Turnover Ratio. For Fis er, this equals approximately 2,449 days (365 ÷ 0.149 ≈ 2,449 days).

This extremely long asset turnover cycle reflects Fis er's early-stage structure, where a large base of assets (cash, inventory, equipment) has yet to be effectively converted into revenue. In comparison to industry standards, Fis er's asset turnover ratio is slightly above the median value of 0.14 but far below the 75th percentile (0.64) and much lower than the 90th percentile benchmar (1.41).

While Fis er’ s “Normal” status indicates no immediate red flags relative to similar companies, it shows that Fis er is still in the process of efficiently deploying its assets to scale operations. Improving asset utilization will be crucial as Fis er matures, aiming to shorten turnover cycles and enhance overall operational efficiency.

Inventory Days + · Receivable days - · Payable days

Class	The Value of Fisker Inc.	The Percentile Rank of Fisker Inc.	90th Percentile	3rd Quartile (75th Percentile)	Median	1st Quartile (25th Percentile)	10th Percentile	Status	Unit
Efficiency									
Inventory Days	**265.513**	**0.53**	**3448**	**705.91**	**254.75**	**61.93**	**34.12**	**Normal**	**Day**
Payable Days	**118.77**	**0.6**	**10040.73**	**149.52**	**67.2**	**28.21**	**18.46**	**Normal**	**Day**
Receivable Days	**24.1**	**0.41**	**632.29**	**193.78**	**60.01**	**16.17**	**10.24**	**Normal**	**Day**

Cash Conversion Cycle = 265.513 + 24.1 – 118.77 = 170.843 days

This result means Fis er ta es approximately 171 days to convert its production and sales efforts into cash flow. Compared to industry norms, Fis er's cycle is longer than the median cycle (based on median values: 254.75 + 60.01 – 67.2 ≈ 247.56 days), although not extreme.

A longer cash conversion cycle indicates that cash is tied up in inventory and receivables for a longer period before being collected. While Fis er's "Normal" status suggests it is within acceptable industry ranges, its cash cycle length highlights the need to improve inventory turnover and collections as it scales. Shortening this cycle will be crucial for Fis er to reduce financing needs and strengthen liquidity during growth.

Supply Chain Analysis: Answer these 3 questions

1. **Most valuable element of the supply chain:**
   The **Cost of Goods Sold (COGS)** is the most valuable and dominant component in the automobile supply chain. In the industry, **COGS consumes approximately 88.96% of total revenue**, emphasizing the critical importance of managing production and material costs efficiently. Effective COGS management is crucial for maintaining profitability and competitiveness.

2. **Who has the highest labor productivity?**
   Among competitors, **Tesla** exhibits the highest labor productivity. Despite lower overall costs compared to traditional manufacturers like GM and Ford, Tesla generates the highest net income, reflecting its superior cost efficiency, asset utilization, and operational productivity.

3. **Who has the strongest market power?**
   Toyota Motor Corporation, Volkswagen AG, and Stellantis N.V. are identified as having the strongest market power. Their strength is based on achieving the **highest net incomes** and maintaining a **global operational scale**, allowing them to dominate the automobile industry and set benchmarks for profitability and supply chain efficiency.

4.

Contributions

Contributions

- https://workspace.scdata.ai/gcps/projecteditor?id=55856&title=supply+chain+case+study&source=/dashboard - Shreyas
- https://workspace.scdata.ai/gcps/projecteditor?id=55856&title=supply+chain+case+study&source=/gcps - Ayush
- https://workspace.scdata.ai/gcps/projecteditor?id=55856&title=supply+chain+case+study&source=/ - Navjot

Fis er Inc. in the Global Automotive Industry Report

Fisker Inc. is an emerging electric vehicle manufacturer navigating a highly competitive and capital-intensive automotive industry. This report finds that Fisker's financial profile reflects its early growth stage: explosive revenue expansion (~797% growth) but persistent losses (net margin –3.44%). In contrast, incumbent automakers like Ford, GM, and Toyota sustain modest growth (~0.1%) with positive margins. Industry-wide trends (2016–2023) show volatile profits – the proportion of profitable U.S. automakers plunged from ~67% in 2016 to ~27% in 2020, recovering only to ~32–35% by 2023. Fisker's cost and asset structure diverges from the norm: it spends heavily on Selling, General & Administrative and R&D (over 40% of revenue combined) and holds half its assets in cash and equivalents, prioritizing liquidity. Meanwhile, traditional manufacturers devote ~57% of assets to long-term plants and equipment. Operational efficiency metrics highlight Fisker's challenges – its inventory sits ~9 months (265 days) before sale and its cash conversion cycle is ~171 days, far longer than established peers, reflecting slower turnover and delayed cash recovery. Labor productivity is also low at ~$175k revenue per employee, well below automotive leaders (which exceed $1 million per employee). On a positive note, Fisker leverages working capital strategically: its payables-to-receivables days ratio (~4.93) is in the industry's top quartile, indicating strong bargaining power to defer supplier payments and conserve cash. Overall, Fisker's rapid growth and liquidity focus are strengths, but to compete with giants like Ford, GM, Toyota, or Tesla, Fisker must dramatically improve its operating efficiency and cost management.

Industry Overview (2016–2023)

The U.S. and global automobile manufacturing industry experienced turbulent performance from 2016 through 2023, marked by revenue swings and eroding profitability. Total revenues fell sharply in 2020 amid the pandemic, then rebounded to new highs by 2023. However, profitability did not recover in tandem: industry operating and net incomes followed a volatile pattern – peaking around 2017 and 2021, plunging in 2020, and dipping again in 2022. The share of automakers reporting net profits collapsed from ~67% in 2016 to only ~27% in 2020, and by 2023 only one-third remain profitable. This indicates that even as sales returned, margins are under pressure. Rising costs, heavy investment in new technologies, and intense competition have squeezed earnings.

Within this landscape, scale and efficiency have been critical for success. Major incumbents like General Motors and Ford managed to remain profitable by offsetting high operating costs with equally high revenues. Toyota similarly leverages massive volume and efficient production to attain stable margins. In contrast, new electric vehicle entrants such as Rivian and Lucid have incurred substantial operating costs but remain unprofitable, underscoring the formidable financial challenges facing startups. Tesla stands out as an exception: with a comparatively lower cost base, Tesla achieved the highest net income among major automakers, highlighting superior cost efficiency and strong pricing power.

Financial and Operational Benchmarking of Fisker vs Peers

Revenue & Cost Structure: Fisker generated $272.883 million in revenue, but its expenses far exceeded this. Cost of Goods Sold (COGS) alone was $204.78 million, roughly 75% of revenue. By comparison, the industry average dedicates ~88.96% of revenue to COGS. Fisker's Selling, General & Administrative (SG&A) expenses were $91.31 million and Research & Development (R&D) costs $24.03 million. Combined, these two overhead categories amount to about 42% of Fisker's revenue, a very high proportion that contributes to its operating losses.

Fisker's gross margin was –1.05% and net margin –3.44%. Ford and GM maintain slightly positive net margins. One anomalous item is Fisker's large negative income tax expense of –$344.45 million, likely due to deferred tax assets. Return on Assets is –0.51%, while Ford and GM achieve positive ROA (~2–4%).

Asset Base and Capital Allocation: Current assets constitute about 50.45% of Fisker's total assets, compared to an industry average of 42.7%. Established automakers have billions tied up in factories and machinery. Fisker's high current asset proportion indicates a focus on liquidity, relying on outsourcing manufacturing rather than owning production facilities.

Efficiency Metrics: Fisker's Inventory Days stand at 265.513, Receivable Days at 24.1, and Payable Days at 118.77, resulting in a Cash Conversion Cycle of approximately 171 days. Inventory turnover is extremely low at 1.37 compared to Ford's 10.23 and GM's 9.28. Fisker's Payable Days/Receivable Days ratio is 4.928, indicating strong cash flow management. Revenue per employee is about $175,000, which is low compared to major automakers but typical for an early-stage company.

Asset Turnover: Fisker's asset turnover ratio is 0.149, translating into approximately 2,449 asset turnover days. This long cycle reflects low revenue generation relative to its asset base, typical for scaling startups.

Conclusion and Strategic Recommendations

Fisker Inc. shows strengths in rapid revenue growth and strong liquidity management but faces significant challenges in profitability, operational efficiency, and asset utilization. Strategic recommendations include:

- Improve inventory turnover and reduce cash conversion cycle
- Scale responsibly while optimizing SG&A and R&D costs
- Gradually invest in proprietary production capabilities or partnerships
- Strengthen supplier relationships and maintain favorable working capital terms
- Focus on quality, brand building, and customer experience to drive demand

With disciplined operational improvements and strategic investment, Fisker can close its performance gap against established industry giants and move toward sustainable profitability.

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