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| profit analysis  YEAR IN REVIEW | | |
| Poseidon gym | |  |

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|  | objective  This project aims to conduct a comprehensive analysis of the profits generated by three gym equipment suppliers from 2018 to mid-2024. The study will assess the profitability of each type of equipment across various suppliers and brands. Additionally, it will measure year-over-year profit changes and evaluate the contribution of each supplier, brand, and equipment category to the overall profits. This detailed examination is expected to provide valuable insights into the financial performance and emerging trends within the gym equipment market. | |  | |

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| supplier profit analysis The company equipment is supplied by three suppliers, Iron Strength Equipment, Peak Performance Gear and Titan Fitness supply. All three supply gym equipment of different variations from different brands. Profit Distribution (Table 1, Figure 1)  |  |  | | --- | --- | | **Supplier** | **Overall Profit** | | Iron Strength Equipment Co. | $48,15,635.00 | | Peak Performance Gear | $57,76,791.00 | | Titan Fitness Supply | $48,13,943.00 | | **Grand Total** | **$1,54,06,369.00**  Table 1 |   Peak Performance Gear leads in total profit with $5,776,791.00, accounting for 37.50% of the overall profit. Iron Strength Equipment Co. follows closely with a total profit of $4,815,635.00, representing 31.26% of the overall profit and Titan Fitness Supply is nearly on par with Iron Strength Equipment Co., with a total profit of $4,813,943.00, contributing 31.25% of the overall profit.  Chart 1  **Key Profit Insight of Supplier**  Table 2   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Year** | **Iron Stength Equipment Co.** | **Peak Performance Gear** | **Titan Fitness Supply** | **Grand Total** | | 2018 | $7,62,085.00 | $9,03,027.00 | $7,58,303.00 | $24,23,415.00 | | 2019 | $7,51,114.00 | $8,95,350.00 | $7,58,676.00 | $24,05,140.00 | | 2020 | $7,41,418.00 | $8,95,471.00 | $7,55,756.00 | $23,92,645.00 | | 2021 | $7,51,347.00 | $9,05,253.00 | $7,68,964.00 | $24,25,564.00 | | 2022 | $7,53,712.00 | $8,98,701.00 | $7,36,001.00 | $23,88,414.00 | | 2023 | $7,37,715.00 | $8,97,402.00 | $7,37,540.00 | $23,72,657.00 | | 2024 | $3,18,244.00 | $3,81,587.00 | $2,98,703.00 | $9,98,534.00 | | **Grand Total** | **$48,15,635.00** | **$57,76,791.00** | **$48,13,943.00** | **$1,54,06,369.00** |  1. Consistent Performance: (Table 2)   Peak Performance Gear has consistently demonstrated leading total profit across the years, accumulating a profit of $5,395,604.00. This performance reflects a strong market presence and effective business strategies. The company's highest annual profit was recorded in 2018, amounting to $903,027.00, and it maintained relatively stable performance with minor fluctuations.   1. Fluctuations in Profit: (Table 2)   Iron Strength Equipment Co. and Titan Fitness Supply experienced notable fluctuations in profit. Iron Strength Equipment Co.'s profit declined from $762,085.00 in 2018 to $741,418.00 in 2020, before slightly recovering to $753,712.00 in 2022. Titan Fitness Supply exhibited a similar trend, with profits decreasing from $758,303.00 in 2018 to $755,756.00 in 2020, and further declining to $736,001.00 in 2022. These fluctuations suggest potential challenges in market conditions or operational inefficiencies that need to be addressed to stabilize and enhance profitability.   1. Significant Decline in 2022: (Table 3)   All suppliers experienced a decline in profit in 2022, with the overall year-over-year change being -1.53%. Iron Strength Equipment Co. saw a slight increase of 0.31%, while Peak Performance Gear and Titan Fitness Supply experienced declines of -0.72% and -4.29%, respectively. This indicates a challenging market environment or external factors adversely affecting profitability. It is crucial to identify and address these factors to prevent further declines.  Table 3   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Year** | **Iron Stength Equipment Co.** | **Peak Performance Gear** | **Titan Fitness Supply** |  | **Grand Total** | | 2018 |  |  |  |  |  | | 2019 | -1.44% | -0.85% | 0.05% |  | -0.75% | | 2020 | -1.29% | 0.01% | -0.38% |  | -0.52% | | 2021 | 1.34% | 1.09% | 1.75% |  | 1.38% | | 2022 | 0.31% | -0.72% | -4.29% |  | -1.53% | | 2023 | -2.12% | -0.14% | 0.21% |  | -0.66% | | 2024 | -56.86% | -57.48% | -59.50% |  | -57.91% |   Table 4   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Year** | **Iron Stength Equipment Co.** | **Peak Performance Gear** | **Titan Fitness Supply** | **Grand Total** | |  |  |  |  |  | | 2018 |  |  |  |  | | 2019 | -1.69% | -0.60% | -0.52% | -0.91% | | 2020 | -2.33% | -3.50% | 1.73% | -1.49% | | 2021 | 2.06% | 4.73% | 0.88% | 2.66% | | 2022 | 2.77% | -1.25% | -7.01% | -1.86% | | 2023 | -2.53% | -0.31% | 0.01% | -0.92% | | 2024 | 2.61% | 1.30% | -1.19% | 0.95% |   Over a similar time frame (until may) (table 4) there is positive changes on 2024 profit trend. In 2024, Iron Strength Equipment Co. showed a profit increase of 2.61%, Peak Performance Gear experienced a 1.30% increase, while Titan Fitness Supply saw a decline of 1.19%. The overall profit change for 2024 was a modest increase of 0.95%.  Monthly Profit Analysis (Table 4, Chart 2, exclude 2024)   1. The quarterly profit analysis reveals that Q1 had a steady increase in profit, totaling $3,604,643, indicating a strong start to the year with consistent growth each month. February saw a notable increase of 1.59% from January, and March maintained this upward trend with a slight 0.11% increase. 2. Q2 started strong but experienced a distinct decline in June, resulting in a total profit of $3,595,271. May showed a modest increase of 0.54%, but June's profit dropped by 2.17%, highlighting potential challenges or seasonal factors affecting sales. 3. Q3 showed a recovery from the previous decline, with a total profit of $3,613,726. August was particularly strong, with a 2.01% increase from July, although September saw a slight decrease of 1.07%. 4. Q4 remained relatively stable, with a total profit of $3,594,195. December stood out with a 2.82% increase from November, suggesting a positive end to the year.   The overall profit for the year amounted to $14,407,835, with Q1 performing the best and having the highest total profit. The month with the highest average profit for Iron Strength Equipment is August, with an average profit of $394,151, while June records the lowest average profit of $350,857. For Peak Performance, May is the top-performing month, with an average profit of $462,793, and November is the month with the lowest average profit, at $428,101. Titan Fitness Supply sees its highest average profit in March, at $385,757, and its lowest in September, with an average profit of $366,031.   |  |  | | --- | --- | | **Row Labels** | **Sum of Profit (Month)** | | 1 |  | | 2 | 1.59% | | 3 | 0.11% | | 4 | -0.48% | | 5 | 0.54% | | 6 | -2.17% | | 7 | 0.84% | | 8 | 2.01% | | 9 | -1.07% | | 10 | -0.85% | | 11 | -0.84% | | 12 | 2.82% | | |

Chart 2

Table 5

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| EQUIPMENT PROFIT ANALYSIS  There is three variations of equipment that the gym procures from the supplier, Air-Bike, Rowing Machine and Treadmill. Air-bike constitutes the highest profit year-to-year average percentage (37.4%) from the different variations of equipment that are sold. with rowing machines at 31.4% and 31.2% with treadmills.   |  |  | | --- | --- | | **Equipment** | **Sum of Profit** | | Airbike | $57,58,848 | | Rowing Machine | $48,39,018 | | Treadmill | $48,08,503 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | | **YEAR** | **Airbike** | **Rowing Machine** | **Treadmill**  Table 6 | | 2018 |  |  |  | | 2019 | -2.25% | -2.75% | 3.18% | | 2020 | -0.88% | 2.24% | -2.78% | | 2021 | 2.13% | 0.19% | 1.68% | | 2022 | -2.63% | -2.10% | 0.36% | | 2023 | -1.43% | 0.42% | -0.82% |   Table 7  Chart 3  The Airbike category has demonstrated varying profitability over recent years. Following a decline in 2019 and 2020, there was a modest recovery in 2021 with an increase of 2.13%. However, profits decreased again in 2022 and 2023. Similarly, the Rowing Machine category exhibited fluctuations in profit. After a downturn in 2019, there was a recovery in 2020 and 2021. Nevertheless, profits declined again in 2022 by 2.10%, followed by a slight increase in 2023. In contrast, the Treadmill category showed more stable performance compared to the other categories. After a substantial increase in 2019, there was a decline in 2020, succeeded by consistent growth in 2021 and 2022, and a minor decline in 2023.  Chart 4  The profit distribution analysis offers a detailed evaluation of the performance of three suppliers across various equipment categories. In the Airbike category, Peak Performance Gear holds a commanding 50.29% share of the total profit, indicating a robust market presence and effective business strategies within this segment. Titan Fitness contributes 33% of the profit, while Iron Strength Equipment Co. accounts for the smallest share at 16.5%.  Iron Strength Equipment Co. leads the Rowing Machine category with a 59.75% share of the total profit, underscoring its competitive advantage and market strength in this product line. Peak Performance Gear and Titan Fitness collectively hold a 20% profit distribution in this category.  Titan Fitness demonstrates balanced performance in the Treadmill category, leading with a 40.06% share of the total profit. Peak Performance Gear follows closely with 39.8%, both reflecting efficient business operations and a significant market presence in the treadmill segment.  Chart 5  The profit analysis for the Rowing Machine category indicates that February has the highest average profit of $455,976, whereas July exhibits the lowest average profit at $364,191. For the Air-Bike category, May achieves the highest average profit of $535,298, which also represents the peak profit across all three equipment categories. Conversely, June records the lowest average profit for the Air-Bike category, amounting to $439,920. In the Treadmill category, March shows the highest average profit of $446,950, while November reports the lowest average profit of $360,807. This analysis highlights the seasonal variations and market dynamics affecting the profitability of each equipment category, providing valuable insights for strategic planning and resource allocation.  Chart 6  \ | |

BRAND PROFIT

An analysis of profit distribution across all brands reveals that Steel Power generates the highest average profit at 18.7%. This is due to the brand's involvement in the production of all three variations of equipment. In contrast, five brands that manufacture two variations of equipment each have an average profit distribution of approximately 12.5%. Additionally, three brands produce only one variation of equipment, with their average profits around 6.25%. Among these, Ironclad Athletics is the lowest profit contributor, averaging 6.16% across all brands.

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| **Brands** | **Sum of Profit** |
| Steel Power | $28,84,763.00 |
| Elevate Fitness | $19,36,823.00 |
| Titan Training | $19,31,300.00 |
| Spartan Sports | $19,22,382.00 |
| Apex Athletics | $19,20,693.00 |
| Summit Strength | $19,19,275.00 |
| Forge Fitness | $9,81,680.00 |
| Hercules Gear | $9,60,261.00 |
| Ironclad Athletics | $9,49,192.00 |
| **Grand Total** | **$1,54,06,369.00** |

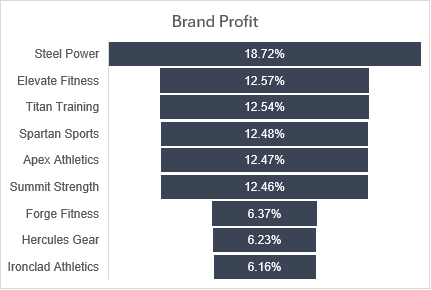


Chart 7

Table 8

* Brand Profit Distribution in Supplier and Equipment

1. Iron strength equipment is manufactured by three brands: Steel Power, Forge Fitness, and Ironclad Athletics. Steel Power generates the highest profit at 59.9%, followed by Forge Fitness at 20.39% and Ironclad Athletics at 19.17%. Steel Power manufactures all three types of equipment, while Forge Fitness and Ironclad Athletics contribute 33.95% and 32.83% of the profit in manufacturing rowing machines, respectively.
2. Peak performance equipment is supplied by three brands: Elevate Fitness, Apex Athletics, and Summit Strength, each contributing equally to the total profit at 33%. All three brands manufacture air bikes, sharing an equal profit contribution of 33%. Rowing machines are exclusively supplied by Elevate Fitness. Treadmills are provided by Summit Strength and Apex Athletics, contributing 50.33% and 49.67% of the profit, respectively.
3. Titan Fitness equipment is produced by three brands: Titan Training, Spartan Sports, and Hercules Gear. Titan Training and Spartan Sports contribute significantly to the profits, with 40.12% and 39.93%, respectively, whereas Hercules Gear contributes 19.95% of the total profit. Air bikes are supplied by Titan Training and Spartan Sports, contributing 50.03% and 49.97% of the profit, respectively. Rowing machines are solely supplied by Titan Training. Treadmills are provided by Spartan Sports and Hercules Gear, contributing 50.15% and 49.85% of the profit, respectively.

PROJECTED FORECAST (95% confidence level)

**Trend Analysis**:

The projected profits suggest a gradual decline over the upcoming seven months, with the lower and upper confidence bounds indicating a range of potential outcomes, thereby highlighting the inherent uncertainties within the forecast.

**Confidence Intervals**:

The confidence intervals provide a range within which the actual profits are anticipated to fall. These intervals expand over time, reflecting the increasing uncertainty as the forecast extends further into the future.

**Overview (PEAK PERFORMANCE) :** The financial forecast spans from June 30, 2024, to May 31, 2027. The data suggests a steady growth in forecasted profits with relatively stable confidence intervals over the period.

**Key Points:**

**June 30 (Q2), 2024:** Forecasted profit is $223,970.00.

**September 30 (Q3), 2024:** Forecasted profit starts to increase, reaching $225,632.28.

**May 31 (Q2), 2027:** Highest forecasted profit is $226,178.68.

**Confidence Intervals:** Lower confidence ranges from $214,539.50 to $214,440.82, and upper confidence ranges from $236,725.06 to $237,916.54.

This indicates a consistent upward trend in profits with stable confidence ranges, signalling positive financial growth prospects

Chart 8

**Overview (IRON STRENGTH):** The financial forecast, spanning from March 31, 2018, to May 31, 2027, exhibits a steady growth in forecasted profits with expanding confidence intervals over time. This analysis highlights a positive trend in financial performance with increasing uncertainty in the long term.

**Key Insights:**

**March 31 (Q2), 2024:** Forecasted profit is $195,146.00.

**September 30 (Q3), 2024:** Projected profit increases to $187,381.64.

**May 31 (Q2), 2027:** Highest forecasted profit reaches $186,740.99.

**Confidence Intervals:**

**Lower Bound:** Ranges from $173,081.20 to $174,472.54.

**Upper Bound:** Ranges from $200,290.73 to $200,400.79.

The forecast indicates a consistent upward trend in profits with predictable confidence intervals, suggesting robust financial health and growth prospects despite growing uncertainty.

Chart 9

Chart 10

**Overview** (Titan Fitness): The financial forecast for the period from Q1 2024 to Q2 2027 reveals a promising financial outlook. The projections indicate a steady increase in forecasted profits, supported by defined confidence intervals. This positive trend highlights the company's strong financial health and potential for sustained growth.

**Key Figures**

**Highest Profit**: Q2 2027 – Profit forecast: $179,746.97

**Profit Break Point**: Q1 2024 – Profit forecast: $170,054.00

**Confidence Intervals**

**Lower Bound**: $163,835.00 to $174,472.54

**Upper Bound**: $193,551.50 to $200,400.79

Strategic Recommendation

**1. Inventory Management Optimization**

**Objective**: Reduce costs and improve profit margins by optimizing inventory levels.

**Actions**:

* Implement just-in-time inventory practices to minimize holding costs.
* Utilize data analytics to accurately forecast demand and adjust inventory levels.
* Negotiate more favorable terms with suppliers to decrease procurement costs.

**Application**: By adopting just-in-time inventory practices, a gym equipment supplier can significantly reduce storage expenses and enhance cash flow. Employing data analytics facilitates precise demand forecasting, thereby minimizing instances of stockouts and overstock. Moreover, negotiating improved terms with suppliers will contribute to enhanced profitability.

**2. Marketing and Customer Engagement**

**Objective**: Increase sales and enhance customer loyalty through targeted marketing initiatives.

**Actions**:

* Develop personalized marketing campaigns based on customer preferences and purchase history.
* Leverage social media and digital marketing to reach a wider audience.
* Implement loyalty programs and promotions to encourage repeat purchases.

**Application**: By tailoring marketing campaigns to individual customers, using insights from their preferences and past transactions, a gym equipment supplier can effectively increase sales. Engaging audiences via social media and digital channels will expand market outreach, while loyalty programs and promotions will incentivize repeat business, thereby fostering stronger customer relationships.

**3. Product Diversification**

**Objective**: Mitigate risks and capture new market opportunities by diversifying the product portfolio.

**Actions**:

* Identify and introduce new products that complement the existing product line.
* Conduct market research to understand emerging trends and customer needs.
* Collaborate with suppliers to develop innovative products.

**Application**: Introducing new complementary products enables a gym equipment supplier to address diverse customer requirements and access new markets. Conducting thorough market research ensures alignment with contemporary trends, while collaborating with suppliers to innovate maintains a competitive edge in the marketplace.

**4. Operational Efficiency**

**Objective**: Enhance operational efficiency to reduce costs and improve profitability.

**Actions**:

* Streamline processes and eliminate inefficiencies in the supply chain.
* Invest in technology and automation to boost productivity.
* Train employees to enhance their skills and improve performance.

**Application**: Streamlining supply chain operations and investing in cutting-edge technology and automation allows a gym equipment supplier to significantly elevate productivity and reduce overhead costs. Continuous employee training programs will ensure high standards of performance and adaptability within the workforce.

**5. Financial Planning and Analysis**

**Objective**

**Actions**:

* Develop detailed financial models to forecast future performance and identify potential risks.
* Conduct regular financial reviews to assess performance against targets.

**Application**: Utilizing comprehensive financial planning tools, a gym equipment supplier can accurately predict market fluctuations and identify viable investment opportunities. Regular financial audits will help align business operations with strategic goals, ensuring long-term financial stability.