

ECOCHARGE- A PORTABLE ELECTRIC VEHICLE CHARGER

Final Marketing Report

Group 10

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EXECUTIVE SUMMARY

Introducing EcoCharge, the advanced portable Electric Vehicle (EV) charging solution! Our innovative charger is designed for on-the-go use, featuring unique attributes to meet diverse EV owner needs.

Emergency Ready: EcoCharge serves as an exceptional backup during emergencies, ensuring EV owners are never stranded without power, setting it apart in the market.

User-Friendly Plug and Play: With a simple plug-and-play setup and clear instructions, EcoCharge eliminates hassle, providing a seamless experience for users.

Compact and Portable: Designed for convenience, EcoCharge is compact and easily portable, fitting into your EV's trunk for charging flexibility wherever you go.

EcoCharge stands out as a beacon of sustainability in the eco-friendly solutions landscape, acknowledged for its positive impact on reducing carbon emissions.

Despite challenges like production costs, we're committed to optimizing processes for better accessibility. Leveraging technological advancements, EcoCharge positions itself for growth in a market projected to reach \$5 billion by 2025.

Our target audience is forward-thinking EV owners aged 18-35, typically earning \$100,000 annually. Our marketing strategy involves social media, industry events, partnerships, and promotions for brand elevation and sales growth.

Financial Success through Strategic Marketing: Our plan spans four quarters, utilizing platforms like TikTok ads and global events. Gradual marketing increases aim for a peak revenue of \$89,100 in December, ensuring sustainable growth.

Collaborations with figures like MKBHD and global event participation expand our brand reach. Success relies on a balanced approach, aligning marketing expenses with revenue generation.

EcoCharge isn't just a portable EV charger; it's a commitment to sustainable and convenient charging, shaping the future of electric mobility. Join us on this journey towards a greener, more accessible tomorrow!

PRODUCT POINT OF DIFFERENCE

Our portable EV charger isn't just a solution; it's a must-have in today's job market. Imagine being stranded with a low battery, far from fixed charging stations during a road trip. Our product emerges as the perfect alternative, providing a sense of relief to electric vehicle (EV) owners in such situations.

What sets us apart? The compact and lightweight design makes our charger easily portable, fitting seamlessly into your car's trunk. Unlike bulky machines that hog space, our product prioritizes practicality without compromising power. It's not just about charging but convenience on the go.

Our charger addresses the inconvenience of being stranded without access to fixed charging stations during road trips. Its compact design ensures it's easy to carry on and off the car, fitting snugly in the trunk without taking up unnecessary space. Our product is a breath of fresh air in a world where machines often mean inconvenience.

Furthermore, simplicity is at the core of our product. The regular plug-and-play setup makes it incredibly easy to use. No technical know-how or special training is required. It's a user-friendly companion that enhances the overall electric mobility experience, emphasizing practicality in an ever-evolving market. Our portable EV charger isn't just a gadget; it's the smart choice for the modern, on-the-go EV owner.

INDUSTRY OVERVIEW

Electric vehicle chargers have become increasingly vital as the demand for electric vehicles rises. Early concerns about electric vehicles, such as limited driving ranges and sparse charging infrastructure, contributed to consumer hesitancy, creating what's known as "range anxiety." However, significant shifts have occurred in the market. Continuous advancements in battery technology have addressed these concerns, offering improved driving ranges, faster charging times, and enhanced energy density.

As electric vehicles become more practical for daily use, consumers increasingly seek cleaner and greener transportation options, driven by growing concerns about climate change and environmental sustainability. The cost-effectiveness of electric cars, attributed to lower operational expenses than traditional automobiles, further contributes to their rising popularity.

In 2021, electric vehicle sales exceeded expectations, reaching 6.8 million units, and capturing a global market penetration of 9.5%, according to Frost and Sullivan's report on Global Wireless EV Charging Growth Opportunities. This surge in sales highlights the high demand for electric vehicles and, consequently, electric vehicle chargers. The evolving landscape, marked by advancements in battery technology and a shift in consumer preferences, underscores the continued growth potential for our products in meeting the increasing demands of this thriving market.

IMPACTING TRENDS

1. Competitive Trends:

- **Market Integration:** Larger players acquiring firms—potential partnerships for EcoCharge.
- **Innovation Collaborations:** Collaborations among competitors may yield advancements in portable EV charging technology.

2. Regulatory Trends:

- **Green Initiatives:** Stringent emissions standards drive demand for eco-friendly solutions like EcoCharge.
- **Data Security Compliance:** Compliance with data protection laws becomes crucial for customer trust in EcoCharge services.

3. Economic Trends:

- **Sustainability Spending:** Consumer emphasis on sustainability aligns with the eco-friendly nature of EcoCharge.
- **Remote Work Impact:** The rise in remote work increases the need for on-the-go charging solutions like EcoCharge.




4. Social Trends:

- **Eco-Conscious Consumerism:** Evolving preferences for sustainable products benefit the market for EcoCharge.
- **Inclusivity in Green Tech:** Diversity and inclusion initiatives align with EcoCharge's commitment to accessible green technology.

5. Technological Trends:

- **AI in Charging Optimization:** Advancements in AI may enhance features like charging optimization in future EcoCharge models.
- **Blockchain for Secure Transactions:** Growing reliance on blockchain aligns with ensuring secure transactions and data for EcoCharge users.

COMPETITIVE ANALYSIS:

Product Image	Advantages	Disadvantages
EcoCharge (Our Product) 	<p>1. Rapid Charging Time: Benefit: EcoCharge offers a charging time of 1 hour to reach 80% capacity, ensuring swift vehicle recovery. Rationale: Charging rate of 10 kilowatts per hour (kWh), significantly faster than alternative portable chargers.</p> <p>2. Extended Range Per Charge: Benefit: Each EcoCharge cycle provides an additional driving range of 100 miles. Rationale: Increased mileage per charge ensures longer intervals between charging sessions.</p>	<p>1. Limited Power Output: Drawback: It may have a slower charging rate compared to fixed stations. Rationale: Concerns for users with high-capacity batteries or those seeking rapid charging.</p> <p>2. Battery Dependency: Drawback: Effectiveness relies on the state of its battery. Rationale: Regular maintenance is required, and users must ensure the power pack is charged and functional.</p>
Anker 767 	<p>1. High Capacity and Output: The Anker 767 offers a robust 2048Wh capacity and 2400W AC output, making it versatile for powering up to 12 devices simultaneously.</p> <p>2. Rapid Recharge Capability: Featuring HyperFlash technology, the Anker PowerHouse 767 can be charged from 0 to 80% in just 1 hour, ensuring quick turnaround times.</p>	<p>1. Perceived Price: Priced at \$2,499, potential customers might perceive the cost as high, considering the availability of lower-priced alternatives.</p> <p>2. Limited Reviews: The product has limited reviews (7), potentially impacting buyer confidence.</p>
Jackery Explorer 2000 	<p>1. Expandable Capacity: Offers versatile scenarios with 2 kWh to 24 kWh of expandable capacity, suitable for various applications.</p> <p>2. High Power Output: Provides a maximum power output of 6,000 W, ensuring functionality for essential devices during emergencies.</p>	<p>1. Higher Price Point: Priced at \$2,199, which might be considered relatively high compared to other options.</p> <p>2. Weight: Weighing 61.5 lbs (27.9 kg), it is relatively heavy, potentially impacting portability.</p>

SWOT ANALYSIS

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • High Demand: The surge in electric vehicle adoption continues to drive robust demand for EcoCharge Power Packs, positioning the product as a market leader. • Portability: EcoCharge's compact design ensures unparalleled flexibility for EV owners, allowing charging at any location catering to the on-the-go lifestyle of electric vehicle users. • Environmentally Friendly: EcoCharge aligns with eco-conscious trends, significantly reducing greenhouse gas through increased electric vehicle use. 	<ul style="list-style-type: none"> • High Maintenance: Maintenance costs may escalate if critical components require frequent replacement, impacting overall cost-effectiveness and necessitating strategic measures to address this concern. • Limited Battery Life: EcoCharge faces limitations with its battery life, posing a challenge in terms of long-term usability. Further developments in battery technology may present opportunities to extend the product's life cycle. • Limited Charging Speed: While portable, charging speed remains a concern. Addressing this limitation by incorporating rapid-charging technologies can enhance the product's appeal.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Expected Growth in Electric Car Sales: Capitalize on the increasing popularity of electric vehicles by aligning product development with specific EV models, providing tailored solutions to meet diverse consumer needs. • Technological Advances: Leverage ongoing breakthroughs in battery technology to enhance the power and efficiency of EcoCharge, ensuring the product stays ahead of evolving market expectations. 	<ul style="list-style-type: none"> • Competition from Fixed Charging Stations: Navigate the intensifying competition from fixed charging stations by highlighting the unique benefits of EcoCharge, such as portability and convenience. • Infrastructure Development: Stay agile to changing market dynamics. While infrastructure development poses a threat, seek new markets or enhance existing features to maintain relevance in the evolving landscape of electric vehicle charging solutions.

CUSTOMER ANALYSIS:

The chosen target market for the EV portable EcoChargers fall into the following characteristics:

- EV owners
- 18-35 years
- Full-time workers
- \$100K+ annual income

The analysis behind choosing this target market is as follows. Our product, portable EV chargers, is only beneficial for those who already own an electric vehicle as it is designed to make life less stressful. Based on our primary research, the most profitable market in terms of age is 18-35 due to the high-interest young-mid

adults have in owning electric vehicles and convenience products. Likewise, since our product is complementary to electric vehicles, demand for EVs increases demand for portable EV chargers.

Our released survey results are shown below:

- Top interested markets include:
 - Full-time commuter students who work part-time
 - Full-time workers with \$100K income +
 - Electric vehicle owners
- Target market sentiments
 - 63 total interested responses
 - 86% interested in our portable EcoCharger
 - 79% of those who owned an EV do not own a portable charger
 - 81% were highly anxious that they would run out of charge on the road
 - 75% of respondents said they would use the charger on a monthly basis
 - 91% of those interested were willing to pay the stated price point of \$1500
 - Car dealerships and Google Shopping ranked the top two places to market car accessories
- Most demanded features
 - On-demand emergency power
 - Seamless Convenience
 - Compatibility with vehicle
 - Fast charging capability

POSITIONING STATEMENT

Introducing EcoCharge, the epitome of on-the-go empowerment for electric vehicle enthusiasts. With its sleek, compact design and cutting-edge technology, EcoCharge revolutionizes the portable EV charging experience. Unparalleled in convenience, our charger seamlessly integrates into your road trip adventures, ensuring you're never stranded with a low battery. **EcoCharge: Where innovation meets portability, redefining the future of electric mobility—one charge at a time.**

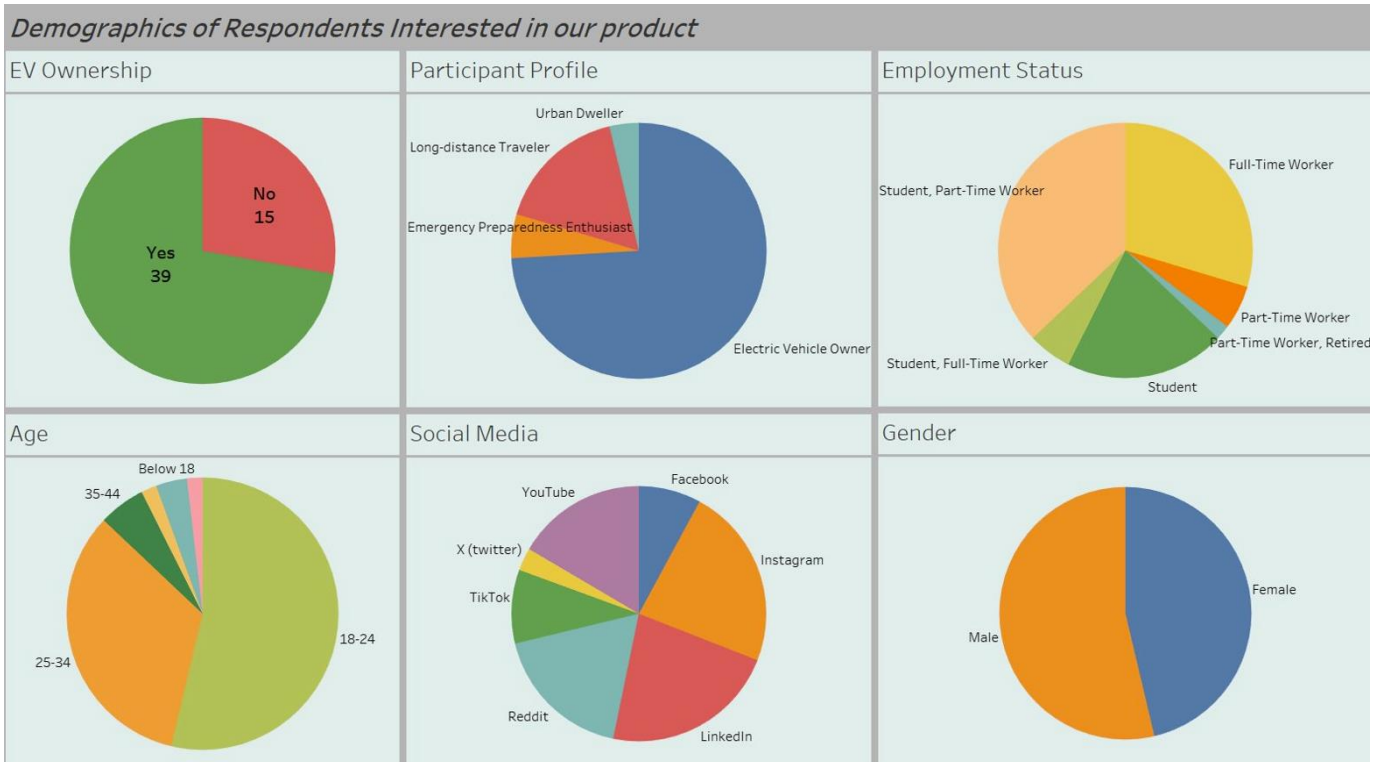
TARGET SEGMENTATION & POSITIONING

The market segmentation based on our primary survey data is in the table below. 3 = large market, 2 = medium market, 1 = small market, 0 = no market.

Based on the table, the most profitable market includes male full-time employees aged 18-34 years. The specific market segments include age, gender, employment status, and needs. The segmentation table helps visualize and rank the more profitable markets than the trailing ones. The categories highlighted in purple indicate the most profitable market to invest in and cater towards. Taking this into account, our product would also be positioned around the market's primary needs, which include compatibility, fast charging capability, and warranty since these are the needs rated the highest.

As a result, this product would be capitalized as the safety net emergency product. One that is compatible and convenient. But most importantly, it is a product that every EV owner must have. We are trying to brand the EcoCharger as a complementary good to electric vehicles that completes the whole experience package when switching to electric transportation.

Market Segment		Product
General	Group with need	EV Charger
Gender	Male	3
	Female	2
Employment	Full-time	3
	Part-time	2
	Student	1
Age	18-24	3
	25-34	2
	35-44	1
	45+	0
Needs	Emergency power	3
	Convenience	3
	Compatibility	2
	Portability	1
	Warranty	2
	Capacity	3

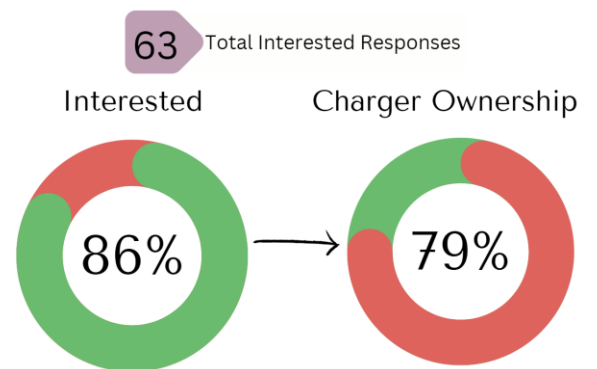


The chart above breaks down our target market even further into respective categories. Our market profile mainly utilizes Instagram, LinkedIn, and Reddit for social media. Hence, the positioning and marketing of our product will be concentrated amongst these top three platforms.

PRICING

Within the surveyed group, 86% wanted to purchase our product. Notably, a compelling 81% of these respondents agreed to acquire it at the specified unit price of \$1500. This cross-referenced figure underscores a strong consensus among those genuinely interested in our product.

Our product is competitively priced, with our set unit price at \$1500—lower than some competitors offering similar products at \$1800 and \$2300. This pricing comparison not only positions our product as a cost-effective choice but also emphasizes the importance of carefully evaluating our pricing strategy to maintain competitiveness and the perceived value of our offering.

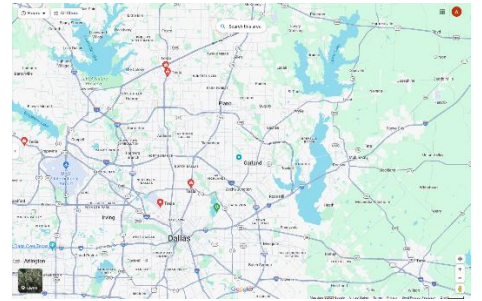


DISTRIBUTION

EcoCharge is sold online through our website and online retailers such as Amazon. We're also sending our employees to help with installation and giving our consumers assurance.

We're looking to expand into car dealerships with high volumes of Electric vehicles, such as Tesla dealerships, and as an added on package item

- Hit the local Tesla stores in the DFW Metroplex and expand in big Electric Cities such as San Francisco.
- Hopefully, we can expand into these areas and make this 25% of our total sales.



Additionally, we look to maintain and expand our online presence and sales by undertaking the following actions:

- Maintaining an E-commerce platform on our website and other online retailers.
- Stay active on social media and promote events
- Consistently have partnerships with content creators.
- Maintain an efficient supply chain during Q3 and Q4, when we expect the highest sales number

MARKETING PLAN

Q1: January to March

During the first quarter of 2024, our focus is establishing a robust social media presence, targeting platforms like LinkedIn, Instagram, and TikTok—specifically partnering with Forest Auto Reviewer on TikTok, which is known for its significant following. The aim is to increase awareness about EcoCharge and encourage attendance at future events, converting interest into sales.

Q2: April to June

Assuming a growing social media following, our strategy will shift to showcasing Eco Charge's effectiveness at key events. We plan to participate in the Tesla pop-up in Hong Kong, targeting current and potential EV owners. Additionally, we aim to leverage EarthX Expo in Dallas and collaborate with MKBHD's Auto Focus on YouTube for a sponsored video. The focus is on giving people a firsthand demo to drive higher sales.

Q3: July to September

In the third quarter, we aim to showcase sales numbers at events and explore partnerships with dealerships. Events like the UK Electric & Hybrid Charging Infrastructure Symposium and Fully Charged Live in San Diego are key, where we aim to build our reputation, network with industry experts, and explore collaborations with EV manufacturers. Follow-ups and incentives are planned to encourage product engagement.

Q4: October to December

To conclude the year, we plan to capitalize on local Tesla stores and pop-ups, hosting end-of-year promotions to boost sales. The Tesla pop-up in Austin will be a focal point to enhance awareness and establish a strong

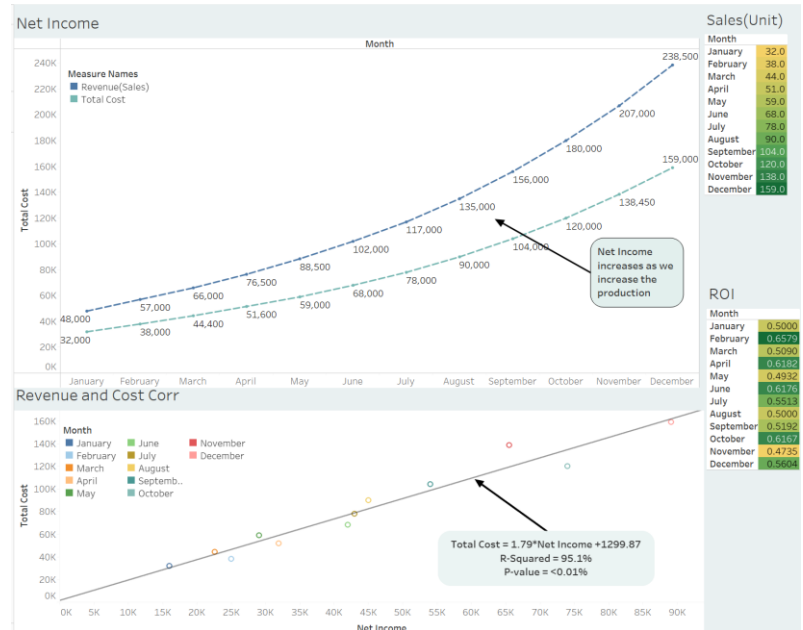


relationship with Tesla. Local showcase events will serve as marketing campaigns, maintaining a consistent social media presence. With end-of-year promotions aligning with dealership activities, we anticipate reaching our highest sales figures, marking a successful year for EcoCharge.

SUPPORTING FINANCIALS

Overview of Financial Growth

1. The 2 lines plotted on the first graph show the total revenue and costs against all the months. The difference/gap between these two lines shows our Net Income. The graph shows that our net income increases in the year's later months.
2. The second graph shows revenue and cost correlation. All months are plotted along the trend line, giving an R-squared value of 95.1%, implying that if we increase our costs, there is a 95% probability that our net income will also increase proportionally. This analysis was very important for us to make sure that we become more profitable in the future.



Q1: January to March

We kick off our marketing initiatives in the first quarter with a strategic blend of digital and physical presence. The Forest Auto Reviewer campaign on TikTok introduces our product to a broad audience, generating early buzz.

Month	Estimated Quantity Sold	Revenue	Product Cost	Marketing Cost	Distribution Costs	Total Cost	Net Income	ROI
January	32	\$48,000	\$22,400	\$3,840	\$5,760	\$32,000	\$16,000	0.50
February	38	\$57,000	\$26,600	\$4,560	\$6,840	\$38,000	\$25,000	0.66
March	44	\$66,000	\$31,200	\$5,280	\$7,920	\$44,400	\$22,600	0.51
April	51	\$76,500	\$36,300	\$6,120	\$9,180	\$51,600	\$31,900	0.62
May	59	\$88,500	\$41,300	\$7,080	\$10,620	\$59,000	\$29,500	0.49
June	68	\$102,000	\$47,600	\$8,160	\$12,240	\$68,000	\$42,000	0.62
July	78	\$117,000	\$54,600	\$9,360	\$14,040	\$78,000	\$43,000	0.55
August	90	\$135,000	\$63,000	\$10,800	\$16,200	\$90,000	\$45,000	0.50
September	104	\$156,000	\$72,800	\$12,480	\$18,720	\$104,000	\$54,000	0.52
October	120	\$180,000	\$84,000	\$14,400	\$21,600	\$120,000	\$74,000	0.62
November	138	\$207,000	\$96,600	\$16,740	\$25,110	\$138,450	\$65,550	0.47
December	159	\$238,500	\$111,300	\$19,080	\$28,620	\$159,000	\$89,100	0.56
Total	981	\$1,471,500	\$687,700	\$117,900	\$176,850	\$982,450	\$479,050	0.54

Simultaneously, engaging with our audience on LinkedIn and Instagram sets the stage for a broader online community. Attending EarthX in April aligns with our commitment to eco-friendly solutions, bolstering our brand image. The initial surge in marketing costs corresponds to these efforts, leading to a marginal dip in Net Income from January to March. Still, the Return on Investment (ROI) remains solid at 0.50.

Q2: April to June

As spring unfolds, our marketing tactics bloom further. The collaboration with MKBHD's Auto Focus amplifies our product visibility, tapping into a tech-savvy audience. Participating in the UK Charging Infrastructure Event and Fully Charged Live in San Diego establishes a global presence and enhances credibility. The net income experienced a notable upswing in April and June, peaking at \$42,000. The 0.66 ROI in February signifies a fruitful quarter, attributing the success to intensified marketing efforts.

Q3: July to September

Summer brings about a sustained marketing push. Advertising at Tesla pop-ups in Hong Kong and Austin leverages the electric vehicle community's enthusiasm. Exploring dealership partnerships adds a new dimension to our sales strategy. This quarter witnesses a rise in marketing costs, reflecting our expanding outreach. Despite this, the Net Income remains strong, peaking at \$54,000 in September. The ROI of 0.52 indicates a well-balanced correlation between marketing investments and revenue growth.

Q4: October to December

As the year culminates, our marketing efforts intensify with events at local Tesla stores and enticing end-of-year promotions. This quarter's marketing costs align with the festive season's demands, contributing to a robust increase in revenue. The ROI of 0.56 in December indicates that our calculated marketing strategies have not only sustained the year-long momentum but have also propelled us toward a profitable year-end. The Net Income reached its pinnacle at \$89,100 in December.

GOAL SETTING

1. Revenue Enhancement (20% increase in 12 months):

- Implement educational campaigns highlighting EV cost savings.
- Invest in research to enhance charging speed and elevate user experience.

2. Cost Optimization (10% reduction in 6 months):

- Conduct a comprehensive supply chain analysis to identify optimization opportunities.
- Leverage bulk purchasing and negotiate favorable deals with suppliers.

3. Net Income Growth (15% increase in 12 months):

- Focus on revenue growth through effective marketing strategies.
- Conduct regular financial reviews to identify and address cost control opportunities.

4. Social Media Expansion (50% increase in 6 months):

- Execute targeted marketing at car shows to highlight unique features.
- Implement engaging content strategies to captivate and expand the social media audience.

5. Customer Satisfaction Improvement (20% increase in 12 months):

- Implement customer service enhancements based on feedback and surveys.
- Conduct regular customer satisfaction surveys to gather insights and identify improvement areas.

SUPPORTING PRODUCT IMAGES/PROTOTYPE



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