Walkergy: Revolutionary Colour-Changing Shoes That Power Your Life

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"WALKERGY"

Powering your footsteps!!

MISSION: To provide technological power at every step

In the age of smartphones and technology, we believe in providing everyone the power to have connectivity at each and every step. We also consider it necessary to do the same in an eco-friendly manner by converting one's walk to a powered walk.

VISION:Revolutionising the nation with eco-friendly products

Misuse of resources has resulted in deteriorating effects on the nature. We strongly believe that it is our duty to make sure that the resources are available for the future generations to come. We continue to do the same by providing eco-friendly solutions to our plan

OBJECTIVES

PRIMARY OBJECTIVES: With the growing speed of technological advancement, smartphones have become the essential components of our daily performance. As we look for convenience, these devices combine multiple features and give us mobility, entertainment,

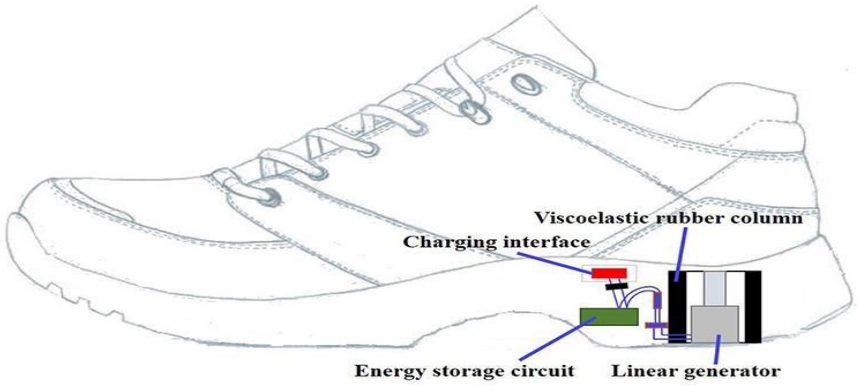
decision making and a lot more. Thus, our primary objective is to provide our customers the necessary power in every step and keep them on with speed, quality and effectiveness.

SECONDARY OBJECTIVES: We aim at providing the world all the power they need for their chores in an eco-friendly manner. Thus, our objective is to not only save the environment but make people fit in the daily walks of life. To add on our other objective is to help our customers reduce their electricity charges to at least a minimal extent.

PRODUCT DEVELOPMENT The soles of these shoes will contain an electrical generator (which is a small tube), a USB outlet, a storage battery and few wires. The electrical generator will be placed inside the soles to one side, battery near the heel, and a cable connecting the generator with the battery. The electric generator will be filled with DROPLETS OF A CONDUCTING LIQUID like Ethyl Alcohol and ELECTRODES like Graphite. Electric charge is produced when two particles rub against each other, so by using the same principle, we can achieve that. Further the rubber used in the product acts as a shock absorber, ensuring full safety.

Whenever the person wearing these shoes walks , this being an external movement ,between the droplets and electrodes ,thereby releasing an electric charge into the circuit which is stored in the battery , which in turn is connected to a USB outlet . When the phone/device is connected to the outlet with the help of a USB cable, it will get charged. . Our product can produce about 15 watts of power on walking only 300-320 metres

This is how we POWER YOUR FOOTSTEPS!!!!



PROBLEM SOLUTION FIT

In an era where technology has become indispensable in our daily lives, the need for reliable and accessible power sources for our electronic devices is more crucial than ever. However, traditional power outlets are often scarce or inconveniently located, leading to

frustration and inconvenience for users on the move. Recognizing this challenge, we introduce PowerWalk, an innovative solution that harnesses the energy of every step to charge electronic devices. This paper explores the problem of mobile device charging, the unique features of PowerWalk shoes, and its potential impact on the market.

The Problem:

In today's fast-paced world, people rely heavily on smartphones, tablets, other electronic devices to stay connected, productive, and entertained. However, the limited battery life of these devices often poses a significant challenge, especially when users are on the go. Whether commuting in urban areas, hiking in the great outdoors, or attending meetings throughout the day, the fear of running out of battery power looms large.

Traditional solutions for charging devices on the move, such as portable power banks or seeking out available power outlets, are often inconvenient, unreliable, or environmentally unsustainable. Moreover, these solutions require users to carry additional accessories or rely on infrastructure that may not always be accessible.

The Solution: Introducing-PowerWalk Shoes

Powerwalk shoes offer a revolutionary solution to the problem of mobile device charging by harnessing the natural energy generated from walking. Embedded within the soles of the shoes are several key components

Electrical Generator: A small tube filled with droplets of a conducting liquid, such as ethyl alcohol, and electrodes like graphite, is placed inside the soles. As the wearer walks, the external movement causes friction between the droplets and electrodes, generating electric charge through the principle of triboelectricity.

Storage Battery: Located near the heel of the shoe, the storage battery stores the electric charge generated by the electrical generator. This battery serves as a reservoir of energy that can be accessed whenever needed to charge electronic devices.

USB Outlet: Integrated into the design of the shoe, a USB outlet provides a convenient interface for connecting electronic devices. Users can simply plug their devices into the outlet using a USB cable to initiate the charging process.

Safety Features: The rubber material used in the construction of PowerWalk shoes acts as a shock absorber, ensuring user safety while walking and charging devices simultaneously. Additionally, the design of the shoes prioritizes comfort and durability to provide a

seamless user experience.

Key Features and Benefits:

Sustainable Energy Generation: By harnessing the energy of walking, PowerWalk shoes offer a sustainable and environmentally friendly solution to mobile device charging. Users can reduce their reliance on traditional power sources and contribute to conservation efforts.

On-the-Go Charging: With PowerWalk shoes, users can charge their electronic devices anytime, anywhere, without the need for stationary power outlets or additional accessories. Whether commuting, traveling, or engaging in outdoor activities, users can stay connected and productive without interruptions.

Efficient Power Production: The innovative design of PowerWalk shoes allows for efficient energy production, capable of generating approximately 15 watts of power with just 300-320 meters of walking. This ensures that users can quickly replenish their device batteries with minimal effort.

Convenience and Mobility: PowerWalk shoes provide a seamless and hassle- free charging experience, allowing users to stay mobile and productive throughout the day. Whether attending meetings, running errands, or exploring the outdoors, users can enjoy uninterrupted access to their electronic devices.

Novelty and Innovation: With its groundbreaking technology and unique design, PowerWalk shoes stand out as a novel and innovative solution in the market. By offering a new way to power devices on the move, PowerWalk shoes capture the interest and imagination of consumers looking for cutting- edge products.

Target Market and Market Potential:

PowerWalk shoes cater to a diverse range of consumers who rely on electronic devices for work, communication, and entertainment. Key target markets include:

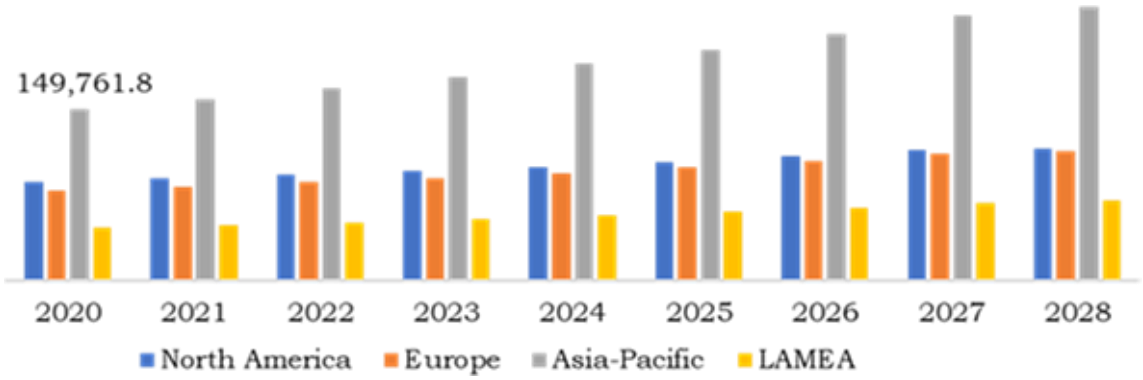
Urban Commuters: Professionals and students who commute daily in urban areas and rely on smartphones, tablets, and laptops for work or study.

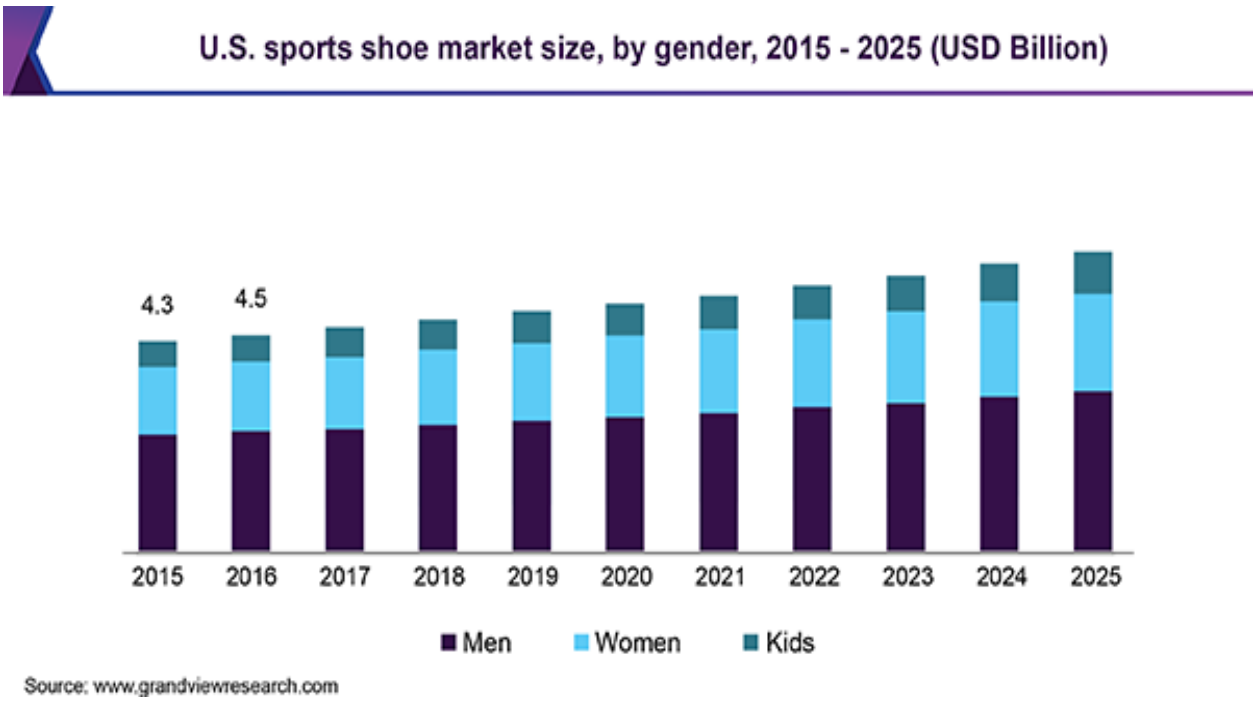
Outdoor Enthusiasts: Hikers, campers, and adventurers who spend Extended periods outdoors and need to keep their devices charged navigation, communication, and safety.

Business Travelers: Executives and frequent travelers who require constant access to their devices for emails, calls, and presentations while on the move.

The market potential for PowerWalk shoes is significant, given widespread reliance on electronic devices and the growing demand for sustainable and convenient charging solutions. As consumers seek ways to stay connected and productive in an increasingly mobile world, PowerWalk shoes offer a compelling value proposition that addresses their needs and preferences.

PowerWalk shoes represent a groundbreaking innovation in the field mobile device charging, offering a sustainable, convenient, and efficient solution for users on the go. By harnessing the energy of walking, PowerWalk shoes empower users to stay connected, productive, and entertained without the limitations of traditional power sources. With its unique features, and market potential, PowerWalk shoes are poised to revolutionize the way we power our electronic devices and redefine the future of mobility.





VALUE PROPOSITION

Customer Segments:

Tech-Savvy Consumers: Individuals who are early adopters of innovative technology and appreciate products that offer unique features and functionalities.

Environmentally Conscious Consumers: People who prioritize sustainability and are actively seeking eco-friendly products that reduce their carbon footprint.

Customer Jobs: Need for Convenient Charging Solutions: Customers need to keep their electronic devices charged while on the go, without relying on traditional power sources.

Desire for Sustainable Energy: Customers want to contribute to environmental conservation efforts by using renewable energy sources.

Pains: Limited Access to Power Outlets: Users face inconvenience when they cannot find power outlets to charge their devices, especially during outdoor activities or travel.

Concerns About Environmental Impact: Users may feel guilty about using electricity from

non-renewable sources and are looking for alternatives to reduce their carbon footprint.

Gains:

Convenience: Users value the ability to charge their devices anywhere, anytime, without the need for external power sources.

Product & Service Features:

Kinetic Energy Harvesting Technology: The shoes contain an electrical generator powered by the wearer's footsteps, converting mechanical energy into electrical energy.

Built-in USB Outlet: A USB outlet integrated into the shoes allows users to directly charge their devices without the need for additional adapters or power sources.

Shock Absorbing Rubber Material: The shoes are designed with shock- absorbing rubber material to ensure safety and comfort for the wearer.

Pain Relievers:

Limited Access to Power Outlets: The shoes alleviate the inconvenience of searching for power outlets, providing a portable and on-the-go charging solution.

Environmental Concerns:

By utilizing renewable energy generated from walking, users can alleviate their guilt associated with using electricity from non-renewable sources, addressing their environmental concerns.

Dependency on Traditional Charging Methods:

Users can reduce their reliance on traditional charging methods, such as power banks or wall outlets, mitigating the inconvenience of carrying additional charging devices.

Safety Concerns:

The shock-absorbing rubber material ensures safety for the wearer, reducing concerns about electrical hazards associated with wearable technology.

Gain Creators:

Convenient Charging Anywhere, Anytime: Users gain the ability to charge their devices wherever they are, without being tethered to fixed power sources, enhancing their convenience and mobility.

Environmental Impact:

Users experience a sense of satisfaction knowing they are contributing to environmental sustainability by generating renewable energy with every step they take.

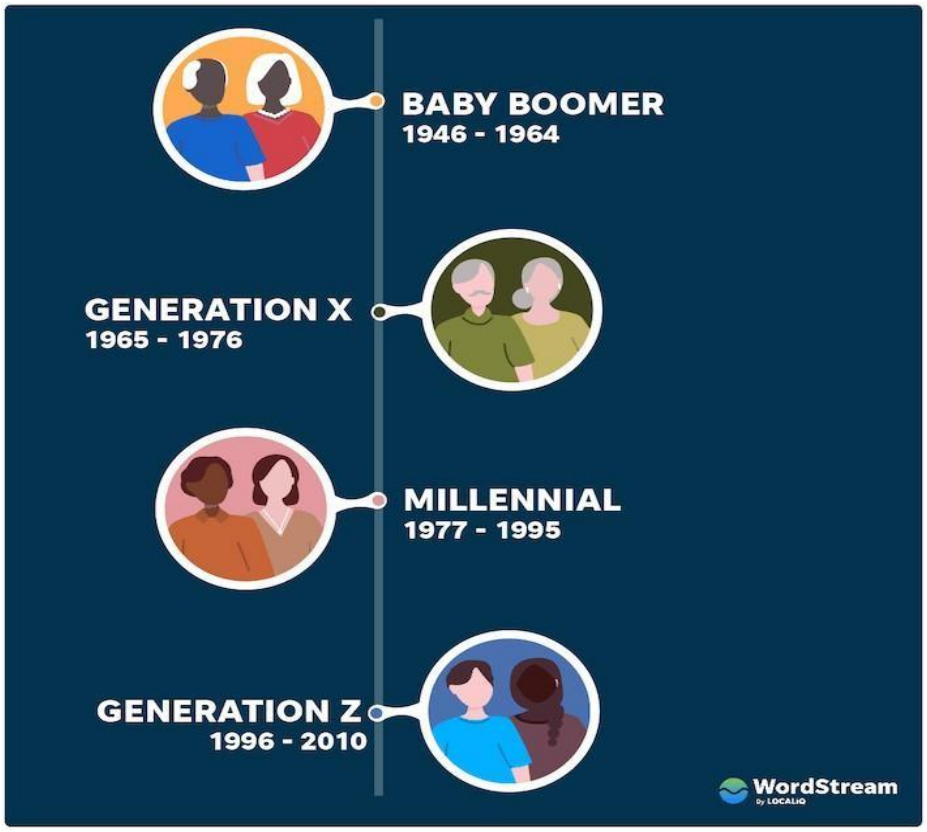
Freedom from Battery Anxiety:

Users no longer need to worry about running out of battery power on their devices, providing them with peace of mind and uninterrupted usage throughout the day.

Innovative and Futuristic Appeal:

The product's innovative design and functionality create a sense of excitement and admiration among users, enhancing their perception of being at the forefront of technology adoption.

TARGET CUSTOMERS



Tech-Savvy Consumers: Individuals who are interested in innovative gadgets and technologies would likely be intrigued by the idea of shoes that can charge their devices simply by walking. This demographic tends to value products that offer convenience and efficiency in their daily lives.

Frequent Travelers: People who travel frequently, whether for work or leisure, often encounter situations where access to power outlets may be limited. Shoes that can generate power on the go could appeal to this demographic as a convenient solution for keeping their devices charged while on the move.

Outdoor Enthusiasts: Hikers, campers, and outdoor adventurers who spend extended periods away from traditional power sources could benefit from footwear that generates electricity. Being able to charge devices without relying on external power sources could enhance safety and convenience during outdoor excursions.

Environmentally Conscious Consumers: Individuals who prioritize sustainability and reducing their carbon footprint may be attracted to products that utilize renewable energy sources. Shoes that generate electricity from the wearer's movement offer a sustainable alternative to traditional charging methods, aligning with the values of eco-conscious consumers.

Fitness Enthusiasts: Health-conscious individuals who engage in regular walking or jogging as part of their fitness routine may appreciate the added functionality of shoes that not only provide comfort and support but also generate power during physical activity.

Students and Professionals: People who lead busy lifestyles and rely heavily on their electronic devices for work or school may see the value in shoes that can conveniently charge their devices throughout the day, especially in situations where access to power outlets is limited.

MINIMUM VALUE PROTOTYPE

Description:

The PowerWalk Shoe is a footwear prototype designed to demonstrate the concept of generating electrical power from the wearer's footsteps. The prototype consists of a basic design featuring essential components to showcase the functionality of the product.

Components:

Shoe Sole: The sole of the prototype is made of durable rubber material, providing comfort and support to the wearer while also acting as a shock absorber.

Electrical Generator: A small tube containing droplets of a conducting liquid (e.g., ethyl alcohol) and electrodes (e.g., graphite) is integrated into the sole of the shoe. This generator is responsible for converting mechanical energy from footsteps into electrical energy.

Storage Battery: Positioned near the heel of the shoe, the storage battery stores the electric charge generated by the electrical generator.

USB Outlet: A USB outlet is incorporated into the design of the shoe, providing a convenient interface for connecting electronic devices.

Wiring: Minimal wiring is used to connect the electrical generator to the storage battery and USB outlet, allowing for the transfer of electric charge.

Functionality:

When the wearer walks, the movement causes friction between the droplets of conducting liquid and electrodes inside the electrical generator. This friction generates an electric charge, which is then stored in the battery located near the heel of the shoe. The USB outlet allows users to connect their electronic devices for charging, utilizing the stored energy from their footsteps.

Demonstration:

The prototype can be demonstrated by having individuals wear the PowerWalk Shoe and walk a short distance. As they walk, the electrical generator within the sole of the shoe will generate electric charge, which can be visually indicated by a small LED light or voltmeter. Once the charge is stored in the battery, users can connect a smartphone or other electronic device to the USB outlet to demonstrate charging functionality.

MARKET STARTEGY

Product:

The product is a pair of shoes with built-in electrical generators, storage batteries, and USB outlets.

Emphasize the innovative technology behind the product, highlighting its ability to generate electrical charge from the wearer's footsteps.

Highlight the safety features such as the shock-absorbing rubber material used in the shoes.

Communicate the convenience factor of having a portable charging solution integrated into footwear.

Price:

Pricing should reflect the value proposition of the product, considering its innovative features and convenience.

Conduct market research to determine the price elasticity of demand and competitor pricing for similar products.

Consider offering introductory pricing or promotional discounts to encourage initial adoption and market penetration.

Implement a pricing strategy that allows for a reasonable profit margin while remaining competitive in the market.

Place:

Distribution channels should be selected to reach the target market effectively.

Initially, focus on direct-to-consumer sales through online channels such as the company website and e-commerce platforms.

Explore partnerships with retail outlets specializing in tech gadgets, outdoor gear, or sustainable products.

Consider selling through specialty stores catering to environmentally- conscious consumers or outdoor enthusiasts.

Promotion:

Develop a comprehensive marketing campaign to create awareness and generate interest in the product.

Utilize social media platforms to showcase the product features, demonstrate its functionality, and engage with potential customers.

Collaborate with influencers, bloggers, and tech reviewers to create buzz and reach a wider audience.

Highlight the eco-friendly aspects of the product, emphasizing its potential to reduce reliance on traditional energy sources.

SWOT ANALYSIS:

Strengths:

Innovative Technology: The integration of an electrical generator into the soles of shoes is a novel and unique idea, showcasing innovation in product design.

Sustainable Energy Source: Harnessing energy from walking reduces reliance on traditional power sources, making it environmentally friendly.

Convenience: Users can charge their devices on the go without needing access to electrical outlets, providing convenience and flexibility.

Safety: The use of rubber as a shock absorber ensures safety for the user, mitigating any potential risks associated with electrical components in footwear.

Potential Cost Savings: By generating power from walking, users may save on electricity bills for charging their devices.

Weaknesses:

Limited Power Generation: The product can only produce a maximum of 15 watts of power, which may not be sufficient for charging larger devices or multiple devices simultaneously.

Reliance on Movement: Charging capability is contingent upon the user walking, limiting its effectiveness in stationary or sedentary situations.

Durability Concerns: The constant rubbing of electrodes and conducting liquid may lead to wear and tear over time, potentially reducing the longevity of the product.

Compatibility Issues: The product's USB outlet may not be compatible with all devices, limiting its usability for certain users.

Opportunities:

Expansion of Applications: The technology could be adapted for use in other wearable items, such as backpacks or clothing, expanding its potential market.

Partnerships with Tech Companies: Collaborating with smartphone or wearable device manufacturers could lead to integrated solutions or co- branded products.

Integration with Smart Cities: In the context of smart city initiatives, this technology could contribute to renewable energy infrastructure and sustainability efforts.

Threats:

Competition: The market for wearable energy-generating devices is likely to become increasingly competitive, with other companies developing similar products.

Technological Obsolescence: Rapid advancements in energy harvesting and storage technology could render this product obsolete if it fails to keep pace with innovation.

Regulatory Hurdles: Compliance with safety and electrical standards may pose challenges, potentially delaying product development or market entry.

Consumer Skepticism: Some consumers may be skeptical about the effectiveness or reliability of the product, particularly regarding its ability to generate consistent power from walking.

FINANCE

SOURCES OF CAPITAL

SL NO.	SPECIFICATIONS	AMOUNT(RS)
1	CASH IN HAND	25,00,000

2	BANK LOAN @12% INTEREST PA	20,00,000
3	VENTURE CAPITALISTS	18,00,000
4	START UP FUNDS	20,00,000
	TOTAL	83,00,000

ESTABLISHMENT COST

SL NO	SPECIFICATIONS	AMT(RS)
1	LAND AND BUILDING COST (lease for 3 years)	15,00,000
2	MACHINERY (Including transportation and instalment)	10,00,000
3	MISCALLENOUS COST	2,00,000
	TOTAL	27,00,000

VARIABLE COST

SL	SPECIFICATIONS	AMOUNT(RS)
1	RAW MATERIALS	24,45,000
2	ADMINISTRATIVE AND LABOUR COST	8,00,000

3	ELECTRICITY AND WATER COST	2,00,000
4	BANK LOAN INTEREST	2,40,000
	TOTAL	36,85,000

MARKETING COSTS

SL NO	SPECIFICATIONS	AMOUNT(RS)
1	PROMOTION IN TATA 10K RUN MARATHON	1,70,000
2	PRE-LAUNCH TELEVISION ADVERTISEMENT	6,00,000
3	POSTERS ON BUSES AND AUTOS	38,000
4	NEWSPAPER ADVERTISEMENT	1,10,000
5	FLYERS	50,000
6	SOCIAL PLATFORMS LIKE YOUTUBE	6,00,000
7	GUERRILLA MARKETING	2,00,000
	TOTAL	18,18,000

PRODUCT COST BREAKDOWN

SL NO	SPECIFICATIONS	AMOUNT(RS)
1	NYLON 66	290
2	RUBBER	220
3	BATTERY	150
4	POLYSTER	50
5	ELECTRICITY GENERATING TUBES AND WIRES	710
6	USB OUTLET	120
7	USB CABLE	90
	TOTAL	1630

DETAILS

SELLING PRICE PER UNIT	Rs.3599
PRODUCT ESTIMATE IN ONE YEAR	1500

DIRECT COSTS (Raw materials cost, Administrative and Labour cost, Electricity and Water cost, Bank loan interest cost)	36,85,000
DIRECT COST PER UNIT	2457
CONTRIBUTION MARGIN	1142
OVER HEAD COSTS (Land and Building cost, Machinery cost, Miscellaneous cost)	27,00,000
BREAKEVEN POINT- IN NUMBER OF UNITS	2365 units
BREAKEVEN POINT- IN NUMBER OF YEARS	1.6 years

Here is a Profit and Loss Statement in tabular form based on the data provided:

Particulars	Amount (₹)
Revenue	
Sales Revenue (1500 units @ ₹3,599)	53,985,000
Cost of Goods Sold (COGS)	

Particulars	Amount (₹)
Direct Costs (Raw materials, Admin, etc.)	36,85,000
Direct Cost per Unit (₹2,457 x 1500 units)	36,85,000
Gross Profit	
Gross Profit (Sales Revenue - COGS)	17,10,000
Operating Expenses	
Overhead Costs (Land, Machinery, Misc.)	27,00,000
Marketing Costs	18,18,000
Total Operating Expenses	45,18,000
Operating Profit (EBIT)	(28,08,000)
Other Costs	
Interest on Bank Loan (₹20,00,000 @ 12%)	2,40,000
Profit Before Tax (PBT)	(30,48,000)
Net Profit	(30,48,000)

Notes:

1. **Sales Revenue**: Calculated as 1500 units sold at a selling price of ₹3,599 per unit.
2. **Cost of Goods Sold (COGS)**: Direct costs (raw materials, administrative and labour costs, electricity, water, and bank loan interest).
3. **Gross Profit**: Sales Revenue minus the direct costs.
4. **Operating Expenses**: Includes overhead costs (land, machinery, miscellaneous) and marketing costs.
5. **Operating Profit (EBIT)**: Gross Profit minus Operating Expenses.
6. **Other Costs**: Includes interest on the bank loan (12% annual rate on ₹20,00,000).
7. **Net Profit**: Profit Before Tax (PBT) minus other costs

Breakeven Analysis:

- **Breakeven Point in Units**: 2365 units (calculated based on the direct cost per unit and contribution margin).
- **Breakeven Point in Years**: 1.6 years (time to break even based on the estimated sales volume).

This is a simplified P&L statement based on your data, showing a **loss of ₹30,48,000** for the first year, based on the current estimates.

Here is the Projected Balance Sheet based on the provided data:

Projected Balance Sheet

Particulars	Amount (₹)
Assets	
Current Assets	
Cash in Hand	25,00,000
Accounts Receivable (Sales Revenue)	53,98,500
Total Current Assets	78,98,500
Fixed Assets	
Land and Building (Lease for 3 years)	15,00,000
Machinery	10,00,000
Total Fixed Assets	25,00,000
Total Assets	1,03,98,500
Liabilities	
Current Liabilities	

Particulars	Amount (₹)
Bank Loan (Principal)	20,00,000
Accounts Payable (Raw Material Suppliers, etc.)	24,45,000
Total Current Liabilities	44,45,000
Long-Term Liabilities	
Bank Loan Interest (Payable for the year)	2,40,000
Venture Capitalists (Equity Financing)	18,00,000
Total Long-Term Liabilities	20,40,000
Owner's Equity	
Start-Up Funds (Owner's Contribution)	20,00,000
Total Owner's Equity	20,00,000
Total Liabilities & Equity	1,03,98,500

Explanation of the Balance Sheet:

1. **Assets:**
   - **Current Assets:**
     - **Cash in Hand**: ₹25,00,000 (provided at the start).
     - **Accounts Receivable (Sales Revenue)**: ₹53,98,500 (assuming you made 1500 sales, based on ₹3,599 per unit, and it is expected to be received in the same period).
   - **Fixed Assets:**
     - **Land and Building**: ₹15,00,000 (lease for 3 years).
     - **Machinery**: ₹10,00,000 (including transportation and installation).

Total Assets = ₹78,98,500 (Current Assets) + ₹25,00,000 (Fixed Assets) = ₹1,03,98,500.

2. **Liabilities:**
    - **Current Liabilities**:
        - **Bank Loan (Principal)**: ₹20,00,000.
        - **Accounts Payable (Suppliers for Raw Materials, etc.)**: ₹24,45,000 (raw materials).
    - **Long-Term Liabilities**:
        - **Bank Loan Interest Payable**: ₹2,40,000 (interest on ₹20,00,000 loan at 12% for one year).
        - **Venture Capitalists**: ₹18,00,000 (funding from venture capitalists).
3. **Owner's Equity**:
    - **Start-Up Funds**: ₹20,00,000 (owner's contribution at the beginning).

Total Liabilities & Equity:

- **Total Liabilities** = ₹44,45,000 (Current Liabilities) + ₹20,40,000 (Long-Term Liabilities) = ₹64,85,000.
- **Total Equity** = ₹20,00,000 (Owner's Equity).

Thus, **Total Liabilities & Equity** = ₹64,85,000 (Liabilities) + ₹20,00,000 (Owner's Equity) = ₹1,03,98,500, which matches the **Total Assets**.

DESIGN THINKING & MVP ESSENTIALS

Walking isn't just about shoes; Walkergy isn't just about fancy footwear; it's about a human-centered revolution in on-the-go charging. Let's delve into how we used design thinking to create Walkergy, focusing on the Indian market.

Empathize: Understanding Your Needs

- Research: We conducted in-depth user interviews in India. We walked alongside people, observed their commutes, and listened to their struggles.
- Key Findings: Frequent walkers face a constant battle with dead batteries due to a lack of convenient charging options

1. Problem Statement:

People in India who walk frequently need a way to conveniently charge devices on the go without relying on bulky chargers.

Ideate: We explored various solutions, from solar panels on the shoe to built-in hand cranks for generating electricity.

Prototype: Making Ideas Tangible

Minimal Viable Product (MVP): We focused on core functionalities to create a practical first iteration:

- Kinetic Energy Generation: We developed a prototype with technology embedded in the soles to convert walking energy into electricity.
- Lightweight Design: The prototype weighed under 750g for the entire pair.
- Direct Charging: We integrated a charging port into the shoe for direct device charging.

Test: Gathering User Feedback

We had people in India test the Walkergy prototype during their daily walks. Feedback Analysis: We gathered valuable insights:

- The core functionality of generating electricity through walking was good
- Users suggested improvements like increasing power generation per walk and exploring wireless charging options..

2. Implementing Design Thinking for Walkergy's Future

Based on user feedback, we'll continuously iterate and improve Walkergy:

- Optimizing Power Generation: We're exploring ways to improve the technology to generate more watts per walk.
- Expanding Charging Options: We're considering integrating wireless charging capabilities.
- Developing Diverse Styles: We're creating different shoe styles (sports shoes, sandals) to cater to user preferences.

Minimum Viable Product (MVP) Essentials:

1. **Core Functionality:** Our innovative technology, embedded in the soles, harnesses kinetic energy from your walk to generate electricity.

2. **Convenient Charging:** Forget bulky power banks! Walkergy prioritizes convenience. The MVP will store the generated electricity, allowing you to charge your devices directly from the shoe itself.

3. **Lightweight Design:** Comfort is key, especially for a walking-focused product. The Walkergy MVP will be lightweight (under 750 grams for the entire pair)

4. **Market-Specific Sizing:** We understand the Indian market. The MVP will be available in UK sizes 8 onwards, catering to the local user base.

Why These Essentials?

These MVP essentials were chosen through design thinking to ensure:

Value Delivery: The core functionality offers a valuable solution to the problem of dead batteries for frequent walkers in India.

User Focus: The features directly address user needs identified during the empathize and define stages.

Feasibility: Focusing on these essentials allows for a quicker and more cost- effective initial product launch.

The Power of the MVP

- Gather User Feedback: By getting the MVP into users' hands, we can gather valuable feedback on functionality, power generation, charging options, and design preferences.

- Iterate and Improve: Based on this feedback, we can refine the technology, explore features like wireless charging, and develop diverse shoe styles to cater to a wider audience.

INTELLECTUAL PROPERTY RIGHTS & LEGAL ASPECTS ETHICS AND SUSTAINABILITY

Beyond the Product: Building a Sustainable Future

Project Walkergy is about more than just shoes; it's about:

- **Empowering Users:** We're providing a convenient and eco-friendly solution for a common problem.
- **Ethical Practices:** We believe in fair labor practices and responsible sourcing throughout the supply chain.
- **Sustainable Innovation:** We're pushing the boundaries of footwear technology while minimizing our environmental footprint

Investing in Walkergy means investing in:

- A Thriving Market: With a large population of walkers in India, Walkergy is poised for success.
- A Sustainable Future: Together, we can revolutionize on-the-go charging while minimizing our impact on the planet.

Join us on this journey!

Project Walkergy is more than just a product; it's a movement towards a more sustainable future, one step at a time. Invest in Walkergy today!

CUSTOMER JOURNEY MAP:

1. Awareness Touchpoints:

- Social media ads: Instagram, Facebook, TikTok ads showcasing new collections and styles.
- Online ads: Google Ads targeting specific demographics and search terms related to footwear.
- Word-of-mouth: Customer referrals and organic mentions by satisfied customers.
- Influencer marketing: Collaborations with fashion influencers who showcase the shoes in their posts and stories.

Customer Thoughts/Feelings:

- Curiosity about the brand and its offerings.
- Interest in new styles, colors, and trends in footwear.
- Recognition of the need for comfortable and stylish shoes for different occasions.

2. Consideration

Touchpoints:

- Website browsing: Customers explore the brand's website, viewing product pages, sizes, colors, and materials.
- Product reviews: Reading reviews and ratings from other customers to gauge product quality and fit.
- Comparison shopping: Checking out competitors' offerings, prices,

3. Purchase

- **Touchpoints**:
  - Online checkout: Seamless and secure online purchasing process with multiple payment options.

- In-store purchase: Friendly and knowledgeable staff assisting with the purchase, easy payment process.
- Phone orders: Customer service representatives helping customers place orders over the phone.

- **Customer Thoughts/Feelings**:
  - Decision-making process: Final considerations about style, fit, and price.
  - Excitement about making the purchase and owning the new shoes.
  - Concern about getting the best value for money and ensuring a smooth purchase experience.

4. Post-Purchase

- **Touchpoints**:
  - Email confirmations: Order confirmation, shipping updates, and delivery notifications.
  - Customer service interactions: Support for any questions, issues, or returns/exchanges.
  - Product delivery: Unboxing experience, packaging, and presentation of the shoes.
- **Customer Thoughts/Feelings**:
  - Satisfaction with the purchase and anticipation of receiving the product.
  - Positive or negative impressions based on the delivery and packaging experience.
  - Need for support in case of any issues, such as size exchanges or returns.

5. Loyalty

- **Touchpoints**:
  - Loyalty programs: Points systems, discounts, and exclusive offers for repeat customers.
  - Follow-up emails: Thank you messages, feedback requests, and

suggestions for complementary products.

- Special offers: Early access to sales, new collections, and personalized recommendations.

- **Customer Thoughts/Feelings**:
  - Appreciation for good customer service and high-quality products.
  - Interest in future purchases and staying updated with the brand's latest offerings.

Preliminary Market Research

Target Market Analysis **Primary Target Audience**:

- Frequent walkers and commuters in urban areas of India.
- Age group: 18–45 years, primarily professionals, students, and fitness enthusiasts.
- Tech-savvy individuals who rely on smartphones and other portable devices.

Geographical Focus:

- Metro cities with high foot traffic and public transport usage, such as Bengaluru, Mumbai, Delhi, Chennai, and Kolkata.
- Secondary focus on tier-2 cities with growing tech adoption and environmental awareness.

Market Need:

- India has over 750 million smartphone users. A significant portion face battery depletion during daily activities.
- Lack of charging infrastructure for walkers creates a gap Walkergy can address.

Competitor Analysis

- No direct competitors exist in the wearable technology-charging hybrid category. However:

1. **Indirect Competition**: Power banks, solar chargers, and charging stations.
2. **Competitive Edge**: Unlike alternatives, Walkergy offers hands- free, eco-

friendly, on-the-go charging.

User Preferences and Trends

Insights from MVP Testing:

- Users appreciate lightweight designs and energy-generation capabilities but want improvements in power output and aesthetics.

Current Trends:

- Growing interest in sustainable and innovative tech solutions.
- Increasing adoption of wearable tech, especially among fitness and environment-conscious demographics.

Go-to-Market Strategy

1. **Positioning**

- Tagline: "Walk to Charge: Redefining Steps, Power, and Convenience."
- Value Proposition: A lightweight, sustainable solution to charge devices effortlessly while walking.

2. **Pricing Strategy**

- Introductory Price: ₹3,599 (aligned with direct material cost and contribution margin).
- Bundling: Offer a discount on pre-orders or paired with accessories like additional USB cables or protective pouches.

Distribution Channels

1. **Online Platforms**

- E-commerce platforms like Amazon and Flipkart.
- Own website for direct sales, with promotions for early adopters.

Promotion Strategy

1. **Pre-Launch**:

- Social media teasers showcasing Walkergy's unique features.
- Collaborate with fitness influencers and tech bloggers for reviews.

2. **Launch Campaign**:

- **Marathon Tie-ins**: Sponsor marathons like Tata 10K Run to showcase Walkergy in action.
- **Digital Campaign**: Run ads on YouTube and Instagram focusing on sustainability and convenience.

3. **Post-Launch**:

- Launch user challenges, e.g., "Walk and Charge: Share Your Experience" campaigns on social media.
- Continuous engagement via customer feedback and surveys.

Sales Strategy

- **Initial Focus**: Build brand awareness and generate excitement among urban millennials and early adopters.
- **Expansion Plan**: Once established, diversify styles (sports shoes, sandals) and expand to tier-2 cities.

Sustainability and Ethical Considerations:

Sustainability Overview

The primary goal of Project Walkergy is to promote sustainable innovation within the wearable technology and mobile charging markets. Sustainability is integrated into its mission of providing eco-friendly power solutions by harnessing kinetic energy from footsteps to generate electricity. The concept aligns with efforts to reduce reliance on traditional, non-renewable energy sources and aims to minimize the environmental impact of everyday activities.

Walkergy's sustainable approach involves converting mechanical energy generated during walking into electrical energy, which can then be used to charge mobile devices. This solution offers an alternative to conventional power banks and wall outlets, which often rely on electricity derived from fossil fuels. By prioritizing renewable energy generation, the project seeks to contribute to global efforts to reduce carbon footprints and foster a culture of energy conservation.

Moreover, the company aims to integrate sustainability into its product life cycle, from sourcing materials to manufacturing processes and disposal.

Walkergy's emphasis on sustainability is further highlighted in its product design. The rubber soles used for shock absorption and other materials, such as conducting liquids and electrodes, are chosen for durability and minimal environmental impact. Furthermore, the efficient design allows users to generate power through natural movements, offering an innovative, low- impact means to reduce energy consumption.Ethical Considerations

Project Walkergy also emphasizes ethical business practices, demonstrating a commitment to responsible labor sourcing, fair working conditions, and transparent operations throughout its supply chain. The project leaders recognize that advancing wearable technology should not come at the cost of human dignity or environmental degradation. Therefore, they have committed to establishing partnerships only with suppliers and manufacturers who uphold labor laws and ethical standards, ensuring that workers' rights are respected, and safe working conditions are maintained.

The project also underscores its ethical mission by addressing accessibility and inclusivity within its target markets. Walkergy aims to offer products that can serve a diverse range of users, including those in underserved and rural areas who might benefit from self-generated energy solutions, reducing their dependency on often unreliable or scarce electrical infrastructures. In doing so, Walkergy endeavors to create a positive social impact alongside its environmental initiatives.

Implementation of Sustainability and Ethics

The implementation strategy includes:

1. Sustainable Design and Production: The product utilizes renewable materials and seeks to reduce overall waste during production. A design focus on durability also minimizes the need for replacements and ensures a longer lifecycle for each pair of shoes, thereby reducing material

consumption.

2.Promoting Energy Independence: Walkergy's innovative approach to generating power from walking encourages users to rely less on grid electricity and more on self-sufficient energy sources, aligning with broader environmental goals.

3. User-Centric Innovations: Ethical considerations extend beyond the product to how it is used. Walkergy prioritizes the safety and comfort of its users through ergonomic design and safety features like shock-absorbing materials. User data and feedback are respected, with strict adherence to data privacy regulations, ensuring ethical handling of any consumer data collected.

Potential Challenges and Future Goals:

Despite its aspirations, Walkergy faces several challenges. Among these are the limitations in the energy generated by the shoes, which may not meet all user needs, and potential issues of wear and tear, particularly concerning components like electrodes. To address this, Walkergy intends to conduct continuous research and user testing, seeking innovative ways to enhance power generation, durability, and overall efficiency.

In conclusion, Walkergy exemplifies how sustainability and ethics can be integrated into modern product design. By harnessing renewable energy, adhering to ethical labor standards, and striving to minimize environmental impact, it serves as a model for how companies can drive positive change in technology and the environment. Through continued innovation and commitment, Walkergy aims to shape a more sustainable future, one step at a time.

Intellectual Property for Walkergy Shoes: Protecting Innovation

Walkergy shoes are a revolutionary product that combines eco-friendliness with cutting-edge technology, turning footsteps into energy to charge devices.

Let's explore how different types of IP apply specifically to Walkergy shoes in detail.

1. **Patents: Securing the Technology**

Walkergy's core innovation lies in the technology inside the shoe soles: a small tube with conducting liquid (e.g., ethyl alcohol) and electrodes (e.g., graphite), which generates electricity through friction. This is combined with a storage battery and USB outlet to charge devices.

By filing a **utility patent**, we can protect the technical design and functioning of this system. This prevents competitors from replicating or selling similar technology for a set period (usually 20 years)

WHY PATENTS MATTER FOR WALKERGY

Patents give Walkergy exclusive rights to the technology, preventing copycats. They also make Walkergy more attractive to investors, who see a patented product as safer to invest in. Additionally, Walkergy can license its technology to other companies and earn royalties.

2. **Trademarks: Building the Walkergy Brand**

Walkergy's name, tagline ("Powering Your Footsteps!"), and logo are essential elements of its identity. Trademarks also ensure that no one else can market similar shoes with a confusingly similar name or design.

Why Trademarks Matter for Walkergy

Strong branding makes Walkergy memorable and trustworthy. A trademark builds customer loyalty and ensures that Walkergy becomes synonymous with innovative, eco-friendly charging solutions.

3. **Copyrights: Protecting Creative Content**

Walkergy involves more than just technology; it also includes creative content such as:

Marketing campaigns, like video ads showing how Walkergy charges devices on the go.

1. The design layout in the product manuals and user guides.
2. The content of presentations and reports, such as the details in your earlier PCL report.

Why Copyrights Matter for Walkergy

Copyrights safeguard all the creative elements that contribute to the product's public image. They ensure that Walkergy's marketing and educational content remain exclusive, helping to maintain a unique presence in the market.

4. **Trade Secrets: Keeping Unique Processes Confidential**

Certain aspects of Walkergy's technology and manufacturing process might not be suitable for

patents. For instance, the exact proportions of the conducting liquid or specific assembly techniques could be kept as **trade secrets**.

To protect these secrets:

- Share sensitive information only with trusted employees or partners.
- Use Non-Disclosure Agreements (NDAs) to legally bind individuals who have access to the confidential details.
- Limit access to critical information on a "need-to-know" basis.

Why Trade Secrets Matter for Walkergy

While patents eventually expire, trade secrets remain protected as long as they are kept confidential. This provides Walkergy with a long-term competitive edge, ensuring that no one else can duplicate its processes without access to the hidden details.

How Intellectual Property Protects Walkergy's Future

1. **Preventing Imitation**

   Without IP, competitors could easily copy Walkergy's technology and brand identity, reducing its market share. Patents and trademarks
   create legal barriers to protect Walkergy's exclusivity.

2. **Increasing Value**

   Investors and customers see IP-protected products as trustworthy and high-quality. Patents demonstrate that Walkergy has unique technology, while trademarks build brand recognition.

3. **Creating Revenue Streams**

   Patents and trademarks open up opportunities to license the technology or brand. For instance, another company might want to

use Walkergy's energy-harvesting system in backpacks, and licensing could bring additional income.

4. **Encouraging Innovation**

By protecting the original idea, IP allows Walkergy to focus on future improvements. For example, adding wireless charging capabilities or introducing new styles like sandals or sports shoes.