

“Nothing About Us Without Us”

HAILAY AND TSEHAY FOUNDATION

“Empower, Develop, Respect, Protect, Fulfil, and Motivate People with
Disabilities”

- Message from Hailay Asresahagn Gebremariam and Tsehay Dinku Assaye,
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STRATEGY FOR ASSISTIVE TECHNOLOGY SECTOR

Purpose of This Document

The purpose of this document is to provide a strategy for the Assistive Technology Sector of the Hailay and Tsehay Foundation.

This document outlines the purpose of the assistive technology sector and its focus. It identifies some of technologies that can benefit people with various disabilities. It also provides options on how these products could be procured through fundraising or partnerships.

SWOT Analysis

A SWOT analysis for the Foundation, considering its activities and the competitive landscape in Ethiopia reveals the following Strengths, Weaknesses, Opportunities, Threats:

Strengths

1. **Founders' Expertise:** Hailay Gebremariam brings valuable lived experience as a legally person himself. His experience in disability advocacy is critical for the Foundation's vision.
2. **Focus on Empowerment:** The Foundation emphasises self-empowerment and independence for people with disabilities, aiming to create transformative leaders in the sector.
3. **Strategic Partnerships:** The Foundation has the ability to connect with key national and international organisations to leverage resources and expertise from partners.
4. **Holistic Approach:** The Foundation addresses both personal and professional development needs of people with disabilities by providing training, resources and support systems.
5. **Personal Commitment:** The members of the management and operational team are highly committed to support people with disabilities in the challenges they face.
6. **Location:** The Foundation is operating in a region where there is a significant need for such activities and no current services, which presents an opportunity for the Foundation to grow.

Weaknesses

1. **Limited Brand Recognition:** Compared to larger, more established organisations, the Foundation has lower visibility and recognition.
2. **Funding Constraints:** As a relatively new Foundation, securing consistent funding might be challenging, impacting the scale and reach of the programs.
3. **Operational Scale:** The foundation currently operates on a smaller scale, which may limit its ability to implement large-scale programs or reach a broader audience quickly.
4. **Dependence on Partnerships:** Heavy reliance on forming partnerships may pose a risk if these collaborations do not materialise or fail to deliver as expected.
5. **Resource Limitations:** Being a newer organisation, the Foundation lacks some of the advanced resources and infrastructure that older organisations have developed over time.
6. **Human Resource Constraints:** The Foundation relies on volunteers who are not getting paid for the time they are devoting. Also, this is a new area of operation for the volunteers and many of them have no relevant training.

Opportunities

1. **Growing Awareness:** The Foundation can increase its national and global awareness about its work in disability rights and inclusion can open up more avenues for securing support and funding.

2. **Technological Advancements:** Leveraging adaptive technologies and innovations can significantly enhance the support and training provided to people with disabilities.
3. **Collaborative Initiatives:** Opportunities to collaborate with national bodies and international foundations and NGOs can help in scaling up initiatives and accessing additional resources.
4. **Government Support:** Alignment with Ethiopian government priorities in supporting people with disabilities through health and education initiatives provides a supportive environment for implementing programs.
5. **Expansion of Services:** Potential to expand services to include more comprehensive education and vocational training programs for people with disabilities.

Threats

1. **Economic Instability:** Ethiopia's economic challenges could impact funding and the successful implementation of programs.
2. **Competition for Funding:** Other established organisations in Ethiopia (such as Adera Foundation, Shamida Ethiopia etc) are also competing for similar funding sources.
3. **Political Uncertainty:** Political instability in Ethiopia could pose risks to operational continuity and safety for program implementation.
4. **Cultural Barriers:** Cultural attitudes towards people with disabilities may slow down the progress of advocacy and inclusion efforts.
5. **Operational Challenges:** Limited infrastructure and logistical challenges in Ethiopia can impede the effective delivery of programs, especially in remote areas.

The aim of this SWOT analysis is to identify and understanding the factors that can enable the Foundation in strategic planning of its activities such that it can leverage its strengths and opportunities while mitigating any weaknesses and threats.

PESTEL Analysis

A PESTEL analysis examines the macro-environmental Political, Economic, Social, Technological, Environmental, Legal factors in Ethiopia that could impact the Foundation and helps to understand the broader context in which the Foundation operates.

Political Factors

1. **Government Policies and Support:** The Ethiopian government has shown a commitment to improving the lives of people with disabilities through various policies and programs. Alignment with government priorities, such as health, education, and social inclusion, can be beneficial for the Foundation's initiatives.
2. **Political Stability:** Ethiopia has experienced periods of political instability, which can disrupt the operations of non-governmental organisations. Political unrest can affect funding, program implementation, and the safety of staff and beneficiaries.
3. **Regulatory Environment:** The regulatory framework for NGOs in Ethiopia includes compliance with specific laws and regulations. Understanding and adhering to these regulations is crucial for the Foundation's legal operation and to avoid potential conflicts with the government.

Economic Factors

1. **Economic Conditions:** Ethiopia's economy is uncertain and remains fragile and vulnerable to external shocks. Economic downturns can affect donor funding and the availability of resources for the Foundation's programs.
2. **Funding:** The Foundation relies on donations and grants, which can be influenced by the global economic climate. Economic challenges in donor countries can lead to reduced funding, impacting the Foundation's financial stability and program reach.
3. **Employment and Income Levels:** High unemployment and low-income levels in Ethiopia can increase the demand for the Foundation's services, as more individuals with disabilities may require support and empowerment programs.

Social Factors

1. **Cultural Attitudes:** Cultural perceptions of disability in Ethiopia can influence the effectiveness of the Foundation's programs. Stigmatisation and discrimination against people with disabilities may pose significant challenges to achieving social inclusion.
2. **Demographic Trends:** Ethiopia has a large and growing population, with a significant proportion of people with disabilities. This demographic trend presents both a challenge and an opportunity for the foundation to engage and empower the population with disabilities.
3. **Community Engagement:** Building strong relationships with local communities and stakeholders is essential for the success of the Foundation's initiatives. Community support can enhance program implementation and sustainability.

Technological Factors

1. **Technological Advancements:** Advances in assistive technology can greatly enhance the Foundation's ability to provide training and support for people with disabilities. Adaptive

technologies and digital tools can improve accessibility for and inclusion of people with disabilities.

2. Digital Infrastructure: The lower level of digital infrastructure in Ethiopia can impact the Foundation's operations. Limited access to the internet and digital tools in rural areas can pose challenges for implementing technology-driven solutions.
3. Innovation Opportunities: There are opportunities to leverage innovative technologies and partnerships with assistive technology companies to develop new solutions for empowering individuals with disabilities.

Environmental Factors

1. Climate Change: Ethiopia is vulnerable to climate change and environmental degradation, which can impact the Foundation's operations and the communities it serves. Extreme weather events and changing agricultural conditions can exacerbate poverty and disability issues.
2. Sustainable Practices: The Foundation can incorporate sustainable practices in its operations to reduce environmental impact. This includes promoting environmentally friendly practices in its programs and partnerships.
3. Resource Availability: Environmental challenges can affect the availability of natural resources, which can impact the economic stability of the communities the Foundation serves, thereby increasing the need for support.

Legal Factors

1. Legal Compliance: Adherence to Ethiopian laws and regulations governing NGOs, including financial auditing and reporting is crucial for the Foundation's operation.
2. Human Rights Legislation: Ethiopia has various laws aimed at protecting the rights of people with disabilities. The Foundation can leverage these legal frameworks to advocate for better implementation and enforcement of disability rights.
3. Intellectual Property: Ensuring that the Foundation's programs and materials are protected under intellectual property laws can safeguard its innovations and educational content.

By understanding these PESTEL factors, the Foundation can better navigate the external environment, capitalise on opportunities, and mitigate potential threats, thereby enhancing its strategic decision-making and impact on the community.

Below is a brief strategy for the Assistive Technology Sector.

The Assistive Technology Sector

The purpose of the Assistive Technology Sector of the Foundation is to provide people with disabilities with access to affordable adaptive and assistive technology products and services depending on their needs. The Foundation will assist people with disabilities to significantly improve their overall quality of life and also enhance their skills in accessing and navigating assistive technology in a constantly changing digital environment.

They will also be provided training on a range of assistive technology products to enable them to engage in social, cultural and economic activities. These technology skills will enable them to minimise barriers in navigating the internet and improve their day-to-day connectivity with

families and friends. This could bring a drastic change in the life and also provide them with the key technology skills for accessing employment opportunities.

Products Covered in the Sector

The technologies could assist people with one or more of the following disabilities. A range of products have been identified that are relevant to the specific needs of people with disabilities.

Deafness or Severe Hearing Loss

1. Electronic devices that bypass damaged inner ear parts to stimulate auditory nerves directly and improve hearing (E.g.: Cochlear Implants).
2. Wireless microphone devices that enhance speech understanding in noisy environments. (E.g.: Phonak Roger Pen).
3. Hearing aids with natural sound experience and improved speech understanding (E.g.: Oticon Opn S).
4. Mobile phone apps that can provide real-time transcription of speech (Eg: Google Live Transcribe) or gestures.
5. Sign language translation system that translates sign language into text and speech to enable communication with those who do not understand sign language (Eg: SignAll).

Blindness or Severe Visual Impairment

1. Screen reader software that converts text on a computer or mobile device screen to speech or Braille (Eg. JAWS or NVDA).
2. Wearable devices that can read text aloud, recognizes faces, and identify products (Eg: OrCam MyEye).
3. Braille tablet with a modern touchscreen and Braille keyboard for those who can read Braille (Eg: BrailleNote Touch Plus) or printing in Braille (Eg Swell Paper).
4. Electronic walking cane with integrated sensors for obstacle detection and navigation assistance (Eg: WeWalk Smart Cane).
5. Text-to-speech software that reads digital text aloud (Eg: Kurzweil 3000).
6. Voice recognition software for dictating text and controlling a computer (Eg: Dragon NaturallySpeaking).
7. Notetakers which are easier to use than traditional keyboards (Eg: BrailleSense Polaris).

Permanent or Likely Permanent Physical Impairment

1. Input devices controlled by breath pressure to operate a computer or wheelchair (Eg: Sip-and-Puff Systems).
2. Electronic spoon that stabilizes tremors for easier eating (Eg: Liftware Steady Spoon).
3. Aids that make clothing a dressing easier and simpler.
4. Electric vehicle designed for wheelchair users to drive from their wheelchair (Eg: Kenguru Electric Car).
5. Mouth-operated joystick for computer navigation (Eg: QuadJoy Mouse).

Severe Mobility Impairments

1. Eye-tracking devices for controlling computer devices and for communication (Eg: Tobii Dynavox Eye Tracker).
2. Advanced power wheelchairs or scooters with customizable control options (Eg: Permobil Power Wheelchairs).
3. Devices that can convert manual wheelchairs to powered wheelchairs to ease mobility (Eg: SmartDrive MX2+).
4. Speech recognition app for people with speech impairments to communicate clearly (Eg: Voiceitt).

Intellectual, Cognitive, Sensory, or Neurological Disabilities

1. Augmentative / Alternative Communication (AAC) apps that provide a voice for non-verbal individuals using symbols and text-to-speech (Eg: Proloquo2Go).
2. Voice-controlled assistant for reminders, schedules, and controlling smart home devices (Eg: Amazon Echo, Reminder Rosie).
3. Digital pen that records audio and synchronizes it with written notes (Eg: Livescribe Smartpen).
4. Visual timer helping individuals with time management (Eg: Time Timer).

Psychiatric or Psychosocial Disabilities

1. Mobile phone apps that provide guided meditation, sleep stories, and relaxation exercises (Eg: Calm App).
2. Wearable devices that track breathing patterns to reduce stress (Eg: Spire Stone).
3. AI-based chatbots that can offer emotional support and coping strategies during stressful times (Eg: Emotional Support Chatbots).
4. Mobile apps for managing anxiety using cognitive behavioral therapy techniques (Eg: MindShift CBT).
5. Wearable EEG devices that provide real-time feedback on meditation practice (Eg: Muse Headband).

Communication or Social Interaction Disabilities

1. Tablet-based Augmentative / Alternative Communication (AAC) devices for non-verbal individuals (Eg: DynaVox T10).
2. Augmentative / Alternative Communication apps that facilitate communication for individuals with speech impairments (Eg: Speak for Yourself).
3. Customizable Augmentative / Alternative Communication (AAC) apps that support communication through symbols and text-to-speech (Eg: TouchChat HD).
4. Dual screen communication apps that can aid face-to-face interaction for non-verbal users (Eg: Flip Writer AAC).
5. Personalized Pragmatic Organisation Dynamic Display (PODD) communication books using symbols to support expressive communication (Eg: PODD Communication Books).

Fundraising for Assistive Technology Products

The assistive technology products can either be procured from Ethiopia or overseas depending on where the products are available. There is also an opportunity to manufacture some of these products locally if there is enough demand and funding available.

The target minimum budget to procure some of these products is \$50,000. These funds will be used to purchase different assistive technology products that can be provided to the 35 people in Gulle.

Local Fundraising Strategy

1. Community Engagement and Awareness Campaigns:
 - Workshops and Seminars: Organize events to educate the community about the importance of assistive technology.
 - Local Media: Use newspapers, radio, and TV stations to promote the Foundation's cause and reach a wider audience.
2. Partnerships with Local Businesses:
 - Corporate Sponsorships: Approach local businesses for sponsorships to purchase technology products such as phones, tablets, laptops etc or through in-kind donations of products that they no longer need.
 - Employee Giving Programs: Collaborate with companies to set up donation programs where employees can donate technology products that they no longer need.
3. Events and Fundraisers:
 - Charity Runs/Walks: Organize sponsored runs/walks with participation fees going towards the Foundation. The fees can then be used to purchase assistive technology products
 - Gala Dinners and Auctions: Host formal events to attract high-net-worth individuals and raise significant funds for purchasing products.
4. Local Grants and Government Funding:
 - Grants: Apply for grants from local or state government bodies dedicated to health and disability services to get funding for purchasing the assistive technology products.
 - Public Funding Campaigns: Engage the local community and/or government in funding specific initiatives through specific funding programs and campaigns.

International Fundraising Strategy

1. Global Crowdfunding Platforms:
 - GoFundMe and Kickstarter: Launch campaigns on popular platforms to attract international donations for specific assistive technology products.
 - Social Media Campaigns: Utilize Facebook, Instagram, and Twitter to reach a global audience, share stories, and solicit donations.
2. Partnerships with International NGOs and Foundations:
 - Global Organizations: Partner with global organizations like Handicap International to get funding for the products or direct products.

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- International Grants: Apply for grants from international bodies such as USAID and the United Nations.
3. Corporate Social Responsibility (CSR) Programs:
 - Multinational Corporations: Approach global companies with CSR programs focused on health and technology to donate products or funds.
 - Tech Companies: Partner with technology companies for technology donations and funding.
 4. Give Another Life Programs:
 - Reusing devices: Partner with assistive technology companies in advanced countries to secure used products or products they no longer need and offer them to those in need.

By leveraging local and international resources, the Foundation can secure the necessary funds to procure assistive technology products or can get the products directly.