Shanto-Mariam University of Creative Technology

Haat Baran

FEASIBILITY STUDY DOCUMENT

Prepared By

MOSTOFA HASIN MAHDI
223071109

TALAL SHARAR APURBO
223071108

DEPT. OF CSE
31ST BATCH, GROUP (A)

Supervised By

MD. AKRAM HOSSAIN
Lecturer
Dept. of CSE & CSIT
SMUCT

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Introduction

A feasibility study evaluates the practicality of developing a proposed system. It helps determine whether the system is technically possible, financially viable, and beneficial to users. In the case of Haat Baran, this study aims to examine the feasibility of creating a digital platform that connects people living below the poverty line with donors willing to fund their small business ventures.

The purpose of this document is not to solve the problem immediately but to assess whether the proposed system can be realistically developed and implemented. It identifies potential challenges, evaluates alternative solutions, and ensures that the system will achieve its intended goals effectively and efficiently.

Background

The Problem

In Bangladesh, many citizens live below the poverty line, unable to access capital, financial services, or digital platforms. Despite their potential and determination, these individuals struggle to start small businesses due to a lack of funds and formal identification. Traditional donation systems often lack transparency, leading to misuse of funds and discouraging potential donors.

The Need

There is a growing necessity for a trusted, technology-driven funding system that allows the underprivileged to seek genuine financial assistance while ensuring transparency for donors. The system must verify applicants through field visits and biometric data collection since most of them are illiterate and do not possess government-issued identification.

Haat Baran

The Opportunity

There are many reasons why a verified digital micro-funding system like Haat Baran is necessary in Bangladesh's socio-economic landscape.

Opportunities for Applicants

1. Provides easy access to verified funding without needing bank collateral or formal credit history.
2. Enables poor, homeless and underpreviledged to start micro-businesses (e.g., tea stalls, tailoring, grocery shops) to achieve self-reliance.
3. Builds a digital record of applicants' profiles, improving their future eligibility for larger loans or grants.

Opportunities for Donors / Philanthropists

1. Allows donors to directly view verified and transparent applicant profiles before contributing.
2. Ensures funds reach genuine and verified individuals through on-site volunteer verification.
3. Builds donor trust by providing contribution history, receipts, and project impact tracking.

Opportunities for Volunteers and Field Workers

1. Creates local employment opportunities for volunteers in data collection and verification.
2. Empowers community engagement by letting volunteers identify real-world needs firsthand.
3. Develops digital literacy and field management skills among rural youth.

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Outline of the Software Project

The users of the system include entrepreneurs, donors, volunteers, and administrators who together maintain the flow of verified funding activities.

The existing process of helping poor entrepreneurs is mostly manual, unstructured, and non-transparent. Donations are often made through personal connections or informal groups, without proper verification or long-term tracking. This leads to misuse of funds, delays, and lack of accountability.

To solve this, Haat Baran introduces a digital, transparent, and verified funding system that connects all stakeholders in one platform. The proposed system divides users into four roles:

1. Applicants – register and submit applications with their details.
2. Volunteers – visit applicants on-site to collect biometric, photographic, and demographic data for verification.
3. Administrators – review applications, verify authenticity, and approve eligible profiles for public listing.
4. Donors / Philanthropists – browse verified applicant profiles, send request to donate, meet the applicant on-site or donate via app.

Through this structure, the system ensures efficiency, transparency, and trust among all parties. It minimizes the time and cost of verification, prevents fraud, and promotes financial inclusion by giving poor individuals access to verified funding opportunities.

The main components of the proposed system are:

1. Getting Applicant Data
2. Login/Registration For Donors
3. Applicant data shows for donors to see
4. Donor sends request to get contact with applicant
5. Finalize the donation on-site/via app

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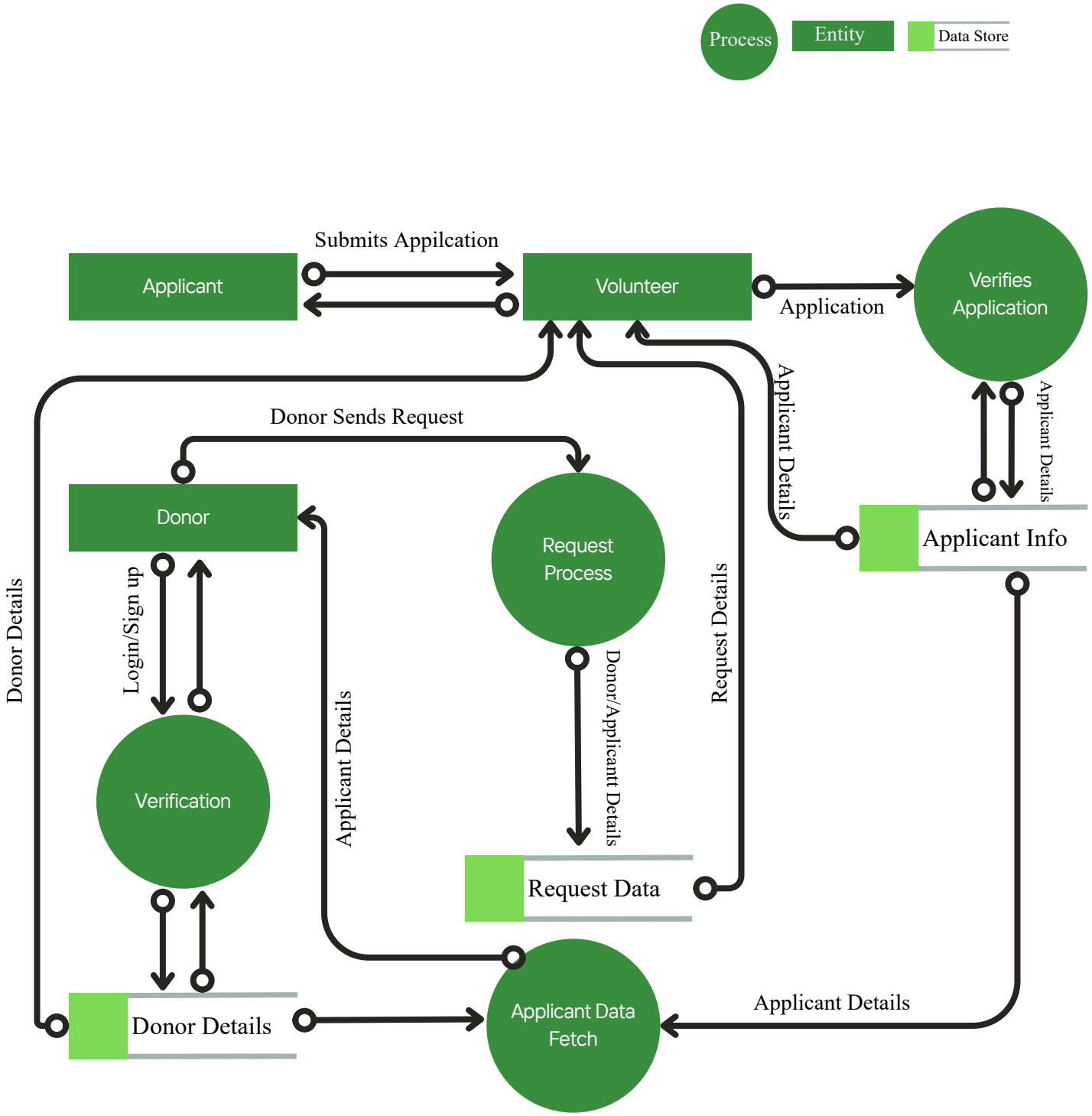
Data Flow Diagram (DFD) of the System



Methodology

The feasibility of the Haat Baran system is analyzed based on three major aspects Technical Feasibility, Operational Feasibility, and Economic Feasibility.

a) Technical Feasibility:

The system will use readily available technology such as Android mobile devices, biometric scanners, and cloud-based databases. Field volunteers will use mobile applications to collect applicant data, including GPS-tagged photos and biometrics, while administrators manage records through a secure web portal. The development requires standard web technologies (HTML, PHP, MySQL) and cloud hosting, making it technically feasible within the available infrastructure in Bangladesh.

b) Operational Feasibility:

The project heavily relies on human interaction at the grassroots level. Trained field volunteers will collect applicant data and assist them throughout the process, making the system accessible even for illiterate users. Donors and administrators will use an intuitive interface to interact and track progress. The proposed workflow is straightforward and can be easily adopted with minimal training, indicating strong operational feasibility.

c) Economic Feasibility:

The initial development and deployment cost is estimated at 3,50,000 BDT, covering app development, equipment, training, and cloud hosting. Considering the long-term social benefits, donor engagement potential, and low maintenance cost, the system is economically viable. Moreover, since the project serves a social cause, potential partnerships with NGOs, CSR programs, and government initiatives can help sustain the operation without financial burden.

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Overview of the Alternatives

To solve the problem we have proposed 3 alternative systems.
Alternative 1: Community Funding Through Local NGOs
Alternative 2: Physical Donation Drives and Local Verification
Alternative 3: Digital Platform Haat Baran App

Overview of Alternative 1

a) Technical Feasibility:
This approach uses the existing NGO infrastructure for fund collection and distribution. Since no advanced digital technology is used, it is technically simple but lacks scalability and automation.

b) Operational Feasibility:
NGOs already have ground-level experience and trust within communities. However, manual verification and record-keeping may cause inefficiencies and inconsistencies, reducing operational effectiveness over time.

c) Economic Feasibility:
The investment table of alternative 1 is as follows:

Serial no	Particular	Cost(BDT)
1	Office Setup & Coordination Expenses	80,000
2	Personel(Field staff and volunteer payments)	1,20,000
3	Material & Marketing Cost	60,000
4	Transport Cost	90,000
5	Administrative Cost	50,000
	Total	4,00,000

The cost/benefit analyis of the alternative 1 is as follows:

Cost		Benefit	
Particular	Amount	Particular	Amount
Maintenance Cost	70,000	Support to 3 Communitites	2 x 12 x 2000 = 48,000
Additional Cost	40,000	Better Coordination among NGOs	30,000
Total	1,10,000	Total	78,000

The net return per year is = (78000 - 110000) TK

= -32,000TK

Overview of Alternative 2

a) Technical Feasibility:

This method relies primarily on physical events without digital tools. It requires minimal technical resources, but its lack of automation, tracking, and scalability makes it technically less feasible for long-term nationwide implementation.

b) Operational Feasibility:

Donation drives create strong social engagement between donors and beneficiaries. However, frequent organization of events, travel, and manual verification processes make it less efficient and time-consuming.

c) Economic Feasibility:

The cost/benefit table of alternative 2 is as follows:

Cost		Benefit	
Particular	Amount	Particular	Amount
Maintenance Cost	90,000	Support to 3 Communitites	2 x 12 x 3000 = 72,000
Additional Cost	50,000	Better Coordination among NGOs	40,000
Total	1,40,000	Total	1,12,000

The net return per year is = (1,12,000 - 1,40,000) TK
= -28,000TK

Overview of Alternative 3

a) Technical Feasibility:

This solution leverages mobile and web technologies, integrating biometric verification, GPS-based data collection, and secure payment gateways. The required technologies are readily available and easily implementable, making the system technically feasible.

b) Operational Feasibility:

Field volunteers handle data collection from applicants, making the system accessible even for illiterate individuals. Donors and administrators can easily use the platform through a user-friendly interface. The structured workflow and centralized data management make this system highly operationally feasible.

c) Economic Feasibility:

The investment table of alternative 3 is as follows:

Serial no	Particular	Cost(BDT)
1	Systems (Server + Database + Basic Workstations)	70,000
2	Personel Cost (Designer, Developers, Project Manager)	1,00,000
3	DBMS	50,000
4	Marketing Cost	40,000
5	Administrative Cost	40,000
	Total	3,00,000

The net return per year is = (5,12,000 - 80,000) TK
= 4,32,000TK

The cost/benefit table of alternative 3 is as follows:

Cost		Benefit	
Particular	Amount	Particular	Amount
Maintenance Cost	50,000	Funding support to 8 communitites	8 x 12 x 4500 = 4,32,000
Additional Cost	30,000	Improved efficiency & digital reach	80,000
Total	80,000	Total	5,12,000

The cost/benefit table of alternative 3 yearly basis is as follows:

Year	Saving	Present Value (20%)	Cumulative Value
1	4.32	0.83	3.59
2	4.32	0.69	6.57
3	4.32	0.58	9.08
4	4.32	0.48	11.15
5	4.32	0.40	12.88
6	4.32	0.33	14.31
7	4.32	0.28	15.52

Recommendation

a) Technical Feasibility:

This solution leverages mobile and web technologies, integrating biometric verification, GPS-based data collection, and secure payment gateways. The required technologies are readily available and easily implementable, making the system technically feasible.

b) Operational Feasibility:

Field volunteers handle data collection from applicants, making the system accessible even for illiterate individuals. Donors and administrators can easily use the platform through a user-friendly interface. The structured workflow and centralized data management make this system highly operationally feasible.

c) Economic Feasibility:

The investment table of alternative 3 is as follows:

Recommendation

Considering the alternatives in different factors like technical, operational and economic analysis we need to recommend any one of them on the basis of different features.

The summary comparison between the alternatives is shown on the following table:

Seial No	Feature	Alternative 1	Alternative 2	Alternative 3
1	Investment	4,00,000	5,00,000	3,00,000
2	System Life Cycle	5 years	4 years	Continuous
3	Return Value	-4,000	-28,000	4,32,000
4	Payback Period	No	No	1 year
5	Technically Feasible	Yes	Yes	Yes
6	Operationally Feasible	Yes	Yes	Yes
7	Economically Feasible	No	No	Yes

Conclusion

Here, we have planned three alternatives

- Alternative 1: Community funding through local NGOs to distribute startup funds.,
- Alternative 2: Physical donation drives and local verification to connect donors and beneficiaries.,
- Alternative 3: Developing a digital platform Haat Baran App to manage funding, verification, and transparency

All of these alternatives are technically and operationally feasible to some extent. However, based on the economic analysis, we have found that Alternative 3 (Haat Baran App) is the most cost-effective, efficient, and sustainable solution compared to the other two. It ensures transparency, reduces operational cost over time, and offers scalability for future expansion. Therefore, we have finally selected Alternative 3, the Haat Baran App as the preferred solution for our project.

Contribution

Mostofa Hasin Mahdi	Deep analysis into alternatives and managing investments of all alternatives
Talal Sharar Apurbo	Finding resources, defining and selecting alternatives