7th Bangladesh Conference on Industrial Engineering and Operations Management
December 21-22, 2024
Publisher: IEOM Society International, USA DOI: 10.46254/BA07.20240067
Published: December 21, 2024

Business Proposal for an Online-Based Educational Platform in Bangladesh: A Market Analysis and Opportunities

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Abstract

Online learning platforms have experienced significant growth and adoption in Bangladesh, transforming the education landscape. This business proposal presents a market analysis and explores the opportunities for an online-based educational platform in Bangladesh. The platform aims to provide a diverse range of high-quality courses, including academic subjects, vocational training, and personal development, to empower learners and promote skill acquisition. With 38.9% of the population having internet access, and 65% of internet users being under 25 years old, Bangladesh offers a substantial market for online education. The target audience comprises individuals under graduation who seek flexible and accessible avenues to supplement their formal education. The competitive analysis reveals several domestic and international players in the market, each catering to specific educational needs. The platform's objectives include providing high-quality courses, ensuring accessibility and inclusivity, fostering a supportive learning community, and establishing strategic partnerships. The business model involves offering both free and paid courses, with revenue generated through course fees, subscriptions, and partnerships. The marketing strategy focuses on digital channels, social media campaigns, and collaborations with educational institutions. The financial projections indicate a positive outlook, with an estimated market share of 45% within one year. This business proposal highlights the immense potential of an online-based educational platform in Bangladesh, contributing to the country's educational advancement and skill development.

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Keywords:
Online Learning Platform; Courses, Co-Curricular Activities, Skill Sharing, Revenue Projection.

1. Introduction

Online learning platforms have transformed due to technology advancements and demand for flexible education. The 2020-2021 pandemic accelerated adoption, transforming knowledge acquisition. These platforms cater to all ages and backgrounds, offering diverse courses. AI-driven personalized learning experiences, analyzing learner strengths and weaknesses, enhance the learning journey.

In Bangladesh, online learning platforms have also experienced significant growth and adoption, transforming the landscape of education in the country.(Ashiq, n.d.) Bangladesh has embraced technological advancements, leading to an increased demand for online education due to its accessibility, flexibility, and cost-effectiveness. One of the primary reasons for the surge in online learning platforms is the widespread availability of high-speed internet and the increasing use of smartphones across the country.(Islam & Islam 2023) This digital infrastructure expansion has allowed a larger portion of the population to access online educational content and courses, even in remote areas where traditional education might be limited.

Here are some recent statistics on online learning platforms:

- Revenue in the Online Learning Platforms market is projected to reach US$57.42bn in 2023.
- Revenue is expected to show an annual growth rate (CAGR 2023-2027) of 3.22%, resulting in a projected market volume of US$65.17bn by 2027.
- In the Online Learning Platforms market, the number of users is expected to amount to 0.92bn users by 2027.
- User penetration will be 9.5% in 2023 and is expected to hit 11.6% by 2027.

The average revenue per user (ARPU) is expected to amount to US$78.30.
There are 66.94 million internet users in Bangladesh (as of February 2022) which is around 40% of the total population

1.1 Market Insights:

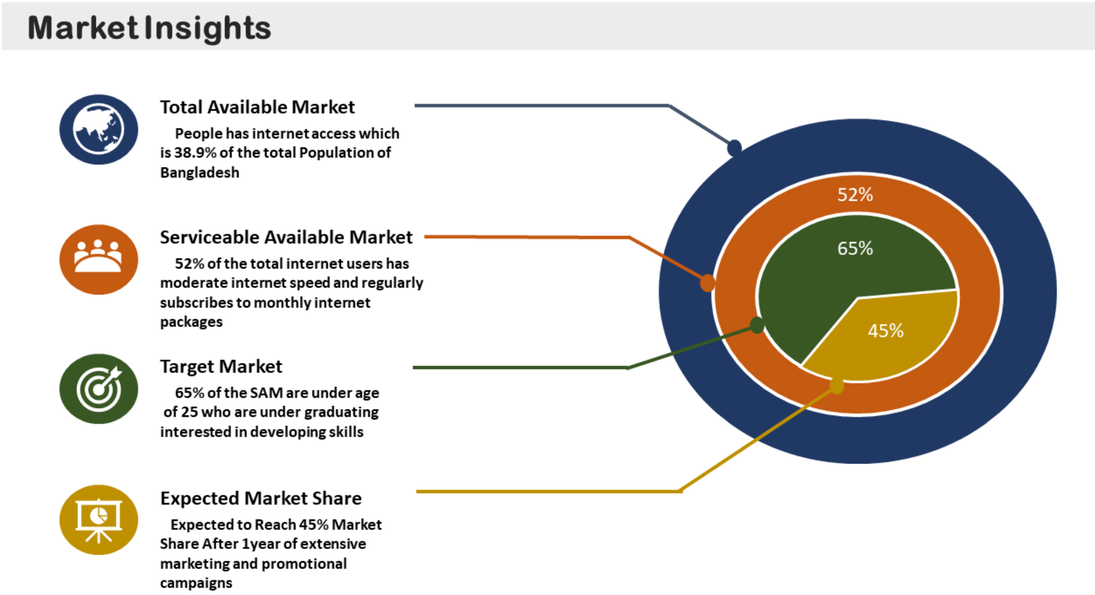

Figure 1. Market Analysis **[**Data source: Datareportal & TheDailyStar**]**

Figure 1. provides a breakdown of the market potential in Bangladesh, highlighting total, serviceable, and target markets, with an expected 45% market share within one year of promotional efforts.
In 2023, 38.9% of Bangladesh's population has internet access, making it a significant market for online education. 65% of these users are young individuals under 25, seeking opportunities to develop skills and pursue higher education. 52% have moderate internet speed and subscribe to monthly packages, making them a significant portion of potential learners. As online learning platforms gain popularity, their market share could reach 45% within a year.

1.3 Competitive Analysis:
As of the current scenario in 2023, the online learning industry in Bangladesh has witnessed significant growth, leading to the emergence of several competitive players in the market. These platforms aim to cater to the diverse educational needs of learners, ranging from academic subjects to vocational and professional development courses.
At present, there are several online learning platforms available in Bangladesh, sharing the domestic online learning market.
Here some notable of them:
10 Minute School
Shikho
Shikhbe Shobai
Upskill
Bangladesh Youth Leadership Center (BYLC)

Besides them, other international online learning platforms like **Udemy, Coursera, edX etc**. have a major market share in Bangladesh's online learning market.
Here is competitive analysis of major market holders of Bangladesh Online Learning Platform Business:

Table 1. Competitive analysis of major market holders of Bangladesh Online Learning Platform Business

Competitor	**Service Description**	**Strenghts**	**Weeknesses**	**Marketing Strategy**	**Aggressiveness**	**Threat level**
Robi-10 Minute School	A leading telecommunications company in Bangladesh. It provides educational content and resources to Robi subscribers	Strong Partnership, Mobile Accessibility	Limited Subject Focus, Subcription Dependency	Cross-Promotion, Social Media Engagement	High	High
Shikkho	That provides video-based courses and tutorials on various subjects	Localized Content, Video-based Courses	Limited Subject Diversity, Limited Course Variety	Online Advertising, Influencer Collaborations	High	High
Skillshare	Offers a wide range of creative and practical cources. Here users pay a monthly or annual fee to access the entire library of courses	Creative Community, Project-Based Learning	Quality Consistency, Limited Depth	Social Media, Affiliate Programs	Medium	Medium
Upskill	Offers courses and training programs in different fields, including IT, freelancing and enterpreneurship	Local Focus,Job placement Opportunities	Limited Course Variety, Competition from Established Platforms	Content Marketing, Targeted Digital Advertising	Medium	High
Bdjobs Training	Offers online training course in various field	Brand Recognition, Extensive Network	Course Quality Assurance, Limited Geographical Reach	Social Media, Email Marketing	Medium	Medium

1.4 Objectives

Corporate Objectives:

- **Mission Statement:** The mission of our educational platform is to provide a diverse range of high-quality educational courses that empower learners to acquire new skills, knowledge, and competencies for personal and professional growth.
- **Course Quality:** To curate and publish courses that meet rigorous quality standards, ensuring that learners receive valuable and relevant content.

- **Accessibility and Inclusivity:** To make education accessible to a wide and diverse audience by offering courses that cater to various learning styles, abilities, and backgrounds.
- **ontinuous Improvement:** To consistently update and improve the content, features, and user experience of the platform based on user feedback and evolving educational trend

Marketing Objectives:

- **Market Share:** To capture a significant share of the online education market, aiming for a 45% market share within the first year of operation.
- **Customer Satisfaction:** To achieve a high level of customer satisfaction, with a goal of 90% positive feedback and course ratings from learners within the first year.
- **User Engagement:** To foster active engagement and participation on the platform, with an objective of having at least 70% of enrolled learners completing their courses.
- **Membership Growth:** To attract and retain a substantial user base, aiming to enroll a minimum of 5,000 new learners within the first six months and then sustainably grow the user base over time.

SWOT analysis of our Business

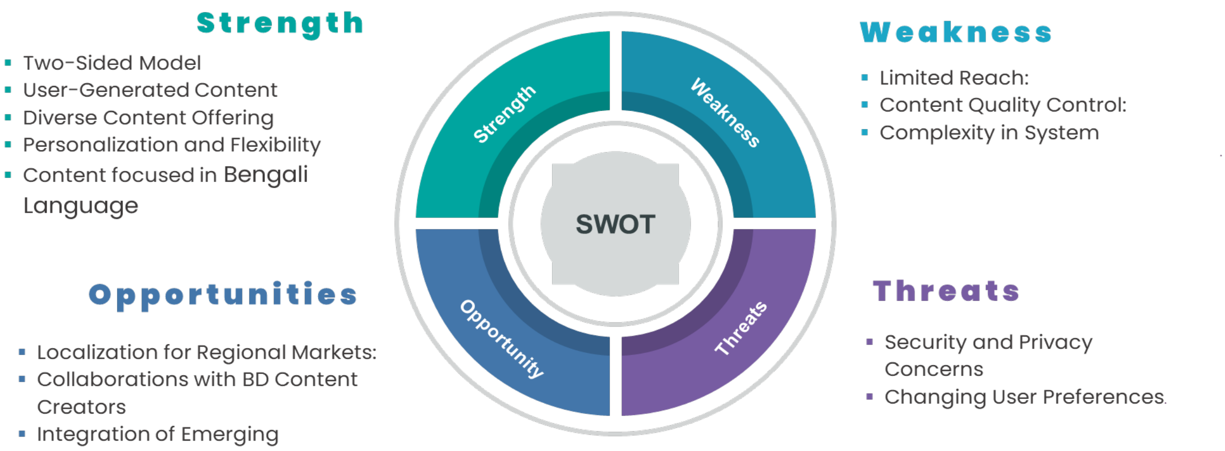

Figure 2. SWOT Analysis

In Figure 2 The SWOT analysis identifies strengths like user-generated content and Bengali-focused offerings, weaknesses in reach and system complexity, opportunities for localization and tech integration, and threats related to security and shifting user preferences.

2. Literature Review

This chapter discusses existing literature on business models and innovations, defines them, and visualizes them using the Business Model Canvas framework. It highlights the importance of business models in startups and their evolution using the lean startup approach. The chapter also provides an overview of current EdTech startups, discussing challenges and opportunities within the industry.

2.1. Business Model

Business models are structures that businesses use to create, deliver, and capture value. They describe how a company generates revenue and profits by offering products or services to customers and capturing value in return. Businesses use the Business Model Canvas (BMC) as a strategic tool to describe, analyze, and design their business models. The BMC consists of nine fundamental building blocks, each representing a specific aspect of the business. These elements help businesses tailor their value propositions, channels, customer relationships, revenue streams, key resources, key activities, strategic alliances, and cost structure. By understanding each element, businesses can identify opportunities to create value, optimize their operations, and build sustainable competitive advantages. By analyzing the BMC, businesses can develop pricing strategies, revenue models, critical assets, key activities, strategic alliances, and cost structures that ultimately maximize profitability and foster customer loyalty.

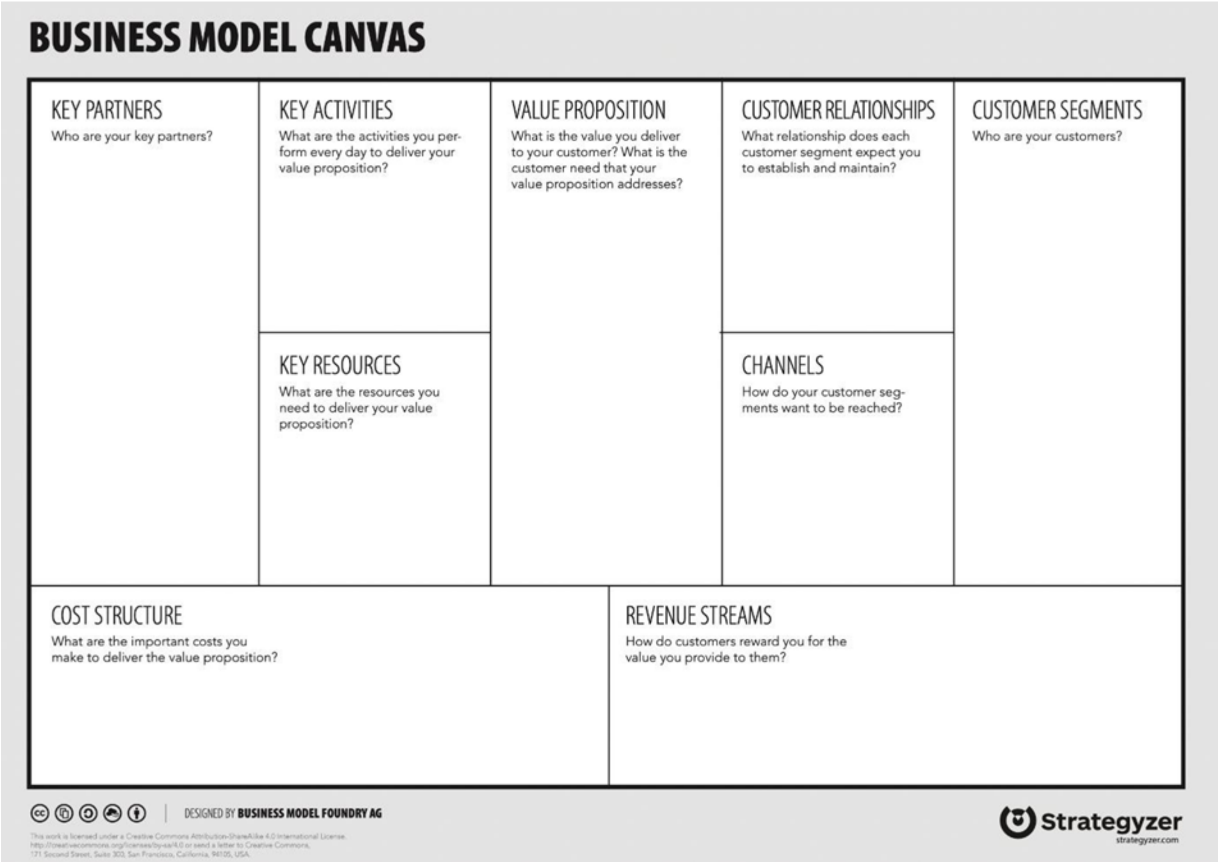

Figure 3. Business Model Canvas (Osterwalder and Pigneur 2010),(Lima & Baudier 2017)

Business Models in Startups

Startup strategy relies heavily on business models, which describe how a company generates revenue and profits by offering products or services to customers and capturing value in return. Startups often face the challenge of developing and testing new models to find sustainable and scalable ways to create value. The most appropriate model depends on the company's specific needs and goals. A "lean startup" approach that involves prototyping and testing new models can help startups quickly identify and refine viable and scalable models.

Business Model Innovation

Business model innovation is the process of developing and implementing new or improved business models to create value and gain a competitive advantage. It involves changes to aspects like value proposition, customer segments, revenue streams, and distribution channels The report underscores the necessity of addressing technical and psychological obstacles to ensure the sustainability of e-learning in Bangladesh's educational system.(Ashiq, n.d.) However, successful innovation requires identifying and solving problems related to implementing new models. Overall, business model innovation is a complex and multifaceted process that requires agility and adaptiveness.

Business Model Innovation in Startups:

Business model innovation is crucial for startups to create value, gain a competitive advantage, and drive growth. EdTech startups face the challenge of developing sustainable and scalable business models, especially in the rapidly evolving education technology market. Factors like adopting the "lean startup" approach and using customer insights can facilitate innovation. The COVID-19 pandemic has further impacted EdTech startups, as remote learning and increased demand for online resources necessitate rapid adaptation. The study reveals that despite the advantages of online education, Bangladesh's current infrastructure and preparedness are insufficient to fully integrate it into traditional classroom settings.(Islam & Islam 2023)

2.3 Education Technology Startups

During the COVID-19 pandemic, education technology startups gained prominence, with global EdTech venture capital increasing significantly in 2022, bringing $10.6B of investment across various markets.

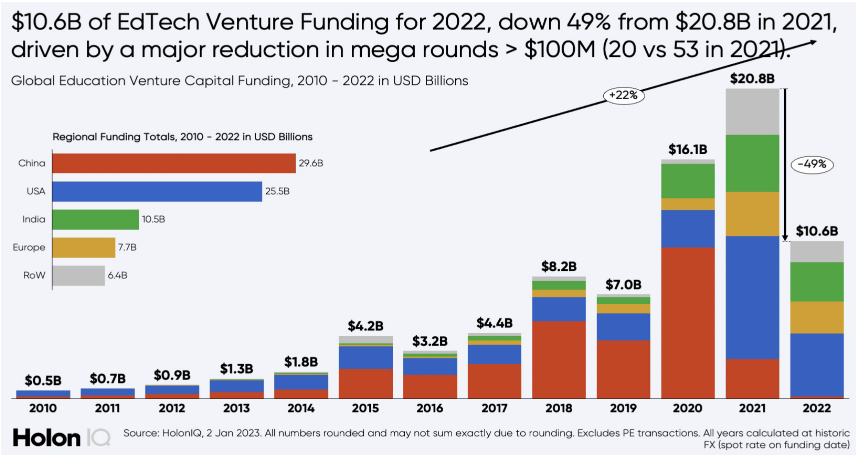

Figure 4. Global EdTech Venture Funding (Holon IQ, 2023)(HolonIQ, 2024)

Here in Figure 4. , we can see EdTech venture funding dropped by 49% in 2022 to $10.6 billion, largely due to a decrease in mega rounds over $100 million. The following is an overview of the prominent EdTech Startups in the Global and Local markets:

Global EdTech Startups
Prominent Global EdTech Startups (Tracxn, 2024b)

UpGrad provides higher education for working professionals, based in Mumbai, India.
Unacademy: Multidisciplinary learning and test prep, based in Bengaluru, India.
Open English: Live English language classes, based in Miami, USA.
Babbel: SaaS-based language learning, based in Berlin, Germany.
Course Hero: An online learning resource based in Redwood City, USA
PhysicsWallah: App-based tutoring for students, based in Noida, India.
Udacity: Professional development courses, based in Mountain View, USA.
Emergitus: Online tutoring solutions, based in Singapore.
Quizlet: Learning tools and flashcards, based in San Francisco, USA.
Global Reach: Companies are based in the USA, India, Germany, and Singapore.

Bangladesh EdTech Startups
The Bangladesh EdTech Startup industry, despite being relatively new, presents a lucrative opportunity for life-long learning and remote learning due to the COVID-19 pandemic. However, challenges such as user perception of online education, the digital divide, poor quality, and expensive mobile data outside urban centers hinder its growth. International investors and the education community are investing in Bangladesh's EdTech sector, despite challenges. With government support, a tech-savvy population, and increasing private spending, the sector presents significant growth opportunities.

The study reveals that despite the advantages of online education, Bangladesh's current infrastructure and preparedness are insufficient to fully integrate it into traditional classroom settings.(Tohel 2021)

Prominent Bangladesh EdTech Startups (Tracxn, 2022)(Tracxn, 2024a)

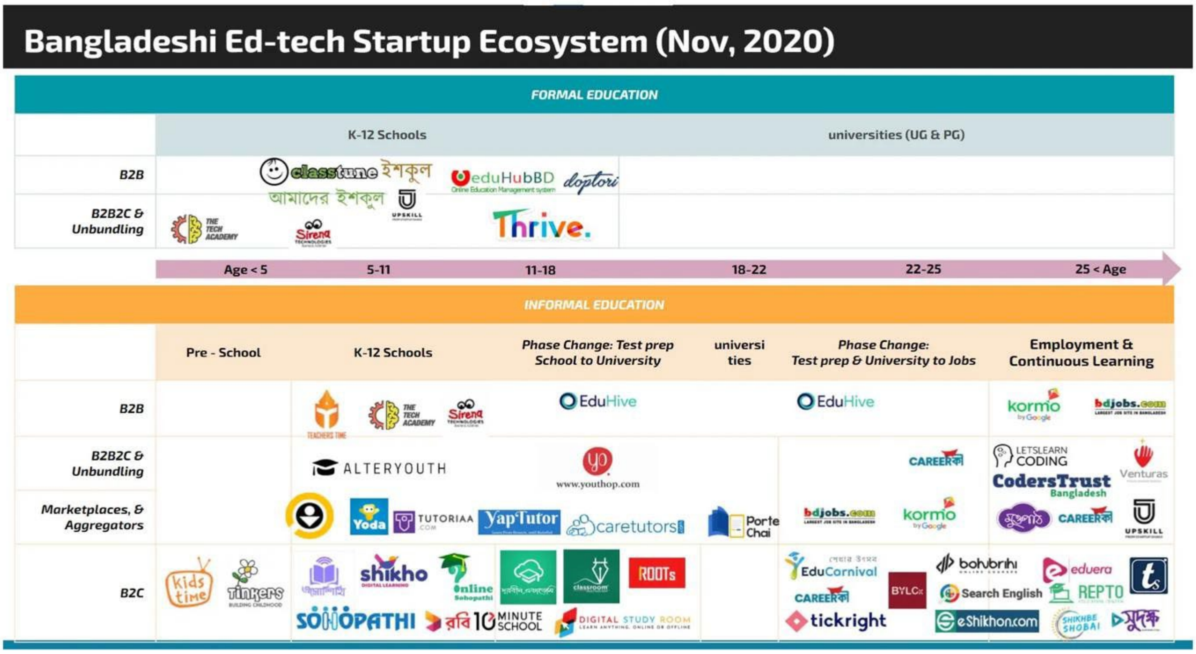

Figure 5. Bangladesh EdTech Startup Ecosystem (Bhattacharjee 2021)(Business Inspection 2024)

• **Shikho** Technologies: a school-based learning and test preparation startup based in Dhaka.
• **10 Minute School** is a Dhaka-based startup that created video content and online tests in 2015.
• **EduHive**: Exam preparation solutions startup, based in Dhaka.
•**Thrive:** General learning tools startup, based in Dhaka.
• **Edvive** is an English language learning startup that was founded in 2020 and is also based in Dhaka.
• **ROOTs Edu** is a Dhaka-based startup providing test preparation solutions.
• **Ostad:** A startup offering skill development courses, established in 2020 and based in Dhaka.

Key Insights:
• All companies are based in Dhaka, indicating a concentrated EdTech ecosystem.
• Most are in the early funding stages, indicating a growing market.

2.4 Conceptual Framework

The study focuses on the business model and innovation in the education technology industry, using the Business Model Canvas framework to understand the startup approach as a crucial aspect of the iterative process.

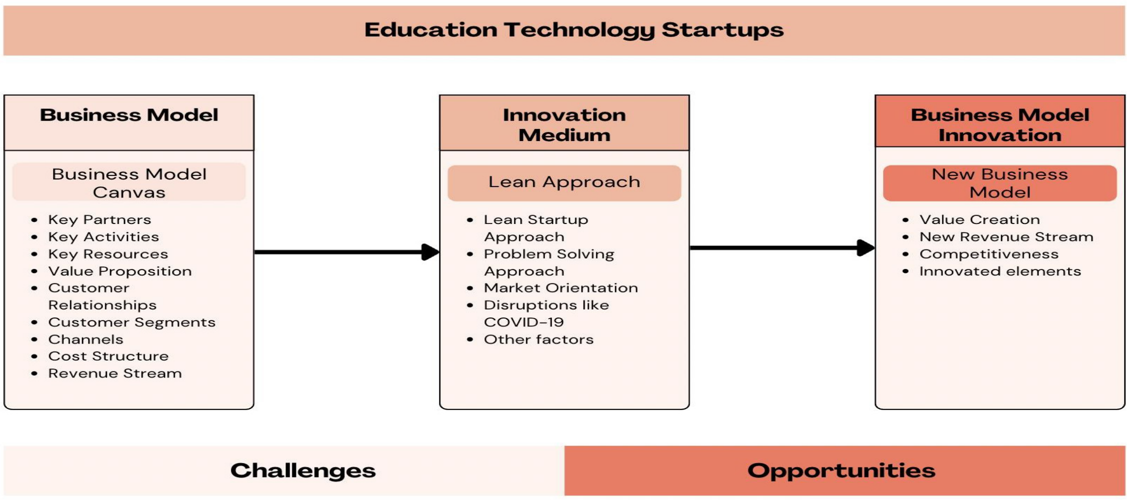

Figure 6. Conceptual Framework (Adapted from Ulanova, 2021)

The author provides an overview of the global and Bangladesh EdTech market, highlighting challenges and opportunities. The study aims to contribute to the literature on the subject and provide insights for future research. The report suggests that, despite challenges in Bangladesh's EdTech sector, platforms like EduHive have significant potential due to growing digital adoption and a strategic company focus on educational gaps.(Habib & Latiful Hoque, n.d.) Bangladesh's e-learning ecosystem has significantly impacted its transition to middle-income countries and "Vision 2021." Online training courses improve employee performance and skill development, and the pandemic underscores its potential in business and workforce management.(Tohel 2021)

3. Methods

3.1 Introduction to Business:

An online learning platform is a collection of interactive online services that provide information, tools, and resources to tutors, participants, and anyone responsible for training to assist and improve education delivery and management. Many in our country are quite interested in extracurricular activities. But they can't develop their skills due to lack of suitable platforms. What if they had access to an online platform where they could hone their skills? This is the motto of our business. We have developed an online platform called **'Haatekhari' or হাতেখড়ি** .

Figure 7. হাতেখড়ি Learning Platform

Our platform offers a platform for individuals to develop their skills in various subjects, including teaching, music, dancing, and cooking. Tutors can upload tutorials, schedule meetings, and receive payments. Learners can access tutorials, live classes, online courses, and free exams in Bengali. The platform is available on Google Play Store. Learners can start with free classes, then enroll for a specific fee. Tutors can open accounts and earn 25% of course proceeds. Sponsors and app ads can also generate revenue.

3.2 Our Product and Services:

Our online learning platform **'Hatekhari'** will provide services to our clients through our website and app which are both interactive and will be connected to our main home server. Any PC users can use our platform through our website using any browsers, where smartphone users will have the option of using our convenient app from both android and iOS.

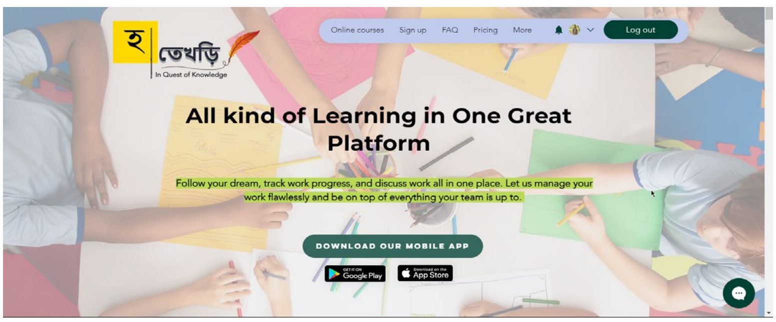

Figure 8. Website (Home Page)

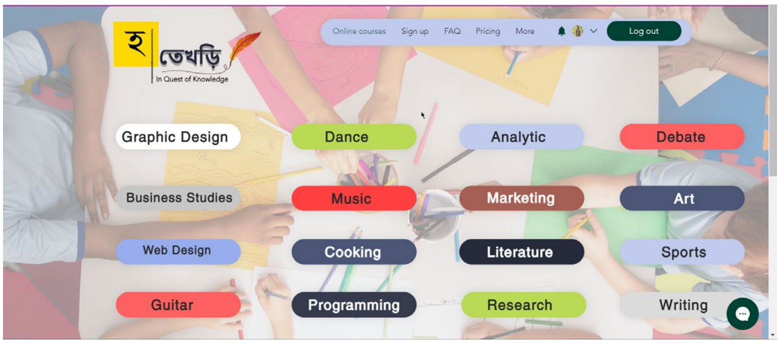

Figure 9. Website (Course Category)

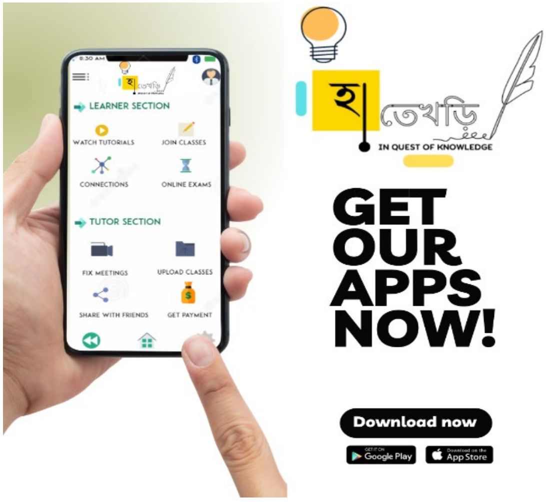

Figure 10. Mobile App Interface

Here, are Figure 8, Figure 9. and Figure 10. , illustrates the construction of our website portal procedure.

3.3 Business Model Analysis:
An overview of our business model can be understood by providing the Business Model Canvas of **Hatekhari**

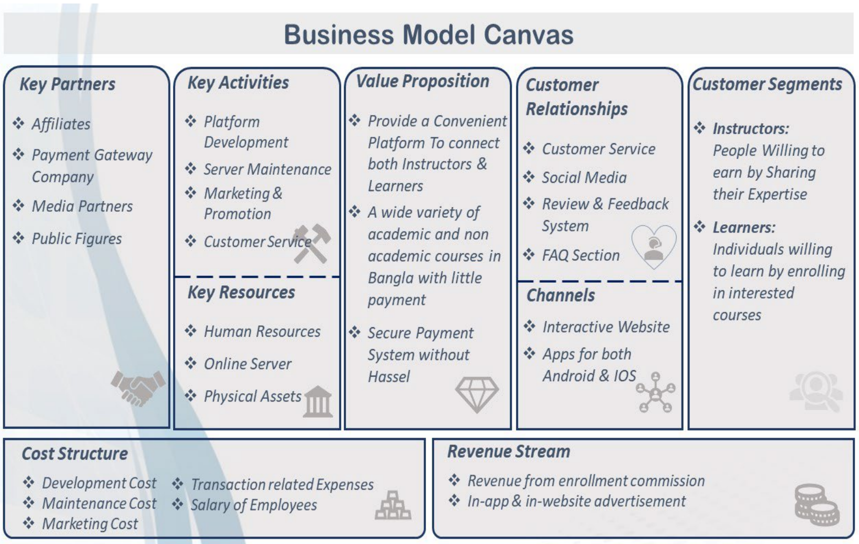

Figure 11. Business model of Hatekhari

Here in Figure 11**,** We can point out this Business Model Canvas outlines a platform connecting instructors and learners in Bangladesh, with key partners including affiliates and media, essential activities like platform development and customer service, and resources such as human resources and online servers. The value proposition highlights accessible academic and non-academic courses with secure payment. Customer relationships are maintained through customer service and feedback, while channels include a website and mobile apps. The cost structure covers development and transaction costs, and revenue is generated from enrollment commissions and advertisements from the business model canvas, we can see that we will mainly have two types of customers. Ones are **Instructors** and the other ones are

Learners. And from the value proposition segment we can see providing a convenient platform with various academic and non-academic courses as well as providing a secure payment are the values that our business will create to our customers. And from the cost structure and revenue stream we can have an idea of the financial activity of our business.

3.4 Why Us?

Variety of Courses ranging from dancing to cooking all in one platform
Comparatively low enrollment cost
Most of the courses are made for native people and available in Bengali
Domestic payment gateway for easy payment
Direct contact with tutors.

3.5 Marketing Strategy

A clear marketing strategy should revolve around the company's value proposition, which communicates to consumers what the company stands for, how it operates, and why it deserves their business. Our goal of a marketing strategy is to achieve and communicate a sustainable competitive advantage over our rival companies by understanding the needs and wants of our consumers.

Marketing Segmentation

Segmenting the market for an online education system using numerical data can be a highly effective strategy to tailor our marketing efforts and improve user experiences. Here's a step-by-step guide on how to perform marketing segmentation with numerical data for Hatekhari:

Collect Relevant Numerical Data:

Gathering data from my users, including demographic information (age, gender, location), educational background (level of education, field of study), online behavior (time spent on the platform, courses taken, engagement metrics), and any other relevant numerical data.

Data Cleaning and Preprocessing:

Ensuring data quality by cleaning and preprocessing the collected data. Address missing values, outliers, and normalize or scale the data as needed for analysis.

Define Objectives:

Clearly define our marketing objectives. For example, we might want to increase engagement, boost course completion rates, or target specific user segments with tailored content.

Select Segmentation Variables:

Identifying the numerical variables that are most relevant to achieving my objectives. In the context of an online education system, these might include:

Engagement Metrics: Time spent on the platform, number of courses completed, frequency of logins.
Demographics: Age, income (if available), geographic location.
Course Preferences: Types of courses taken, average grades, areas of interest.

Segmentation Methods:

Choose appropriate segmentation methods based on our objectives and data. Common methods for online education systems include:

K-Means Clustering: Group users based on their similarities in engagement metrics and preferences.
PCA (Principal Component Analysis): Identify underlying patterns or factors that influence user behavior.
Regression Analysis: Determine which variables are most predictive of certain outcomes (e.g., course completion rates).
Decision Trees: Identify key factors that lead to specific user behaviors or preferences.

Segment Profiling:

Create detailed profiles for each segment based on the numerical data. Understand what defines each group and their unique characteristics.

Validation and Testing:

Validate my segments by assessing their significance and usefulness. Test different marketing strategies or interventions on each segment to see which approaches yield the best results.

1. **Implementation**:
Develop tailored marketing strategies for each segment. This may involve:
Personalized email campaigns recommending courses based on user preferences.
Gamification elements to increase engagement for certain user groups.
Targeted advertising to specific demographics or geographic regions.

2. **Monitoring and Iteration**:
Continuously monitor the performance of my marketing strategies and the engagement of each segment. Use data analytics to assess the effectiveness of my efforts.
Make data-driven adjustments and refinements as needed to optimize my marketing campaigns and user experiences.

3. **Feedback Loop**:
Encourage user feedback and use it to refine our segmentation approach and overall service. Listen to users' needs and adapt accordingly.
Segmentation with numerical data allows us to tailor our marketing efforts and improve the user experience, ultimately increasing user engagement and retention in our online education system. Regularly review and update our segmentation strategy to stay responsive to changing user behaviors and preferences.

3.6 Marketing Programs

Hatekhari is poised to make a significant impact on the online learning landscape in Bangladesh. By leveraging strategic marketing initiatives, we are confident in achieving our objectives of increasing brand awareness, user acquisition, and market share.

Marketing Mix:
The marketing mix, also known as the 4Ps (Product, Price, Place, and Promotion), is a fundamental framework for creating a successful marketing strategy. When applied to an online-based education business, here's how it can be utilized:
Product:
Define the educational products and services we offer. This could include online courses, live webinars, interactive study materials, virtual classrooms, etc.
Our content is high-quality, up-to-date, and relevant to our target audience's needs and interests.
Offer a variety of courses across different subjects and levels to cater to a broader audience.

Price:
Determining the pricing strategy for our courses. Consider factors such as production costs, market demand, competitors' pricing, and perceived value.
Offer flexible pricing options, such as one-time payments, subscription plans, or installment options, to attract a wider range of customers.

Place:
As an online-based education business, our "place" is our website or platform where customers can access our courses and content.
Ensure our website is user-friendly, mobile-responsive, and easy to navigate.
Leverage different online channels like social media, search engines, and online advertising to drive traffic to our platform.
Promotion:
Develop a strong online presence through social media marketing, search engine optimization (SEO), and content marketing.
Using targeted advertising to reach our specific audience segments effectively.
Collaborate with influencers, educators, or relevant organizations to promote our courses and gain credibility.
Offer discounts, free trials, or referral programs to incentivize new sign-ups and encourage word-of-mouth marketing.

People:
Emphasize the expertise and qualifications of our instructors and educators to build trust with potential learners.
Provide excellent customer support and respond promptly to inquiries or issues to enhance the overall customer experience.

Process:
Ensure a smooth and seamless enrollment process for new students, including easy registration and payment methods.

Continuously improve and update our course materials and content based on feedback and changing educational trends.

Physical Evidence:
While an online education business may not have a physical presence in the traditional sense, we can use testimonials, reviews, and success stories from satisfied learners as evidence of the quality and effectiveness of our courses.

Loyalty Program:
Implementing a loyalty program for an online-based education business can be an effective way to retain existing customers, encourage repeat purchases, and foster a sense of community among learners. Here are some key steps and ideas for creating a successful loyalty program:

1. Points-based system: Set up a points-based system where customers earn points for every course they enroll in or for completing specific actions, such as leaving reviews, referring friends, or participating in community discussions.
2. Tiered membership levels: Create different membership tiers based on the number of courses a customer has completed or the total points they have earned. Each tier can offer increasing benefits, such as access to exclusive content, personalized recommendations, or priority customer support.
3. Discounts and rewards: Offer discounts on future course purchases or provide free access to certain courses as rewards for accumulated points or achieving higher membership levels.
4. Personalized recommendations: Use customer data and learning behavior to provide personalized course recommendations, making the learning journey more engaging and relevant to individual interests and goals.
5. Early access and sneak peeks: Reward loyal customers with early access to new courses, updates, or features before they are available to the general public.
6. Community engagement: Encourage learners to participate in forums, discussions, and live sessions by offering bonus points or recognition for active community members.
7. Referral program: Implement a referral program where existing customers can earn rewards or discounts for referring new learners to the platform.
8. Special events and webinars: Organize exclusive webinars, workshops, or events featuring renowned educators or industry experts, available only to loyalty program members.

Regularly communicate with members about their loyalty program benefits, upcoming rewards, and personalized recommendations to keep them engaged and motivated. By focusing on customer satisfaction, personalization, and meaningful rewards, an online education business can build a loyal and enthusiastic learner community.

Customer Service & Support:
Customer service and support are critical components of any online-based education business. Providing excellent customer service helps build trust, enhances customer satisfaction, and fosters a positive learning experience. Here are some key aspects to consider for customer service and support in an online education business:

1. Responsive Communication: We have multiple channels for customer inquiries, such as email, live chat, and a dedicated customer support phone line. Respond to customer queries promptly and professionally.
2. Knowledgeable Support Team: Training the support team to be knowledgeable about the courses, platform features, and common technical issues. They should be able to provide accurate and helpful information to customers.
3. 24/7 Availability: Consider offering 24/7 customer support, especially if our learners are located in different time zones. If full-time support isn't feasible, clearly communicate the hours of availability to manage customer expectations.
4. Self-Service Options: Implementing a comprehensive knowledge base or FAQ section on our website. This allows customers to find answers to common questions without needing to contact support.
5. Technical Support: Provide technical support to assist learners who encounter issues with course access, video playback, or other technical aspects of the platform.
6. Personalization: Address customers by their names and tailor responses to their specific queries, making them feel valued and understood.
7. Proactive Outreach: Reaching out to learners who may be struggling with their courses or have shown reduced activity on the platform. Offer assistance and support to help them succeed in their learning journey.
8. Smooth Registration and Enrollment: Ensure that the registration and enrollment processes are user-friendly and straightforward. Provide clear instructions and guidance for new learners.
9. Transparent Policies: Clearly communicate refund policies, course expiration dates, and other important information to avoid misunderstandings and conflicts.

10. Feedback Collection: Regularly gather feedback from learners about their experiences with the courses and customer service. Use this feedback to make improvements and address any pain points.
11. Handling Complaints: Have a well-defined process for handling customer complaints and concerns. Resolve issues promptly and professionally, aiming to turn dissatisfied customers into satisfied ones.
12. Follow-up and Support after Course Completion: Offer post-course support and resources to learners who have completed their courses. This could include further reading materials, career guidance, or suggestions for additional learning paths.

Remember that providing excellent customer service is an ongoing process, and continuous efforts to enhance the support experience will lead to higher customer satisfaction and loyalty in the long run.

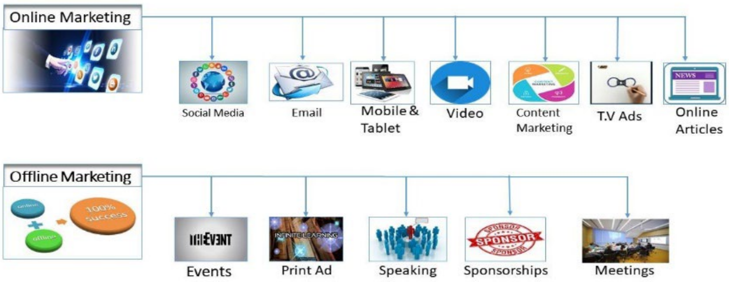

Figure 12. Marketing Programs

Here in Figure 12, we can see various types of marketing programs for both online and offline marketing.

4. Business Implementation Plan

4.1 Design and Development:

Platform Development:

- User Interface Design: Our team of experienced designers will work on creating an intuitive and user-friendly interface that offers a seamless learning experience across devices.
- Content Management System (CMS): We will develop a robust CMS that allows easy management and organization of course materials, ensuring that learners can access content effortlessly.
- Interactive Features: Implementing interactive elements such as quizzes, assignments, and discussion forums will encourage learner engagement and foster a sense of community.
- Personalization: We aim to incorporate adaptive learning technologies to personalize the learning journey for each learner, catering to their individual strengths and weaknesses.

Server Infrastructure:

- Scalability: We will invest in a scalable server infrastructure to accommodate the growing number of learners and ensure smooth performance even during peak usage.
- Data Security: The security and privacy of our learners' data are of utmost importance. We will implement robust security measures to safeguard user information.
- Speed and Reliability: Our servers will be optimized for speed and reliability, reducing loading times and minimizing downtime to enhance the overall user experience.

Physical Facility:

- Office Space: Our team will establish a well-equipped office space to serve as the central hub for development, management, and customer support operations.
- Technical Infrastructure: We will ensure that the physical facility is equipped with the necessary technology and tools to support the development and testing processes.
- Collaboration Spaces: Dedicated collaboration spaces will encourage creativity and teamwork among our team members, fostering a conducive work environment.

4.2 Implementation Schedule:

Here is a proposed implementation schedule for our business provided using a Gantt Chart:

Aruba's case studies highlight the effectiveness of Gantt charts in executing infrastructure projects, providing detailed timelines, facilitating resource management, and improving stakeholder communication—thereby overcoming complexities.(Richard, n.d.) The logic of the Gantt Chart, which forms the foundation of scientific management and traditional project management, is based on six principles, each with its limitations. Agile project management addresses some of these limitations, but most contemporary thinking still adheres to the deterministic and mechanistic paradigm. The article suggests a "fit" hypothesis between Gantt charts and project management, calling for a discipline with its theories and ideas.(Geraldi & Lechter 2012)

Figure 13. Gantt Chart for business implementation

The Gantt chart for implementing the "Hatekhari" online education platform business outlines a detailed timeline for the various tasks and milestones involved in bringing this educational platform to life. This comprehensive plan spans a total duration of 20 weeks and is designed to ensure a methodical and efficient execution of the project. Here's a description of the key tasks and their respective durations:

- Market Research & Competitors Analysis (Week 0-2): At the outset, the team will dive into thorough market research and competitor analysis to gain insights into the education technology landscape.
- Analysis of Financial Statement and Activities (Week 2-3): During this period, a detailed examination of financial statements and activities will be conducted to ensure sound financial planning.
- Perform Risk Assessment and Management (Week 2-3): Simultaneously, risk assessment and management strategies will be developed to mitigate potential challenges.
- Creation of Detailed Project Plan (Week 3-5): With the insights gathered, a comprehensive project plan will be formulated, outlining the roadmap for Hatekhari's development.
- Preparations of Business Documentations (Week 4-6): Necessary business documentations, such as legal paperwork and agreements, will be prepared during this phase.
- Recruitment and Training of Administrative and Support Staff (Week 6-8): The team will start recruiting and training administrative and support staff to ensure a capable workforce.
- Design Platform Architecture and User Interface (Week 8-12): Hatekhari's platform architecture and user interface will be meticulously designed, focusing on user-friendliness and functionality.
- Integration of Payment Gateway System (Week 10-12): The payment gateway system will be seamlessly integrated into the platform, ensuring a smooth payment process.
- Set up Database Structure for User Data and Contents (Week 11-12): The database structure for storing user data and educational content will be established.

- Testing of Platform Functionality and User Experience (Week 12-16): Rigorous testing of the platform's functionality and user experience will be conducted to iron out any issues.

- Collaborations with Businesses and Content Providers (Week 14-16): Partnerships with businesses and content providers will be formed to enhance the platform's offerings.

- Development and Execution of Marketing and Promotion Strategy (Week 16-20): A comprehensive marketing and promotion strategy will be developed and executed to attract users to the platform.

- Further Development Before Launch (Week 17-20): Any necessary refinements and additional development will take place to ensure that Hatekhari is ready for a successful launch.

This Gantt chart provides a clear and organized roadmap for the Hatekhari EdTech business, ensuring that all essential tasks are completed in a logical sequence, ultimately leading to a successful launch and sustained growth in the competitive educational technology market.

Implementation Feasibility Analysis:
Feasibility analysis is a critical step in the early stages of a project or business initiative. It involves assessing whether a proposed project or plan can be realistically and successfully implemented given the available resources, constraints, and circumstances. The primary purpose of this analysis is to determine if the project is viable and can be executed effectively. It typically encompasses various aspects, including financial, technical, operational, and organizational considerations.

Feasibility Factors:
Market Feasibility: This factor assesses whether there is a viable market for our product or service. It involves analyzing market trends, potential barriers to entry, the size and growth potential of the market, the level of competition, and the demand for the product or service being offered. In this case, the market feasibility is rated at 80%, which means that there is a good chance that the project will be successful in the marketplace.

Operational Feasibility: Operational feasibility evaluates whether our organization can effectively and efficiently execute the project. It considers factors like technology, processes, and human capital, availability of resources, the expertise of the staff, and the level of support from management. In this case, the operational feasibility is rated at 75%, which means that there is a good chance that the organization will be able to implement and operate the project successfully.

Technical Feasibility: Technical feasibility examines whether the required technology and infrastructure are available or can be developed to support the project. It assesses the technical challenges and risks associated with implementation. It refers to the ability to develop and deliver the product or service being proposed. This is determined by factors such as the availability of technology, the expertise of the team, and the level of risk involved. In this case, the technical feasibility is rated at 71%, which means that there is a good chance that the project can be technically feasible.

Financial Feasibility: Financial feasibility determines whether the project is financially viable. It involves creating financial projections, analyzing costs, revenue potential, and assessing the return on investment (ROI). It refers to the ability of the project to generate enough revenue to cover its costs. This is determined by factors such as the price of the product or service, the cost of production, and the marketing and sales strategy. In this case, the financial feasibility is rated at 68%, which means that there is a good chance that the project will be financially feasible.

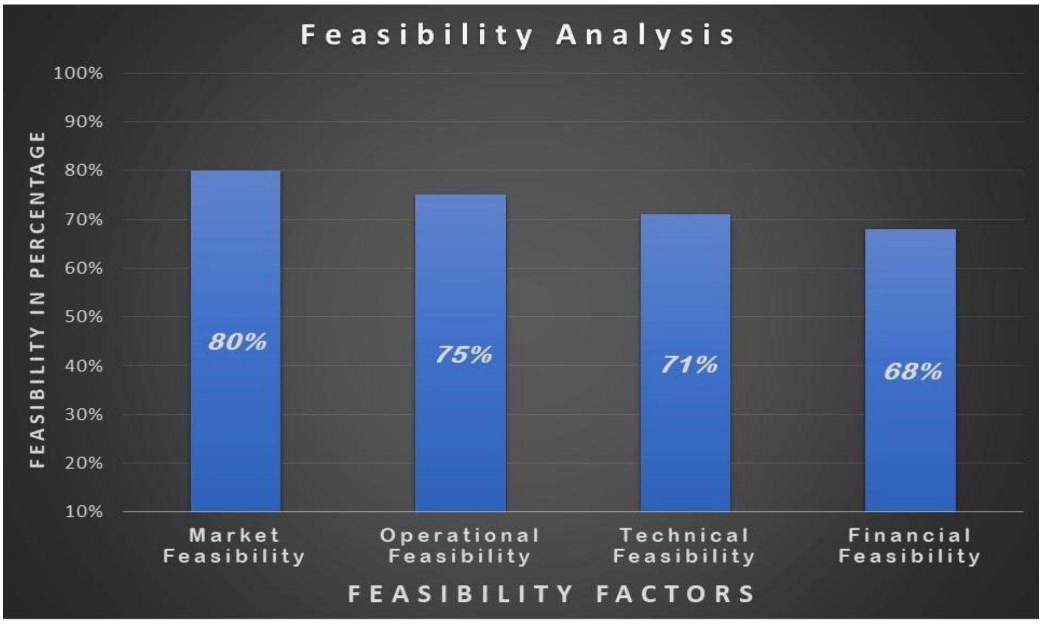

Figure 14. Feasibility analysis of Hatekhari

This Figure 14 shows the feasibility analysis chart which shows that market feasibility is rated highest at 80%, followed by operational feasibility at 75%, technical feasibility at 71%, and financial feasibility at 68%.

5. Performance Evaluation and Monitoring
5.1 Monitoring Ad Campaigns:
The procedure we will follow to monitor ad campaign is as follows-
1. Defining the channels, we want to track
To measure the success of our ad campaign, we will divide our marketing derived traffic into subgroups that are more typically referred to as channels such as-

Direct – These are potential customers that find our business in a direct manner without being directed there by other parties. An example of this is a person that saw our web address on a print ad and typed it into their web browser to get information about our product.

Organic – This is people that find our company through search engine such as Google. They generally were looking for a type of product or service our company offers, but they were not specifically looking for our company. Many times, there will be a UTM (Urchin Tracking Module) parameter that is set up to help them find us.

Email– These potential customers are people that came to us through such things as an e-mail campaign that we put on.

Paid – These are potential customers that came to us as a result of an ad campaign that we paid for such as a print ad in a newspaper or an ad on a web content site.
Social– These are potential customers that came to us as a result of an ad campaign that we paid for such as a print ad in a newspaper or an ad on a web content site.
None– This is a catch-all category (it does not necessarily have to be called "none") that all the people who find us through other channels than those mentioned above are placed.

2. Defining the Marketing Metrics, We Want to Monitor
- Impressions: The number of times our ad was shown.
- Clicks: The number of times people clicked on our ad.
- CTR (click-through rate): The percentage of people who saw our ad and clicked on it.
- CPC (cost per click): The amount of money we pay each time someone clicks on our ad.
- Conversion rate: The percentage of people who clicked on our ad and took the desired action, such as signing up for our course or making a purchase.

3. Tools for Measuring the Effectiveness of Marketing Campaigns

- There are a number of tools available to help us monitor our ad campaigns. Some popular options include Google Analytics, Facebook Ads Manager, and Twitter Ads.
- These tools can track our ad performance across different platforms and devices, and they can provide us with insights into how our ads are performing.

4. Frequency of monitoring and what should look for

- We should monitor our ad campaigns regularly, such as daily or weekly. This will help us identify any issues with our campaigns and make necessary adjustments.
- When monitoring our ad campaigns, we should look for the following:
  Are our ads being shown to the right people?
  Are our ads getting clicks?
  Are our ads converting into sales or leads?
  Are our ads cost-effective?

5. How to optimize our campaigns

Once we have identified any issues with our ad campaigns, we can make necessary adjustments to optimize them. Some common adjustments include:

- Changing our targeting.
- Adjusting our bidding.
- Changing our creative.
- Testing different ad placements.

5.1 Numerical Results
Sales Analysis:
Reporting schedule:
Daily: Track our sales data on a daily basis to identify any trends or anomalies**.**
Weekly: Generate weekly reports to track our progress and make necessary adjustments.
Monthly: Generate monthly reports to track our overall performance and set goals for the next month**.**
Annually: Generate an annual report that includes all of the metrics listed above, as well as any other relevant data. This report will give us a comprehensive overview of our business's performance over the past year.

Sales Breakdown:
Sales will be broken down in two ways. We will use service breakdown in order to see what services are selling and what are not. We will ask our clients about our varieties of services. From there we can make adjustments as necessary. We will also use a customer type break down which will be done through a survey. Doing these surveys, we can find out how many clients are old and new. We can also look at the demographics and see if advertisement is is hitting the right demographics.

Benchmarking:
Benchmarking is the process of comparing our business's performance against other businesses in the same industry. This can help us identify areas where we can improve our business and become more competitive. We have some competitors like 10-minute school, Sikho, Udemy etc. There are two main types of benchmarking:
Internal benchmarking: This involves comparing our business's performance to other parts of our business. For example, we could compare the performance of our sales team to the performance of our marketing team.

External benchmarking: This involves comparing our business's performance to other businesses in the same industry. For example, we could compare our business's revenue to the revenue of other online education platforms.

Table 2. Fixed Cost Analysis

Serial No	Fixed Cost	Cost(tk)
1	Administrative Personnel	500,000.00
2	Support Staffs	900,000.00
3	Communication Expenses	30,000.00
4	Provident & Insurance	70,000.00
5	Physical Facility Rent	150,000.00
6	Fixed Overhead	150,000.00
	Total	1,800,000.00

Table 3. Implementation Cost Analysis

Serial No	Implementation Cost	Cost(tk)
1	Platform Development	1,200,000.00
2	Server Infrastructure	500,000.00
3	Learning Management System (LMS)	100,000.00
4	Domain and Hosting	50,000.00
5	Security and Data Protection	30,000.00
6	Payment Gateway Integration	70,000.00
7	Legal and Regulatory Compliance	50,000.00
9	Marketing and Promotional	1,000,000.00
	Total	3,000,000.00

Table 4. Cost Analysis

SN	**Variable cost**	**Cost(tk)/1k user in a Quarter**
1	Hosting and Bandwidth	50,000.00
2	Maintenance	50,000.00
3	Payment Processing	30,000.00
4	Customer Support	70,000.00
5	Advertising	50,000.00
6	Paid Contents	50,000.00
7	Affiliate Commissions	25,000.00
	Total	325,000.00

Table 5. Revenue Analysis

Serial No	Revenue	BDT /1k user
1	Sponsorship	150,000.00
2	Ad Revenue	175,000.00
3	Subscription	150,000.00
	Total	475,000.00

5.2 Graphical Results

Break-Even Analysis:

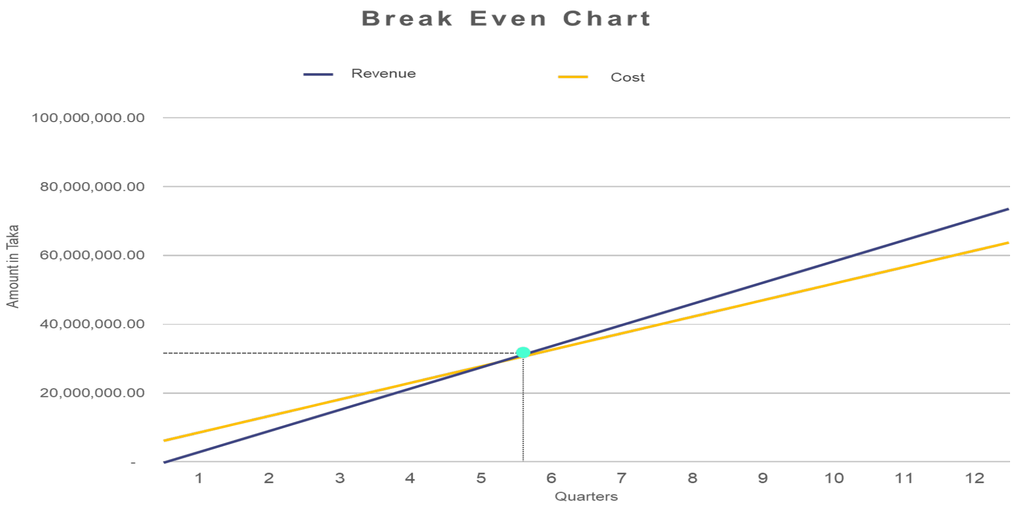

Figure 15. Approximate Break-Even Analysis

In this Figure 15. , the break-even chart serves as a strategic roadmap for Hatekhari. It highlights the critical juncture where the business transitions from financial losses to profitability. Achieving this milestone signifies the platform's sustainability and success in the competitive online education market.
The above break-even chart for Hatekhari, spanning three years or 12 quarters, offers a comprehensive visual representation of the business's financial performance. This chart shows the cumulative cost and revenue for each quarter, allowing us to pinpoint the critical break-even point and its corresponding financial figures.

Table 6. Approximate estimation of the quarterly expected total users, cumulative costs and cumulative revenue

Quarter	Expected Users in thousands (k)	Cumulative Cost (tk)	Cumulative Revenue (tk)
1	10	7050000.00	3820000.00
2	12	11550000.00	8404000.00
3	14	16500000.00	13752000.00
4	16	21900000.00	19864000.00
5	18	27750000.00	26740000.00
6	20	34050000.00	34380000.00
7	23	41025000.00	43166000.00
8	25	48450000.00	52716000.00
9	28	56550000.00	63412000.00
10	30	65100000.00	74872000.00
11	32	74100000.00	87096000.00
12	35	83775000.00	100466000.00

Key Observations:

- Break-Even Point: The break-even point is a crucial milestone in the chart, which occurs approximately between the 5th and 6th quarters. At this juncture, Hatekhari achieves financial equilibrium, where total revenue equals total costs. The approximate break-even revenue is around 32,000,000.00 taka.
- Expected User Growth: It's noteworthy that by the break-even point, Hatekhari has garnered a substantial user base, estimated to be between 18,000 to 20,000 users. This demonstrates the platform's growing popularity and market penetration.

An approximate estimation of the quarterly expected total users, cumulative costs and cumulative revenue based on fixed and variable costs are given below:
This data in Fig 5.2 represents a quarterly projection of user growth, costs, and revenues over three years. Expected users increase incrementally each quarter, starting from 10,000 in Q1 and reaching 35,000 by Q12. The cumulative cost rises alongside user growth, starting at 7.05 million takas in Q1 and reaching 83.78 million takas by Q12. Revenue also grows from 3.82 million taka in Q1 to 100.47 million takas by Q12, indicating an increasing profitability trend as user adoption and revenue generation outpace costs in later quarters.
In summary, the break-even chart for Hatekhari offers a clear visualization of the business's financial journey, showcasing the dedication and planning required to reach the point of financial equilibrium and demonstrating the growth trajectory expected in the coming years

5.3 Proposed Improvements

Alternative Strategies:

There are some alternative strategies that we can consider implementing to improve our online educational business platform and address potential issues:

1. Improve Content Quality: Investing in creating high-quality, engaging, and up-to-date course content. Collaborate with knowledgeable instructors and experts to ensure the courses are valuable and relevant to our target audience.
2. Personalization: Implementing a personalized learning approach, where the platform recommends courses based on individual users' interests, skill levels, and previous course completions. This can enhance user engagement and satisfaction.
3. Gamification: Introducing gamified elements to make learning more enjoyable and encourage users to complete courses. Implement badges, points, leaderboards, or challenges to reward progress and achievements.
4. Enhance User Experience (UX): Conducting user experience testing and optimizing the platform's design and navigation to ensure it's intuitive, user-friendly, and visually appealing.
5. Offer Free Trials and Discounts: We would provide free trials for selected courses or offer limited-time discounts to attract new users and encourage course enrollment.
6. Collaboration with Institutions: Partner with educational institutions or industry organizations to offer accredited courses or certifications, which can increase the credibility and attractiveness of our platform.
7. Analytics and Data Insights: Utilizing data analytics to understand user behavior, preferences, and pain points. Use this information to make data-driven decisions for platform improvements.
8. Marketing and Outreach: Implement a comprehensive marketing strategy to reach a wider audience, including social media marketing, content marketing, and partnerships with influencers or bloggers.
9. Focus on Emerging Technologies: Staying updated with the latest trends and emerging technologies in the educational industry, such as virtual reality (VR) and augmented reality (AR), and consider integrating them into our courses.
10. International Expansion: If feasible, we would consider expanding our platform to cater to international markets, providing localized content and language options.

6. Conclusion

Necessity is the mother of invention. So, we're seeing this adage in action, as people are quickly finding new ways to learn, teach, work, and connect. While the adoption of online learning was accelerated globally by the COVID-19 pandemic, "Hatekhari" believes the move to online learning will be sustained over time, as learners, teachers, and businesses continue to find value and new applications for online courses to enhance both their personal and professional lives. Although there is no shortage of learning platforms in the online world, there is a considerable lack of learning platforms in Bengali. As the courses of our platform are mostly in Bengali, people will be attracted to it because mother tongue is the most understandable language of people.

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Biographies

Adri Dash, a Bangladeshi Industrial and Production Engineer, is a lecturer at the Bangladesh Army University of Science and Technology (BAUST) in Saidpur. He holds a Bachelor of Science in Industrial & Production Engineering from Rajshahi University of Engineering & Technology (RUET) and has expertise in supply chain management, quality control, lean manufacturing, sustainability, and automation. Adri has held teaching and research positions at the National Institute of Textile Engineering and Research (NITER) and the Bangladesh Industrial Technical Assistance Centre (BITAC). His research focuses on innovative applications in supply chain management and sustainable manufacturing, with notable publications on multi-objective job-shop scheduling and supply chain resilience in Bangladeshi industries. His project portfolio includes designing safety and automation devices like automatic hand sanitizers and gas leakage detectors. Adri has been an active member of professional and academic societies, earning awards like Student of the Year and multiple scholarships.

Hrittik Mural has made notable contributions to industrial and system engineering through various projects and research. His work includes analyzing casting defects in gas burners using the Taguchi method, and he is preparing a review paper on advancements in wearable sensor technologies. He successfully integrated Six Sigma with Total Quality Management (TQM) to improve quality and reduce waste in the beverage industry, and utilized Multi-Criteria Decision-Making (MCDM) techniques to address supply chain disruptions in the steel and rolling industries in Bangladesh. His undergraduate thesis focused on real-time Bangla sign language detection using Long Short-Term Memory (LSTM) networks, achieving 96% accuracy. Mural has also designed and fabricated several innovative systems, including a pulley-based horizontal belt grinding machine, a contactless air conveyor, a smart door lock using RFID technology, and an automatic car washing system with IoT integration. He holds a certification as a Supply Chain Analyst from ISCEA. Mural graduated with a BSc in Mechatronics and Industrial Engineering from Chittagong University of Engineering and Technology (CUET). He currently serves as a Lecturer in Industrial Production Engineering at BAUST.

Rifat Hussain Akand Pulok, a recent graduate of Rajshahi University of Engineering & Technology (RUET), has a Bachelor of Science in Industrial & Production Engineering (IPE) and a strong interest in operations research, supply chain and quality management, project management, and automation. He gained industry exposure as an industrial trainee at the Bangladesh Industrial Technical Assistance Center (BITAC). Pulok's research focuses on optimizing supply chain management in Bangladesh, particularly in dairy farming, and increasing the value of industrial products. His technical proficiency includes AutoCAD, MATLAB, SOLIDWORKS, and C++. His strong foundation in leadership, teamwork, and integrity makes him a promising talent in Bangladesh's industrial and production engineering field.

Fazlay Rabbi Mridu, a recent graduate from Rajshahi University of Engineering & Technology, holds a Bachelor of Science degree in Industrial & Production Engineering. He specializes in supply chain management, production planning, and quality control, with a focus on optimization techniques and data analysis for improving manufacturing processes.

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Md. Sajid Hasan, a graduate of Rajshahi University of Engineering & Technology, specializes in Industrial & Production Engineering, focusing on supply chain management, operations research, and production optimization. He is skilled in identifying process inefficiencies and implementing data-driven solutions to improve supply chain performance.

Md. Minhazul Islam, a recent graduate from Rajshahi University of Engineering & Technology, is a keen enthusiast of operations research, process optimization, and automation. His academic projects have utilized simulation and statistical methods to improve production efficiency, and he is eager to contribute to technological advancements in manufacturing processes.

Golam Rabbani, a RUET graduate with a Bachelor of Science in Industrial & Production Engineering, specializes in quality management, project management, and supply chain optimization. With experience in analyzing production workflows and implementing quality control measures, he is passionate about optimizing industrial operations and promoting sustainable practices.

Md. Firoz Kabir is an Assistant Professor and Head of the Department of Industrial and Production Engineering (IPE) at BAUST, Saidpur. He holds a BSc and MSc in IPE from RUET and is pursuing a Ph.D. in the same field. With academic experience since 2017, he has served in teaching and administrative roles, including Program Coordinator and Department Head. His research focuses on optimization, manufacturing processes, natural fiber-reinforced composites, and solid waste management, with notable publications in respected journals. He is a professional member of IEOM Society International and contributes to the Center for Engineering, Research, and Revision Services (CERRS Ltd.), enhancing academic and industrial applications in his field.

Sanu Basak, a running RUET undergraduate with a Bachelor of Science in Industrial & Production Engineering.

Obayedul Fahim, an undergraduate student in the Department of Industrial and Production Engineering at BAUST, is dedicated to academic excellence and practical applications, continuously seeking opportunities for learning and growth in the field.