Feasibility Study – Bike BD online Shop

Lab Report

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I.   **Title :**   **Feasibility Study – Bike BD Online Shop**

II.   **Project Introduction :**

Bike BD is an online shop project that aims to provide a convenient and hassle-free way for customers to purchase bikes and related accessories in Bangladesh. With a wide range of options, you can choose the bike that best suits your needs and budget. Our user-friendly interface helps you to navigate through the site with ease.The project will leverage the power of e-commerce to provide a seamless buying experience for customers, allowing them to browse and purchase products from the comfort of their own homes. With competitive pricing and fast, reliable delivery, Bike BD aims to become a trusted and preferred destination for bike enthusiasts across Bangladesh.

III.   **PIECES Framework for our project Feasibility Study** :

● **Performance:**

 Bike BD Online Shop is a platform that provides you with an easy and convenient way to buy bikes online. Our platform provides you with a detailed description of each bike, including its features, price, and availability. You can also compare different bikes to make an informed decision.A customer who already own a bike can also buy parts through us. . A simple but responsive user friendly website that will be responsive to all mainstream devices making the users easy to interact with. The users can get the details of their desired bike accessories, check the prices of the products and even order some of them in online. However, here are some general indicators of a successful performance for an online shop:

  i. **Customer Acquisition and Retention:** The online shop should have a clear strategy for acquiring and retaining customers, such as through targeted marketing campaigns, loyalty programs, and exceptional customer service.

ii. **Payment:** Payments We accept various payment options, including credit cards, debit cards, and online bank transfers. In some small transactions we accept mobile banking to make the process convinient for you. Our secure payment gateway ensures that your transactions are safe and secure.

iii. **Website Traffic:** The online shop should have a steady flow of website traffic from a variety of sources, such as organic search, social media, and paid advertising.

iv. **Customer Satisfaction:** The online shop should prioritize customer satisfaction and feedback, with a focus on providing a seamless buying experience, fast and reliable delivery, and responsive customer service. Customers can talk about their bike problems with the customer care service of the brand, know the estimated price of the services for the on-spot service through this website.

- **Information :** The bike bd online shop project is an e-commerce platform that sells bike and related accessories in Bangladesh. Bike BD Online Service, you can save time and money by avoiding the hassle of going to a physical store in first place. Our platform provides you with a detailed description of each bike, including its features, price, and availability. You can also compare different bikes to make an informed decision. A customer who already own a bike can also buy parts through us.

- **Economy :** Bike BD online shop can leverage this growth in both the bike and e-commerce industries by offering a wide variety of bikes and related products at competitive prices, with convenient delivery options and reliable customer service. As more and more people turn to online shopping, an online bike shop can tap into a growing customer base in Bangladesh and potentially expand its reach to other countries in the region. Here are some key points to consider:

  ❖ **Market demand**: The bike industry has been growing rapidly in recent years, with more people using bikes for transportation and

recreation. An online bike shop can tap into this growing market by offering a wide variety of bikes and related products.

- ❖ **Competition:** The online bike market is becoming increasingly crowded, with numerous online retailers selling bikes and related products. An online bike shop will need to differentiate itself from competitors by offering competitive prices, a wide selection of products, and reliable customer service.

- ❖ **Supply chain and logistics:** Managing inventory and supply chain is crucial for an online bike shop. Ensuring a steady supply of products at competitive prices, along with efficient logistics and delivery services, can help the business stand out from competitors and provide a positive customer experience.

- ❖ **Economic environment:** The economic environment, including factors such as inflation and exchange rates, can impact the profitability of an online bike shop. The business will need to monitor economic trends and adjust pricing and operations accordingly to remain competitive.

- ● **Control :** The data will be saved to the (MONGODB) server which is safe. The data will be saved to the database only with official data. MONGODB can be used to create backups of important data, which can help prevent data loss in case of system failures or other unfore.

- ● **Efficiency:** The efficiency of a bike BD online shop can be evaluated based on several factors, such as the speed of the website, the accuracy of order fulfillment, and the overall customer experience. Here are some ways to improve the efficiency of a bike online shop:

  - ▪ **Website speed**: Optimizing the website speed can significantly improve the efficiency of the bike online shop. Customers are more likely to abandon a website that loads slowly, resulting in lost sales. Minimizing the size of images and using a content delivery network (CDN) can improve website speed.

  - ▪ **Order fulfillment accuracy:** Accurately fulfilling orders is important for customer satisfaction and repeat business.

Implementing quality control measures, such as checking orders for accuracy before shipping, can help reduce errors and improve efficiency.

- ▪ **Payment processing:** Streamlining the payment process can improve the efficiency of the bike online shop. Offering multiple payment options and using a secure payment gateway can make the checkout process faster and more efficient.

- ● **Services :** Customers can see details of various brands of bikes, their price ,offers etc. They can see the details of various bike accessories and order some of them online which can be transferred by the dealers if possible.Since it is a multi-brand company, various brands bikes are available in this shop and they can get all the details from this website

IV.   Software Feasibility Study Report :

V. Overview :

This project of ours named Bike BD online service. Mainly the platform will be used for browsing details about bikes, and allows people to take decision more wisely about their bikes .It also allows people buy various parts of bikes from this website.People can also give review according to their experience which may help other people to know more about each bikes pros and cons.In case of taking decision for buying bikes,upcoming product section may help customer to know which bikes will be available in future.

VI. Purpose :

Mainly the platform will be used for browsing details, and allows others to know more about bikes such as specifications,prices. It allows both local dealers and customers to one platform as a benefactor.By which the local dealers get the opportunity to offer better price on a bike which is also beneficial for customers

VII. Scopes :

The covered aspects have been highlighted in the purpose section. The

uncovered aspects are,

● **E-commerce platform***:* The main scope of the project could be to create a fully functional e-commerce website that allows customers to browse, compare, and purchase bikes and related accessories online. This would involve creating a user-friendly interface, integrating payment gateways, and implementing secure transaction protocols.

● **Email and Phone Customer service**: The project could also focus on creating a seamless customer service experience, including live chat support, email and phone support, and a comprehensive FAQ section. This would involve training customer service representatives, developing communication protocols, and implementing feedback mechanisms to improve customer satisfaction..

● **Marketing and advertising:** A major scope of the project could be to develop a strong marketing and advertising strategy that helps attract and retain customers. This would involve creating targeted advertising campaigns, leveraging social media and search engine optimization (SEO), and developing content marketing strategies such as blog posts and video tutorials

VIII. Requirements :

The required resources and technologies of our project are available which are backend framework Node.Js,MongoDB for database and for frontend HTML, CSS, JS will be used.All of these are open source technologies, so won't be a problem in case of availability. Along with this, our study also analyzes technical skills and capabilities of our technical team. Our team is experienced with the above mentioned frontend and backend technologies for the last 1.5 years.

IX. Proposed Alternative :

The purpose of an online shop project is to create an efficient and effective e-commerce website that meets the needs of both customers and businesses..

One of the main purposes Bike BD online shop project is to increase sales by providing customers with an easy-to-use platform to browse and purchase

products. By making the shopping experience more convenient and accessible, businesses can attract new customers and retain existing ones.

X. **Recommended Alternatives :**

Among the proposed alternatives, developing a mobile app is highly recommended because everyone uses a smartphone nowadays. So it will be easy to reach the end users.

● **Cost of recommended alternative :**

     ○ UX/UI team : 8K

     ○ Frontend developers : 10K

     ○ Backend developers : 20K

     ○ Project manager : 12K

     ○ Quality assurance engineer : 8K

     ○ Deployment and Other costs : 4K

● **Risks of recommended alternative :**

Some of the primary iteration risks are,

     ● Economic risks: Some of the dealers might not get interested in having a contact with this site for offering price.

     ● Budget risks: As the primary requirements are many, the estimated budget might not be enough to finish this project due to cost overruns and project scope expansion.

     ● Technical difficulties: The implementation of a new alternative can involve technical complexities, such as coding errors, compatibility issues, or server crashes. These technical difficulties can lead to website downtime, loss of sales, and a negative customer experience.

XI. Benefits :

a. Tangible benefits :

Allows members (both dealers and buyers)to create profiles and "connect" to each other in an online social network which may represent real-world relationships. Mainly the platform will be used for showing product details , and allows local dealers to send offer to customer about prices.

b. Intangible benefits :

Users don't have to rely on the physical searching process of prices . Also, they don't need to visit each shop to know their prices.In one place it is possible to know everything about each bikes,price,performance .

XII. Costs :

The minimum expense after calculation according to the accounts department is around 85K. This can vary after several iterations of the development cycle because of the change in requirements and customer feedback.

- ○ UX/UI team : 8K
- ○ Frontend developers : 10K
- ○ Backend developers : 20K
- ○ Project manager : 12K
- ○ Quality assurance engineer : 8K
- ○ Deployment and Other costs : 4K

XIII. Risks :

Some of the primary iteration risks are,

- **Technical risks:** Continuous changing requirements can cause technical

difficulty of the system. The product is a complex system and has difficult project modules integrations which can cause technical difficulties too while developing the system at the first few versions.

● **Cybersecurity threats:** As the online shop deals with sensitive customer data, it is vulnerable to cyber attacks, data breaches, and other security threats. Such threats could result in financial losses, reputation damage, and legal liabilities.

● **Economic risks:** Some of the companies might not get interested in having contents about their products.

● **Budget risks:** As the primary requirements are many, the estimated budget might not be enough to finish this project due to cost overruns and project scope expansion.

XIV. Timeline :

We hope that we can complete this project within 50 to 70 days. If the deadline is desirable rather than mandatory, it is preferable to deliver a properly functioning system 60 to 80 days late than to deliver an error-prone,unless system on time.