FEASIBILITY STUDY

Feasibility is defined as the practical extent to which a project can be performed successfully. To evaluate feasibility, a feasibility study is performed, which determines whether the solution considered to accomplish the requirements is practical and workable in the software. Information such as resource availability, cost estimation for software development, benefits of the software to the organization after it is developed and cost to be incurred on its maintenance are considered during the feasibility study.

The objective of the feasibility study is to establish the reasons for developing the software that is acceptable to users, adaptable to change and conformable to established standards. Various other objectives of feasibility study are listed below:

1. How would the organization (small business) cope if this system was not implemented?

> Limited online presence: Without DCEE, small businesses might struggle to establish or maintain an online presence, hindering their ability to reach a wider customer base.

> Inefficient operations: Manual processes for tasks like managing products, customers, and payments can be time-consuming and error-prone.

> Limited growth potential: Without the tools to effectively compete online, small businesses might struggle to reach their full growth potential.

2. What are the problems with current processes and how would a new system help alleviate these problems?

> Current: Many small businesses might rely on manual processes (spreadsheets, emails) for tasks like managing products, orders, and customer interactions. This is inefficient and prone to errors.

> DCEE's Solution: Offers a centralized platform for managing all these aspects, automating tasks and streamlining operations.

3. What direct contribution will the system make to the business objectives and requirements?

> Increased sales: Enhanced online presence and improved customer experience can lead to increased sales and revenue growth.

> Reduced costs: Streamlined processes and automation can save time and resources for small businesses.

> Improved customer satisfaction: Easier online shopping experience and better communication tools can lead to higher customer satisfaction.

> Competitive advantage: A strong online presence can help small businesses compete more effectively with larger companies.

4. Can information be transferred to and from other organizational systems?

The document doesn't explicitly mention data transfer capabilities. However, ideally, DCEE should be designed to integrate with other relevant systems, such as accounting software or inventory management tools, for seamless data exchange.

5. Does the system require technology that has not previously been used in the organisation?

While the specific technologies used (Bootstrap, Vue.js, Flask, MongoDB) might be new to some small businesses, they are widely used and considered user-friendly. DCEE should be designed with ease of use in mind to minimize the need for extensive technical knowledge.

6. What must be supported by the system and what need not be supported?

The system should support core functionalities for e-commerce, including:

Product management (adding, editing, deleting products)

Inventory management (tracking stock levels)

Customer management (orders, communication)

Payment processing (secure transactions)

Types of Feasibility:

Technical Feasibility

While the DCEE project's technology stack (Bootstrap, Vue.js, Flask, MongoDB) is well-established and scalable, its technical feasibility hinges on overcoming some hurdles. The modular design simplifies development, but integrating various features like online stores, payments, and chatbots requires skilled developers. Security is paramount, demanding robust measures to protect user data and transactions. Careful planning and code optimization will be crucial for the platform to handle future growth in users and data. Overall, DCEE's technical feasibility is promising, but success relies on addressing these development and security challenges.

Economic Feasibility

- Feasible aspects:

  - Large target market: The vast number of small businesses in India suggests a potentially large customer base for DCEE's services.

  - Subscription model potential: Offering tiered subscription plans with varying feature sets could cater to different business needs and generate recurring revenue.

- Challenges to address:

  - Cost control: Development, maintenance, and marketing expenses need careful management to ensure a viable cost structure.

  - Pricing strategy: Finding the right balance between subscription fees and transaction fees (if applicable) is crucial to attract and retain customers.

      o   Payment processing fees: Negotiating competitive fees with payment processors will be essential to maintain affordability for both DCEE and its users.

Overall, the economic feasibility of DCEE has promising aspects due to the large target market and potential for a subscription model. However, careful cost management, strategic pricing, and managing payment processing fees are crucial to ensure project profitability.

Operational Feasibility

- **Modular Design:** The platform's modular architecture allows existing teams to manage and maintain specific functionalities more efficiently. This simplifies internal processes and streamlines future upgrades.

- **User-Centric Approach:** Features like chatbots and analytics are designed to enhance user experience. Chatbots can answer basic questions and guide users, while analytics can provide valuable insights to improve platform features and functionalities. This reduces the burden on support staff.

- **Scalable Technology Stack:** The chosen technologies (Bootstrap, Vue.js, Flask, MongoDB) are known for their scalability. This ensures the platform can accommodate a growing user base and increasing data volume without significant operational challenges.