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| **Feasibility Report Submission** | | |
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| **Unit:** 13 Computing Research Project | | |
| **Date: 04th Sep 2023** | | |
| **PROPOSED TITLE: Retail Revitalization: Improving Customer Experience For Jumpstart in the Post-Covid Era** | | |
| Section One: Explain the feasibility study and type of feasibility study | | |
| **Feasibility Study:**  The feasibility study is an essential step in project management. Feasibility studies examine the project's viability by analyzing its technical, financial, organizational, and environmental aspects. The study provides stakeholders with crucial information to decide whether to proceed with the project or explore alternative options. It helps avoid potential pitfalls by identifying potential issues early in the project lifecycle. ( Kerzner, 2017).  Feasibility studies provide a structured approach to assessing project viability. Studies consider technical, economic, legal, operational, and scheduling aspects. By identifying potential obstacles and risks early on, feasibility studies enable project teams to refine project plans and secure necessary resources, increasing the likelihood of project success. (Harris, 2019).  Studies on feasibility now consider broader consequences like social, environmental, and ethical factors in addition to financial ones. Stresses integrating stakeholder participation and risk assessment into modern feasibility studies to produce a thorough knowledge of project viability in a complex, linked world. (Cunningham, 2019)  **Types of Feasibility Study:**   1. **Technical Feasibility**   Technical feasibility assesses whether a project is achievable from a technical standpoint. It examines whether the required technology, resources, skills, and infrastructure are available to complete the project. (Kerzner, 2017).  This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team can convert the ideas into working systems. Technical feasibility also involves the evaluation of the hardware, software, and other technical requirements of the proposed approach.   1. **Operational Feasibility**   Operational feasibility assessment is used to measure whether the system to be developed can be operated later in the organization (Jogianto, 2008).  This assessment involves undertaking a study to analyze and determine whether—and how well—the organization’s needs can be met by completing the project. Operational feasibility studies also examine how a project plan satisfies the requirements identified in the requirements analysis phase of system development.   1. **Economic Feasibility**   The most dominant aspect of the other feasibility aspects is economic feasibility. Undeniably, developing motivation information systems in companies or organizations is a profit motive. Thus, the profit and loss aspect becomes a consideration key in system development. Economic feasibility relates to investment returns or how long investment costs can return. (Al Fatta, 2007).  This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic benefits to the organization the proposed project will provide.   1. **Schedule Feasibility**   This assessment is the most important for project success. A project will only succeed if completed on time. In scheduling feasibility, an organization estimates how much time the project will take to complete.   1. **Legal Feasibility**   This evaluation looks at potential legal infractions of the planned project, including zoning rules, data protection laws, and social media laws. Suppose a company wishes to develop a new office building in a specific area. According to a feasibility assessment, the organization's preferred location may not be permitted for that operation. Realizing their project was unworkable from the start, that company has just saved a lot of time and effort. | | |
| **Section Two: Feasibility Study Checklist** | | |
| **Technical Considerations:**   1. Hardware, Software, and Network Considerations:   a) Evaluate Jumpstart's existing hardware, such as servers, storage, and computing power, to determine if they meet the project's requirements. If upgrades are needed, discuss the specifications and procurement process.  b) Examine Jumpstart's software stack, including operating systems and CMS (WordPress), to ensure compatibility with the project's technology stack. Identify any required software licenses or additional tools.  c) Assess Jumpstart's network infrastructure for its capacity to handle increased data traffic and customer interactions. Consider potential network upgrades or optimizations to support the project's needs.   1. Familiarity with Application and Technology:   a) Verify that the team at Aceadora Tech possesses the necessary expertise in technologies like WooCommerce, Elementor, Yoast SEO, Formidable, Chaty, and Tidio required for building the E-commerce website.  b) Collaborate with Jumpstart to gauge their familiarity with the selected technologies. Offer training or documentation if needed to ensure a shared understanding.   1. Project Size:   a) Analyze the scale and complexity of the project to determine the required team size, project duration, and resource allocation. Ensure Aceadora Tech can handle the project's scope effectively.  b) Communicate with Jumpstart about the project's size and resource demands, emphasizing the importance of adequate resources to achieve project success. Discuss phased approaches if necessary to manage complexity.  **Market Survey:**   1. Jumpstart Satisfaction with Current System:   a) Conduct surveys to assess customer satisfaction with Jumpstart's current inventory management system, focusing on pain points and areas for improvement.   1. Product Availability and Stockouts:   a) Gather data on the frequency of product unavailability or stockouts experienced by Jumpstart customers, indicating potential demand-supply gaps.   1. Competitor Impact:   a) Explore whether customers opt for competitors due to product unavailability at Jumpstart, shedding light on the competitive landscape's influence.   1. Importance of Seamless Customer Experience:   a) How much emphasis Jumpstart places on providing a positive customer experience through all sales channels, including online and in-store.   1. Satisfaction with Return and Exchange Policy:   a) Evaluate customer satisfaction with Jumpstart's current return and exchange policy for out-of-stock products, which can impact the overall customer experience.   1. The Importance of Real-time Inventory Information:   a) Assess the significance of providing real-time inventory information to customers, including availability and estimated restock dates.   1. Identification of Issues:   a) Identify specific challenges or issues that customers have encountered with Jumpstart's Customer Satisfaction, which may have negatively affected their experience.  **Operational Feasibility Study:**   1. Assessing Current Processes and Integration Potential:   a) Review Jumpstart's existing inventory management processes to identify areas where the new solution can integrate seamlessly or where process adjustments are necessary.   1. Evaluating Human Resources:   a) Ensure that Jumpstart has sufficient employees with the required skills to operate the new inventory system. Plan for training programs if needed to upskill the team.   1. Analyzing Technical Resource Availability:   a) Examine Jumpstart's current IT infrastructure, including computers, software, and internet connectivity, to determine if additional technology resources are required for the new system.   1. Ensuring Data and Information Readiness:   a) Verify the quality and completeness of Jumpstart's data and information. Recommend data improvements if necessary to support the new system's requirements.   1. Addressing Legal and Regulatory Compliance:   a) Conduct a thorough analysis of relevant laws and regulations to ensure the new inventory system complies with all legal and regulatory requirements. Develop strategies for compliance.   1. Financial Considerations:    1. Estimate the project's cost, considering expenses for hardware, software, training, and implementation. Ensure the budget aligns with Jumpstart's financial capabilities to prevent cost overruns. | | |
| **Section Three: Steps to conduct a feasibility study** | | |
| **Cost Benefit Analysis**   * **Cost analysis**  |  |  |  |  |  | | --- | --- | --- | --- | --- | | List of costs needed | Description of activity | Total cost in the first year | Second Year | Third Year | | Requirement gathering | Conducting requirement-gathering sessions with stakeholders | $730 | - | - | | Hardware | Purchase the necessary hardware for the software system | $9200 | - | - | | Software | For operating this system | $1820 | $1000 | $1000 | | Hosting | Setting up the application's hosting infrastructure with Niagahoster | $450 | $450 | $450 | | Maintenance | Ongoing support and maintenance for software JumpStart | $650 | $650 | $650 | | Design Implementation | Designing and implementing the user interface and system functionalities for JumpStart | $1000 | - | - | | Human resource | Hire and manage the development team and other personnel as required | $5250 | $5250 | $5250 | | Marginal/urgent cost | Costs that may be incurred during the project that are unexpectedly high or urgent | $2000 | $2000 | $2000 | | Total cost | The sum of all the costs mentioned above | $21100 | $3,150 | $3,150 |  * **Benefit analysis**  |  |  |  | | --- | --- | --- | | Benefit gotten |  | Const / Year | | Direct benefit | Yearly Increase in Sales: $2110 (10% of $21,100), Now is $24220 | $24220 | | Indirect benefit | Overall performance on the website is $500 | $550 |  * **Return in investment**   ROI = 14.78%  **Hardware, Software, and Network requirements**   1. Hardware Requirements  |  |  |  |  | | --- | --- | --- | --- | | **No** | **Hardware** | | | | **Type** | **Server** | **Client** | | 1 | Processor | Intel Xeon Silver 4210 2.2GHz Turbo 3.2GHz | Intel Pentium G4400s | | 2 | Memory | 32 GB | 4 GB | | 3 | Hard Drive | 4 TB | 160GB | | 4 | SSD | 2TB NVMe Gen. 4 | Sata | | 5 | Network | Gigabit Network | Gigabit Network | | 6 | Monitor | Asus TUF VG328H1B 31.5" | Monitor 24” | | 7 | PSU | Seasonic Prime Titanium TX-1000 - 1000W 80+ Titanium Certified | Standard PSU | | 8 | Keyboard & Mouse | USB Mouse Keyboard | USB Mouse Keyboard |  1. Software Requirements  |  |  |  | | --- | --- | --- | | **No** | **Software** | **Functionality** | | 1 | Windows 10 / Windows 11 | Operating System | | 2 | CMS WordPress | Web Creation | | 3 | Google Chrome, Mozilla Firefox, Microsoft Edge | Web Browser |        1. Network Requirements  |  |  |  | | --- | --- | --- | | **No** | **Network Device** | **Functionality** | | 1 | Switch | Cable connecting network from workstation | | 2 | UTP Cable | Connecting Medium | | 3 | RJ 45 Connector | Cable connecting network with LAN Card |  1. Contractors  |  |  |  | | --- | --- | --- | | **No** | **Schedule** | **Contractor** | | 1 | August 25, 2023 - September 26, 2023 | JumpStart |  1. Skills & Human Resource  |  |  |  | | --- | --- | --- | | **No** | **Requirements** | **Skills** | | 1 | Web Developer | CMS WordPress, Elementor, WooCommerce, Database, DBMS. | | | |
| **Comments and agreement from tutor:** | | |
| I confirm that the project is not work that has been or will be submitted for another qualification and is appropriate**.** | | |
| **Agreed:** | **Name:** | **Date: 04th Sep 2023** |
| **Comments and agreement from the project proposal checker (if applicable):** | | |
| I confirm that the project is appropriate. | | |
| **Agreed:** | **Name:** | **Date: 04th Sep 2023** |