

BUSINESS CASE
D7 AUTO SERVICE CENTER

D7 AUTO SERVICE CENTER
C.M. DE LOS REYES AVENUE, MANGGAHAN,
GENERAL TRIAS, 4107 CAVITE, PHILIPPINES

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1. EXECUTIVE SUMMARY

The D7 Auto Service Center, an established participant in the automotive business, is having difficulties using the existing advertising strategies to promote its services and build an online presence. Furthermore, the lack of a centralized system makes reservation management difficult and frustrating, leading to inconsistent booking practices. A web-app project is suggested as a solution to these problems in order to centralize reservations and bookings in a digital system. A reservation system, customer profiles, service galleries, reviews/feedback area, social media links, and other features will all be included in the online application. The project will adhere to the Agile development technique, considering suggestions from D7's management and clients at every stage. Results including better reservation management, higher visibility, and improved customer service are anticipated. The solution can be supported by the fact that it will allow D7 to serve consumers around the clock, organize bookings, and provide a comfortable communication platform. The project overview gives information on the project description, goals, objectives, and milestones, while the problem statement underlines the difficulties D7 is now facing.

In conclusion, the D7 Auto Service Center web-app project is suggested as a thorough solution to deal with the company's issues with advertising, online presence, and reservation management, with projected favorable consequences and alignment with SDG no. 9 on Innovation.

1.1. Issue

The D7 Auto Service Center is a well-established enterprise in the automobile industry, having served customers in Cavite, Philippines for over 16 years. Despite its long-standing presence in the market, D7 has encountered challenges in effectively promoting its services and establishing an online presence using its current advertising methods. Furthermore, the company faces difficulties in managing reservations due to the absence of a centralized system, resulting in inconsistencies and errors in recordkeeping. As a consequence, retrieving information when necessary has become inconvenient.

1.2. Anticipated Outcomes

After the deployment of the Web-app developed for D7 Auto Service Center as an additional platform, the D7 Auto Service Center will now have an additional platform to aid in advertising their services, which also gives them increased visibility, given as an advantage amongst their competitors and to have a centralized system. Furthermore,

this platform will allow a more centralized and available 24/7 reservation system and management of the reservation system, while it also extends D7's support to their customers and potential clients.

1.3. Recommendation

The proposed solution recommended by the project team is to develop a comprehensive Web-App that centralizes all reservations and bookings into a digital system. This platform will facilitate convenient communication between customers and technical specialists, extending support to both existing customers and potential clients. It is anticipated that the deployment of the D7 Web-App will result in a 50% increase in customer reach within the first three months, leveraging the platform's features and functionalities.

1.4. Justification

Integrating the new Web-App project with the existing system of D7 Auto Service Center will enable the business to expand its customer base and improve service delivery. This is in contrast to the current manual and labor-intensive system. The Web-App project will centralize and automate the booking and reservation process, allowing the business to serve customers round-the-clock while providing a unified platform for communication between customers and technical specialists. This will eliminate unnecessary complexities in communication, unlike the previous system with multiple contact channels. The addition of the Web-App platform will not replace the existing system, but rather enhance it by extending its capabilities and providing a more efficient and convenient customer experience.

2. BUSINESS CASE ANALYSIS TEAM

Role	Descriptions	Name
Project Manager	In charge of overseeing the team and ensuring the project is planned, executed, and tasks are completed successfully & on time.	Andre Viernes

Team Leader	Guides and supports team members to successfully complete the project within the given constraints.	Dan Michael Alfaras
Team Developer	Works closely with the team leader. In charge of designing, coding, testing, and implementing the project that the team is working on.	Alyssa Garcia
Team Developer Support	Works closely with the team's developer. Assists in designing, coding, testing, and implementing the project that the team is working on.	John Zenon Coquia
Team Secretary/Stakeholder	In charge of coordinating communication and documentation, organizing meetings, managing schedules, and ensuring that participants and roles are clearly defined for the business case and throughout the life of the project.	Francesca Erin Camino
Team Secretary Support	Works closely with the team's secretary, providing administrative support to the team and assisting in the coordination of team activities.	Darrell Royce Lazala

3. PROBLEM DEFINITION

3.1. Problem Statement

The D7 Auto Service Center is facing multiple challenges in their business operations. Firstly, their current advertising and online presence on Facebook, their sole platform for promotions, is struggling due to limitations in customer reach caused by the platform's ever-changing algorithm. This hinders their ability to effectively promote their services and engage with potential customers, especially in a highly competitive online market.

Secondly, D7 Auto Service Center is facing difficulties in managing and keeping track of customer reservations. Customers use various channels such as Gmail, mobile text, Facebook Messenger, and walk-ins to make reservations, resulting in a lack of centralized system for recording and managing bookings. This leads to inconsistencies, errors, and

time-consuming manual collation of data from different channels, which affects their customer service and revenue potential.

Lastly, the COVID-19 pandemic has intensified the online competition for D7 Auto Service Center, making it even more challenging to attract and retain customers. They need innovative solutions to improve their online presence, customer engagement, and reservation management to stay competitive in the market and enhance their overall business performance.

These challenges highlight the need for a comprehensive solution that can address D7 Auto Service Center's advertising and online presence issues, streamline their reservation management process, and provide additional features to enhance customer engagement.

3.2. Organizational Impact

The proposed project at D7 Auto Service Center will make significant improvements to organizational processes, tools, hardware, and software. A centralized reservation and management system will be implemented to eliminate difficulties and errors in recordkeeping caused by the current system. This will result in improved accuracy and efficiency in managing reservation logs and record keeping, reducing manual collation efforts, and enhancing overall customer service. Additionally, the project will provide an extended communication platform for customers and specialists through the web-app, allowing for seamless and efficient communication for inquiries, clarifications, and updates. This will lead to increased customer engagement and satisfaction, as well as improved communication within the organization for more effective service delivery. The project may also create new roles or modify existing ones to align with the new system, such as assigning a designated team or individual to manage and oversee reservations. Overall, the proposed project will bring about positive changes in reservation management and customer interactions within the organization.

3.3. Technology Migration

D7 Auto Service Center will have an implemented customized software solution designed for their business, involving configuration of the software to meet their unique needs and close collaboration with the project team for smooth deployment and integration. Future data collected upon usage of the web-app including customer profiles, service history, inventory records, and financial transactions, will be uploaded to the new

system, validated for accuracy and integrity, and converted into compatible formats. Technical requirements and potential obstacles will be addressed by the project team, ensuring a smooth and seamless data processing, resulting in improved customer service, streamlined business processes, and enhanced decision-making capabilities through effective access and leverage of historical customer data.

4. PROJECT OVERVIEW

The D7 Auto Service Center Web-app project overview will provide more details on how the project will be addressed. The overview is composed of a project description, goals, objectives, project performance criteria, project assumptions, constraints, and major milestones. As the project is approved, each of the sections will be explained further to have deeper understanding toward the project plan.

4.1. Project Description

The project will focus on developing a web-app platform using modern web development technologies for D7 Auto Service Center. This platform will serve as an additional online presence, alongside their existing Facebook page, and will include features such as a reservation system, customer profiles, service gallery, reviews/feedback section, social media links, 360° virtual tour, and service listing. The project team will follow an Agile development methodology to ensure continuous improvement and adaptability, incorporating feedback from D7's management and customers throughout the development process. Thorough testing will be conducted before deployment, and support will be provided during the initial phase. The purpose of the project is to expand D7's online presence, improve reservation management, and enhance customer engagement, aligning with SDG (Sustainable Development Goals) no. 9 on Innovation. The web-app platform will be a valuable marketing and management tool for D7, providing added convenience and value for their customers.

4.2. Goals and Objectives

Below are the specific goals and objectives that the project aims to achieve:

- To increase customer reach by up to 50% within the first three months of deployment of the web-app by leveraging an additional online platform.
- To develop a centralized system for D7 to manage the bookings of their customers and allow their customers to request reservations 24/7.
- To extend the Auto Service Center's support for their customers, as well as potential customers, through an environment where both customers and D7 specialists can converse.

4.3. Project Performance

The success of the project will be measured using key performance indicators (KPIs) that will gauge the project's performance and outcomes in relation to key resources, processes, or services. The following KPIs will be used to assess the project's performance:

- **Timeline adherence:** The project team will monitor and track the project's progress in meeting its timeline milestones and deadlines. This will ensure that the project is progressing as planned and will help identify any potential delays or issues that may arise during the project execution.
- **Budget management:** The project team will closely monitor the project's budget to ensure that it remains within the approved budgetary limits. Any variances will be identified and addressed promptly to prevent cost overruns and maintain financial accountability.
- **Quality control:** Quality control measures will be implemented throughout the project to ensure that deliverables meet the predefined quality standards. This may include regular reviews, inspections, and testing of project deliverables to ensure they are of the expected quality.
- **Stakeholder satisfaction:** The project team will assess stakeholder satisfaction through feedback mechanisms, surveys, and regular communication channels. This will provide insights into stakeholders' perceptions of the project's progress and outcomes and allow for any necessary adjustments to meet their expectations.

- **Resource utilization:** The project team will monitor the utilization of key resources, such as personnel, equipment, and materials, to ensure that they are efficiently and effectively utilized. This will help identify any inefficiencies or resource constraints and take appropriate actions to optimize resource utilization.
- **Process efficiency:** The project team will assess the efficiency of project management processes and methodologies employed throughout the project. This may include measuring the effectiveness of project planning, risk management, communication, and decision-making processes, among others. Any identified gaps or bottlenecks will be addressed to improve overall process efficiency.
- **Project outcomes:** The project team will evaluate the project's outcomes against the predefined project objectives and deliverables. This may include measuring the completion of project deliverables, achievement of project milestones, and realization of expected benefits and outcomes.

Regular monitoring, tracking, and reporting of these KPIs will provide insights into the project's performance and outcomes and enable the project team to take timely corrective actions, if needed, to ensure project success.

4.4. Project Assumptions

The following list includes the project's preliminary assumptions:

1. The development team has the technical knowledge and proficiency required to successfully complete the project in accordance with the specifications.
2. The client has provided clear and concise project requirements, and the development team has a thorough understanding of these requirements.
3. The project budget and timeline are reasonable and realistic considering the scope of work involved.
4. The hardware and software infrastructure required for the development and deployment of the web-app is available and is capable of meeting the project's needs.
5. The client is committed to providing timely feedback and approvals during the development process to ensure smooth progress and timely decision-making.

6. The web-app will undergo comprehensive testing before deployment to ensure that it meets all functional and non-functional requirements and is of high quality.
7. The development team will use an Agile project management approach to ensure effective project execution by providing flexibility and adaptability to changing requirements and conditions.
8. Any project-related legal or compliance obligations are acknowledged, and they will be followed throughout the project's duration.
9. The project team has access to the necessary resources, tools, and technology required for the successful completion of the project.

Throughout the course of the project, these assumptions will be reviewed and updated often to maintain their accuracy and relevance and to proactively address any changes or inconsistencies that might have an effect on the project's success.

4.5. Project Constraints

Below are the preliminary constraints of the project:

- **Communication Constraints:** The client and team's diverse locations and schedules make it difficult to establish a consistent communication plan, resulting in decision-making delays and misunderstandings that could lead to rework and other problems.
- **Scope Constraints:** The client's requirements being too broad or vague make it challenging to determine the project scope, resulting in scope creep, delays, or conflicts with the project team.

4.6. Major Project Milestones

Below are the major milestones of the project:

1. **Project Planning:** In this milestone, the project team meets the client and defines project goals, scope, limitation, requirements, timeline, risks, and assumptions. This includes

identifying the client's needs and expectations, determining the project's objectives and deliverables, and identifying potential challenges that may arise.

2. **Analysis and Design:** the project team analyzes the project requirements and designs a solution that meets the client's needs, which may involve creating use cases, wireframes, prototypes, UML diagrams, and system design documents.
3. **Development:** In this milestone, the project team started developing the web-app with the chosen programming languages and tools identified during the previous Analysis and Design milestone.
4. **Testing:** In this milestone, the project team conducts various types of testing to ensure the web-app works as expected. This includes system testing to test the system, acceptance testing to ensure the system meets the client's requirements, etc. The team also identifies and fixes any issues discovered during testing.
5. **Deployment:** In this milestone, the project team makes the solution accessible to end-users by deploying it to the production environment and configuring the necessary infrastructure, including servers, databases, and networking.

5. STRATEGIC ALIGNMENT

By aligning the D7 Auto Service Center project with the overall strategic goals and objectives of the company, we can ensure that the project contributes to the long-term success of the organization and helps achieve a competitive advantage in the automotive service industry.

D7 Auto Service Center aims to become a trusted and leading provider of automotive repair and maintenance services in the local market.

By introducing cutting-edge technology and effective procedures that will accelerate the operations of the service center, increase customer service, and raise overall service quality, the project is in line with this objective. The project will assist D7 Auto Service Center build a reputation for reliability, professionalism, and high-quality service by streamlining the service delivery process and assuring prompt and accurate contact with clients, which will help the business achieve long-term success.

Furthermore, D7 Auto Service Center aims to continually innovate and adapt to the evolving needs of customers and the automotive industry.

Advanced diagnostic tools, effective appointment scheduling, and digital record-keeping systems are all implemented as part of the project to boost the capabilities and productivity of the service center. The project will help D7 Auto Service Center remain competitive in the fast-paced automotive service sector and meet changing client expectations by keeping up with the most recent advancements in automotive technology and service trends.

In addition, D7 Auto Service Center is committed to achieving high customer satisfaction and loyalty through exceptional service and support.

By introducing effective workflow procedures, cutting down on service wait times, and enhancing customer communication on service status and price estimates, the project is in line with this objective. The project will boost customer satisfaction and loyalty by providing exceptional customer service and fostering long-lasting connections with customers. This will lead to repeat business and helpful recommendations from others.

Overall, the D7 Auto Service Center project's strategic alignment with the organization's objectives of becoming a reputable and innovative provider, ongoing innovation, and customer satisfaction shows how the project supports the company's long-term success and justifies the investment in the project.

6. COST BENEFIT ANALYSIS

The Cost Benefit Analysis of the project was determined through four parts those being:

Costs Determined:

The only cost (as of PROJMAN) determined for this project will be that of its deployment in AWS. It is calculated to be at a total of 3\$ per month, and the calculation is as follows:

Estimated at 3\$ x 12 months = 36\$
36\$ converted to Philippine Peso = 1,981 Pesos.

1,981 Pesos will be the cost of the project's launch, annually.

Calculated/Estimated Benefits:

Under the researched information for the objectives, it is stated that the increase in sales after deploying the additional platform (web-app) can rise to 50%. Within the first three months of deployment. Due to confidentiality with regards to the current earnings of D7 Auto Service Center, it is hereby backed up instead with the information provided to the Elite Four, in which as per the interview with the client, one service rendered, is enough to pay for the annual hosting of the web-app.

Alternatives:

The alternative idea for the CBA of this project, is to have it deployed in a web hosting service provider with much wider time of free hosting, and more benefits; but the Elite Four is yet to find a better alternative hosting service provider than that of AWS.

Report and Plan Action:

Once settled and approved of, with regards to the costing that will be rendered for the web-hosting services, the Elite Four with immediacy will upload the project to AWS for it to be launched and announced for the business accordingly. Reports and receipts will also be delivered to D7 Auto Service Center so it may be liquidated correspondingly.

7. ALTERNATIVES ANALYSIS

The alternatives analysis was focused on providing an alternative solution for the webhosting of the project, and it is determined to have Microsoft Azure as a host alternative in case of the following:

- The web-application is not suitable to be implemented in the AWS platform.
- The web-application has difficulties, and many concerns when to be or when hosted via AWS.
- The client and/or the stakeholders of the project decide to proceed with the alternative as decided.

8. APPROVALS

The project is undergoing the approval of both the client, the stakeholders, the team Elite Four, the subject adviser, and the project advisers. It will be in great consideration and approval before the project proceeds to its deployment, ensuring that it is:

1. Fully functional
2. Adherent to the features listed/implemented for the web-app
3. Has no found bugs or errors (before the release date)
4. Ready with regards to the cost of the webhosting

