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**NATIONAL UNIVERSITY FAIRVIEW**

**College of Engineering and Technology  
Bachelor of Science in Information Technology**

**with Specialization in Mobile and Internet Technology**

**Smart Fare: Automating modern public utility jeepney (MPUJ) Payment with an Innovative Fare Collection System**

Project Documentation Submitted to the Faculty of

Bachelor of Science in Information Technology

National University Fairview

In Partial Fulfillment of the Requirements for

PROJMAN – PROJECT MANAGEMENT

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2023

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## 6.7. ￼Communication Management Plan

### 6.7.1. ￼Introduction

This communication management plan aims to establish a robust structure for effective communication within the "Smart fare" project. It serves as a roadmap, outlining strategies, techniques, and resources to ensure efficient communication among stakeholders, team members, and other parties. Clear and consistent communication is crucial for preventing misunderstandings, addressing concerns, and maintaining engagement. Without a well-defined plan, the project risks communication breakdowns, delays, conflicts, and impacting outcomes. The plan aims to foster collaboration, encourage active involvement, and promote transparency among all participants. It addresses aspects of communication, such as stakeholder communication preferences, appropriate communication technologies, resource considerations, and compliance with legal and regulatory requirements. The plan will help establish clear communication channels, define roles and responsibilities, and set expectations for all parties involved. It will also outline a communication flow chart, escalation processes, and a project team directory, providing necessary structures for smooth information exchange, issue resolution, and collaboration. It will also include a glossary of communication terminology to ensure a collective understanding of key concepts and terms used throughout the project.

### 6.7.2. ￼Communications Management Approach

The Communications Management Approach for the "Smart fare" project is designed to promote effective and timely communication among project team members, stakeholders, and other involved parties. This approach encompasses several key components:

* Communication Objectives: Clearly defining the project's communication goals, such as keeping stakeholders informed, maintaining engagement, and addressing concerns promptly to resolve potential issues.
* Stakeholder Identification and Analysis: Identifying and analyzing the communication needs, preferences, and expectations of all stakeholders. Classifying stakeholders based on their influence, interest, and role in the project, and tailoring communications to engage each stakeholder group effectively.
* Communication Channels and Tools: Selecting appropriate communication channels and tools for several types of project communication. This may include team meetings, email updates, project management tools, collaboration platforms, and social media. Choosing outlets that promote stakeholder involvement and facilitate efficient information flow.
* Two-Way Communication: Encouraging feedback, questions, and suggestions from stakeholders. Creating a supportive environment where stakeholders feel comfortable expressing their thoughts and providing input. Responsively addressing inquiries and concerns to foster ongoing participation and ensure successful implementation of the Smart fare IoT device.
* Communication Documentation: Maintaining comprehensive documentation of important communication information, such as meeting minutes, notable conversations, and reports. This documentation serves as a reference and ensures critical details are captured for future reference and accountability.
* Communication Review and Evaluation: Regularly reviewing and evaluating the effectiveness of project communication. Seeking input from stakeholders to identify areas for improvement and address any gaps or issues. Adapting the communication strategy based on lessons learned and evolving project dynamics.
* Conflict Resolution: Establishing a strategy for addressing communication-related problems or difficulties. Defining steps to be taken in the event of conflicts, including engaging the project manager, stakeholders, the project sponsor, and other relevant parties. Promptly and transparently resolving issues to maintain project progress and stakeholder satisfaction.

By implementing this Communications Management Approach, the "Smart fare" project aims to foster efficient and collaborative communication, ensuring that all stakeholders are well-informed, engaged, and actively involved throughout the project lifecycle.

### 6.7.3. ￼Communications Management Constraints

When managing communications in the "Smart fare" project, various constraints can affect the effectiveness of communication. These constraints relate to budgets, resources, availability, and technical limitations. It is important to acknowledge and address these constraints to devise strategies that enable effective communication despite the challenges. The key communication constraints in the project include:

* Budget Constraints: Limited financial resources can restrict the allocation of funds towards communication tools, technologies, and resources. This may impact the availability of advanced communication platforms and limit the frequency and scale of communication activities.
* Resource Limitations: Insufficient staffing or a lack of human resources can hinder effective communication. With a shortage of dedicated communication personnel or team members, managing and facilitating communication processes within the project becomes challenging. It is essential to carefully manage the availability and expertise of communication resources.
* Stakeholder Availability: The availability of stakeholders, including project team members, clients, and external partners, can pose challenges in scheduling meetings and obtaining timely feedback. Conflicting schedules, geographical distances, and other commitments can make it difficult to bring stakeholders together for important discussions, resulting in delays and ineffective communication.
* Technical Restrictions: Technical limitations, such as network issues, compatibility problems, or software constraints, can disrupt the smooth flow of communication. It is important to consider the technological capabilities and restrictions of stakeholders when selecting communication tools and platforms. Exploring alternative communication methods may be necessary to overcome technical challenges and ensure effective information exchange.
* Organizational Policies and Procedures: Internal policies, procedures, and approval processes within the organization can impact the flow of communication and decision-making. Compliance with organizational guidelines may require additional steps and approvals, leading to delays in communication and decision-making processes.

Understanding communication constraints is crucial for developing strategies to reduce their impact. This may involve finding cost-effective solutions, optimizing resource utilization, exploring alternative channels, considering stakeholder availability, addressing technical challenges, and aligning with organizational processes to ensure efficient communication within project limitations.

### 6.7.4. ￼Stakeholder Communication Requirements

When addressing stakeholder communication requirements in the "Smart fare" project, it is crucial to cater to the specific needs of different stakeholders to achieve effective communication. The following key stakeholder communication requirements should be considered:

* Availability: Ensuring stakeholders are available and accessible for communication is essential. This involves scheduling meetings and discussions at mutually convenient times, considering different time zones and availability constraints. Flexibility should be maintained to accommodate stakeholders' schedules and preferences.
* NDA/Content: Certain stakeholders, particularly those involved in sensitive aspects of the project, may require the signing of Non-Disclosure Agreements (NDAs) or confidentiality agreements. Clear communication regarding the protection of sensitive information and adherence to content restrictions is necessary to establish and maintain trust and confidentiality throughout the project.
* Updates: Regular progress updates are important for stakeholders to stay informed about the project's status, accomplishments, and challenges. These updates should include key milestones, deliverables, and any deviations from the original plan. Providing updates promptly enables stakeholders to make informed decisions and maintain alignment with project objectives.
* Clarification/Effectiveness: Clear and effective communication is crucial in addressing stakeholder inquiries, concerns, and feedback. Stakeholders should be able to seek clarification and receive prompt responses to their queries. Providing comprehensive and understandable explanations of project details and decisions ensures that stakeholders are well-informed and can actively contribute to the project's success.
* Cost Change Report: Stakeholders, especially project sponsors and clients, need to be informed about any changes in project costs. This involves communicating the reasons for cost changes, conducting impact analyses, and suggesting potential mitigation strategies. Transparency in cost reporting helps stakeholders make informed financial decisions and maintain project viability.

By fulfilling these stakeholder communication requirements, the "Smart fare" project can establish effective and collaborative communication channels with all relevant stakeholders. It ensures that stakeholders are adequately informed, engaged, and able to provide valuable input, leading to successful project outcomes.

### 6.7.5. ￼Roles

To ensure effective communication within the "Smart Fare" project, it is essential to establish specific roles and responsibilities for managing communication. The following describes the roles of key project stakeholders:

Project Sponsor: The project sponsor plays a crucial role in providing overall guidance and support to the project. Their communication management responsibilities include:

* Defining communication goals and expectations for the project.
* Allocating resources and providing support to establish effective communication channels.
* Approving communication strategies and plans.
* Reviewing and providing feedback on project communication materials.
* Resolving escalated communication issues or conflicts.

NOVADECI Representatives: As the client, NOVADECI representatives have a key role in communication management. Their responsibilities mb ay include:

* Actively participating in communication efforts and providing relevant information when needed.
* Expressing their communication needs and addressing any concerns they may have.
* Providing feedback to ensure that communication tools and channels meet their requirements.
* Collaborating with the project team to resolve communication-related issues.
* Reviewing and approving project communication deliverables.

Project Manager: The project manager is responsible for overseeing communication management throughout the project lifecycle. Their key responsibilities include:

* Developing a comprehensive communication management plan.
* Establishing and maintaining effective communication channels.
* Facilitating communication between project team members and stakeholders.
* Ensuring accurate and timely transmission of project information.
* Managing and resolving communication challenges or conflicts.
* Monitoring and evaluating the effectiveness of communication strategies.

Project Team Members: Each member of the project team contributes to supporting communication management. Their responsibilities may include:

* Actively participating in communication activities and providing relevant updates and progress reports.
* Collaborating with stakeholders to gather information and address their communication needs.
* Ensuring clear and concise communication within the team and with external parties.
* Following the communication management plan and adhering to established communication protocols.
* Providing input and feedback on communication strategies and materials.

By clearly defining these roles and responsibilities, the "Smart Fare" project can establish a structured approach to communication management. This ensures effective coordination, collaboration, and information exchange among stakeholders.

### 6.7.6. ￼Project Team Directory

The Project Team Directory for the "Smart Fare" project acts as a centralized roster containing the names and contact information of all individuals engaged in the project. This directory serves the purpose of enhancing communication effectiveness among team members and stakeholders, fostering streamlined collaboration, feedback exchange, and coordination throughout the project's duration. The directory encompasses the following essential roles and associated contact details:

Table Project Team Directory

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Name | Title | Email |
| Key Stakeholder/ Project Sponsor | Mr. Mark Anthony Quiñon | NOVADECI Transportation service Manager | - |
| Project Management Instructor | Mr. Jose Eugenio L. Quesada | Project Management Instructor | [jlquesada@apc.edu.ph](mailto:jlquesada@apc.edu.ph) |
| Technical Writing Adviser | Ms. Nicole B. Ribano | EXCOMP2 Instructor | [nbribano@nu-fairview.edu.ph](mailto:nbribano@nu-fairview.edu.ph) |
| Project Manager | Ronch Amos T. Chua | Student | [chuart@students.nu-fairview.edu.ph](mailto:chuart@students.nu-fairview.edu.ph) |
| NOVADECI Representatives | Rizalina A. Balunsong | NOVADECI Cooperative Board of Directors Secretary |  |
| System Developers/Engineers | Crisha Maye O. Baltazar | Student | [baltazarco@students.nu-fairview.edu.ph](mailto:baltazarco@students.nu-fairview.edu.ph) |
| System Developers/Engineers | April Juliana A. Balunsong | Student | [balunsongaa@students.nu-fairview.edu.ph](mailto:balunsongaa@students.nu-fairview.edu.ph) |
| Programmer | Dominic T. Bacaling | Student | [bacalingdt@students.nu-fairview.edu.ph](mailto:bacalingdt@students.nu-fairview.edu.ph) |

The presence of a Project Team Directory guarantees convenient access to all project stakeholders, facilitating communication channels that are open and transparent. This directory acts as a valuable tool for team members to engage in efficient collaboration and swift information exchange, thereby contributing to the smooth execution of the "Smart Fare" project.

### 6.7.7. ￼Communication Methods and Technologies

To make sure that everyone is on the same page, that standards have been established, and that knowledge is passing freely among team members, efficient communication is essential in project management. To enhance communication inside a project, numerous techniques and technologies are available. Listed below are a few of the most typical:

Email:

* Enables stakeholders to send and receive messages, share documents, and provide updates asynchronously.
* Suitable for official correspondence, disseminating project-related data, and documenting significant discussions.

Meetings:

* Face-to-face or virtual meetings for ongoing conversations, decision-making, and discussing project-related issues.
* Video conferencing services like Zoom or Microsoft Teams enable effective communication among participants from various locations.

Chat and Instant Messaging:

* Platforms such as Messenger, Microsoft Teams, and Gmail facilitate real-time communication, quick inquiries, and casual chats.
* Enables fast information transmission, teamwork, and reduces the need for lengthy email threads.

Mobile Communication:

* Mobile applications for email, instant messaging, and project management systems allow stakeholders to stay connected and receive important project notifications while on the go.

Video Conferencing:

* Solutions like Zoom, Microsoft Teams, or Google Meet enable virtual face-to-face interactions.
* Conduct seminars, meetings, and presentations remotely, enhancing communication through visual cues and fostering participation and collaboration.

Considering the specific requirements of the "Smart fare" project, it is important to select the most suitable communication channels and technologies based on factors such as the type of information, urgency, and stakeholder preferences. Regular review and adoption of communication techniques and technology throughout the project lifespan are essential to maintain effective and efficient communication among all project participants.

### 6.7.8. ￼Communications Matrix

Table Communication Matrix

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Audience | Frequency | Delivery Media/ Medium | Channel | Type | Format Used |
| Project Manager | Once before the project's start | Face-to-face Meeting, MS Teams Meeting | Project Planning | Meeting | Formal |
| Project Manager, Project Team | Once before the project's start, updated as necessary | Face-to-face Meeting, MS Teams Meeting | Release Planning | Meeting | Formal |
| Project Manager | Once every week | MS Teams Meeting, Gmail, Messenger | Sprint Planning | Meeting | Informal |
| Project Manager, Project Team | Whenever required, once before the project's start | Email | Management Processes | Artifact | Written Document using MS Word |
| Project Manager | Twice every week | MS Teams Meeting, Gmail, Messenger | Project Update | Meeting | Informal |

The Communication Matrix for the "Smart fare" project provides a comprehensive overview of the various communication channels, senders, receivers, types, frequencies, formats, and delivery media for each communication requirement. This matrix ensures that the relevant stakeholders receive the required information through suitable channels and in their preferred formats, promoting effective and efficient communication throughout the project.

### 6.7.9. ￼Communication Flowchart

The communication flow chart for the "Smart Fare" project illustrates the essential channels and interactions between project stakeholders, aiming to facilitate effective and efficient communication throughout the project. The summarized flow chart is as follows:

Project Manager:

* Receives updates, questions, and issues from team members.
* Provides project updates, instructions, and feedback to team members.
* Interacts with external stakeholders to communicate project progress and goals.

Project Team Members:

* Share information, updates, and progress reports with the project manager.
* Collaborate and coordinate efforts with other team members.
* Seek clarification and guidance from the project manager when needed.
* Raise project-related issues or concerns to the project manager.

NOVADECI Representatives:

* Engage in regular communication with the project manager and team members.
* Provide input, feedback, and requirements for the Smart Fare system.
* Seek updates on project progress and milestones.
* Participate in meetings and discussions to ensure project alignment.

External Stakeholders

* Receive project updates and relevant information from the project manager.
* Provide feedback, requirements, and necessary approvals.
* Seeking clarification and updates on project status.

Project Meetings:

* Conducted regularly, either in-person or virtually, involving project team members and stakeholders.
* Facilitated by the project manager to discuss progress, challenges, and next steps.
* Enable collaborative decision-making, problem-solving, and alignment.

The communication flow chart establishes a smooth flow of information among project stakeholders, promoting effective collaboration, timely updates, and successful project delivery. It creates clear communication lines and decision-making processes, fostering transparency and efficiency within the "Smart Fare" project.

### 6.7.10. ￼Guidelines for Meetings

Guidelines for Meetings are crucial to the success of the "Smart fare" project because they promote effective communication and collaboration among projects participants. The significance of meetings in promoting effective communication within the Smart fare project is highlighted by the following aspects:

Sharing of Information:

* Share relevant information, updates, and project status during meetings.
* Keep stakeholders informed about project progress, milestones, and upcoming tasks or deadlines.

Collaboration and Decision-Making:

* Encourage discussions and brainstorming sessions to foster teamwork.
* Pool resources to address issues, make informed decisions, and coordinate efforts towards project objectives.

Clarification and Feedback:

* Provide a platform for stakeholders to ask questions and seek clarification.
* Promptly address any issues or misunderstandings to ensure clear communication and prevent delays.

Active Involvement of Stakeholders:

* Allow stakeholders to contribute ideas, make recommendations, and actively participate in the project.
* Increase stakeholders' sense of ownership and commitment to the Smart fare project.

Building Relationships:

* Foster productive working relationships among team members and stakeholders.
* Establish rapport, trust, and effective lines of communication through in-person or online meetings.

Clear Meeting Objectives:

* Define and communicate the objectives of each meeting to all participants.
* Ensure that meetings have a clear purpose and desired outcomes.

Invitation of Relevant Parties:

* Invite all necessary individuals to the meetings.
* Include key stakeholders, project team members, and other relevant participants.

Meeting Minutes:

* Keep records or meeting minutes to document important discussions, decisions, and action items.
* Track progress and ensure completion of agreed-upon tasks.

Effective Meeting Management:

* Schedule meetings only when necessary to optimize time and resources.
* Adhere to time constraints and utilize technological tools like video conferencing or collaboration platforms for geographically dispersed team members.

By understanding the importance of meetings and implementing these guidelines, the "Smart fare" project can improve communication, teamwork, and overall project success.

### 6.7.11. ￼Communication Standards

Project communication standards are the established regulations and practices that specify how team members and stakeholders should communicate with one another. These guidelines aid in ensuring the reliability, effectiveness, and transparency of project communication. The "Smart fare" project has implemented communication standards to ensure effective and collaborative communication among all stakeholders. These standards emphasize the following guidelines:

* Professional Communication: Project team members are expected to maintain professionalism in their communication, using appropriate language and tone to foster a positive working environment.
* Timely Response: Promptly responding to messages and inquiries is crucial for maintaining effective communication. Timely responses help address issues, clarify information, and keep the project on track.
* Progress Reports: Regular progress reports are essential for keeping stakeholders informed about the project's status. These reports provide updates on completed tasks, upcoming milestones, project budget and timeline, and any actions or decisions taken.
* Established Communication Channels: Clear communication channels are established and followed throughout the project. This ensures smooth and consistent information flow among team members, stakeholders, and external parties. Examples of established channels include email, project management software, and collaborative platforms.
* Active Listening and Respect: Active listening is encouraged among project team members. They are urged to listen attentively, seek clarification when necessary, and respect diverse viewpoints. This promotes understanding, collaboration, and the generation of innovative ideas.

By adhering to these communication standards, the "Smart fare" project aims to create a cooperative and transparent environment that facilitates successful project execution, stakeholder engagement, and overall project success.

### 6.7.12. ￼Communication Escalation Process

The communication escalation process within the "Smart Fare" project offers a structured framework to tackle and resolve any communication challenges or issues that may emerge. This process guarantees the timely escalation and resolution of communication concerns to mitigate project disruptions. The steps involved in the communication escalation process are outlined as follows:

Table Communication Escalation Process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Priority | Description | Steps | Timeframe for Resolution | Decision Authority |
| 1 | Team members report communication challenges or unresolved issues to their immediate supervisor or project manager. | Inform Immediate Supervisor or Project Manager | Within 1-2 business days | Immediate Supervisor or Project Manager |
| 2 | Immediate supervisor or project manager reviews the communication concern, collaborates with relevant parties, and provides guidance and support. | Supervisor/Project Manager Intervention | Within 3-5 business days | Immediate Supervisor or Project Manager |
| 3 | If the communication issue persists or escalates, the project adviser or higher-level management is engaged to assess and address the concern. | Project Adviser or Higher-Level Management Involvement | Within 5-7 business days | Project Adviser or Higher-Level Management |
| 4 | Project adviser or higher-level management takes necessary actions to resolve the communication concern, implement corrective measures, and identify preventive measures for future improvement. | Resolution and Preventive Measures | Within 10-15 business days | Project Adviser or Higher-Level Management |

### 6.7.13. ￼Glossary of Communication Terminology

Table Glossary of Communication Terminology

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Communication Plan | A document outlining the precise communication policies and procedures for the stakeholders and project team for the Smart fare. |
| Stakeholder | A person or group with an interest or a concern in the creation and usage of the Smart fare. |
| Communication Method | The numerous methods and instruments employed within the Smart fare project to disseminate information, include conferences, emails, phone calls, and a dedicated online page. |
| Communication Frequency | The regularity or frequency with which the Smart fare project's stakeholders are informed of project communications, updates, and progress reports. |
| Communication Objective | The intended result or objective of a certain communication within the framework of the Smart fare project, such as disclosing crucial information, obtaining input, or concluding. |
| Communication Flow Chart | The Smart fare project's communication flowchart is a graphic representation of the information and communication processes among the project team, stakeholders, and other important parties. |
| Escalation Process | A set method or protocol for handling and resolving disagreements, problems, or worries relating to communication that may occur throughout the design and implementation of the Smart fare. |
| Communication Matrix | An organized table that lists the precise communication needs for the Smart fare project, including the parties involved, the message being sent, and the chosen channels of contact. |