



CITY MARKET ADMINISTRATION OFFICE OF SANTA ROSA INFORMATION SYSTEM STRATEGIC PLAN (2025-2027)

Management Information Systems (IT Elective)



INFORMATION SYSTEM STRATEGIC PLAN (ISSP)

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INFORMATION SYSTEM STRATEGIC PLAN (2025-2027)

Part 1. Organizational Profile

The structure of the proposed ISSP is anchored in the city government's visions and goals to have alignment and allocation of resources

Part 1.1 Vision and Mission

I. Vision

"A Public Market that will meet the community needs for a fresh and good merchandise. "

II. Mission

"To be a competitive marketplace in the City of Santa Rosa."

Proposed Vision and Mission for the City Market Administration Office

I. Vision

"Our Vision is to transform the Santa Rosa City Market into a digitally empowered and innovative hub where state-of-the-art technology ensures an orderly, clean, and safe public market. We aspire to lead by example and showcase Santa Rosa as a model of smart market management in the Philippines, with advanced infrastructure, efficient services, and empowered vendors and consumers at the forefront of the digital revolution. At the same time, we remain committed to meeting the community's needs for fresh and high-quality merchandise."

II. Mission

"Our Mission is to leverage advanced technology solutions and services to ensure the Santa Rosa City Market is orderly, clean, and safe. We are committed to establishing a dedicated service that will drive innovation, efficiency, and excellence in market management. By implementing advanced digital tools and practices, we aim to promote economic growth, set a benchmark for smart market management in the Philippines, and enhance our competitiveness. We strive to be a competitive marketplace in the City of Santa Rosa, creating



a vibrant, secure, and sustainable marketplace that serves as a model of effective local governance.”

Part 1.2 Department Profile

The City Market Administration Office (CMAO) currently operates without a dedicated IT unit. This lack of an internal IT resource can have a significant impact on the overall progress of the CMAO's operations. By understanding this pain point, the proposed information systems and databases can be designed to address the CMAO's specific needs and empower them to leverage technology for improved efficiency and effectiveness.

1.2.1 Designated IT Unit Staff

Description of the Position: IT Staff

The City Market Administration Office (CMAO) will establish a dedicated IT Unit led by two IT staff members. These staff will be responsible for facilitating the department's operations and ensuring the smooth functioning of technology within the CMAO. This includes aligning computer systems and programs with the city's goals, focusing on meeting the needs of both CMAO staff and the public they serve. Effective management of these responsibilities by the IT Unit will contribute to efficient and timely service delivery.

To further support the CMAO's technological needs, the IT Staff will collaborate with the City Information Technology Office (CITO). This collaboration ensures system security, efficiency, and updates. Additionally, the IT Staff bridges communication gaps between the City Market and CITO, fostering collaboration towards shared goals. Furthermore, they uphold compliance with relevant data protection and cybersecurity regulations. Finally, the IT Staff tackles any computer-related issues that arise within the CMAO.



1.2.2 Organizational Structure

Organizational Interface Chart

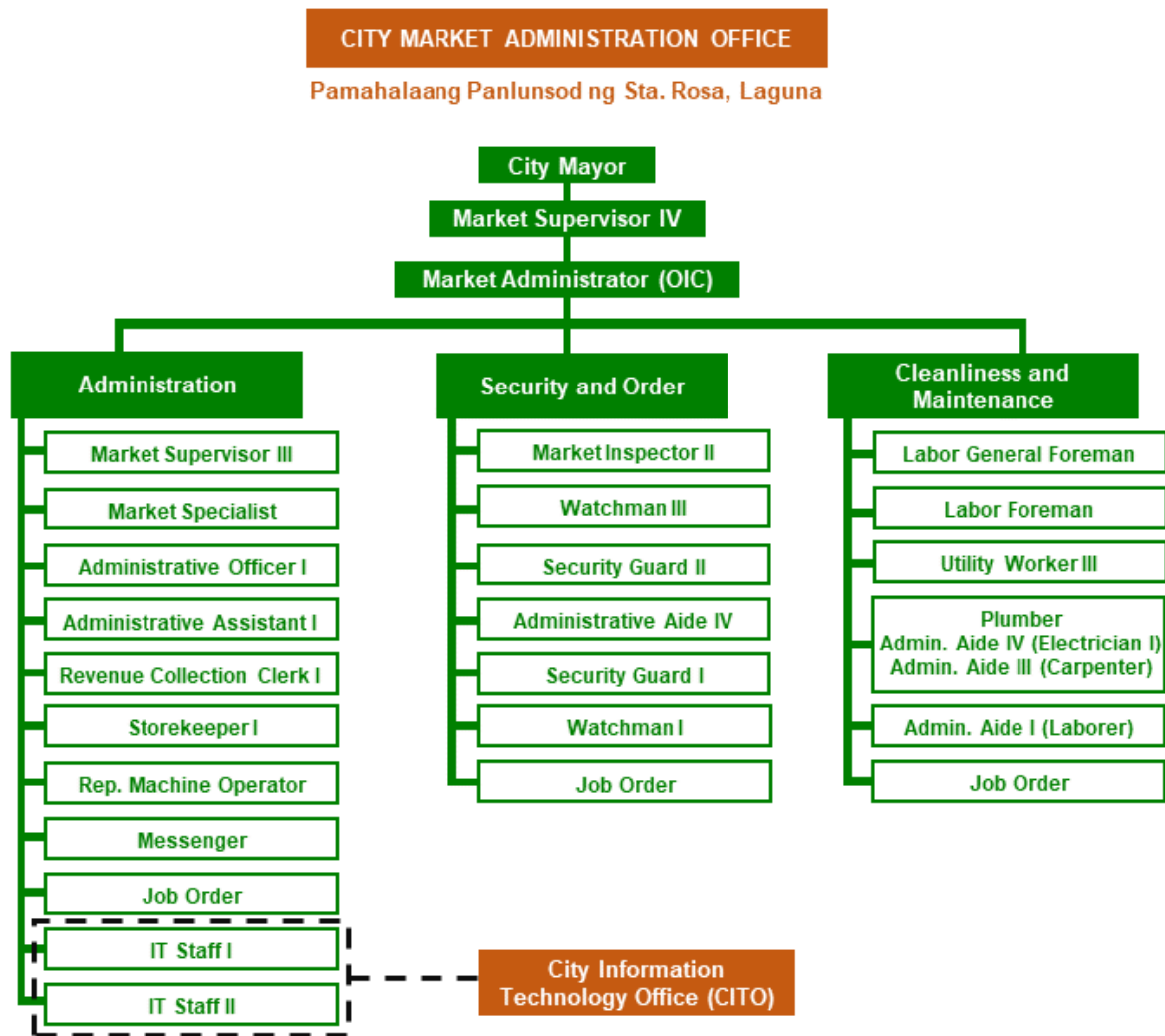


Figure No. 1. CMAO Proposed Revisions on Organizational Chart

Part 1.3 Information System Organizational Structure

Based on the interview and the current organizational structure of the City Market Administration Office, it has been observed that there is no designated IT unit within the office. Instead, the office collaborates with the City's IT Department (CITO), which also supports other departments in addressing their IT needs and maintaining smooth system operations.



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Establishing an IT Unit within the City Market Administration Office, while maintaining a connection to CITO, would greatly enhance the efficiency and effectiveness of its operations. This IT Unit, composed of 2 staff, could provide focused support, tailored solutions, and rapid response to technological issues specific to the market office.

The proposed software and system applications are designed to modernize daily operations, improve service delivery, and enhance overall efficiency. In line with this, here is a list of Information Systems proposed for the City Market Administration Office's structure, along with the positions responsible for their development. The proposed Information Systems will be implemented using a holistic approach, including planning, server infrastructure, and database management.

Divisions	Proposed Information System
Administration Office	City Market Administrative Management Information System (CMAMIS)
	City Market Executive Support System (CMESS)
Security and Order Office	City Market Security Management Information System (CMSMIS)
Information Technology Unit under Administration Office	City Market IT Support and Management Information System (CMITSMIS)
	City Market Risk Management Information System (CMRMIS)

Part 1.4 Present ICT Situation (Strategic Challenges)

The following are the present ICT situation and challenges that the City Market of Santa Rosa faces without a dedicated IT Unit. These challenges are based on the interview conducted.

Present ICT Situation

- **Vendor Rentals Management:** Managed by the City Treasury Office using MS Excel.



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- **Other Administrative Tasks:** Monitored by the City Market Admin Office through physical checks and using MS Excel.
- **Employee Records and Project Monitoring:** Managed centrally by the City Information and Technology Office (CITO) using HRIS (Human Resource Information System) and Symphony software.
- **IT Infrastructure:** Computers, laptops, and printers are in use and maintained by CITO. Symphony is used for project monitoring, and HRIS is used for employee records.
- **IT Support and Maintenance:** IT help is rarely required, owing to faults or connectivity problems during storms. Responsiveness is rated at 80%.
- **Data Management and Security:** Vendor information is managed by the City Treasury with no reported security concerns. Backup is done on flash drives and network storage with assistance from CITO.
- **Communication and Collaboration:** Internal communication utilizes email, message pop-ups, memos, letters, texts, and messenger. Vendor interactions are conducted through group chats, messenger, and in-person interactions.
- **Training and Skills:** Staff have basic computer proficiency, mainly using MS Office, HRIS, and Symphony.
- **Integration with City IT:** Limited alignment with the city's IT strategy and no reported integration issues.
- **Specific Software Needs:** No immediate need for specific software; open to future changes.
- **Budget & Funding:** IT needs are included in the overall departmental budget and are subject to budget ceilings and departmental priorities.

Challenges

- **Reliance on City Treasury and CITO**
 - The City Market's dependence on the City Treasury and CITO for IT support and management of vendor rentals and administrative tasks can lead to delays and inefficiencies, especially during peak times or emergencies.
- **Limited IT Support and Responsiveness**
 - IT support is required infrequently but is crucial when needed. The responsiveness of 80% is due to the IT department's workload and the distance from the city market, leading to potential delays in resolving issues.



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- **Data Backup and Recovery**

- The current manual backup processes (using flash drives) and limited network storage space managed by CITO pose risks of data loss and inefficiencies in data recovery.

- **Training and Upskilling**

- While staff have basic computer proficiency, there is a need for further training in using new software and improving cybersecurity awareness to enhance overall IT competency and preparedness for future technological changes.

- **Integration with City IT**

- Limited applicability of cityIT strategies to market operations and potential integration issues may arise as the market's IT needs evolve, hindering seamless collaboration and data sharing.

- **Budget Constraints**

- Budget constraints and ceilings imposed on departmental IT budgets may impact the implementation of new IT systems or infrastructure improvements, limiting the ability to address current and future IT needs effectively.

- **Lack of Decision-Making Authority**

- The City Market Administration lacks the authority to make decisions independently. All decisions are made by city officials, which hinders the implementation of dedicated IT resources. Despite being okay with having a dedicated IT unit, the lack of decision-making authority and the bureaucratic budgeting process—requiring budget proposals, hearings, and bidding before the city government allocates the budget—impede progress. The City Market's budget depends on what the government allocates annually, which could either be additional funds or a reduced budget.

- **Security Monitoring and Enforcement**

- The City Market Administration faces difficulty monitoring security within the premises because people are too stubborn and need to follow policies and regulations, especially in the parking lot. This challenge is exacerbated by a shortage of certified security personnel, forcing staff to handle security operations, which is not their primary expertise.



Addressing these challenges may require exploring options for a more dedicated IT support structure within the City Market administration, enhancing staff training, and ensuring scalable IT solutions to accommodate future growth. Additionally, empowering the City Market Administration with more decision-making authority, streamlining the budgeting process, and improving security measures through better enforcement and adequate staffing are crucial steps to improving overall operations.

Part 2. Information Systems Strategy

An information systems plan encompasses the technical components and human activities within an organization, detailing the process of managing the life cycle of IS practices (Information Systems Strategy - Tonecto: Technology & Organization || Research & Practice, n.d.). It defines the direction, goals, and objectives for using technology and provides a roadmap for implementing and managing IT systems and services to meet organizational needs. A well-defined IS strategy steers IT investments towards initiatives that deliver the most value, promotes efficient use of resources, and ensures IT systems support the organization's long-term vision. Without a strategic roadmap for technology, organizations risk falling behind in today's fast-paced, technology-driven marketplace.

Part 2.1 Conceptual Framework for Information Systems

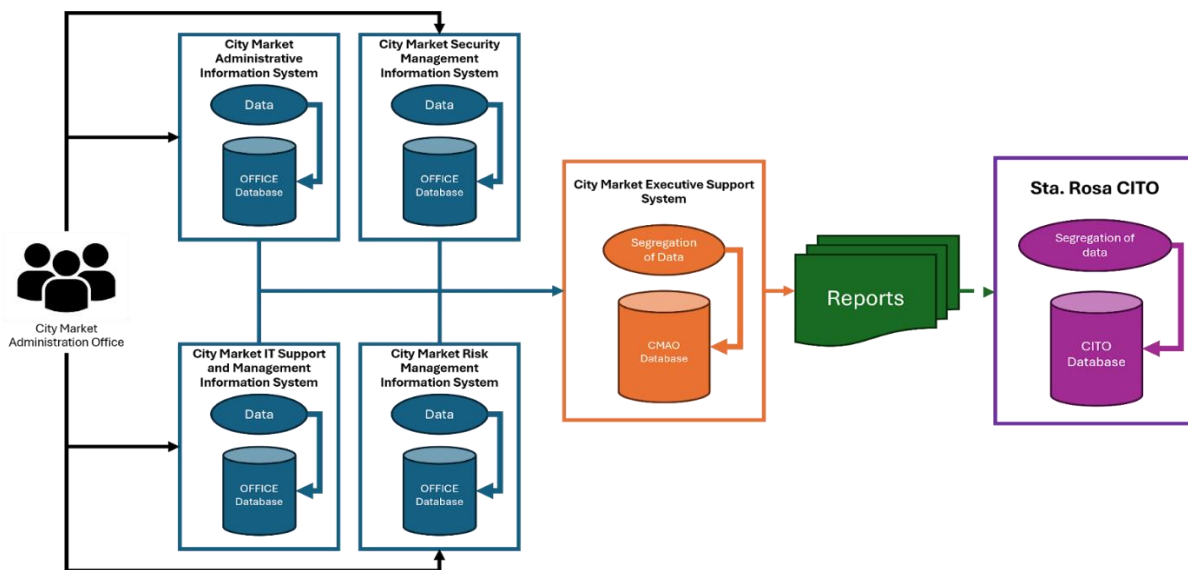


Figure No. 2. CMAO Information System Framework



This framework utilizes a centralized information system for the City Market Administration Office (CMAO). The CMAO maintains its local database for efficient data storage and sharing. They can generate specific reports relevant to their operations. These reports are then submitted to the City Information Technology Office's main server for further analysis

Part 2.2 Detailed Description of Proposed Information Systems

Name of Information System	City Market Administrative Management Information System (CMAMIS)
Description	A system designed to handle all administrative tasks, including scheduling, correspondence, document management, and communication within the office and with external entities such as the City Information Technology Office (CITO) and the Treasury Office for monitoring public market stalls. This system will enhance administrative processes, improve efficiency and enhance coordination with external departments.
Status	For Development
Development Strategy	In House Development
Computing Scheme	Networked System
Users: Internal	Admin Staff, IT Unit
Users: External	CITO, Treasury Office
System Owner	Administration Office

Name of Information System	City Market Security Management Information System (CMSMIS)
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Description	A system designed to manage security operations within the public market, including surveillance, incident reporting, and communication with law enforcement agencies. This system will help ensure the safety and security of the market premises.
Status	For Development
Development Strategy	In House Development
Computing Scheme	Networked System
Users: Internal	Security Personnel, IT Department
Users: External	Law Enforcement Agencies
System Owner	Security and Order Office

Name of Information System	City Market IT Support and Management Information System (CMITSMIS)
Description	A system designed to oversee all IT-related activities within the City Market Administration Office, including network management, system maintenance, user support, and cybersecurity measures. This system will ensure that all technology-related issues are addressed promptly and efficiently.
Status	For Development
Development Strategy	In House Development
Computing Scheme	Networked System



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Users: Internal	IT Staff, Admin Staff
Users: External	None
System Owner	IT Unit under the Administration Office

Name of Information System	City Market Risk Management Information System (CMRMIS)
Description	A cloud-based system designed to address the challenges related to data backup and recovery. This system will automate backup processes, provide ample cloud storage, and ensure efficient data recovery. It will also include features for risk assessment and mitigation to handle other potential risks. The use of cloud technology will enhance data security, scalability, and accessibility.
Status	For Development
Development Strategy	In House Development
Computing Scheme	Cloud-based Networked System
Users: Internal	IT Unit, Admin Staff
Users: External	None
System Owner	IT Unit under the Administration Office

Name of Information System	City Market Executive Support System (CMESS)
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Description	A centralized system that integrates all data from the Administrative Management Information System, Security Management Information System, IT Support and Management Information, and Risk Management Information System. This system will handle data aggregation, perform data analytics, generate visualizations, and create reports for submission to the City's IT Department (CITO). It will support executive decision-making by providing comprehensive insights and actionable information.
Status	For Development
Development Strategy	In House Development
Computing Scheme	Networked System
Users: Internal	Admin Staff, IT Unit
Users: External	CITO
System Owner	Administration Office

Part 2.3 Databases Required

Name of Database	Administrative Management Database
General Contents/ Description	<p>This database stores information for the City Market Administrative Management Information System (CMAMIS). CMAMIS supports the City Market Administration Office's administrative tasks, enabling them to manage and monitor activities like scheduling, communication (internal and external), document handling, and reporting.</p> <p>Tables: Task, Meetings, Documents_Handling, Staff</p>
Status	For Development



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Information Systems Served	City Market Administrative Management Information System
Data Archiving/ Storage Media	Local Database System and Cloud Storage (Backup)
Users: Internal	City Market Administrator, IT Department
Users: External	CITO, Treasury Office
Owner	City Market Administration Office

Name of Database	Security Management Database
General Contents/ Description	<p>This database contains information related to the City Market Security Management Information System (CMSMIS). The system is designed to support the administrative functions of the City Market Administration Office, enabling management and monitoring of security tasks, incidents, personnel, and reports.</p> <p>Tables: Security_Report, Incident_Report, Personnel, Security_Task</p>
Status	For Development
Information Systems Served	City Market Security Management Information System
Data Archiving/ Storage Media	Local Database System and Cloud Storage (Backup)
Users: Internal	City Market Administrator, Security Head, Security Officers,



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Users: External	Santa Rosa City Police (if applicable)
Owner	City Market IT Unit

Name of Database	IT Support and Management Database
General Contents/ Description	<p>The City Market IT Management Information System (CMITMIS) database supports the overall Information System by storing crucial data on user accounts, system configurations, network management, and incident tracking. This centralizes information for efficient network management, system maintenance, user support, and cybersecurity measures, ultimately enabling the CMAO to leverage technology effectively.</p> <p>Tables: User_Accounts, System_Configurations, Network_Management, Incident_Tracking</p>
Status	For Development
Information Systems Served	City Market IT Management Information System
Data Archiving/ Storage Media	Local Database System and Cloud Storage (Backup)
Users: Internal	IT Staff, System Administrators
Users: External	None
Owner	City Market IT Unit

Name of Database	Risk Management Database
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General Contents/Description	<p>This database contains information related to the City Market Risk Management Information System (CMRMIS). The system is designed to support the risk management functions of the City Market Administration Office, enabling management and monitoring of risk assessments, incidents, mitigation plans, and reports.</p> <p>Tables: Risk_Assessment, Incident, Mitigation_Plan, Risk_Report</p>
Status	For Development
Information Systems Served	City Market Risk Management Information System
Data Archiving/Storage Media	Cloud Storage
Users: Internal	Risk Management Staff, City Market Administrator
Users: External	Insurance Companies, Regulatory Agencies (if applicable)
Owner	City Market IT Unit

Name of Database	Executive Support System Database
General Contents/Description	<p>This database acts as a central hub for the Information System. It gathers data points from individual databases (Administrative, Security, IT Support, Risk Management) to support executive decision-making. This allows for data analysis, visualizations, and reports that provide comprehensive insights and actionable information for the City's IT Department (CITO).</p> <p>Tables: Data_Analysis, Visualizations, Reports</p>



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Status	For Development
Information Systems Served	City Market Executive Support System (CMESS)
Data Archiving/ Storage Media	Local Database System and Cloud Storage (Backup)
Users: Internal	City Market Administrator
Users: External	CITO
Owner	City Market Administration Office

Part 2.4 Network Layout

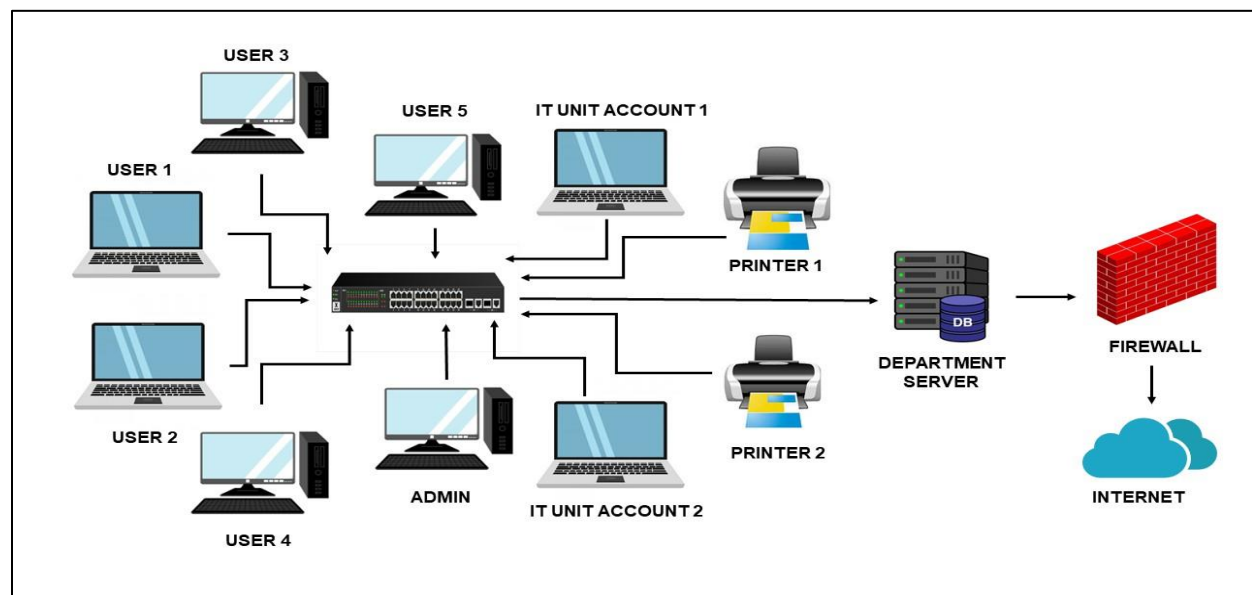


Figure No. 3. Department Network Layout



Part 3. Resource Requirements

Deployment of ICT Equipment and Services

ITEM	Proposed Number of Units
City Market Administration Office	
<i>I. Capital Outlay</i>	
ICT Machinery and Equipment	
• Desktop	4
• Laptop	4
• Local Server	1
• Network Switches	1
• Internet Service Provider	1
• Secondary Storages	1
Printing Equipment	
• Printer	2
Software	
• Proposed Information System	8
• Microsoft Office Applications	8
• Software-as-a-Service (SaaS)	5
<i>II. MOOE (Maintenance and Other Operating Expenses)</i>	
Training	<8



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Part 4. Development Program

Information System (IS) Implementation Schedule

Phase/IS	2024			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Planning				
- Adoption of the ISS Plan (City Market Administration Office)				
- Formulation and Meeting of the Technical Working Group				
- IS detailed Planning by the City Market Administration Office				
Analysis				
- Analysis				
- Prototyping				
- Approval of Prototypes				
Development				
- City Market Administrative Management Information System (CMAMIS)				
- City Market Security Management Information System (CMSMIS)				
- City Market IT Support and Management Information System (CMITSMIS)				
- City Market Risk Management Information System				



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(CMRMIS)				
- City Market Executive Support System (CMESS)				
Testing				
- Quality Assurance				
- Stress Testing				
Deployment				
- Installment of Information Systems				
- Training				
Maintenance				
- Ongoing Support and Maintenance				

1. Planning (1st Quarter):

- Initial phase focusing on adopting the ISS plan by the City Market Administration Office, formulating the technical working group, and conducting detailed planning by the City Market Administration Office.

2. Analysis (1st Quarter):

- Detailed analysis of requirements, prototyping of systems, and approval of prototypes to ensure they meet the defined requirements.

3. Development (1st to 3rd Quarter):

- Development phase for the individual systems (CMAMIS, CMSMIS, CMITSMIS, CMRMIS, CMESS) spans from the 1st to the 3rd quarter, ensuring sufficient time for each system's development.

4. Testing (2nd to 3rd Quarter):

- Comprehensive testing phase includes quality assurance and stress testing to ensure all systems function correctly and efficiently under load.

5. Deployment (3rd to 4th Quarter):

- Deployment phase involves the installation of the developed systems and training



end-users to ensure a smooth transition to the new systems.

6. Maintenance (4th Quarter and beyond):

- Continuous maintenance and support are provided post-deployment to address any issues and ensure the systems remain operational and effective.

Conclusion:

The findings of this study conclude that the City Market of Santa Rosa faces several ICT challenges, including reliance on external departments for IT support, limited IT responsiveness, manual data backup processes, basic staff training, budget constraints, and lack of decision-making authority. The proposed Information System Strategic Plan (ISSP) aims to address these challenges by developing dedicated IT systems for the City Market Administration Office. By enhancing IT infrastructure, providing comprehensive staff training, and improving data management and security, the ISSP can significantly improve the efficiency and quality of services provided by the City Market Administration Office. When implemented and adopted, the ISSP will empower the City Market to serve its stakeholders better, streamline operations, and support future growth and technological advancements.

References:

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(n.d.). <https://www.tonecto.com/topics/4-information-systems-strategy>