CIS 5310 – REPORT 2

ICT PROJECT MANAGEMENT

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ABBREVIATIONS

WCT – Wearable Computing Technology

NPV – Net Present Value

ROI – Return on Investment

SPC – Statistical project Control

RFP – Request for Proposal

1   EXECUTIVE SUMMARY

This report outlines the comprehensive project implementation plan for the integration of Wearable Computing Technology (WCT) at Vinette Hospital, which is a pivotal step towards enhancing the organization's competitiveness, improving service delivery, and realizing its vision of becoming a leading healthcare service provider nationally and internationally. It addresses critical project management aspects including quality, human resources, communication, risk, procurement, and stakeholder management. It provides detailed plans, templates, tools, and strategies, all underpinned by extensive research and best practices, to ensure the project's timely delivery, budget adherence, and the highest levels of quality and customer satisfaction while highlighting the ethical implications and challenges associated with the integration of WCT in the healthcare industry, emphasizing the need for responsible and secure implementation.

2   BACKGROUND

Vinette Hospital, a regional healthcare provider in Nigeria is on an innovative journey of integrating wearable computing technology to improve their service delivery, patient care, and maintain a competitive edge in the healthcare industry.

The initial project plan, approved by the organization's management and board, outlined a comprehensive approach to implementing WCT. Key findings of the project, involving procuring WCT devices, IT system integration, staff training, and maintenance, aims to revolutionize healthcare delivery by providing real-time health monitoring. The report recommends market research, compatibility analysis with existing IT systems, training, regular progress monitoring, and stakeholder engagement. Finally, it recommends adherence to best practices and ethical guidelines for WCT implementation.

The key project milestones include:

➢ WCT Integration Projection: November 30th - December 29th, 2023.
➢ Vendor selection and contract negotiation: January 1st - January 31st, 2024.
➢ Project initiation and approval: February 1st - February 28th, 2024.
➢ Project team formation and training: March 1st - March 31st, 2024.

> ➢ Wearable computing technology design and architecture (with vendor collaboration): April 1st - May 31st, 2024.
> ➢ Wearable computing technology development and testing (overseen by the vendor): June 3rd - August 30th , 2024
> ➢ Wearable computing technology integration with the company's website and other systems: September 2nd - September 27th , 2024.
> ➢ Wearable computing technology deployment and quality assurance: October 1st - November 29th , 2024.
> ➢ User training and documentation: December 1st - December 31st, 2024.
> ➢ Project closure and evaluation: January 1st - January 31st, 2025

3 PROJECT SPONSOR BRIEFING

According to Project Management Academy (2023), this is a critical analysis of the PM process groups for the WCT integration project from the sponsor's perspective:

> ➢ **Initiating:** This phase involves outlining the project's scope, goals, and deliverables, identifying key stakeholders, and developing the project charter. The sponsor is responsible for ensuring that the project aligns with the organization's vision and strategy, and that the project manager has the necessary authority and resources to carry out the project.
> ➢ **Planning:** This phase involves the development of a comprehensive project plan that encompasses all project elements, including scope, timeline, cost, quality, communication, risk, and stakeholder management. The project sponsor is expected to review and approve the plan, offering guidance and support to the project manager and team.
> ➢ **Executing:** This phase involves executing the project tasks as per the project plan, which includes procuring WCT devices and software, integrating them with existing systems, training staff and customers, and deploying the WCT solution. The sponsor's role is to oversee the project's progress, provide feedback and direction, and address any issues or conflicts that might emerge.
> ➢ **Monitoring and Controlling:** This phase involves monitoring the project's progress in comparison to the project plan, identifying any discrepancies or deviations, and implementing necessary adjustments. The sponsor's responsibility is to ensure that the project remains on course, adheres to quality standards, and delivers the anticipated benefits.
> ➢ **Closing:** This project phase involves finalizing tasks, securing stakeholder approval, documenting lessons, closing, and assessing results. The sponsor is tasked with assessing the project results and impact, acknowledging and rewarding the project team, and celebrating the success of the project.

Each process group consists of specific tasks that form a structured framework for the successful planning, implementation, and management of an efficiently operated project.

4   PROJECT VENDOR SELECTION PROCESS

4.1 *Developing a Selection Process/Key Requirements and Justification*

According to Altamira (2022), selection process of the WCT vendor will involve the following steps:

- ➢ **Establishing Criteria**: The project team will pinpoint key requirements and specifications for the WCT devices and software, such as functionality, compatibility, reliability, security, cost, support, and so on.
- ➢ **identifying Potential Vendors**: Through market research and analysis, the project team will identify potential vendors that provide WCT solutions fitting the project's needs and budget.
- ➢ **Requesting for proposals**: The project team will request proposals from the shortlisted vendors, asking them to detail their WCT solutions, capabilities, experience, references, pricing, and more.
- ➢ **Assessing Proposals**: The project team will utilize a weighted scoring model to evaluate proposals, conduct vendor interviews, and demonstrations to assess their suitability and performance.
- ➢ **Contract Negotiation**: The project team will choose the most suitable vendor and negotiate contract terms such as scope, deliverables, timeline, payment and warranty.
- ➢ **Contract Award**: The project team will finalize and sign the contract with the chosen vendor, marking the start of the WCT integration project.

4.2 *Selection Process Template*

The WCT integration project selection template using a weighted scoring model:

***Table 1: selection process template** –* (Smartsheet, 2017)

VINETTE'S WCT INTEGRATION PROJECT VENDOR SELECTION TEMPLATE				
CRITERIA CHECKLIST	**WEIGHTING AND VENDORS**			
1. Compliance with RFP guidelines	**Weighting (%)**	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Timeliness, Completeness and Overall Quality	15	0	0	0
Average Score		**0**	**0**	**0**
2. Net present Value	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Average Score		**0**	**0**	**0**
3. Project Understanding	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Overall Comprehension of Project Objectives		0	0	0

		VENDOR 1	VENDOR 2	VENDOR 3
Understanding of the Business Requirements		0	0	0
Average Score		**0**	**0**	**0**
5. Return on investment	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Average Score		**0**	**0**	**0**
6. Company's Reputation	10	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
References		0	0	0
Reputation based on past projects		0	0	0
Average Score		**0**	**0**	**0**
7. Terms & Conditions	10	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Detailed Buyer Duties		0	0	0
Terms & Conditions		0	0	0
Purchase Agreement Details		0	0	0
Average Score		**0**	**0**	**0**
8. Functionality, Compatibility & Price	20	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Ability to deliver on or below the target price		0	0	0
Ability to meet target goals				
Compatibility with existing systems				
Total Score		**0**	**0**	**0**

4.3 *Justification for Inclusion of Criteria in the selection template*

The justification for the inclusion of the criteria and the weightings are as follows:

➢ **Compliance with RFP Guidelines (15%)**: This essential criterion that verifies the vendor's ability to understand and meet the RFP requirements, including promptness, thoroughness, and overall proposal excellence, indicates their reliability and meticulousness.

➢ **Net Present Value (15%)**: NPV indicates a project's profitability. A greater NPV signifies a more lucrative project. This criterion is vital to confirm that the project will contribute value to the organization.

➢ **Understanding of the Project (15%)**: The vendor's clear understanding of project goals and business requirements is crucial for successful project execution.

➢ **Return on Investment (15%)**: ROI quantifies the profit or loss produced on an investment in relation to the sum of money invested. It is an essential financial metric employed to measure an investment's efficacy.

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> ➢ **Company's Reputation (10%)**: A company's reputation is an indicator of their dependability, work quality, and business ethics. It can be evaluated through references and previous projects.
> ➢ **Terms & Conditions (10%)**: The vendor's terms and conditions must be transparent, equitable, and acceptable, encompassing buyer responsibilities and purchase agreement details, which significantly impacts the collaborative relationship between Vinette and the vendor.
> ➢ **Functionality, Compatibility & Price (20%)**: Functionality, compatibility, and price are crucial in project evaluations, ensuring the product or service meets requirements, integrates with existing systems, and provides good value for money.

4.4 Assessment of the selected vendors for the integration of WCT at Vinette

Below is the assessment of the vendors based on selection criteria:

Table 2: assessment of vendors (Samsrtsheet,2017)

EVALUATION OF SELECTED VENDORS FOR WCT INTEGRATION PROJECT				
CRITERIA CHECKLIST	**WEIGHTING AND VENDORS**			
1. Compliance with RFP guidelines	**Weighting (%)**	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Timeliness, Completeness and Overall Quality	15	8	7	9
Average Score		**8**	**7**	**9**
2. Net present Value	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Average Score		**7**	**9**	**8**
3. Project Understanding	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Overall Comprehension of Project Objectives		9	8	7
Understanding of the Business Requirements		8	9	7
Average Score		**8.5**	**8.5**	**7**
5. Return on investment	15	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Average Score		**7**	**8**	**9**
6. Company's Reputation	10	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
References		8	9	7
Reputation based on past projects		9	8	7
Average Score		**8.5**	**8.5**	**7**
7. Terms & Conditions	10	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Detailed Buyer Duties		9	8	7

Terms & Conditions		8	9	7
Purchase Agreement Details		9	8	7
Average Score		**8.67**	**8.33**	**7**
8. Functionality, Compatibility & Price	20	**VENDOR 1**	**VENDOR 2**	**VENDOR 3**
Ability to deliver on or below the target price		9	8	7
Ability to meet target goals		8	9	7
Compatibility with existing systems		9	8	7
Average Score	-	**8.67**	**8.33**	**7**
Total Score	100	**56.34**	**57.66**	**54**

4.5 *Summary of the assessment of selected vendors for the integration of WCT at Vinette*

The WCT solution implementation meets project selection criteria, with **Vendor 2** demonstrating strong understanding of project objectives, competitive net present value, and a good reputation making them a suitable choice for the project. Their proposed WCT solution is also compatible with Vinette's existing systems and meets target goals. **Vendor 1** and **Vendor 3** had strengths in compatibility, functionality, and cost, but fell short in overall performance.

5   QUALITY MANAGEMENT

Quality management is the procedure of guaranteeing that a project adheres to the quality benchmarks and fulfills the expectations of stakeholders. It encompasses the organization, execution, and supervision of quality-related tasks throughout the duration of the project. (Investopedia,2022)

5.1 *Quality Management Plan*

Below is the quality management plan for the project including key metrics and control and management of the quality of the WCT products:

Table 3: Quality Management plan

QUALITY MANAGEMENT PLAN FOR WCT INTEGRATION PROJECT AT VINETTE HOSPITAL	
ASPECTS OF QUALITY MANAGEMENT	**DETAILS**
QUALITY METRICS	- Functionality: The degree to which the WCT devices and software perform the intended functions and meet the user requirements. - Usability: The ease of use and user satisfaction with the WCT devices and software.

	- Reliability: The frequency and severity of failures or errors in the WCT devices and software. - Security: The protection of data and privacy from unauthorized access or misuse in the WCT devices and software. - Accessibility: The availability and suitability of the WCT devices and software for users with different abilities and preferences.
HOW QUALITY WILL BE MANAGED:	- Quality Planning: Define the quality standards, criteria, and methods for the project. Establish a quality management plan that documents how quality will be achieved, measured, and controlled. - Quality Assurance: Conduct quality audits and reviews to ensure that quality standards are followed, and best practices are applied. Identify and implement quality improvements as needed. - Quality Control: Perform quality tests and inspections to verify that the project deliverables meet the quality requirements. Identify and correct any defects or deviations from the quality standards.
Testing Overview	- Unit Testing: Test each component or module of the WCT devices and software individually to ensure that they function correctly and meet the specifications. - Integration Testing: Test how different components or modules of the WCT devices and software interact with each other and with other systems to ensure that they work together as expected. - System Testing: Test the entire WCT system as a whole to ensure that it meets the functional, non-functional, and user requirements. - User Acceptance Testing: Test the WCT system with real users in a realistic environment to ensure that it meets their needs and expectations.
Quality Reports to be produced	- Test Reports: Document the test plan, test cases, test results, defects, and corrective actions for each type of testing. - Quality Audit Reports: Document the findings, recommendations, and actions

	from each quality audit or review. - Quality Performance Reports: Document the performance of the project against the quality metrics, criteria, and standards.
HOW QUALITY WILL BE CONTROLLED:	- Statistical Process Control (SPC) is a method that will be employed in this project and it employs statistical techniques to oversee and manage the quality of a product or process. It entails gathering data on crucial quality attributes, illustrating them on control charts, scrutinizing them for patterns or tendencies, and implementing remedial measures if they exceed the permissible boundaries. This systematic approach will help in maintaining consistent product and process quality of the WCT.
Key Metrics for Measuring Quality	- Functionality: The percentage of WCT devices and software features that pass functionality tests. - Usability: The average rating of user satisfaction with the WCT devices and software on a scale of 1 to 5. - Reliability: The mean time between failures (MTBF) of the WCT devices and software. - Security: The number of security incidents or breaches involving the WCT devices and software. - Accessibility: The percentage of WCT devices and software features that comply with accessibility standards.

By focusing on these aspects of quality management, we can improve the overall quality of the WCT devices and software for use at Vinette.

6   HUMAN RESOURCE MANAGEMENT

Human Resource Management (HRM) is about organizing, managing, and distributing an organization's human resources, or its workforce, in a manner that propels the organization's objectives. HRM is centered around investing in the workforce, safeguarding their well-being, and overseeing all facets of employment, from recruitment and remuneration to growth and development (Coursera, 2023)

6.1 Human resource plan

Below is the human resource plan for the WCT project at Vinette:

Table 4: human resource Management plan

VINNETTE'S WCT INTEGRATION PROJECT HUMAN RESOURCE MANAGEMENT PLAN				
STAKEHOLDER	**ROLE**	**RESPONSIBILITIES**	**COMMUNICATION PLAN**	**PERFROMANCE MEASUREMENT AND FEEDBACK**
INTERNAL STAKEHOLDERS:				
CEO	Internal Stakeholder	- Project support and alignment with business goals. - Approve major decisions and resources allocation.	- Regular updates, status reports, and strategic alignment updates.	- Achievement of project milestones. - Feedback on strategic alignment and project execution.
General Managing Director	Internal Stakeholder	- Support project vision and objectives. - Liaison between project team and executive leadership.	- Regular updates and strategic alignment briefings.	- Assessment of strategic alignment and feedback on project execution.
IT Project Manager	Internal Stakeholder	- Lead the project team. - Manage scope, schedule, and resources. - Ensure project objectives are met.	- Daily/weekly team meetings. - Monthly status reports to CEO and General Managing Director. - Bi-weekly status meetings with Technical Lead and Quality Assurance Analysts.	- Project progress, scope changes, and issue resolution. - Adherence to project plan. - Team performance and collaboration.
Technical Lead	Internal Stakeholder	- Lead the technical aspects of the project. - Provide technical guidance to the IT Team. - Ensure technical requirements are met.	- Regular technical discussions with IT Project Manager. - Weekly updates to the IT Team. - Monthly status reports to CEO and General Managing	- Technical project milestones. - Technical issue resolution. - Technical team performance.

			Director.	
IT Team	Internal Stakeholder	- Execute project tasks. - Develop and integrate WCT technology. - Collaborate with other team members.	- Daily/weekly team meetings. - Regular updates from the IT Project Manager. - Technical discussions with the Technical Lead.	- Completion of technical tasks. - Collaboration and teamwork. - Adherence to project schedule.
Quality Assurance Analysts	Internal Stakeholder	- Ensure the quality of project deliverables. - Conduct testing and quality checks.	- Daily/weekly meetings with IT Project Manager. - Monthly status reports to CEO and General Managing Director.	- Quality of project deliverables. - Defect tracking and resolution. - Compliance with quality standards.
EXTERNAL STAKEHOLDERS				
WC Technology Vendors and Consultants	External Stakeholders	- Provide technology solutions and consulting services. - Assist in technical integration.	- Regular meetings as required by the project schedule. - Technical discussions with the Technical Lead and IT Team.	- Delivery of technology solutions. - Adherence to project timelines. - Feedback on vendor/consultant performance.

6.2 Plan and process of acquiring project team

The plan and processes of how an effective project team will be acquired for this process are as follows:

➢ **Team Requirements Identification:** Specify the project's roles and duties. Identify the required competencies, skills, and experience for each role.

➢ **Resource Planning:** Estimate how many team members are needed for each role. Determine any special credentials or certifications required.

➢ **Recruitment and Selection:** Create a recruitment plan to attract qualified candidates. Post job vacancies internally and externally. Evaluate candidates' resumes and interviews.

➢ **Onboarding and Integration:** Create an onboarding process for new team members. Orient them on the project's goals, scope, and team culture. Introduce them to the existing team members

6.3 Plan and process of developing project team

The plan and processes of how an effective project team will be developed are as follows:

- ➢ **Training and Development:** Find out the gaps in team members' skills and knowledge then offer training opportunities to fill these gap to promote continuous learning and skill enhancement.

- ➢ **Team Building**: The project team will participate in activities designed to enhance trust, communication, cooperation, and unity among its members. These activities could encompass icebreakers, games, simulations, drills, and more.

- ➢ **Team Diversity**: The project team will utilize its diverse composition to stimulate creativity, innovation, and problem-solving. The project manager will foster an environment of inclusivity, respect, and recognition for varying viewpoints, backgrounds, and experiences.

- ➢ **Feedback and Performance Evaluation:** Set up a feedback system for regular performance evaluations and provide frequent feedback to team members on their performance. Also, Acknowledge and reward excellent contributions.

- ➢ **Mentoring and Coaching:** Match junior team members with experienced mentors. Provide coaching to help team members advance in their roles. Promote knowledge sharing and skill transfer.

6.4 *Plan and process of managing project team*

The plan and processes of how the project team will be managed throughout the span of the project are as follows:

- ➢ **Team Leadership and Communication:** Assigning a project leader or manager to lead the team. Keeping communication channels open and transparent and creating a culture of shared goals and shared responsibility.

- ➢ **Task Allocation and Workload Management:** Allocating tasks and responsibilities based on team members' strengths and expertise. Tracking workloads to avoid burnout and ensuring a balanced workload distribution.

- ➢ **Performance Monitoring and Reporting:** Using key performance indicators (KPIs) to measure team and individual performance and Regularly monitoring progress against project milestones. Reporting timely to stakeholders.

- ➢ **Team Dispute Management**: The project team may face disagreements stemming from differing views, interests, or personalities. The project manager will assist in resolving these disputes by motivating team members to resolve conflicts openly and professionally. Making sure to intervene when necessary to ensure a harmonious working environment and using methods like negotiation, mediation, or arbitration for conflict management. Additionally, the project manager will promote constructive criticism, open discussions, and compromise among team members.

7 COMMUNICATION MANAGEMENT

Communications management involves the strategic organization and supervision of all communication channels and messages within a project or organization. It requires the development of a comprehensive plan for disseminating information in a prompt, precise, and uniform way to all stakeholders, both internal and external. Effective communication management guarantees that stakeholders of the project are involved, knowledgeable, and in sync with the project's aims and objectives.(pmti institute, 2023)

7.1 Communication management plan including project status report

To ensure that accurate information reaches the right individuals involved in this project at the correct time, showing transparency, responsibility, and ultimately leading to the successful completion of the WCT project, we have created a communication plan:

Table 5: communication management plan

VINNETTE'S WCT INTEGRATION PROJECT COMMUNICATION MANAGEMENT PLAN			
STAKEHOLDER	**COMMUNICATION FORMAT**	**FREQUENCY**	**PROJECT STATUS REPORT**
CEO	- Meetings with project manager and key team members. - Bi-weekly project status reports.	Bi-weekly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]
General Managing Director	- Monthly executive summary meetings. - Monthly project status reports.	Monthly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]
IT Project Manager	- Daily/weekly team meetings. - Ad-hoc meetings as needed. - Monthly status reports. -	Daily/weekly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period]

			Recommendations: [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]
Technical Lead	- Weekly technical discussions with IT Project Manager. - Monthly project status reports. - Ad-hoc meetings as needed.	Weekly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]
IT Team	- Daily/weekly team meetings. - Monthly status reports. - Ad-hoc meetings as needed.	Daily/weekly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]
Quality Assurance Analysts	- Daily/weekly meetings with IT Project Manager. - Monthly project status reports. - Ad-hoc meetings as needed.	Daily/weekly	**Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or

WC Technology Vendors and Consultants	- Regular meetings as per the project schedule - Ad-hoc technical discussions with the Technical Lead and IT Team.	As per project schedule As needed	reports] **Project Status:** [On Track / At Risk / Delayed] **Key Milestones:** [List significant milestones and their status] **Budget Status:** [Budget vs. Actual] **Risks and Issues:** [Highlight major risks and issues] **Upcoming activities:** [List important tasks and milestones planned for the next reporting period] **Recommendations:** [Suggest actions or decisions needed for project progress] **Attachments:** [Include any relevant documents, charts, or reports]

7.2 Importance of addressing individual communication needs and number of communication channels

Individual Communication Needs: Every stakeholder in this project has unique roles, responsibilities, and information requirements. Addressing these individual communication needs is important for several reasons:

> **Clarity and Understanding:** Tailoring communication to individual needs ensures that each stakeholder understands their roles, responsibilities, and the expectations from them.

> **Engagement:** When stakeholders receive information that is relevant and meaningful to them, they are more likely to be engaged and contribute positively to the project.

> **Trust and Transparency:** Customizing communication helps build trust as it shows respect for individual needs and promotes transparency.

Number of Communication Channels: The number of communication channels in a project increases with the number of stakeholders. It's calculated using the formula: $n(n-1)/2$

where 'n' is the number of stakeholders. This project has 8 so there would be 28 communication channels.

Managing these channels is vital due to:

1. **Information Overload:** As the number of channels increases, so does the complexity. Effective management helps prevent information overload.

2. **Efficiency:** Too many unmanaged channels can lead to inefficiencies, confusion, or miscommunication.

3. **Coordination:** Proper management of channels ensures smooth coordination and collaboration among stakeholders.

In conclusion, addressing individual communication needs and effectively managing communication channels are key to the successful WCT project execution because ensure that everyone is on the same page, leading to better collaboration, fewer misunderstandings, and a higher likelihood of the WCT project success.

8   RISK MANAGEMENT

Risk management refers to the systematic approach of pinpointing, evaluating, and managing various risks, including financial, legal, strategic, and security threats that could affect an organization's capital and profits. It encompasses the prediction and assessment of financial risks and the development of strategies to prevent or lessen their effects. (IBM,2023)

8.1   Overview of how risks associated with WCT integration at Vinette will be managed

According to Business Gov Australia (2021), these steps are based on the best practices of project risk management and will help to ensure the project's success:

- ➢ Recognizing the possible sources of the risk along with their causes and consequences.
- ➢ Evaluating the likelihood and effect of each risk utilizing a risk matrix.
- ➢ prioritizing the risks according to their intensity and urgency.
- ➢ Formulating counteractive measures for each risk to diminish or eradicate its adverse impacts.
- ➢ Regularly observing and reassessing the risks and their current status, and updating the risk register as needed.
- ➢ Relaying the risks and their handling to the key stakeholders.

8.2   Risk register of risks associated with the WCT integration project

The risks associated with this project have been identified along with strategies for management and are included in the risk register below:

Table 6: risk register

RISK REGISTER OF WCT INTEGRATION PROJECT						
RISK ID	**RISK DESCRIPTION**	**RISK OWNER**	**PROBABILITY**	**IMPACT**	**RISK RATING**	**MITIGATION STRATEGY**
R1	Delay in project delivery due to unforeseen technical issues or changes in requirements	Project Manager	High (0.8)	High (0.8)	Extreme (0.64)	- Define clear and realistic project scope, schedule, and deliverables - Conduct regular reviews and testing to identify and resolve technical issues - Manage change requests effectively and avoid unnecessary

						- changes - Assign adequate resources and contingency time to the project
R2	Budget overrun due to inaccurate estimation or scope creep	Project Manager	Medium (0.5)	High (0.8)	High (0.4)	- Estimate the project cost based on historical data and expert judgment - Track and control the project budget and expenses regularly - Manage scope creep and change requests effectively and avoid unnecessary changes - Seek additional funding or approval from sponsors if needed
R3	Poor quality of deliverables due to lack of testing or quality assurance	Quality Manager	Low (0.2)	High (0.8)	Medium (0.16)	- Establish and follow quality standards and criteria for the project deliverables - Conduct thorough testing and quality assurance at each stage of the project - Implement corrective actions and rework if quality issues are found - Seek feedback and approval from stakeholders on the quality of deliverables
R4	Loss of data or security breach due to cyberattacks or human errors	IT Manager	Medium (0.5)	Medium (0.5)	Medium (0.25)	- Implement data backup and recovery procedures - Use encryption and authentication methods to protect data from unauthorized

						- access - Train staff on data security policies and practices - Conduct regular audits and updates on data security systems
R5	Lack of stakeholder engagement or satisfaction due to poor communication or expectations management	Communication Manager	High (0.8)	Medium (0.5)	High (0.4)	- Identify and analyze the needs and expectations of stakeholders - Communicate regularly and clearly with stakeholders on project progress, issues, and changes - Involve stakeholders in decision making and feedback processes - Manage stakeholder conflicts and complaints effectively
R6	Legal or regulatory compliance issues due to changes in laws or standards	Legal Advisor	Low (0.2)	Medium (0.5)	Low (0.1)	- Research and understand the legal and regulatory requirements for the project - Consult with legal experts or advisors if needed - Comply with all applicable laws and standards in the project execution - Document and report any legal or regulatory issues or incidents

8.3 Risk assessment for each risk associated with the WCT integration project

Below is the risk assessment matrix showing each identified risk:

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Table 7: risk assessment matrix

RISK ASSESSMENT FOR WTC PROJECT AT VINETTE			
Risk ID	**Probability**	**Impact**	**Risk Rating/Category**
R1	High (0.8)	High (0.8)	Extreme (0.64)
R2	Medium (0.5)	High (0.8)	High (0.4)
R3	Low (0.2)	High (0.8)	Medium (0.16)
R4	Medium (0.5)	Medium (0.5)	Medium (0.25)
R5	High (0.8)	Medium (0.5)	High (0.4)
R6	Low (0.2)	Medium (0.5)	Low (0.1)

According to HASpod (2020), The risk level is determined by multiplying the scores of likelihood and impact, both of which vary from 0 (indicating low) to 1 (indicating high). risk levels are classified as follows:

➢ **Extreme**: A risk rating greater than 0.5 requires immediate attention and escalation.

➢ **High**: A risk rating between 0.3 and 0.5 calls for careful observation and risk reduction measures.

➢ **Medium**: A risk rating between 0.1 and 0.3 demands regular checks and planning for potential issues.

➢ **Low**: A risk rating less than or equal to 0.1 requires minimal response and is generally accepted.

9   PROCUREMENT MANAGEMENT

Procurement management is the method of supervising all the procedures for securing necessary goods and services required for efficient business operations. (Michigan state University Online, 2023)

9.1 Importance of procurement management

By effectively managing the procurement process, it will benefit this project as follows:

➢ It will aid in guaranteeing that the WCT project receives the most cost-effective and high-quality products from suppliers.

> ➤ It will assist in mitigating risks and uncertainties related to the delivery, functionality, and integration of WC technology solutions.
> ➤ It will contribute to the creation of transparent and equitable contracts and agreements with suppliers, outlining the duties, responsibilities, and expectations of all parties involved.
> ➤ It will facilitate the supervision and regulation of procurement activities, ensuring their alignment with the project's goals, scope, timeline, and budget.

9.2 Statement of work

A Statement of Work (SOW) is a contractually enforceable document that comprehensively describes all aspects of a project's work management It provides a detailed overview of the project's activities, deliverables, and schedule. (Project Management Institute, 2023).

Table 8: statement of work

VINETTE HOSPTAL WCT INTEGRATION PROJECT STATEMENT FOR WORK	
SECTION	**DETAILS**
Project Overview/Background	Vinette Hospital is a regional healthcare provider that aims to expand its services nationally and internationally. The hospital is seeking to integrate wearable computing technology (WCT) into its operations.
Project Objectives	The purpose of this project is to enhance service quality, increase productivity, and elevate customer satisfaction levels while reducing errors and costs.
Scope of Work	Design and develop a WC technology solution, Provide WC devices and software, Integrate the WC technology solution with Vinette Hospital's website and other systems, Test and validate the WC technology solution, Deploy the WC technology solution across various hospital departments, Train Vinette Hospital's staff and customers on how to use the WC technology solution effectively and safely, Provide ongoing maintenance and support for the WC technology solution.
Timeline	The project will commence on 30th November 2023 and conclude on 31st January 2025, with detailed milestones and deadlines in the project plan.
Budget	The budget is A$2,000,000, with payment terms and schedules in the contract, linked to project milestones.

Acceptance Criteria	Criteria for success include successful procurement, integration, testing, training, delivery of documentation, and post-implementation support.
Reporting and Communication	Regular project status reports and meetings between Vinette Hospital and the vendor/supplier.
Change Management	Any changes to scope, schedule, or budget must be documented and approved through a formal change request process.
Legal and Compliance	Adherence to all relevant legal and compliance requirements, including data protection and contractual obligations.
Termination Clause	Termination provisions will be outlined in the contract agreement.
Signatures	Authorized signatures and date from Vinette Hospital and the vendor/supplier.

9.3 *Request for proposal template with vendor selection criteria*

Below is the Request for Proposal including the selection criteria:

Table 9: Request for Proposal

VINETTE HOSPTAL WCT INTEGRATION PROJECT REQUEST FOR PROPOSAL	
SECTION	**DESCRIPTION**
INTRODUCTION	- Vinette Hospital is integrating wearable computing technology to improve service quality, productivity, customer satisfaction, and reduce errors, inviting qualified vendors to submit proposals.
PROJECT OVERVIEW	- The project aims to improve patient care, gain a competitive edge, reduce data collection errors, increase operational efficiency, and expand the market presence at Vinette Hospital.
PROJECT'S SCOPE	- The project aims to deliver a comprehensive project plan, including a detailed design document, procurement plans, testing procedures, deployment plans, training materials, and monitoring evaluation plans for the WCT integration project outcomes.
BUDGET	- A$2,000,000

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PROJECT DURATION	- 14 months (a year two months), starting from February 1st , 2024 to March 31st , 2025.
PROPOSAL REQUIREMENTS	- Vendors are to provide a company profile, project team, project approach, deliverables, project costs, and references from previous clients who have used similar WCT solutions. They should also provide a detailed description of the project's methodology, tools, techniques, and expected completion dates. The vendor should also provide a breakdown of estimated costs and any assumptions or exclusions.
PROPOSAL SUBMISSION	- The vendors are required to submit their proposals by January 15th , 2024. The proposals should be sent electronically to cakaeme@yahoo.com with the subject line "RFP for WC Technology Integration at Vinette Hospital". The proposals should be in PDF format should not exceed 20 pages.
PROPOSAL EVALUATION	- The proposals will be evaluated by a selection committee composed of representatives from Vinette Hospital's executive management, IT department, medical staff and quality assurance analysts.
CRITERIA WEIGHTING (%)	The evaluation criteria are as follows: - Compliance with RFP guidelines 15% - Net present value 15% - Project understanding 15% - Return on investment 15% - Company's reputation 10% - Terms & Conditions 10% - Functionality Compatibility & Price 20% - The selection committee will score each proposal based on these criteria using a scale of 1 to 5 (1 being poor and 5 being excellent). - The scores will be weighted according to the percentage assigned to each criterion. The total score for each proposal will be calculated by summing up the weighted scores. The vendor with the highest total score will be selected as the preferred vendor.
CONTRACT TYPE	- The contract type that will be used for this project is a fixed-price contract with incentives (FPI). This means that the vendor will be paid a fixed amount for delivering the WCT solution according to the agreed specifications. However, there

		will also be incentives or penalties based on the vendor's performance in terms of meeting or exceeding certain expectations.

10 STAKEHOLDER MANAGEMENT

Stakeholder management refers to the method of recognizing, ranking, and involving stakeholders during the entire product development cycle. It includes devising a strategy for effective communication and cooperation with stakeholders.(Wikipedia,2023)

10.1 Key stakeholders for the WCT project

These are the key stakeholders for the WCT integration project at Vinette:

➢ CEO

➢ General Managing Director

➢ IT Project Manager

➢ Technical Lead

➢ IT Team

➢ Quality Assurance Analysts

➢ WC Technology Vendors and Consultants

10.2 Stakeholder Register including Expectations, power grid and stakeholder analysis with engagement approach

Below is the stakeholder register including all the requirements for this project:

Table 10: Stakeholder register

VINETTE HOSPTAL WCT INTEGRATION PROJECT STAKEHOLDER REGISTER					
Stakeholder	**Role**	**Expectations**	**Power Category**	**Engagement Approach**	**Recommended Management Approach**
CEO	Internal Stakeholder	- Alignment of the project with strategic objectives. - Regular updates on project progress. - High-level decisions for project support and resource allocation.	High-High	Engage Closely	Provide high-level updates and strategic alignment reports.

General Managing Director	Internal Stakeholder	- Alignment with the project's objectives. - Periodic project status reports for executive-level review. - Oversight of strategic alignment.	Medium-Medium	Maintain Regular Communication	Provide summaries of project status and alignment with objectives.
IT Project Manager	Internal Stakeholder	- Successful project execution. - Adherence to project scope, schedule, and budget. - Effective team collaboration.	Medium-High	Collaborate Closely	Ensure adherence to the project plan and provide detailed progress reports.
Technical Lead	Internal Stakeholder	- Technical aspects of the project. - Successful integration of technology solutions. - Technical guidance and support.	Medium-Medium	Maintain Technical Discussions	Provide details on the integration of technology solutions.
IT Team	Internal Stakeholder	- Completion of technical tasks. - Integration of technology solutions. - Collaboration and teamwork.			

This stakeholder register will allow for effective communication and involvement of the stakeholders.

11 RECOMMENDATIONS AND CONCLUSION

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