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Assignment 2 – Project Proposal

Developing a Conceptual Model for Organizational Memory: A Business Intelligence Approach to Custom Solutions by Itelligence

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Abstract

Itelligence is a mid-sized IT business solutions company that works with Oracle NetSuite ERP. Support and development teams often deal with recurring client queries and rebuild similar components, but there is no structured system to store or reuse internal knowledge. This proposal outlines a project to design a conceptual organisational memory model shaped around the way teams at Itelligence operate. A qualitative case study approach will be used, with staff input collected through surveys and possibly interviews. The process will be guided by the CRISP-DM framework, and business intelligence tools will be explored to support structured access to knowledge. The aim is to develop a model that reflects real needs and challenges at Itelligence, while offering a direction that could be adapted by other similar firms.

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1 Introduction

Organisational memory revolves around keeping and reusing useful knowledge inside a company. This is especially important in places like IT firms where the work is complex and often repeated. At Itelligence, a company that provides NetSuite ERP solutions, both support and development teams regularly deal with recurring queries or rebuild the same features from scratch. However, currently there is no structured system in place to properly store and reuse that knowledge. This leads to repeated work, slower response times, and inconsistent delivery.

Several studies have already shown that knowledge sharing improves performance. At the same time, many knowledge systems fail because they are outdated or not use-friendly. What is missing is a practical model that brings together support and development knowledge in a way that fits real workflows, especially for small and mid-sized IT firms. This project aims to fill this gap by creating a conceptual model tailored to Itelligence's setup. The model will use business intelligence tools to make it easier to store, access, and reuse knowledge.

This proposal starts with a look at the background and current challenges. It then outlines the research questions and objectives that shape the study. The next sections will explore research design, data collection plans, and how the model will be developed and evaluated. The proposal closes with a project plan, ethical considerations, and a breakdown of the tools that will be used. The focus throughout is to offer a useful conceptual model for Itelligence that could also add value to other similar companies.

2 Project Background

Organizational memory plays a crucial role in allowing businesses to retain and reuse internal knowledge, especially in knowledge-intensive environments like enterprise IT support and custom ERP solution development. Itelligence deals with recurrent customer queries and often redevelops identical solution components. However, the lack of a structured and centralized knowledge management system leads to repeated work, slower support response, and inconsistency in service delivery.

Recent studies confirm that this is a broader challenge. Reddy et al. (2022) claim that many customer support organizations are investing in knowledge management systems. Yet, they have poor user adoption. This is a result of outdated content, poor search functionality, and limited user engagement. Likewise, Ramdani and Hadijah (2020) find that while knowledge sharing significantly enhances organizational performance in ERP-based environments, practical methods for embedding this sharing into everyday solution development are lacking.

Further Supporting this, Cheng et al. (2024) emphasize that promoting knowledge management and organizational learning can improve competitiveness and adaptability in Small and

Medium-sized Enterprises (SMEs), especially through digital transformation. Danko and Crhová (2024) further highlight that effective knowledge sharing within knowledge intensive business services directly influences innovation and market responsiveness, although a lack of structured approaches often prevents its application. Finally, Koivisto and Taipalus (2025) note that even in large IT organizations, knowledge management is recognized as valuable, but the gap between this recognition and actual use is evident, with numerous issues relating to cooperation, documentation, and knowledge retention.

Together, these studies demonstrate the importance of knowledge management systems but also highlight the gaps present. Many do not integrate knowledge across support and technical teams, do not tailor models to SMEs or ERP consultancy contexts, or fail to incorporate Business Intelligence tools for more effective access and reuse of organizational knowledge.

This project looks to fill the gap by developing a conceptual model for organisational memory, based on a real case study at Itelligence, an IT business solutions company. The model will bring together support knowledge and reusable technical components through a business intelligence approach.

From initial survey responses, it is evident that repeated customer issues are being handled from scratch, which demonstrates the lack of knowledge reuse in place. They also pointed out that a lot of operational time is lost because of the lack of easy access to past solutions. Most importantly, there is agreement that having a structured and centralised organisational memory system would aid the teams work more efficiently. This reinforces the need for a conceptual model to systematically capture and reuse support knowledge and solution components

While it is shaped around Itelligence's setup and needs, the ideas and structure behind it can also be applied more widely to similar businesses. The goal is to deliver a conceptual model that works for Itelligence but also gives direction for future use and research in similar settings.

3 Problem Statement

Itelligence lacks a structured knowledge management system to support the reusability of customer support resolutions and solution development components, which leads to repeated work, delayed responses, and inconsistent client experiences.

During normal operations, support teams frequently address recurring NetSuite related queries without referring to past solutions, and developers often rebuild similar custom components from scratch. Despite the repetitiveness of these tasks, there is no organized system in place to retain and retrieve institutional knowledge between teams. This results in operational inefficiencies and misses opportunities to consolidate delivery.

While research has shown that knowledge management improves organisational performance

in ERP environments (Ramdani Hadijah, 2020), and that poor system usability and user engagement can block long-term adoption (Reddy et al., 2022), there are still limited practical models that connect both support and development workflows, especially in mid sized IT solution companies. Existing studies handle these as separate functions and most do not show how a system could realistically be used between teams in daily work.

This project responds to this gap by taking a case study approach in Itelligence to design a conceptual organisational memory model, shaped around the company's own challenges and supported by Business Intelligence tools to improve access, reuse and consistency.

4 Research Questions

For the purpose of this study, the following questions will be addressed:

- What challenges does Itelligence currently face when it comes to managing and retrieving support knowledge and reusable solution components?
- How can organisational memory be structured to support both customer support and custom solution development within a NetSuite ERP-focused company?
- What Business Intelligence methods are practical and useful for improving how knowledge is accessed and reused in mid-sized IT solution workflows?
- How can a conceptual model be designed to bring organisational memory into normal operations at Itelligence?

5 Aim and Objectives

The main aim of this project is to develop a conceptual organizational memory model from a Business Intelligence perspective that structures both support-related knowledge and reusable solution components, to improve efficiency in query resolution and custom solution development for NetSuite implementations at Itelligence.

This is an important area to explore because the work carried out by both the support and development teams at Itelligence often involves repeated tasks. Support teams often handle the same client queries and developers frequently rebuild similar features for different projects. Without a proper system in place to capture and reuse this knowledge, a lot of time is wasted, and the quality of delivery becomes inconsistent. This project aims to address this by proposing a structured approach that fits within the company's existing context.

To achieve this aim, the study will follow the following objectives:

- To explore how support and development knowledge is currently managed and used within Itelligence, especially in relation to recurring tasks and custom-built solutions.
- To identify where the current strategy falls short, particularly when it comes to retrieving, sharing, or reusing past work and information.
- To investigate Business Intelligence tools and techniques that can support a structured and accessible way to store and retrieve organisational knowledge.
- To design a conceptual model that brings these elements together into a practical solution that fits Itelligence's workflow.

6 Scope of the Research

This project focuses on Itelligence's main office in Mauritius, specifically the support and development teams that work on Oracle NetSuite ERP implementations. The aim is to improve how these teams manage and reuse knowledge in their normal operations. Although the main focus is internal, the improvements are expected to benefit clients by making support more consistent and delivery of solutions more efficient.

The outcome of this project will be a conceptual model only. There will be no system prototype or implementation due to limited time and resource. The model will present a practical way to structure organizational memory using Business Intelligence tools. It will consider both tools currently used at Itelligence and other tools that could be used to improve knowledge access and reuse.

Primary data will be collected through staff input and validation and, where possible, feedback from clients may also be included to add perspective. Secondary data from the relevant literature and industry practices will also support the project.

The focus is on developing a model that can be adapted to how Itelligence operates. It is not meant to provide a full technical design or enterprise solution, but rather a direction that could guide future development if needed.

7 Significance of the Research

This project is important because it addresses a practical challenge in an IT solutions company, the lack of a structured system for retaining and reusing knowledge across support and development workflows. As mentioned previously, Itelligence support teams often handle recurring NetSuite related queries without referring to past solutions, and developers frequently rebuild custom components. This repetitiveness leads to duplicate effort, slower turnaround times,

and inconsistent client experience all of which have been confirmed through initial stakeholder validation.

Studies such as Reddy et al. (2022) and Koivisto and Taipalus (2023) have shown that under-used or poorly structured knowledge management systems can significantly reduce productivity and service quality. Furthermore, Ramdani and Hadijah (2020) demonstrated that knowledge sharing, especially when paired with ERP systems, is a key driver of organizational performance. However, the need for a practical and integrated model, especially one that connects customer support and solution development processes in mid-sized IT solution firms, remains unseen in the literature.

This project aims to fill that gap by developing a conceptual organizational memory model tailored to a real-world case study of Itelligence. The outcome will not only help internal teams in working more efficiently and consistently but will also offer a model that can be adapted by other firms facing similar knowledge reuse challenges. By using Business Intelligence tools to improve accessibility and structure in knowledge systems, this project contributes a practical, scalable approach to a problem that extends beyond a single company.

The study is significant not just in its direct application at Itelligence, but also in how it adds to the broader conversation around operationalising knowledge management and organizational memory in IT solution firms. It provides value to academics, practitioners, and technology leaders looking to improve knowledge-driven practices in the IT solutions settings.

8 Project Methodology

Case Study Approach

The case study approach was chosen because the project focuses on a single company and aims to develop a conceptual solution tailored to it. A qualitative method allows for deeper insight into normal operations, staff habits, and organizational challenges that would have been difficult to capture through quantitative methods alone.

CRISP-DM Process

The process will loosely follow the stages of CRISP-DM:

- **Business Understanding:** Confirm the problem through stakeholder validation and internal insights
- **Data Understanding:** Collect detailed staff input on current practices
- **Data Preparation:** Organize and code qualitative data for analysis

- **Modeling:** Design a conceptual model for organizational memory
- **Evaluation:** Assess the model's alignment with identified challenges and goals
- **Deployment (conceptual):** Outline how the model could be implemented in practice, although no prototype will be built

Data Collection and Analysis

Questionnaires will be the primary data collection tool, used to identify current practices and issues. If possible, interviews will be conducted to obtain detailed information. Data will be analysed thematically to identify patterns, challenges, and areas for improvement. The conceptual model will be designed based on these findings, supported by models from existing literature and feasible Business Intelligence tools.

Tools and Resources Required

Data collection will be done using Google Forms. For analysis, tools such as Microsoft Excel, R, or Python can be used to process responses, especially when dealing with qualitative text data or identifying themes. For presenting findings or visualizing the conceptual model, Power BI or Tableau may be used depending on what is more suitable or available. These tools provide flexibility in exploring patterns and showcasing how knowledge could be structured and reused.

The conceptual model will be designed using visual platforms such as Draw.io or LucidChart, making the model clear and easy to interpret by stakeholders.

Ethics and Safety

The study will follow ethical guidelines, ensuring informed consent is obtained from the participants. Participation will be voluntary and no personal or sensitive data will be collected. Data will be anonymous where necessary, and results will only be used for academic purposes. If feedback is gathered from clients, the same ethical standards will be applied and approval from Itelligence will be received first.

Limitations

Since this project focuses solely on the main branch of Itelligence and is limited to a conceptual model, the findings will not be generalised across the company or tested in practice. Time constraints also prevent a working prototype or implementation. However, the goal is to create a practical conceptual model based on research that can be built upon in future work.

9 Project Plan

This project will take place from Monday, 16 June 2025 to Sunday, 25 January 2026, covering all phases from the initial literature review to the final submission of the capstone report. The schedule has been organised to follow a continuous weekly timeline, where each task begins the day the previous one ends. This approach helps maintain momentum, avoids overlap, and ensures a logical flow across the research process.

The project has been split into eight key milestones, each representing a specific phase of work:

- **M1 – Literature Review:** Initial research and review of relevant studies to set the foundation.
- **M2 – Data Collection:** Designing the questionnaire and collecting responses from staff.
- **M3 – Data Analysis:** Thematic coding of responses and cross-referencing with existing literature.
- **M4 – Research Design Submission:** Finalising the methodology and submitting Chapters 1–3 for Capstone Project 1.
- **M5 – Conceptual Model Design:** Drafting the conceptual model and identifying relevant BI tools.
- **M6 – Model Evaluation:** Critically analysing the model and documenting key findings.
- **M7 – Final Report Draft:** Writing the conclusion, formatting, and preparing the final version.
- **M8 – Final Submission:** Submitting the completed report and final deliverables for Capstone Project 2.

The Gantt chart on the next page provides a full visual breakdown of the timeline, including start and end dates, weekly durations, and colour-coded phases. Each milestone is tied to clear deliverables, allowing for steady progress across both capstone submissions while leaving room for revisions, feedback, and final adjustments.

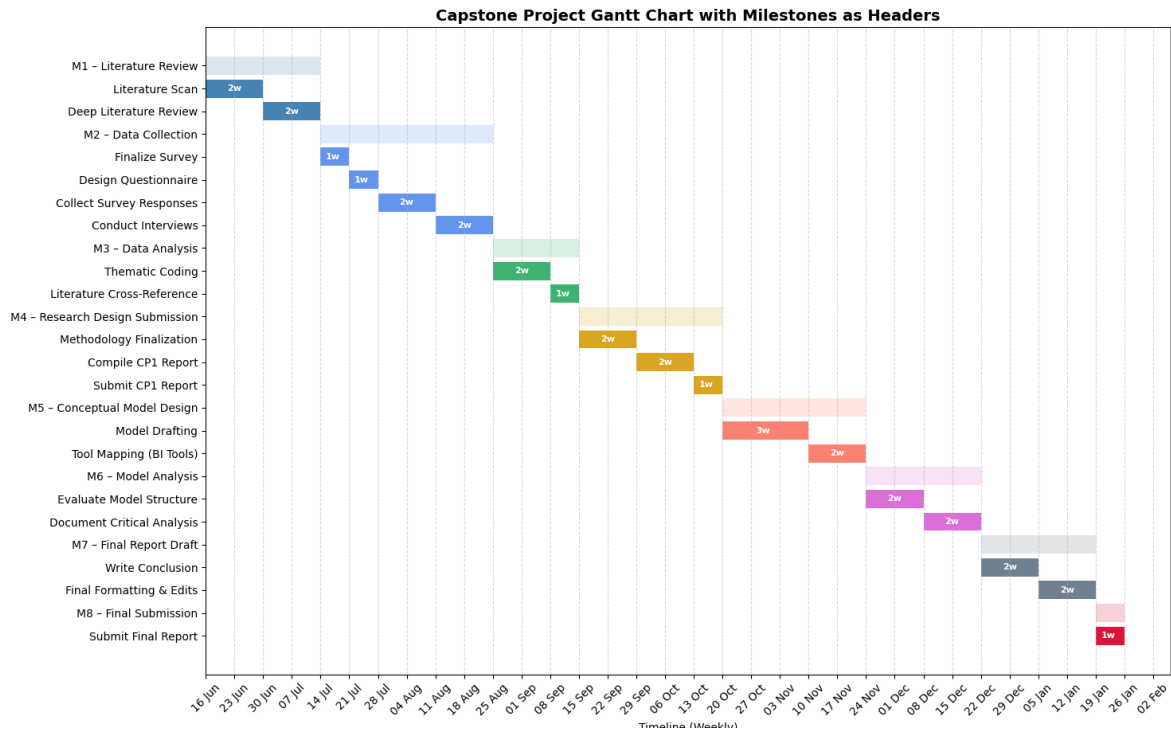


Figure 1: Gantt Chart for Capstone Project Timeline

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