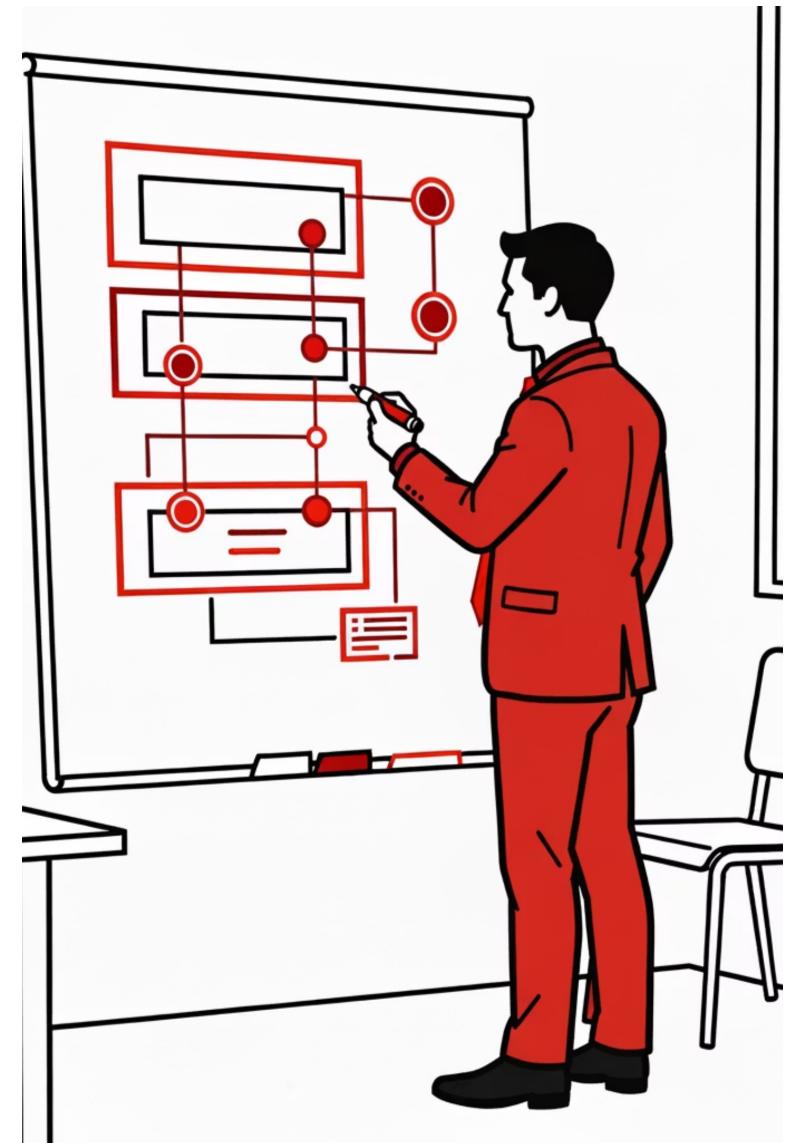


Developing a Conceptual Organisational Memory Model

A Business Intelligence Approach to Custom Solutions by Itelligence

Muhammad Yousouf Ali Budullah
MSc Data Science & Business Analytics

Supervisor: Assoc. Prof. Dr. Selvakumar Samuel
Secondary Marker: Dhason Padmakumar





RESEARCH OVERVIEW

Introduction to the Project

Core Concept

Organisational memory represents the systematic capture, retention, and strategic reuse of institutional knowledge across business operations.

This capability is particularly critical within knowledge-intensive environments such as ERP consultancies, where expertise and solutions form the foundation of competitive advantage.

Research Focus

Knowledge reuse directly influences operational efficiency, service consistency, and the quality of strategic decision-making.

This project develops a conceptual organisational memory model grounded in Business Intelligence principles, tailored specifically for the ERP consulting domain.

Case Context: Intelligence

Company Profile

Mid-sized ERP consultancy specialising in Oracle NetSuite implementations and support services

Delivery Model

Project-based, client-driven approach requiring rapid deployment of custom solutions

Knowledge Dependency

Highly dependent on technical expertise and consulting experience across distributed teams

Knowledge Generation

Continuous creation of knowledge assets across client support operations and project implementations



Problem Statement

1

Repeated Issue Resolution

Similar client issues are resolved multiple times without reference to previous solutions, leading to inefficiency and inconsistent approaches.

2

Solution Reconstruction

ERP solutions are rebuilt from scratch across projects, despite potential for component reuse and adaptation.

3

Knowledge Erosion

Critical knowledge is lost following project completion or when experienced staff members leave the organisation.

4

Individual Dependency

High reliance on individual memory creates operational risk and limits scalability.

5

System Absence

No structured organisational memory system exists to systematically capture, preserve, and retrieve institutional knowledge.

Research Aim, Objectives and Research Questions

Primary Aim: To develop a conceptual organisational memory model tailored to the specific operational context of Intelligence

01

Objective 1 (CP1): Evaluate OM Significance

RQ1.1: What organisational outcomes result from effective organisational memory?

RQ1.2: How does OM facilitate knowledge reuse across ERP consulting teams?

02

Objective 2 (CP2): Examine Existing Models

RQ2.1: Which OM models are most relevant for SMEs and IT services?

RQ2.2: What limitations exist for ERP consultancies specifically?

03

Objective 3 (CP2): Identify Critical Knowledge

RQ3.1: What knowledge is most critical for Intelligence operations?

RQ3.2: How should knowledge be structured for effective reuse and decision support?

04

Objective 4 (CP2): Design Conceptual Model

RQ4.1: What are the core components and their relationships?

RQ4.2: How can the model integrate with existing workflows and BI systems?



OBJECTIVE 1

Significance of Organisational Memory



Operational Efficiency

Reduces time spent searching for information and recreating existing solutions, enabling faster response times and improved resource utilisation (*Gharib et al., 2025; Cui, 2025*).



Service Consistency

Ensures standardised approaches to common scenarios, enhancing client satisfaction and reducing quality variation across delivery teams (*Gharib et al., 2025*).



Innovation Support

Provides foundation for learning and innovation by preserving successful approaches and lessons learned from past implementations (*Cristache et al., 2025*).



Decision Quality

Improves strategic and tactical decision-making through access to historical context, decision rationale, and outcome data. (*Barros et al., 2015*).



ERP Context Relevance

Particularly valuable in ERP consulting environments where complex technical solutions must be adapted across diverse client contexts.

 OBJECTIVE 2

Existing Organisational Memory Models (High-Level)

Literature review reveals diverse theoretical perspectives on how organisations capture and leverage knowledge:



Structural Models

These models explain where organisational memory resides across individuals, routines, structures, and artefacts. (Walsh & Ungson, 1991)

Treat memory as distributed.



System-Centric Models

They focus on information systems and the role of IT infrastructure in knowledge codification and retrieval. (Wijnhoven, 1999)
Different knowledge types require different handling.



Socio-Cognitive Models

These models emphasise shared expertise, social interaction, and knowing "who knows what" within the organisation. (Feng & Madni, 2024)

Expertise mapping is essential.



Project-Based Models

They address knowledge creation and loss within temporary project teams and post-project environments. (Versiani et al., 2024)

Transfer project learning permanently.



Context-Centric Models

These models capture decision rationale and contextual factors surrounding organisational decisions. (Wedel, 2025)

Preserve context for safe reuse.



Key Gap Identified in Existing Models

Critical Limitations

- **Storage-centric approach:** Most models prioritise knowledge storage rather than supporting active decision-making processes
- **Missing rationale:** Limited capture of decision context, trade-offs, and reasoning that led to specific solutions
- **Implementation complexity:** High technical requirements and governance overhead unsuitable for smaller organisations
- **Poor SME fit:** Existing frameworks designed for large enterprises don't translate to mid-sized ERP consultancies
- **Need for adaptation:** Requirement for a lighter, decision-focused approach specifically tailored to consulting contexts

Implication

- Need for a lightweight, decision-focused organisational memory model tailored to ERP consultancies

 OBJECTIVE 3

Critical Knowledge Elements Identified

Through analysis of Itelligence's operational context, six essential knowledge types emerged as foundational to organisational memory:



Decision Rationale

The reasoning, trade-offs, and contextual factors behind technical and consulting decisions



Reusable Solution Components

Proven ERP configurations, customisations, and integration patterns that can be adapted across projects



Support Resolutions

Documented solutions to client issues, including troubleshooting steps and root cause analysis



Expertise Directory

Mapping of individual capabilities, specialisations, and experience across the consulting team



Project Feed-Forward Insights

Lessons learned, risks encountered, and recommendations for future similar implementations



Client Context & Drift Indicators

Understanding of client-specific requirements, constraints, and how needs evolve over time

 OBJECTIVE 3

Role of Knowledge Elements



Daily Support Operations

Knowledge elements enable faster, more consistent resolution of client issues by providing access to proven solutions and decision context from previous cases.



Safe Solution Reuse

Documented components and their contextual applicability enable consultants to confidently adapt existing solutions rather than building from scratch.



Reduced Individual Dependency

Systematic knowledge capture reduces organisational risk by ensuring critical expertise is accessible beyond individual team members.



Project Learning Preservation

Feed-forward insights ensure valuable lessons from completed projects inform future implementations and strategic planning.



Governance & Strategic Planning

Aggregated knowledge patterns support quality oversight, capability development, and informed strategic decision-making at management level.

 OBJECTIVE 4

Conceptual Model Design Approach

1 Theory Adaptation

Adapt and synthesise existing organisational memory theory rather than attempting to create entirely new theoretical frameworks, ensuring academic rigour while maintaining practical relevance.

2 SME Feasibility

Design with explicit focus on feasibility for small-to-medium enterprises, avoiding complexity and resource requirements suitable only for large organisations.

3 Knowledge Balance

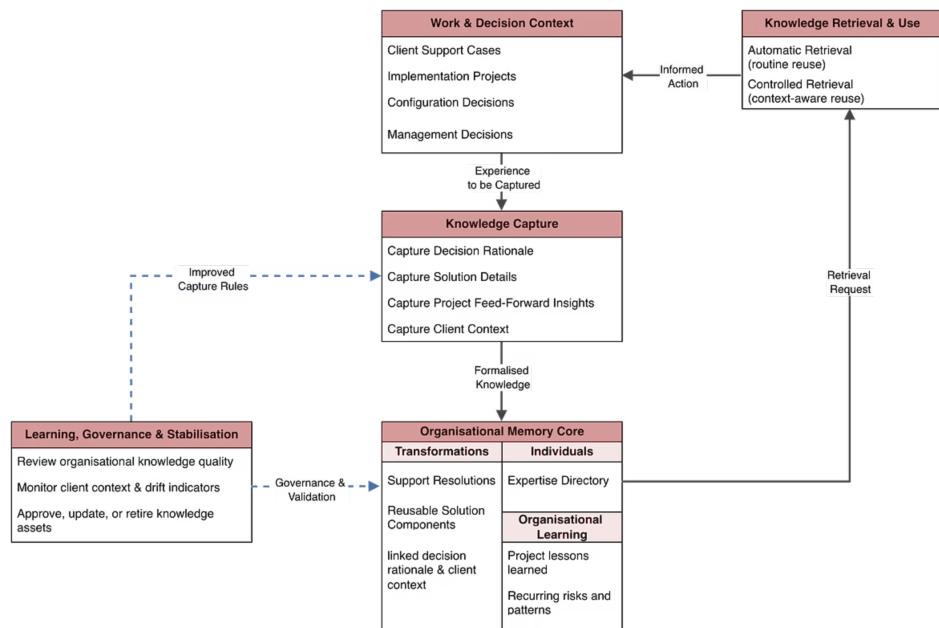
Balance codified knowledge (documents, databases) with mechanisms to surface tacit knowledge (expertise, experience) held by individuals.

4 Decision Emphasis

Emphasise capture and accessibility of decision rationale and contextual information, not merely storage of final outputs or solutions.

5 Workflow Integration

Integrate knowledge capture and retrieval into existing operational workflows to minimise adoption friction and ensure sustainability.



CORE CONTRIBUTION

Conceptual Organisational Memory Model

Model Overview

The proposed model represents a five-layer conceptual framework that fundamentally transforms organisational memory from a passive storage mechanism into an "active, managed lifecycle."

This architecture supports the complete knowledge journey: capture from operational work, enrichment with context, storage in structured repositories, retrieval based on decision needs, and continuous refinement through governance.

The model is designed specifically to address the operational realities and constraints of ERP consulting environments, particularly within SME contexts.

5

Conceptual Layers

Integrated framework components

6

Knowledge Types

Critical elements captured

Design Logic

Derived from literature synthesis and SME feasibility constraints

Conceptual Model – Five Layers



Layer 1: Work & Decision Context

Where knowledge is created

Operational environment generating decisions.

Layer 2: Knowledge Capture & Enrichment

What and why are recorded

Extracting knowledge with rationale and context.

Layer 3: Organisational Memory Core

Structured retention

Six critical knowledge elements in structured repositories.

Layer 4: Knowledge Retrieval & Use

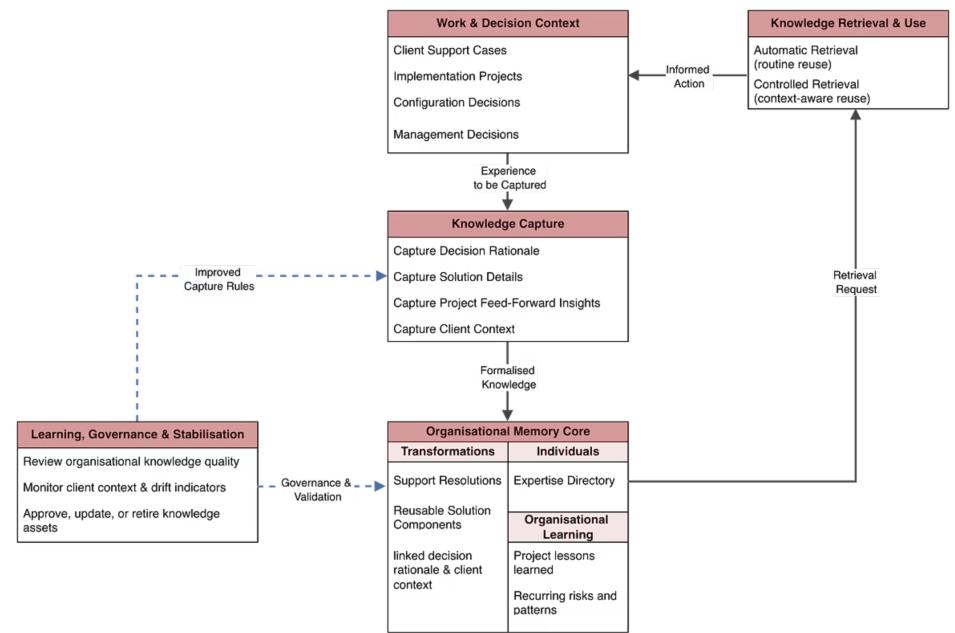
Safe reuse mechanisms

Intelligent matching at decision points.

Layer 5: Learning, Governance & Stabilisation

Relevance over time

Continuous improvement and quality oversight.





Conceptual Model – Interactions and Flow

01

Operational Trigger

Daily operational work within support and project contexts generates decisions requiring technical or consulting expertise.

02

Contextual Capture

Knowledge is captured not merely as final solutions, but with full rationale, decision context, constraints, and trade-offs that informed the approach.

03

Structured Storage

Enriched knowledge is stored in structured repositories organised by knowledge type, enabling systematic retrieval and relationship mapping.

04

Intelligent Retrieval

Knowledge is surfaced at decision points through retrieval mechanisms that match current context against historical patterns, prioritising by risk and complexity.

05

Continuous Refinement

Feedback loops capture usage patterns, effectiveness, and changing contexts, ensuring the memory system remains relevant and valuable as the organisation evolves.

Workflow and Business Intelligence Integration

Workflow Integration

- **Support workflow embedding:** Knowledge capture integrated directly into ticket resolution processes, requiring minimal additional effort
- **Project delivery integration:** Feed-forward documentation built into project closure and phase gate processes
- **No parallel burden:** Knowledge capture occurs as natural byproduct of existing work, not as separate documentation task

BI Enablement

- **Drift indicators:** BI analytics identify when client requirements or solution patterns diverge from historical norms, triggering proactive review
- **Governance insights:** Analytics surface knowledge gaps, usage patterns, and quality metrics to inform strategic capability development
- **Decision support:** BI dashboards provide consultants with relevant historical context and pattern analysis at decision points



Key Implications from the Conceptual Model



Organisational memory should be treated as a managed system, not a by-product of daily operations



Separating operational systems (e.g. NetSuite) from organisational memory enables safer reuse and improved decision-making



Effective organisational memory does not require full codification; a balance of codified assets and access to tacit expertise is more appropriate for SMEs



Lightweight governance enables knowledge to remain relevant as systems and client contexts change



Organisational memory becomes increasingly critical in AI-enabled and automated decision environments, where preserving decision rationale supports transparency and human oversight



The approach is transferable to other SME IT and project-based organisations facing similar knowledge volatility challenges

Practical Recommendations for Intelligence



Systematise decision rationale capture

Capture the "why" behind technical and configuration decisions within support and project workflows.



Establish a component reuse framework

Maintain reusable ERP solution components with contextual metadata to support safe adaptation.



Maintain a simple expertise directory

Enable rapid access to tacit knowledge without forcing full documentation.



Introduce light governance practices

Apply minimal review and versioning to prevent outdated or unsafe reuse.



Build on existing tooling

Leverage current systems and workflows to reduce adoption barriers.



SUMMARY

Conclusion: A Visual Synthesis

Model Insufficiency



Existing organisational memory models, while theoretically robust, prove insufficient for the specific operational context of SME ERP consultancies due to complexity, scale assumptions, and a storage-centric focus.

Decision Rationale as Critical Link



The capture of decision rationale and contextual information represents the missing link between theoretical OM frameworks and practical consulting needs, enabling meaningful knowledge reuse and application.

Feasibility and Active Focus



The proposed five-layer conceptual model addresses the feasibility constraints of mid-sized organisations while maintaining an explicit focus on supporting active decision-making rather than passive information storage.

Theory-Practice Bridge



This research successfully bridges organisational memory theory and ERP consulting practice, providing a robust conceptual foundation for systematic knowledge management in technical services contexts.

Thank You

Questions and Discussion

Muhammad Yousouf Ali Budullah

MSc Data Science & Business Analytics

I welcome your questions, feedback, and discussion on the conceptual organisational memory model and its implications for ERP consulting environments.

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