



**Hakutaku - TCC**

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## 1. Project Members

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## 2. Definition of the problem to be solved

### 2.1 Introduction:

Knowledge management is characterized as the process of capturing, organizing, sharing, and utilizing knowledge within an organization. There are two types of knowledge: tacit and explicit. According to Nonaka et al. (2000), "Explicit knowledge can be expressed in a formal and systematic language; it can be shared in data, scientific formulas, specifications, and manuals; it can be processed, transmitted, and stored easily. Tacit knowledge is highly personal and difficult to formalize."

An effective knowledge management approach encompasses both types, aiming to make them easily accessible within a company and intuitive to be consumed. However, there is often no efficient management in this regard. Frequently, for example, HR departments develop internal management systems or opt to acquire specialized knowledge management software for their specific needs. However, due to the closed nature and outdated design of most of these software solutions, knowledge is unable to be shared between the different departments of the organization. Artificial intelligence, on the other hand, has the ability to extend

across multiple areas, gradually enabling the creation of knowledge management software that meets the needs of various departments within a company. This facilitates the use of knowledge generated not only within a single department but across the entire organization. Despite these advantages, senior leadership still faces challenges in implementing this technology effectively.

## 2.2 Problem Development:

The problem we are addressing is knowledge management, which is characterized by the strategy and practice of managing all the content and data generated by the company in recent years.

In practice, this issue requires considerable discipline and organization. It involves everything from creating useful information for the company to storing, managing, and controlling access to it. Consequently, most companies face difficulties, especially in:

- I. Organizing their documents and knowledge;
- II. Creating new documents that effectively record data and knowledge;
- III. Sharing information between departments;
- IV. Unifying knowledge into a single platform;
- V. Establishing a robust document search system.

These challenges lead to problems such as:

- I. **Operational inefficiency**, as employees may spend hours searching for the same information;

- II. **Succession issues**, where employees who leave take tacit knowledge with them;
- III. **Lengthy onboarding processes** that require the time of multiple workers to clarify questions that could be answered with proper documentation and organization;
- IV. **Data fragmentation issues**, leading to extensive searches across multiple platforms to find desired information, which is not only inconvenient but also generates additional costs with platform maintenance.

From a financial perspective, these issues create significant problems for companies. Reduced efficiency means more time is needed to complete a task. Succession and onboarding problems ultimately relate to the same efficiency issue, as new employees need to interrupt the experienced team, occupying the time of both parties.

In addition to these financial concerns, effective knowledge management generates less tangible but equally valuable benefits: leveraging the knowledge acquired over the years to enhance daily activities and problem-solving. For example, if a consultancy has already conducted a go-to-market project, the ideal is to review both the macro and micro aspects of the previous project to improve future implementations. This allows the company to continuously learn from the information generated by past experiences.

## 2.3 Data/Comprovação:

To validate the existence of this issue, market research, field data collection, and participation in competitions were conducted, which provided significant insights and validations regarding the relevance of the problem.

### Market Research:

According to a survey conducted by Notion for the 6th episode of their webinar (2024), **97% of leaders recognize the importance of knowledge management, but only 44% believe their organizations execute it effectively**. This data highlights the gap between the perception of the topic's relevance and its practical application within companies.

### Competitions and Hackathons:

- I. **Stark Bank Hackathon** → We participated in the Stark Bank hackathon, which focused on using AI in the financial market. During the event, the concept of Hakutaku was proposed, receiving praise from the internal team. The main issue identified was "disorganization within the company," which is common in startups experiencing rapid growth. Although it did not win the top prize, the feedback provided clear validation of the relevance of the problem.
- II. **Bemobi Hackathon** → In this hackathon, Hakutaku was presented with characteristics and functionalities similar to those it currently has. The project was awarded **first place**, reinforcing the acceptance and consistency of the

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proposed solution.

### Validation with Companies:

- III. **Farmoquímica SA** → In conversations with a trade marketing analyst, it was reported that finding information within the company is challenging. Employees often have to ask on Microsoft Teams to find someone who can help. This situation illustrates how Hakutaku could address knowledge access issues.
- IV. **Vault** → In discussions with Vault's CTO, onboarding issues were highlighted, where new employees spend time on unproductive tasks, delaying their activities and those of other team members. This case emphasizes the direct impact of operational inefficiency.
- V. **Mavericks** → Mavericks' CFO mentioned succession problems, both in the current company and at Citi (where they previously worked). This underscores the issue of tacit knowledge loss when employees leave the organization.

These practical examples and quantitative data confirm that knowledge management challenges are widely recognized and experienced across different organizational contexts.



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## 2.4 Conclusion:

Knowledge management, despite its recognized importance, remains a significant challenge for various organizations. Issues related to information organization, communication between departments, and retention of tacit knowledge are widely documented, as shown in the market research and validations conducted.

The data presented in section 2.3 corroborates the relevance and urgency of this issue. The gap between leaders' perceptions (97% recognize the importance) and effective execution (only 44% implement it correctly) highlights the existing disparity. Moreover, the validations obtained through hackathons and real-world companies strengthened the understanding that solutions like Hakutaku can address practical problems such as operational inefficiency, onboarding of new employees, and succession.

Therefore, it is evident that knowledge management is not just a theoretical problem but a practical and pressing need in the market. The implementation of technologies using artificial intelligence, combined with intuitive and accessible design, is a promising approach to addressing these challenges in information management, transforming the way organizations capture, store, and share internal knowledge.

Aqui está a tradução para o inglês:

## 3. Customer Segments

### 3.1 Introduction:

First and foremost, before discussing how we deliver value, it is essential to understand who Hakutaku is capable of serving—that is, what the prerequisites are for a company to become our client.

Additionally, it is important to highlight the profile and characteristics of the ideal customer, which will be our primary focus after brand consolidation. This group consists of companies that, beyond meeting the minimum requirements, have a structure capable of maximizing the benefits of our solution, making them strategic partners for Hakutaku's growth.

### **3.2 Market Research (Glean):**

To understand the necessary requirements for adopting this type of solution, we gathered information from Glean, a global reference platform in AI for knowledge management. To achieve this, we presented ourselves as potential customers to understand what would be required for a company to become one of their clients.

After multiple email exchanges and a video conference, we obtained the following insights:

- The company must have a well established documentation base before implementing the solution.
- The minimum package offered was for 80 users.
- The annual cost of the basic package was \$80,000.

Based on the strategies and requirements of our main global competitor, we identified key metrics and factors that need to be considered when identifying

potential customers, particularly because Glean's solution is the closest to the one we plan to develop.

### **3.3 Ideal Customer:**

From our research, we concluded that in an ideal scenario—especially after brand consolidation—our ideal customer would be large companies with hundreds of employees, a well organized and consolidated knowledge base, and the financial capacity to afford an average monthly ticket price of at least R\$400 per employee.

However, since we are offering an entry level solution, we understand that while these are the ideal customers for our base, we must also adapt our product to serve companies that have not yet gained access to such solutions. To achieve this, we analyzed the research metrics to assess their criticality and determine how we can adjust them to make our product more accessible.

### **3.4 Minimum Requirements:**

Based on the insights gathered from Glean's research, although our goal is to create a more accessible solution, we identified some essential requirements for a company to be considered a potential Hakutaku customer. These requirements primarily relate to the volume of stored documents (internal company knowledge) and the number of users.

First, the contracting company must have a structured data and information base before implementing Hakutaku. While our plan is to ensure that the system can handle unstructured data through its search tool, there must be a significant amount

of information available. This is crucial because the data provided needs to be sufficient for our chatbot to answer most employee inquiries accurately.

Additionally, it is important to consider the minimum number of users required to ensure the platform's viability. This requirement is linked to the maintenance and updating of the knowledge base. The higher the number of users, the more quality data will be available, and the more frequently missing or incorrect data will be corrected through the system. While Glean requires a minimum of 80 users, we believe that with an efficient architecture, we can reduce this number, making the solution viable for companies with fewer users.

It is also worth noting that, beyond the dependency on user numbers for data maintenance, there is a financial barrier associated with the technologies we plan to use, such as LLM and RAG. These technologies require not only a significant number of platform users but also a considerable average ticket price to ensure financial feasibility.

While Glean's basic package costs \$80,000 per year, our goal is to lower this average ticket price, making the solution accessible to companies with fewer users without compromising quality or scalability.

### **3.5 How the Solution Generates Value for These Customers:**

Even though we understand the need to create a simpler, more accessible, and scalable solution to reach a larger portion of the market that still lacks access to such technologies, all the challenges presented in section 2.2 regarding problem development must be addressed. In other words, while simplifications may be made

to create a more accessible platform, the developed features must ensure that the identified problems are effectively resolved.

Thus, to guarantee that value is delivered to customers, even with a more accessible platform, the solution must offer the following essential functionalities:

- Document and knowledge organization.
- Creation of new documents based on company knowledge.
- Information sharing across departments.
- Unification of company documents.
- Establishment of a robust document search system.

Ensuring that all the challenges outlined in section 2.2 are fully addressed by the solution will enable client companies to achieve greater operational efficiency, reduce succession issues, streamline onboarding processes, and minimize data fragmentation within the organization.

### **3.6 Competitive Advantage:**

Therefore, to ensure the planned value delivery for our knowledge management project while creating a competitive advantage over the competitor analyzed in our research, we decided to focus on making our product more accessible to medium sized companies and more suited to the Brazilian market.

To effectively deliver this competitive advantage, we have set the following goals for product development:

- 75% reduction in the number of required users, decreasing from 80 to 20.

- 75% reduction in the average ticket price per user, designing an architecture that allows for a cost below R\$100.00 per user.
- Development of a robust system for knowledge maintenance and creation, enabling work with knowledge bases that are not fully organized.
- Localization of the platform into Portuguese, ensuring greater accessibility for the Brazilian audience.

By designing a more accessible and optimized platform from the outset, we aim to provide a solution that reduces the need for large teams, minimizes the required pre existing documentation, and offers a more competitive cost. This way, we seek to serve medium and small businesses that have not yet had access to such technology, making it more viable, especially for the Brazilian market.

## **4. TAM, SAM, SOM:**

### **4.1 Introduction:**

To determine the addressable market size for our product, we adopted a three-step segmentation process: TAM (Total Addressable Market), SAM (Serviceable Available Market), and SOM (Serviceable Obtainable Market). Each of these indicators represents a distinct portion of the market, considering different criteria of accessibility and penetration capacity. TAM represents the total available market, meaning the maximum potential value that could be reached if all companies and consumers in the target market used the product or service. SAM, in turn, reflects the accessible market based on more specific characteristics of companies or

consumers who can effectively use the solution. Finally, SOM represents the portion of the market that can be effectively captured by the company, considering factors such as competition and execution capacity.

The following sections present the calculation logic and the sources used to determine the available market size for Hakutaku in each of these segments.

#### **4.2 TAM Calculation:**

Before presenting the methodology used for the calculations and definition of our TAM, it is important to clarify which data were considered. We aimed to adopt a precise and reliable bottom-up strategy. To achieve this, we used metrics based on the number of companies with more than 50 employees, multiplied by our average ticket per employee and the average number of employees per company to determine the market size.

First, it is essential to explain how we arrived at the threshold of 50 employees. This value was defined based on our strategic objectives, particularly regarding the competitive advantage, which set a target of 20 employees per company, as described in section 3.6. To ensure, in a conservative manner, that the company has at least 20 employees with the potential to use the platform (i.e., those who work directly with computers and data handling), we opted to adopt the criterion of 50 employees. To obtain this information, we used data from Econodata, which, in March 2025, indicated the existence of 401,720 companies with more than 50 employees in Brazil.

To determine the average number of employees per company, we used data from the 2014 IBGE Trade Survey. Although this survey is outdated in terms of the total number

of companies, it provides a general overview of the distribution of employees per company, allowing us to calculate the average number of employees per company. Based on the median of each company size category, we obtained the following results:

- 8,464 companies with 75 employees
- 4,292 companies with 175 employees
- 1,126 companies with 375 employees
- 851 companies with 1,000 employees

From this data, we calculated a weighted average of 180 employees per company.

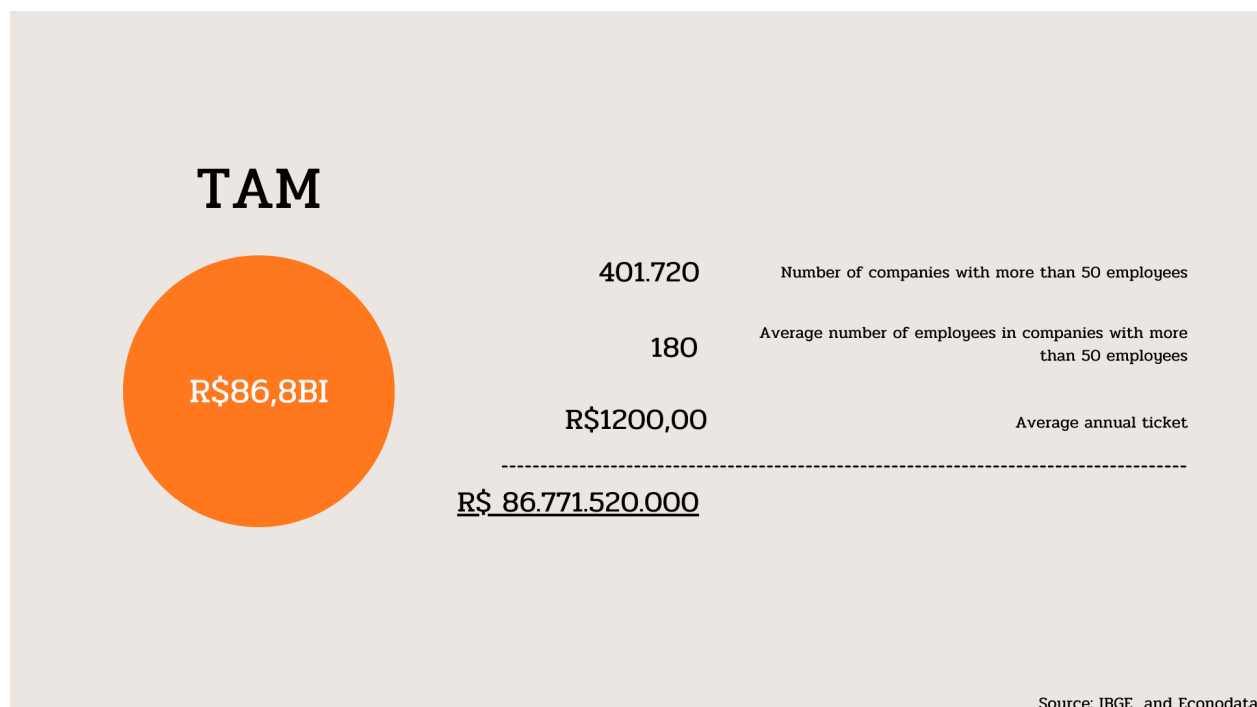
By multiplying the total number of companies with more than 50 employees (401,720) by the average number of employees per company (180) and the projected average ticket mentioned in section 3.6 (R\$ 100 per month, totaling R\$ 1,200 per year), we obtain the following result:

$$401,720 \times 180 \times 1,200 = 86,771,520,000$$

That is, a TAM (Total Addressable Market) of approximately R\$ 86.8 billion, calculated using the bottom-up approach, as illustrated below:

[Figure 1: TAM Hakutaku]





Source: Prepared by the authors, 2025.

#### 4.3 SAM and SOM Segmentation:

After calculating the market that represents our TAM, we carried out market segmentations to define the SAM (Serviceable Available Market) and the SOM (Serviceable Obtainable Market).

Initially, we defined our SAM as companies that use computers with internet access. According to the 2010 IBGE Census, 82.2% of companies with more than 10 employees use computers with internet for their daily activities. Based on this, we calculated the following segmentation:

$$86,771,520,000 \times 0.82 = 71,152,646,400$$

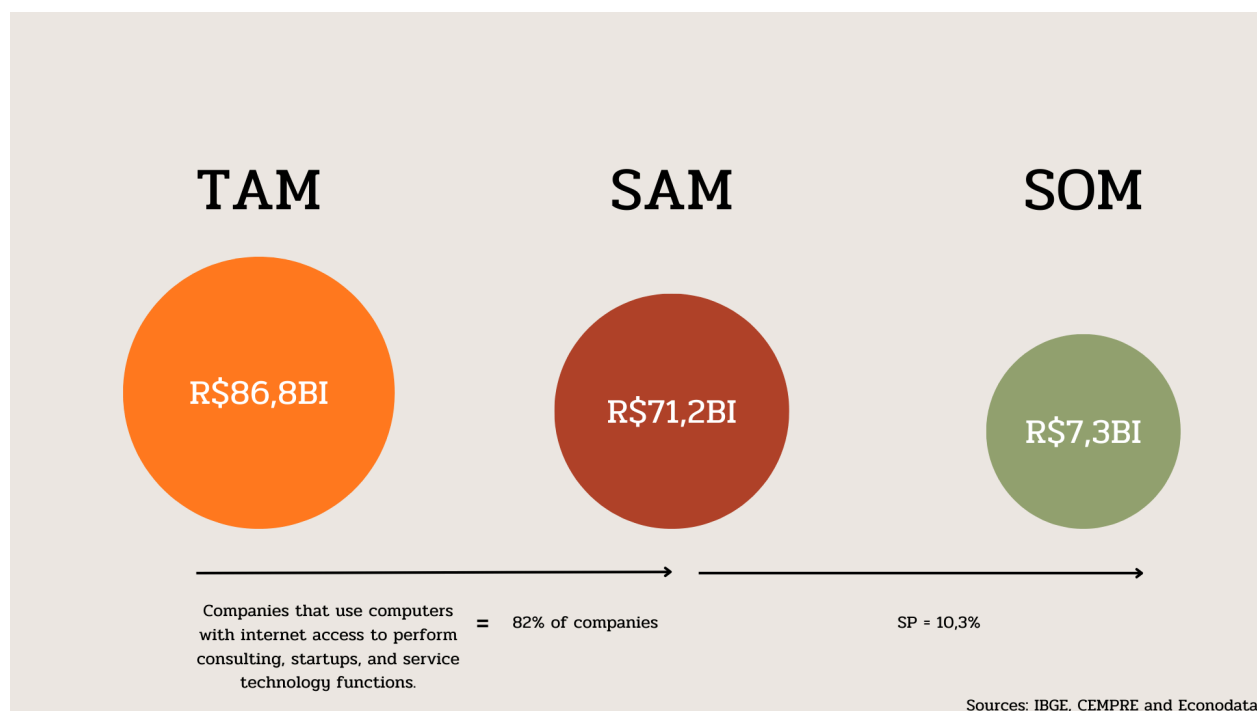
Thus, our SAM is R\$ 71.2 billion.

Regarding SOM, we applied a segmentation based on the city of São Paulo, which, according to IBGE data from 2019, accounted for 10.3% of the country's GDP. This allowed us to perform the following calculation:

$$71,152,646,400 \times 0.103 = 7,328,722,579$$

Thus, the SOM was estimated at **R\$ 7.3 billion**, as illustrated below, along with the SAM and SOM.

[Figure 2: TAM, SAM, SOM Hakutaku]



Source: Prepared by the authors, 2025.

After segmentation, we obtained the following results:

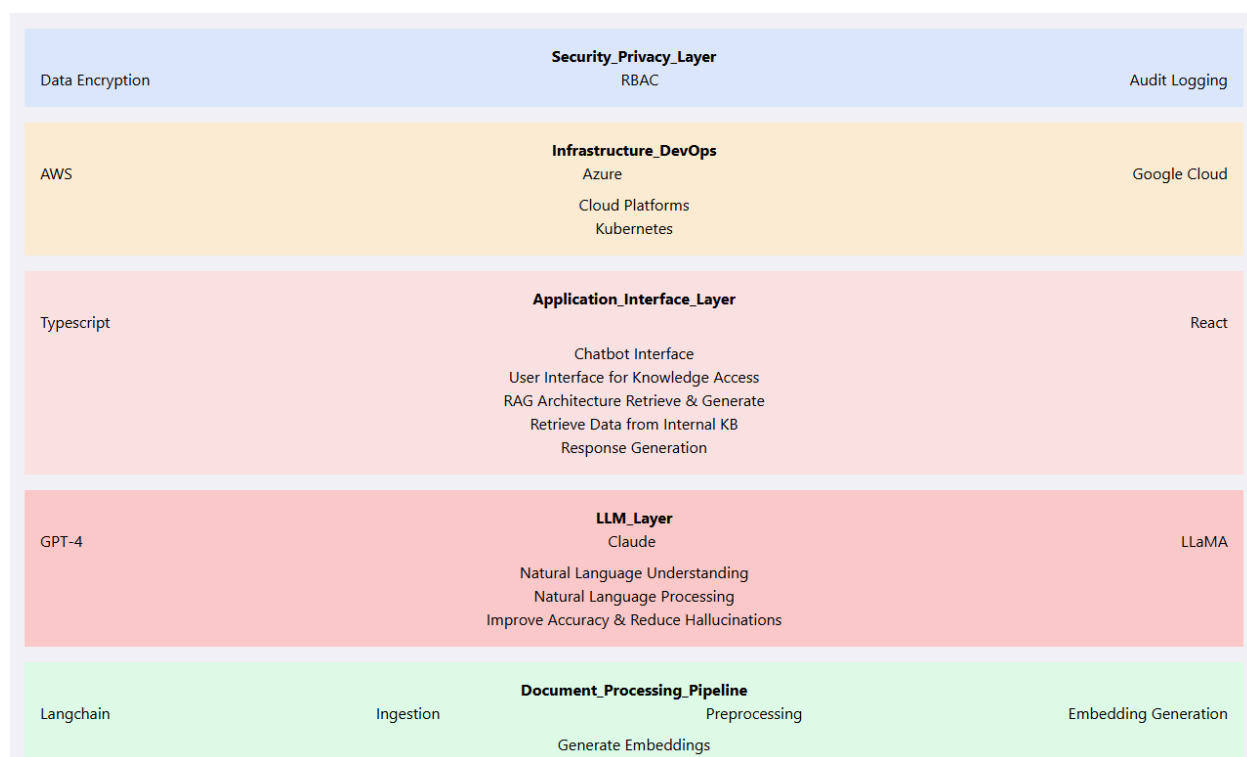
- TAM = R\$ 86.8 billion

- SAM = R\$ 71.2 billion
- SOM = R\$ 7.3 billion

## 5. Analysis of Possible Technologies and Tools

To efficiently address the knowledge management challenges described in the project's introduction, the Hakutaku solution requires advanced technologies capable of unifying, processing, and intuitively interacting with company data. The primary technical approach selected for this project involves integrating **Large Language Models (LLM)** with **Retrieval-Augmented Generation (RAG)**, providing an intelligent chatbot interface for internal knowledge queries.

[Figure 3: Technology Possibilities and Structure - Hakutaku]



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*Source: Prepared by the authors, 2025.*

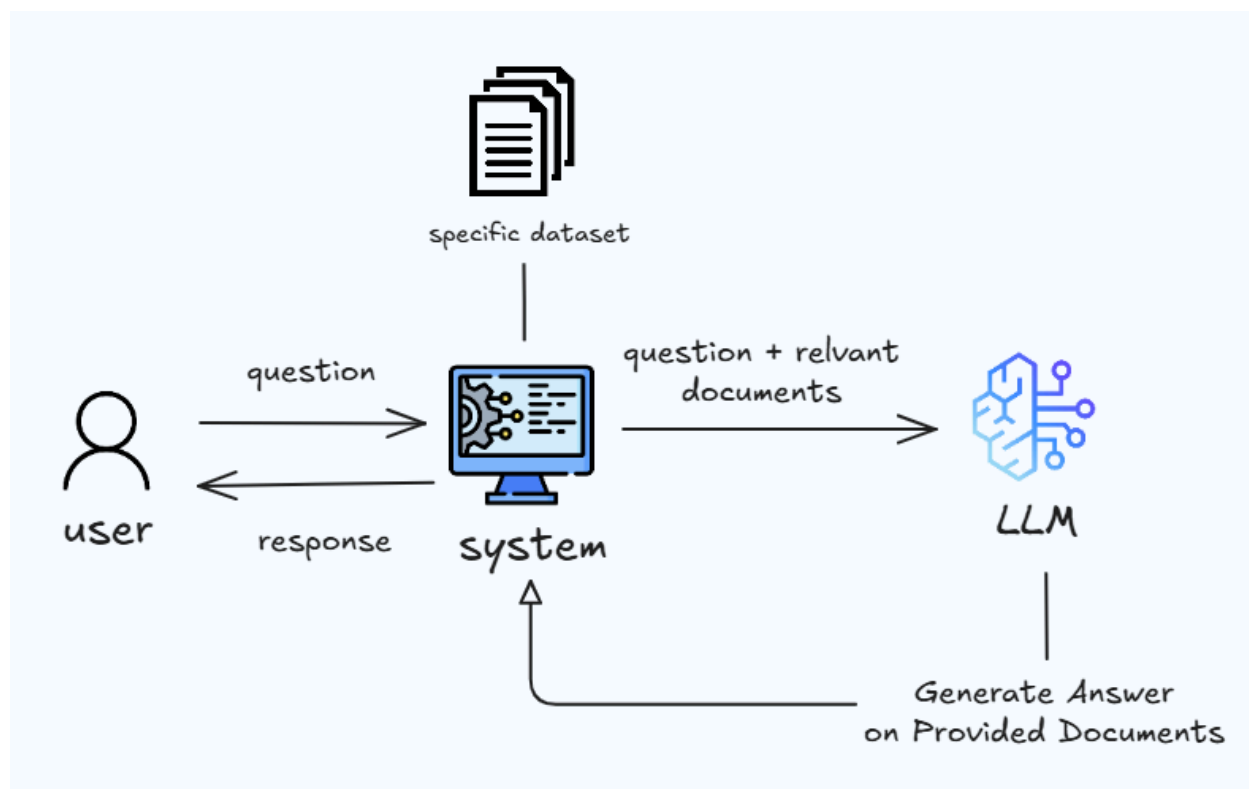
## **5.1. Large Language Models (LLM)**

Large language models are advanced artificial intelligence systems trained on vast amounts of text, enabling them to understand context, semantics, and generate human-like text. Models such as GPT-4 by OpenAI, Claude by Anthropic, and LLaMA by Meta are viable options due to their advanced comprehension capabilities and adaptability to specific domains. GPT-4 stands out particularly for its widespread adoption in enterprise environments, robust developer ecosystem, and ease of integration via APIs, making it a powerful tool for enabling the conversational chatbot we plan to deliver to users.

## **5.2. Retrieval-Augmented Generation (RAG)**

Retrieval-Augmented Generation combines the power of retrieval-based models with generative models. The RAG architecture addresses inherent limitations of generative models, such as hallucinations and inaccurate responses, by retrieving relevant information directly from the company's knowledge base before generating a response. This ensures that answers are accurate, relevant, and based on the most up-to-date data available from our users.

**[Figure 4: Common RAG Workflow - Hakutaku]**



Source: Prepared by the authors, 2025.

### 5.3. Document Integration and Vector Databases

To effectively implement the RAG architecture, Hakutaku needs efficient methods for document ingestion and retrieval. Technologies such as LangChain or LlamaIndex are recommended to create streamlined integration flows, as they facilitate data preprocessing, embedding generation, and queries. Additionally, vector databases like Pinecone, Weaviate, or Chroma can efficiently store and index documents, enabling fast similarity searches, which are essential for retrieving the files managed by the platform.

### 5.4. Tools and Infrastructure

For a practical and effective implementation of the Hakutaku solution, specific tools are required to ensure not only a robust technical framework but also a smooth and intuitive user experience. Below are the key tools and infrastructure components, highlighting their functions, strategic importance, and direct impact on users:

#### 5.4.1. Cloud Platforms (AWS, Azure, Google Cloud)

These platforms provide scalable and secure environments to host essential solution components, such as LLMs, vector databases, and front-end applications. Choosing cloud platforms enables:

- **Automatic Scalability:** Quickly adjusting resources to maintain high performance even during peak usage.
- **High Availability:** Minimizing downtime to ensure continuous chatbot access.
- **Advanced Security:** Offering robust protection against cyber threats, preserving corporate data integrity.

#### 5.4.2. Docker and Kubernetes

The use of containerization and orchestration tools is essential for:

- **Easy Deployment and Updates:** Containers enable frequent and seamless updates, ensuring users always have access to the latest and most secure system versions.

- **Resource Management:** Kubernetes automates resource allocation, ensuring the application responds efficiently to variable user demands.
- **Isolation and Security:** Isolated containers enhance security by preventing failures or issues in one part of the system from affecting the entire service.

### 5.4.3. React and TypeScript

These front-end technologies are crucial for the user experience by allowing rapid and efficient development of intuitive and responsive interfaces:

- **Interactive Experience:** React provides a dynamic interface, enabling natural chatbot interactions.
- **Code Maintenance and Scalability:** TypeScript adds an extra layer of security, helping prevent errors and facilitating system maintenance and evolution.
- **Performance Optimization:** React enhances interface performance, ensuring quick user interactions.

### 5.4.4. CI/CD Pipelines (GitHub Actions)

The use of Continuous Integration and Continuous Deployment (CI/CD) pipelines ensures **agility and reliability** in software delivery:

- **Process Automation:** Automates testing and deployments, reducing human errors and ensuring secure updates.
- **Rapid Feature Deployment:** Enables quick implementation of improvements and fixes, directly benefiting users with an always-updated system.
- **Continuous Monitoring and Feedback:** Facilitates early issue detection and resolution, continuously improving the user experience.

These combined tools ensure not only a technically robust solution but also a practical, secure, and efficient application, resulting in a highly positive user experience, covering frontend, backend, infrastructure, and monitoring/observability aspects.

## 5.5. Security and Privacy

The **sensitive nature of corporate internal data** requires rigorous privacy and security measures to ensure the confidentiality, integrity, and availability of information. The Hakutaku solution adopts multiple layers of protection, combining encryption, access control, auditing, and AI-specific strategies to mitigate risks such as **data leakage, misuse, and attacks on language models**.

### 5.5.1. Data Protection and Infrastructure

- **Data Encryption:** Implementation of **end-to-end encryption** for data in transit and at rest, using standards such as **AES-256** for storage and **TLS 1.3** for



secure communication.

- **Role-Based Access Control (RBAC):** Ensures that users access only the data necessary for their roles, minimizing exposure to sensitive information.
- **Identity and Access Management (IAM):** Implements **multi-factor authentication (MFA)** and strict permission controls for APIs and services.
- **Audit and Log Monitoring:** Detailed logging of system interactions to detect suspicious activities, ensure regulatory compliance, and maintain governance.
- **Redundancy and Secure Backup:** **Automated backup mechanisms** and **secure storage** for recovery in case of incidents.

### 5.5.2. Security in AI Usage

#### 5.5.2.1. Protection Against Data Leakage and Misuse

- **Input/Output Filtering:** Implementing techniques to sanitize queries and model responses, preventing exposure of sensitive information.
- **Data Anonymization and Obfuscation:** Reducing the risk of storing confidential information within the model using techniques like **differential privacy**.

- **AI Response Validation:** Using **Retrieval-Augmented Generation (RAG)** to ensure that answers are based solely on authorized sources.
- **Confidence Thresholds and Human Review:** Defining thresholds to **block low-confidence responses** and allow manual supervision when necessary.

#### 5.5.2.2. Defense Against AI Model Attacks

- **Prompt Injection Protection:** Implementing filters to prevent command manipulations that could lead to unauthorized responses.
- **Model Extraction Protection:** Limiting repetitive queries and applying **obfuscation techniques** to hinder reverse engineering of the model.
- **AI Response Monitoring:** Keeping detailed logs of all interactions for forensic analysis and continuous security improvements.

#### 5.5.3. Compliance, Governance, and Continuous Monitoring

- **Regulatory Compliance (LGPD, GDPR):** Implementing policies to **ensure compliance with data protection laws**, including the right to be forgotten and explicit consent.
- **Explainability and Transparency:** Maintaining **detailed documentation** of model decisions for audits and to enhance system trust.

- **AI Security Testing (Red Teaming):** Simulating attacks to identify vulnerabilities and strengthen defenses.
- **AI Incident Response:** Establishing clear procedures to handle failures or accidental data exposures.

By integrating **advanced AI technologies with robust security and privacy frameworks**, Hakutaku ensures **a reliable and effective knowledge management solution**, enhancing both **corporate data integrity** and **user experience**.

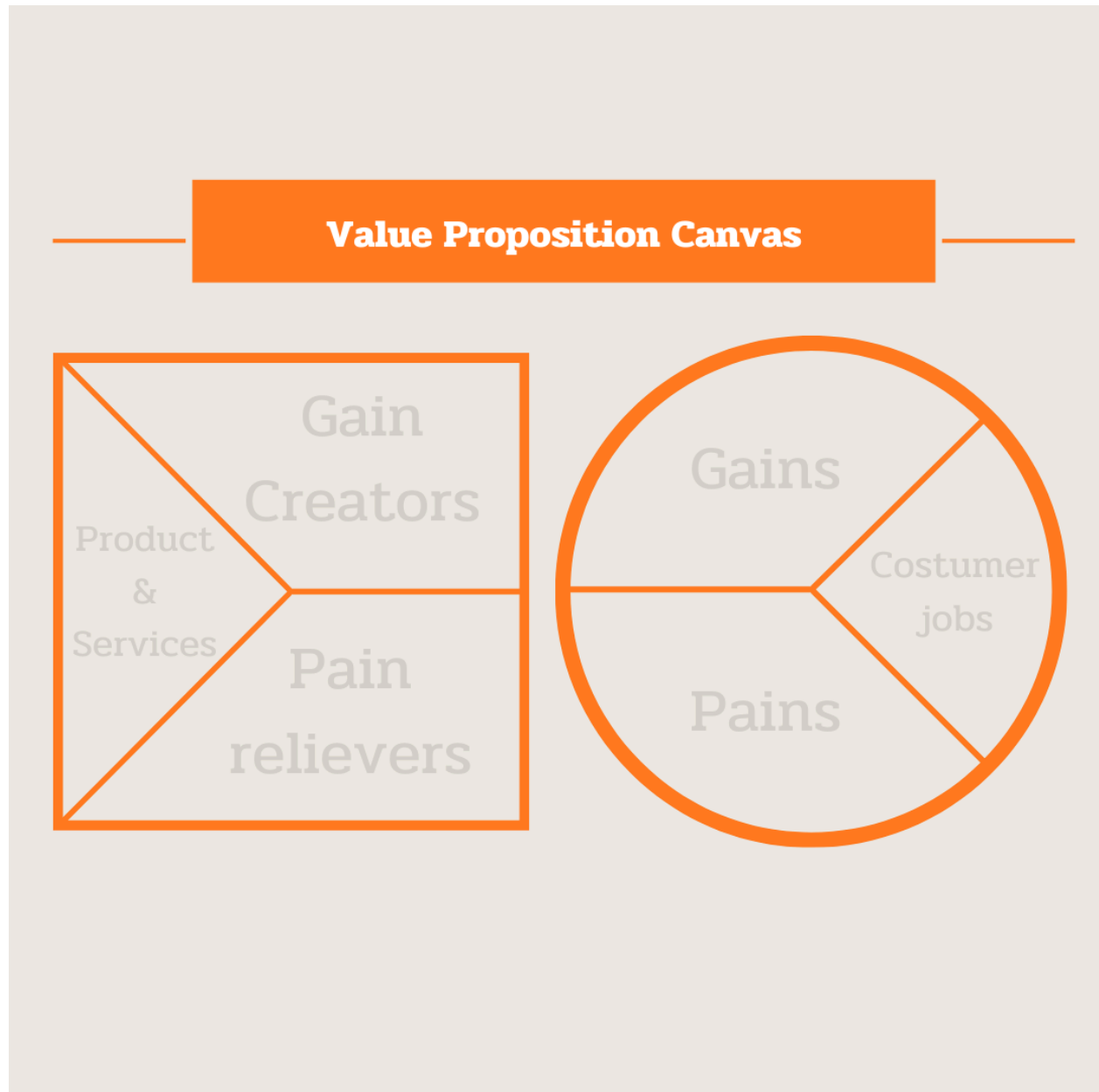
## 6. Value Proposition

### 6.1. Introduction

To ensure that Hakutaku's solution is truly aligned with the needs of our users, we used the Value Proposition Canvas, a strategic tool that allows us to clearly map customer pains, gains, and jobs, directly connecting this information to the benefits offered by the product. This helps us guide the platform's development to solve the right problems and deliver real value to our clients.

Below, you can see the layout used in the construction of Hakutaku's value proposition.

**[Figure 5: Value Proposition Canvas Template]**



Source: Prepared by the authors, 2025.

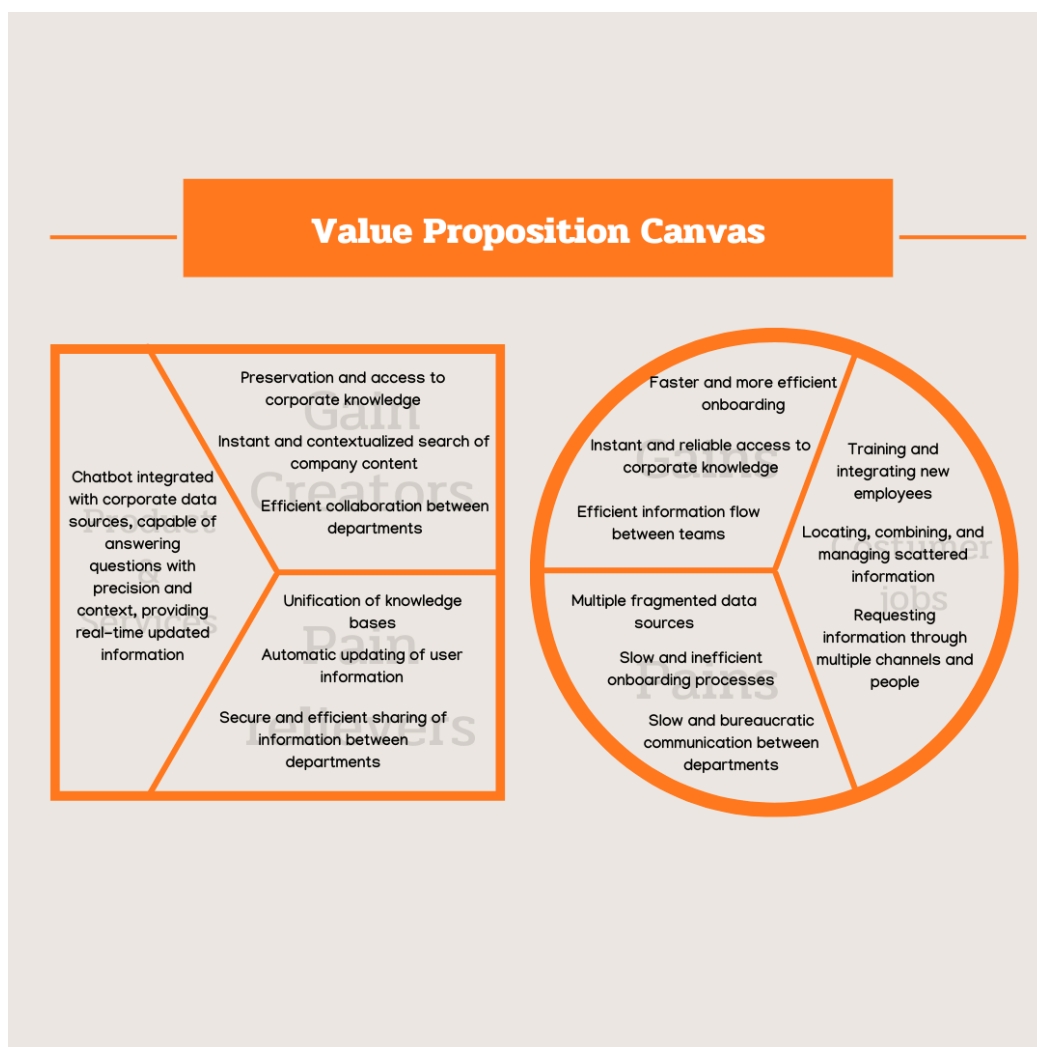
## 6.2. Value Proposition

Based on the conversations held throughout the ideation process focused on the topic of knowledge management—we sought to understand the main **pains**,

**expected gains**, and **tasks** carried out by our potential clients. From these conversations, we mapped the most recurring points and built the **customer profile**, an essential step to properly guide our solution.

From this profile, we identified real opportunities for action and developed proposals aimed at solving the pains and generating concrete value. As a result, we created Hakutaku's value proposition, which can be seen below, along with a description of each mapped item.

[Figure 6: Hakutaku Value Proposition]



Source: Prepared by the authors, 2025.

### 6.3. Pains

Before designing any solution, we first tried to understand the pain points clients experienced regarding knowledge management. Below are the main issues identified during our conversations:

- **Multiple fragmented data sources** (Information is spread across different tools, making it difficult to find what's needed inside the company.)
- **Slow and inefficient onboarding processes** (New employees take too long to adapt due to difficulties finding and understanding company processes, which delays integration and consumes the time of other employees.)
- **Slow and bureaucratic communication between departments** (Teams waste time requesting and waiting for information from other areas.)

### 6.4. Customer Jobs

Next, we identified the main tasks employees perform on a daily basis that could be optimized or eliminated through a knowledge management solution:

- **Training and integrating new employees** (Employees need to spend time teaching processes, locating documents, and explaining how the company works to each new hire.)

- **Locating, combining, and managing scattered information**(Employees must search for data in different platforms and unstructured documents, making it harder to analyze and consolidate information.)
- **Requesting information through multiple channels and people**(It's common to send messages in Teams groups, emails, or directly contact colleagues from other departments to find documents or clarify doubts.)

## 6.5. Gains

During our interviews, after analyzing how clients currently manage their internal knowledge, we identified the main gains they expect from improving these processes:

- **Faster and more efficient onboarding**(Clients want new employees to integrate more quickly into the company.)
- **Instant and reliable access to corporate knowledge**(They want employees to find what they need quickly, with confidence in the accuracy of the information.)
- **Efficient information flow between teams**(They wish for information to circulate smoothly between departments, eliminating unnecessary back-and-forth.)

## 6.6. Offered Service

Based on user pains, needs, and expectations, we developed a solution to reduce the manual work clients currently face in managing internal knowledge, consolidating it into a single tool:

- **Chatbot integrated with corporate data sources, capable of answering questions with precision and context, providing real-time updated information** (This allows employees to quickly access internal knowledge based on reliable and updated data, reducing search time and optimizing processes such as onboarding, doubt resolution, and cross-team collaboration.)

## 6.7. Pain Relievers

Based on the previously identified pains, we designed functionalities to solve or reduce the problems our users face. Below are the main pain relievers offered by the platform:

- **Unification of knowledge bases** (Eliminates information fragmentation by bringing together dispersed data in a single platform, making it easier to access and reducing time spent searching.)
- **Automatic updating of user information** (Ensures that the data being accessed is always current based on the connected sources, avoiding rework.)
- **Secure and efficient sharing of information between departments** (Facilitates interdepartmental communication through a system



with access control, removing the need for manual message exchanges between teams.)

## 6.8. Gain Creators

Beyond solving existing problems, with Hakutaku we aim to generate significant value for companies by delivering the benefits they expressed as essential to improve knowledge management. The following are the main gains we plan to deliver through our solution:

- **Preservation and access to corporate knowledge** (Ensures that the knowledge accumulated by both current and former employees is recorded and accessible to the entire company, preventing information loss over time or due to turnover.)
- **Instant and contextualized search of company content** (Allows users to quickly and accurately find information, taking the context of their question into account and drastically reducing search time.)
- **Efficient collaboration between departments** (Improves information flow between teams, promotes synergy, eliminates communication bottlenecks, and enables more integrated operations.)

## 6.9. Conclusion

Therefore, the value proposition helps us clearly understand what the client expects from the solution, serving as an excellent guide for defining functionalities and requirements during product development. It also supports strategic decisions and ensures that we are building something truly aligned with the users' real pains and goals.

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