

Otak².ai Whitepaper

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Executive Summary :

The SEA retail and consumer goods market is highly fragmented, and businesses struggle to efficiently gather and leverage actionable consumer insights. This challenge is exacerbated by the widening technology gap between SMEs and larger firms that can develop their own market-research solutions. SMEs often lack the resources and capabilities to understand their data, making lead generation difficult due to imprecise segmentation and the inability to identify genuinely interested consumers. Analytics from marketing agencies are expensive, and in-house solutions often lack data objectivity and research rigor.

Now is the time to address these issues because, despite inflationary pressures, spending power in SEA is bullish, fueled by increased accessibility and premiumization, necessitating consumer insights. SMEs are keen on adopting omnichannel sales and marketing but struggle to understand their customers from the data.

OtakOtak.ai is a B2B SaaS customer engagement platform powered by AI to help businesses gain consumer insights. Our core principles include providing actionable insights over quantitative numbers, using AI as a scalable consultant, ensuring user data ownership and privacy, and reducing information latency.

Our roadmap includes a simple data visualization platform showcasing customer segments and sentiments, market and trend analysis, and a promptable interface for quick discussions on business sentiments, with a basic ETL data connector. The platform provides analytics on overall sentiments, NPS, customer segmentation, trend analysis, and top themes of discussion. We employ a Knowledge Graph of Consumer Sentiments using Langchain's Neo4j Semantic Layer Approach to build the knowledge graph, analyzing comments and sentiments from social media and business listings.

In the future, OtakOtak.ai aims to democratize AI, making it accessible and affordable for small businesses, empowering them to make smarter strategic decisions. The platform will be an autonomous agent capable of researching, analyzing, and gathering current information to produce meaningful insights. Our approach involves aggregating data from consumer interactions and social media, using analytics to generate actionable insights, providing detailed reports and dashboards, and building a scalable RAG pipeline. Our ultimate goal is to develop a comprehensive analytics platform and localizing insights for SEA markets to ensure cultural and economic relevance.

Problem thesis :

The SEA consumer goods market is highly fragmented and businesses struggle to efficiently gather and leverage actionable consumer insight.

As bigger and more established firms develop their own market-research solutions, the technology gap between SMEs and big businesses is only going to widen.

- They lack the resources and capabilities to understand their own data.
- Lead generation is difficult as businesses often struggle to conduct precise segmentation and identify genuinely interested consumers.
- Analytics from marketing agencies are expensive and in-house solutions often lack data objectivity and research rigor.

Why now?

From a macro perspective,

- Spending power is bullish in SEA partly fueled by the increase in accessibility and premiumisation despite inflationary pressures, further potentiating the need for consumer insights.
- SEA SMEs are increasingly keen on adopting omnichannel sales and marketing but do not have the resources and ability to understand their customers from the data and extract maximum benefits from new tech.

From a firm-level perspective,

- Dipping their toes into e-commerce and a multichannel sales approach but see limited success in terms of traction.
- Doubt the ROI ability of marketing initiatives and big data analytics.

Solution overview, principles & approach

OtakOtak.ai is a B2B SaaS customer engagement platform powered by [A.I.] to allow businesses to gain consumer insights.

Core principles :

- **Actionable insights > quantitative numbers** - we believe that data analytics should not simply be about crunching numbers. The future of data analytics should be qualitative insights, personalised to the unique needs of every business yet based on objective metrics.
- **A.I. as a scalable consultant** - instead of hiring human consultants to deliver business advice, A.I helps democratise data analytics and advisory services for SMEs.
- **User data ownership and privacy** - any private data imputed into our system is fully controlled by the user. Any data that is publicly visible is aggregated and masked.
- **Reduce information latency** - we want businesses to stay competitive by adapting to new information quickly and reduce reliance on learning about the market through word of mouth and secondary research.

Roadmap

The expectation for our minimum viable product (MVP) contains the following requirements:

- A simple data visualisation platform showcasing customer segments and their various sentiments on users' products and business. Market and Trend Analysis for their designated markets, and an overall Net Promoter Score for the users.
- A promptable interface with a model for quick discussions on sentiments of their business, with a basic extract, transform and load (ETL) data connector for the additional information of their day-to-day business information (ie. POS data).
 - The model will be specifically trained and fine-tuned towards their customer's (or target market's) sentiments.

Use cases

Benefits of AI sentiment analysis

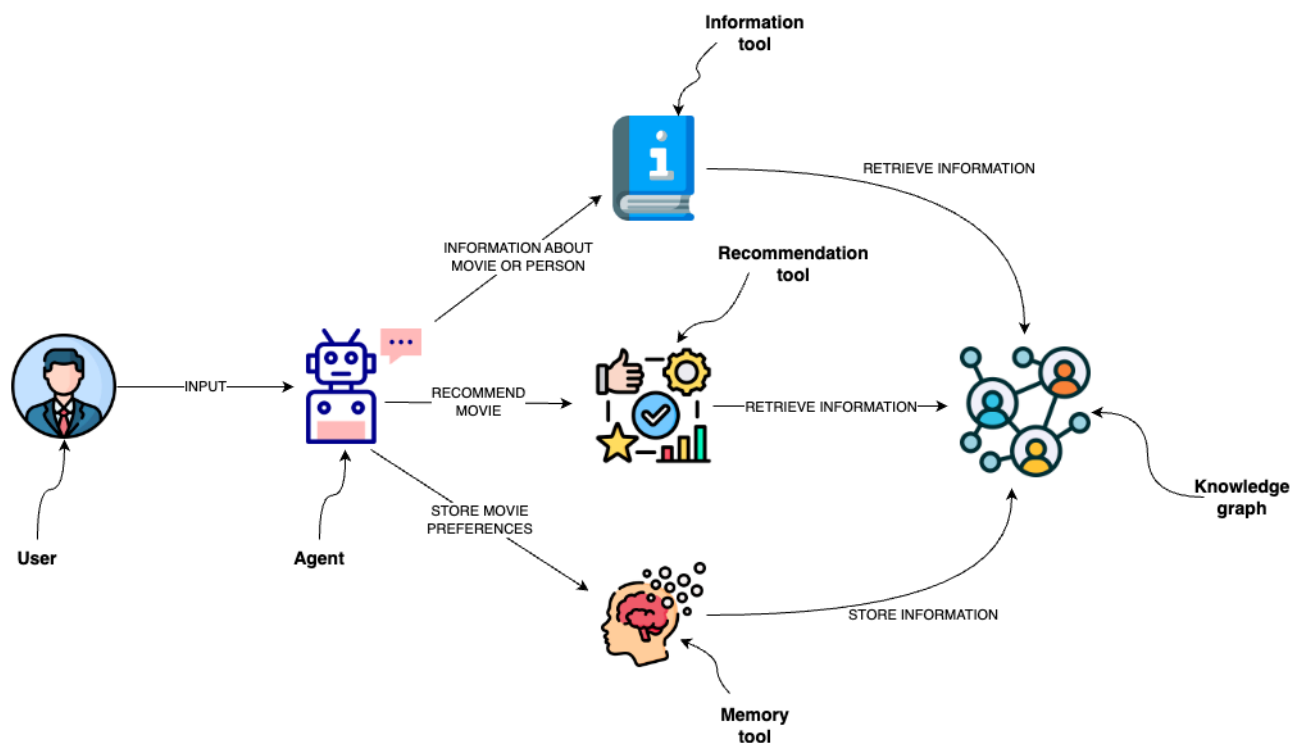


Technical details & Methodology

Current approach:

Our current efforts look towards building a simple platform that allows businesses to gain objective perspectives on their customers' sentiments. In the true nature of market intelligence, we provide analytics and visualize data on consumer sentiments - Overall Sentiments, Net Promoter Score (NPS), Customer Segmentation, Trend Analysis, Top Themes of Discussion. Providing simple analytics may not be the most understandable to a business that just wants to get things done, hence a model would get that job done. It all starts with good data - our current model builds upon a knowledge graph of perceptible consumer sentiments.

Specifically, a Knowledge Graph of Consumer Sentiments across various external data sources including social media platforms on a specific topic. Current topic approach is food and beverages sentiments in Malaysia. Additionally, more knowledge graphs could be provided and built for various businesses from reviews of their businesses on the internet.



Langchain's Neo4j Semantic Layer Approach

The knowledge graph is built on top of sentiment analysis with small language models (SLMs) on comments relating towards social media posts and business listings across the internet. The

relationship of these sentiments would provide an encompassing perspective for larger language models (LLMs) to provide a generalized perspective. Our approach follows the figure above, through langchain's graph database semantic layer approach - on customer sentiments of user's businesses.

Our biggest bottleneck and current challenge is ensuring accuracy and objectivity of the generalized insight the model generates. LLMs are prone to hallucination, but will be refined further with more iterations.

Future approach:

In the near future, we envision OtakOtak.ai as a platform that democratizes AI, making it accessible and affordable for small businesses that can't invest in high-end AI products. By analyzing customer behavior through company data, OtakOtak.ai will empower businesses to make smarter strategic decisions.

Beyond being a fine-tuned LLM, OtakOtak.ai will continue to be refined into an autonomous agent capable of researching, analyzing, and gathering the most current information to produce meaningful insights for its users from legitimate and trusted resources.

Currently in its early stages, OtakOtak.ai will be further trained to recognize customer sentiments on various events and understand consumer behavior across different categories, including age groups, gender, geographical locations, and income groups. The model will be continually fine-tuned to become a comprehensive solution for all market intelligence needs for businesses.

How OtakOtak.ai Will Achieve This:

1. **Data Collection:** Aggregate data from consumer interactions, social media, and other sources to create a comprehensive data pipeline.
2. **Analysis:** Using simple analytics to generate actionable insights about consumer behavior, preferences, and trends.
3. **Reporting:** Provide businesses with detailed reports and dashboards that highlight key consumer insights.
4. **RAG:** Building a scalable and sustainable RAG pipeline to gather the most up to date data available online and in the business itself.

Next Steps:

1. **Develop a Comprehensive Analytics Platform:** Build or integrate a platform that can collect and analyze consumer data from multiple sources.
2. **Localize Insights for SEA Markets:** Ensure that the insights and recommendations are tailored to the cultural and economic context of each SEA market.