Wolt-Product Management Internship Assignment

Improving in-app search functionality

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1. **Although there are relatively few tag-based queries, each query is incredibly efficient or popular, generating a high volume of searches.**

Query Type Comparison based on Number of Queries and Total Search Count
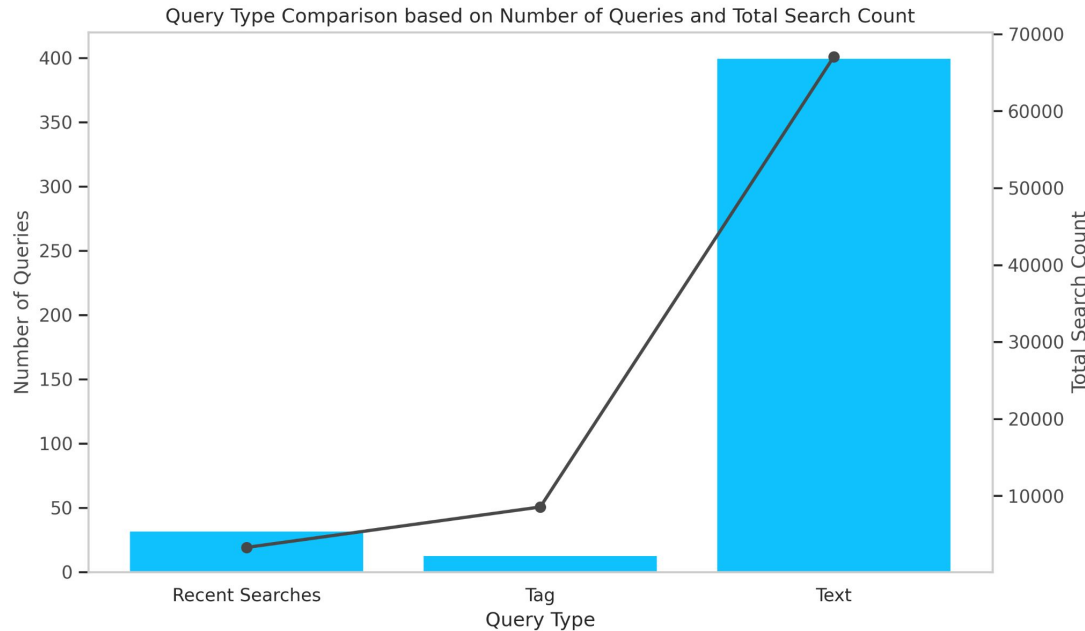
Query Types	Average Search
Recent Search	103
Tag	658
Text	168

The "Tag" query type has a significantly higher average search count compared to other query types.

There is an opportunity to optimize the content or categories associated with tags.

=> Tags are a powerful tool for users to search for specific items or categories on Wolt.

1. Tag-based queries have much higher conversion *

Mean Conversion by Query Type
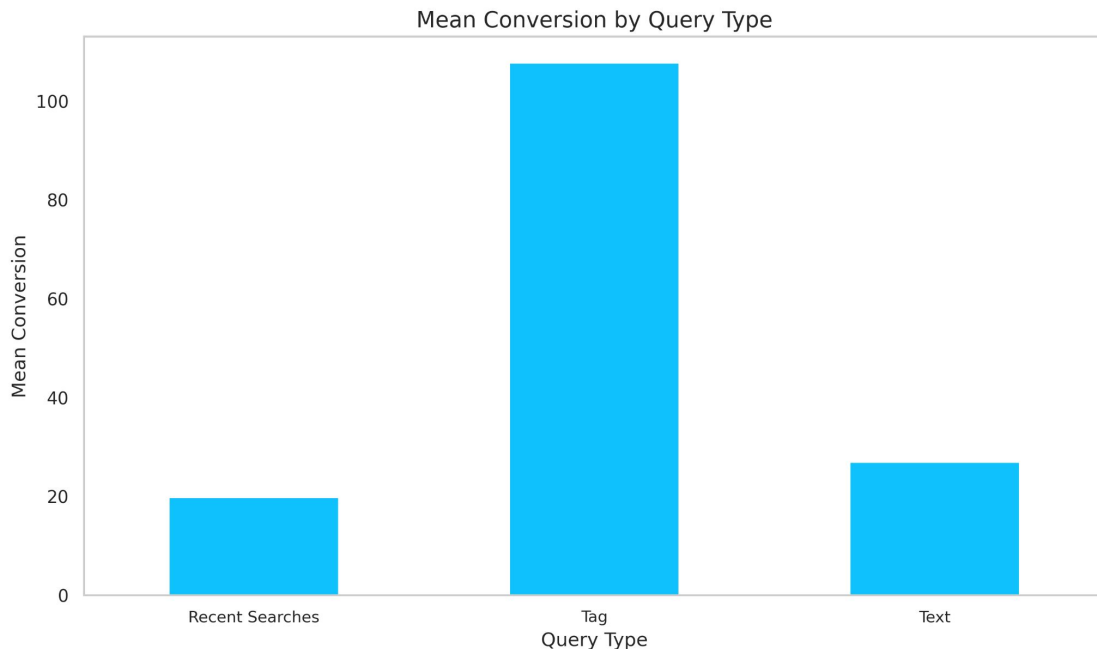
* Conversion = Conversion rate x Search count

=> indicates how effectively each query type drives purchases, enabling fair comparisons regardless of search volume.

- The higher mean conversion for the "Tag" query type indicates that users find **tag-based content more relevant**, leading to better alignment with their intent.
- Focusing on optimizing and promoting tags can **enhance user engagement** and **drive higher conversions.**

1. Making Wolt's tag system more dynamic and relevant to users

Current Limitations:

- Tags **remain the same across different users and times**, limiting personalization and relevance.
- Tags are **not organized into categories**, making it harder for users to find relevant options quickly.

Suggested Improvements:

- **Dynamic Tags:** Update tags based on user behavior, location, and time of day to improve relevance.
- **Category-Based Tags:** Group tags into categories (e.g., Popular Searches, Restaurants, Shops, Cuisine Types) to catch users' attention and guide choices.

Competitor Benchmark:

- **Foodora**'s Approach: Features popular searches for restaurants and shops, enhancing discoverability and user satisfaction.
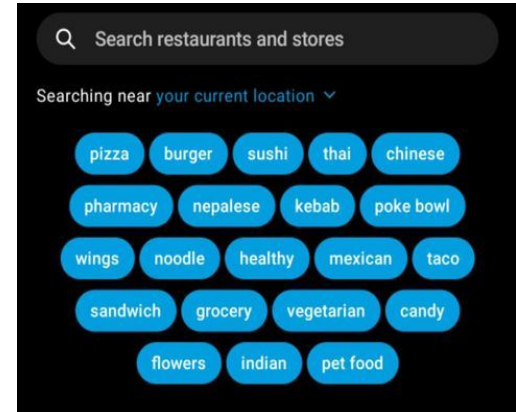
2. High frequency of typos and variations in Wolt searches impacts search accuracy and user experience

| Intended Query	Common Typos/Variations
mcdonalds	mcdonals; macdonalds; mcdonald's; mc dona; mc donal; mc donald; mcdonald; mc donalds; mcdonald; mcdonal; mcdona; mcdonalds; mc donalds
kotipizza	kotipizz; kotipi; kotipizza; koti pizza
thai orchid	thai orchid; thai o, thai or
friends & brgrs	friends & burgers; friends and; friends and burgers'; friends &; friends & brgrs
taco bell	taco b; tacobell; taco be; taco bell
wolt market	wolt m; wolt ma; wolt market; wolt mar
subway	sunway; subway

The reason for this can be **Wolt's continuous search function**, which shows results as users type.

Implications:
- **User Experience:** Frequent typos can lead to less accurate search results, potentially causing user frustration or slower navigation.

- **Data Analytics:** The variation in search queries complicates data analytics, as tracking actual user intent requires cleaning and normalizing diverse inputs.

2. High Empty Result Rates for Variations of McDonald's Queries

When users input common variations like "macdonalds," the absence of relevant results—such as showing any McDonald's locations—can lead to frustration and dissatisfaction.

Search Results Analysis for McDonalds Queries
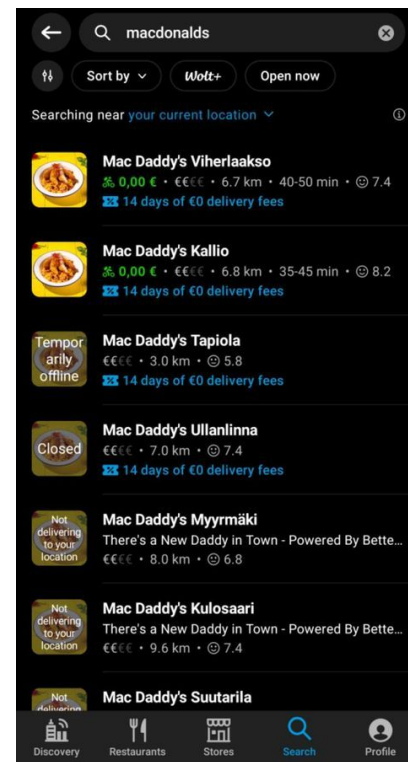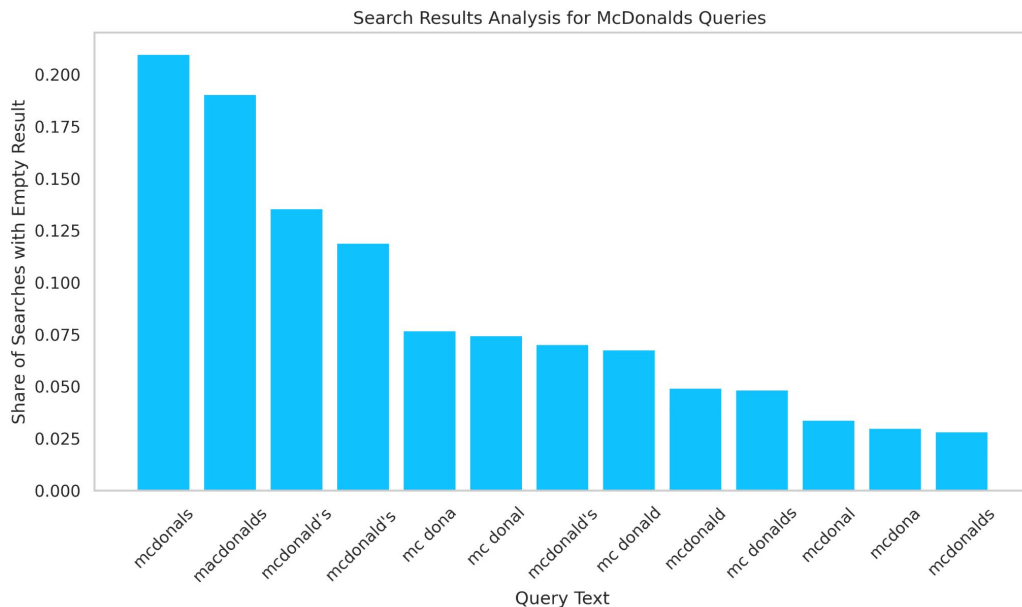
2. Improving Wolt's Search Functionality: Enhancing Error Recognition

Current Limitations:
- Wolt's search engine struggles with recognizing typos and variations in user queries, leading to high shares of empty results.

Suggested Improvements:
- **Enhanced Search Algorithm:** Use machine learning to correct typos in real-time for relevant results.
- **Semantic Search Capabilities:** Implement context understanding to interpret user intent, even with misspellings.

Search Engine Benchmark:
- **Google** is excel at identifying user intent despite typos, ensuring quick and relevant search outcomes. Wolt can improve user experience by adopting similar strategies.
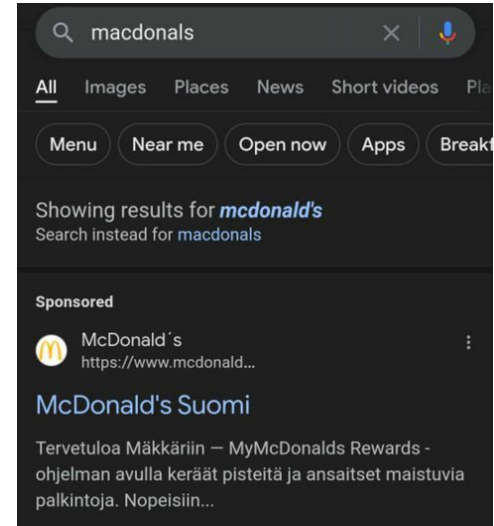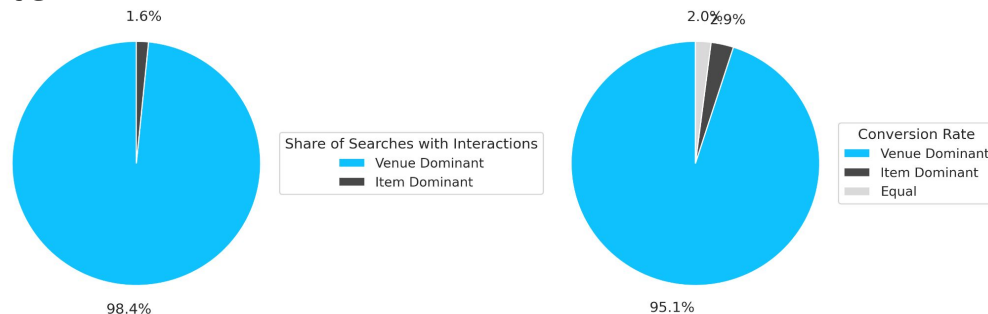
3. Comparison of Venue and Item Results: Interaction, Conversion Rates, and Order Position Insights

Share of Searches with Interactions:

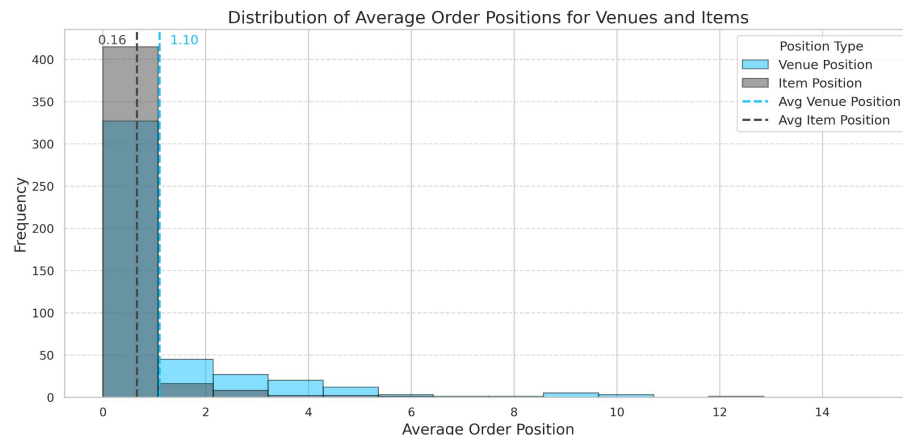- Venue results show higher interaction rates, indicating greater user engagement.

Conversion Rates:

- The higher conversion rates for venues suggest users are more likely to complete orders after selecting venue results.

Order Position Dynamics:

- Users tend to scroll more for venue results, showing a willingness to explore
- Item results may lead to quicker decisions, highlighting the need to improve item visibility and appeal.

The Share of Searches with Interactions for Items and Venues are compared to determine whether a query is item-dominant or venue-dominant. Same for Conversion rate

3. Key Traits Driving Item-Dominant Searches

Why Item Results matter?

- **Unique to Wolt:** Wolt's **item results** set it apart from competitors like Foodora.

=> Examining these queries can show us which item results attract users and drive sales.
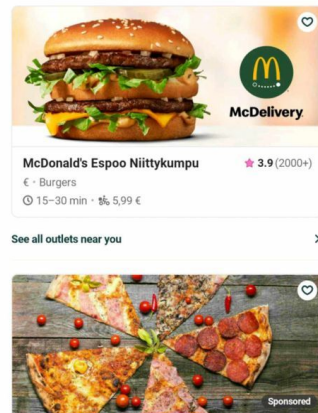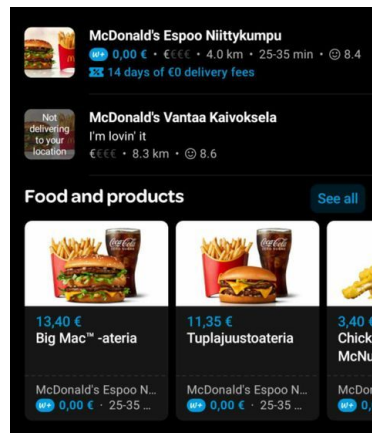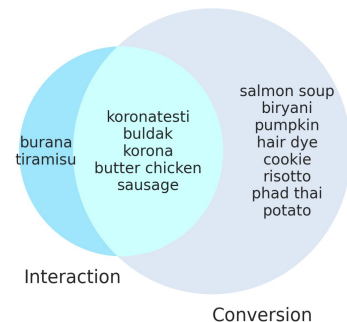
Key Traits of Queries with Item Dominance

- **Clear Intent:** These are distinct products, so users often search with a precise item in mind rather than exploring venues.
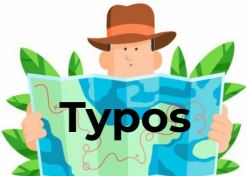- **Convenience:** Users want quick access to specific products. (groceries)

Implications for Wolt

- **Tailored Recommendations:** Provide personalized item suggestions based on user preferences and past searches.
- **Streamlined Navigation:** Enhance the search interface for quicker access to specific products, particularly essential items like groceries.

Queries with Item Dominance in Interaction and Conversion

Interaction

Conversion

4. Measuring the impact of proposed improvements on Wolt's Search

	Tag	**Typos**	**Item Result**
Improvements	• Dynamic Tags • Category-Based Tags	• Enhanced Search Algorithm • Semantic Search Capabilities	• Item-Tailored Recommendations • Streamlined Navigation
Benefits	• Enhance relevance of search results • Increase user engagement	• Improve accuracy of search results • Reduce user frustration	• Increase visibility of relevant items • Quicker access to essential products
Target	• All users, particularly those searching for trending or localized options.	• Users who frequently make typos • Wolt analysts seeking to optimize search performance.	• Users seeking specific items, particularly groceries and popular products.
Metrics	• Track user interaction rates and conversion rates before and after implementation.	• Monitor the decrease in empty search results	• Analyze interaction rates and conversion rates for recommended items

4. Prioritization of Suggested Improvements

Criteria for Prioritization:

- **User Impact:** How significantly the improvement affects user experience.
- **Feasibility:** The ease of implementation, considering resources and time.
- **Expected ROI:** Assess the potential return on investment, considering both short-term gains and long-term benefits => hard to assess with limited data

Suggested Prioritization Order:

Typos

- **Enhanced Search Algorithm**
- **Semantic Search Capabilities**

01 —

Tags

- **Dynamic Tags**
- **Category-Based Tags**

02 —

Item Results

- **Item - Tailored Recommendations**
- **Streamlined Navigation**

03

Prioritization Matrix:

High

Category-Based Tags

Item-Tailored Recommendations

Dynamic Tags

Enhanced Search Algorithm

Semantic Search Capabilities

Feasibility

Streamlined Navigation

Low

Low   **User Impact**   High