

Project 1: JOB SUPPLY & DEMAND DASHBOARD

[Gitlink](#)

Overview

- **Goal:** Create Job Supply & Demand Dashboard for our online job marketplace platform. Determine the gap between supply candidate and demand job. Find out how many additional users and jobs we need to drive marketing effort.
- **Description:** Tracking weekly job and user metrics, calculate new metrics to give actionables for the team
- **Data source:** Metabase, Amplitude
- **Result:** The dashboard has been used to check the balance bi-weekly and suggested next action in the Growth team.

week_start_date	city_name	I1	I2	min_years_of_experience	job_duration_range			Grand Total	job_duration_range			Grand Total	job_duration_range			Grand Total	Grand Total	Grand Total	Grand Total	Grand Total	Grand Total	Grand Total
					0 - 14 days	14 - 30 days	> 30 days		0 - 14 days	14 - 30 days	> 30 days		0 - 14 days	14 - 30 days	> 30 days							
					Number of Job				Total applications				MEDIAN - Application Per Job				Actionable	Users Seen	Super Active Users	Applicants Seen	Additional Jobs	Additional Users
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	0													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	1													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	3													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	5													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Others	Government Affairs	1													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Digital Marketing	0													Balance					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Digital Marketing	1													Balance					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Digital Marketing	3													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Digital Marketing	5													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Marketing	0													Push Job					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Marketing	1													Push User Hard					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Marketing	3													Small Job					
2023-11-26	Thành phố Hồ Chí Minh	Marketing	Marketing	5													Small Job					

Key Responsibilities and Contributions:

1. Conducted user research for user satisfaction

In our user research phase, we delved into the expectations of employers posting jobs on our website. Notably, a survey involving 400 participants revealed that the optimal number of job applications per posting, according to employers, is 10.

From our side, we want to track the job and user based on some demographic like:

- **week_start_date:** The week when data being recorded
- **city_name:** The job location
- **I1:** Job category
- **I2:** Job subcategory

- **min_years_of_experience:** Job min experienced required

Based on this information, our team can specify which job/ user section to target.

<i>week_start_date</i>	<i>city_name</i>	<i>I1</i>	<i>I2</i>	<i>min_years_of_experience</i>
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	0
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	1
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	3
2023-11-26	Thành phố Hồ Chí Minh	Others	Others	5
	Thành phố			

2. Collected data by SQL and created metrics from data lake

To archive the desired application, our Marketing team and Sale team have to work together to provide an amount of jobs and users to have the right ratio to archive 10 applications/ job.

I got all metrics related to How many more users/ jobs we need?

- **Number of Job:** Jobs created before week end date and still OPEN during the week
- **Total applications:** Sum of applications created before week end date in job opening
- **MEDIAN - Application Per Job:** The median number of Application each job having
- **Users Seen:** All user id with at least 1 view job event in that week
- **Super Active Users:** All user ids with at least 20 view job event in that week. These kind of users is more active and more likely to apply. (Since the average jobs view before apply is 20.)
- **Applicants Seen:** All applicant id with applications in open jobs

But since 90% jobs only last for 30 days. We wanted to track the applications / job based on job duration to evaluate if we got the good number of applications coming.

We separated jobs into 3 types of duration:

- **0 - 14 days:** Which is a new duration, low expectation from employers.
- **14 - 30 days:** Right moment to archive employer's expectation.
- **> 30 days:** If we haven't archived at this time, we have to put more effort into this.

So for job related metrics (Number of Job, Total applications, Application Per Job), we want to separate it into 3 types of job duration.

4. Setup report and monitored weekly

On a weekly basis, we delve into the data, examining the movements and trends. This involves assessing the actionable insights derived from our calculation formulas. By keeping a keen eye on Additional Jobs, Additional Users, and Actionable recommendations, we gain valuable insights into the balance between job supply and user demand.

The report becomes a crucial tool in decision-making, guiding us on the necessary steps to take for acquiring new users and jobs in the marketplace. It serves as a compass for the growth team, indicating whether a push on users, jobs, or a more intensive strategy is required to maintain equilibrium.

This iterative process ensures that our marketing efforts remain targeted and effective. Have you noticed any particular patterns or outcomes during these weekly check-ins?