

Employers on Job Matching Platforms

Digital Platforms and Women's Economic Empowerment (DP-WEE)

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1 Executive summary

- Data comprising over 100,000 employers sourced from a job-matching platform for the period July 2016 until December 2022, to understand the composition of employer demand and decisions to hire workers on these platforms.
- AI-based algorithm matches employers with 5 - 7 suitable job seekers for a specific job profile. There is a higher representation of women matched workers (80%) due to the nature of the job types on the platform.
- The study finds gendered job profile featuring, where women are more likely to be featured in jobs such as, babysitters, beauticians, cooks, and helpers, while men are primarily featured in jobs of technicians, drivers, and salespersons. This indicates both gendered job preferences of workers and employers registered on the portal.
- Around 94% of the featured workers received calls from employers, while only about 6% did not, indicating a high call back or demand rate.
- A sub-sample of about 50% of employers on the platform with more detailed data, reveals that 20% of employers hired workers from the platform. Among the hired workers, 83% are women and 17% are men.
- The study also highlights the large unmet demand for these job types, indicating that there is limited supply of 'quality' labor relative to the demand.

2 Introduction

In this report spanning over six years, from July 2016 to December 2022, we analyse data of over 100,000 employers sourced from an online job aggregator platform. This novel dataset allows us to study the behavior of employers which is pivotal in understanding the dynamics of how job seekers and employers engage on digital job platforms. The following section provides a background on the digital job aggregator platform that we have collaborated with for this study.

The portal uses an AI-based algorithm that matches employers to job seekers listed on the portal. The hyperlocal nature of this match, much like Uber services, is a key feature of the portal as it matches employers to locally available workers. Employers input their preferences – the job profile they are hiring for, the education level of workers they need, the type of engagement they are looking for (part-time/full time) – and the algorithm presents a curated list of 5-7 potential candidates for the job. This report focuses on the empirical insights derived from the portal's data, unveiling noteworthy aspects of employer engagement, preferences, and decision-making.

The report first provides a brief outline of the process through which employers can search for workers on the portal in Section [3](#). Next it discusses the data on the engagement of the employers on the portal – the search for workers and the hirings on the portal (Section [4](#)). In Section [5](#), it shows the composition of workers featured to employers, from a gender-based perspective. It highlights the prevalence of women in the featured worker pool. Further analysis of job profiles reveals a clear gender division, where certain job profiles are dominated by women and others by men. Finally, in Section [6](#) we explore the response of employers to the workers featured on the portal.

3 Digital job aggregator platform: Background

We partnered with a job-matching platform - a hyperlocal mobile and web app-based job aggregation platform - that connects potential employers directly with multiple blue-collar workers located physically close to them for permanent or temporary hiring, much like Uber.

The platform began operating in July 2016 and focuses primarily on urban regions in India. 51% of individuals who joined the portal looking for work are women, which enables the platform to empower women economically.

Once a worker registers on the aggregator's portal, their details are stored on the platform's database. Whenever a local employer is looking for a worker with a matching profile the job seeker is matched to the potential employer.

A potential employer can find and hire locally available workers through the website or app of the job platform. The process starts with selecting the job profile they are looking to hire from a list of job profiles available on the portal, including domestic workers, office workers, drivers. On choosing the profile, the employer specifies the location in which they are looking to hire a worker, which allows the platform to present a list of potential matches with registered workers. The employer can select a worker based on details of job seekers, viz. name, experience, age, gender, marital status, education, expected salary, current location and preferred to distance to work. In the report, we refer to the steps up to this stage as *Job Search*. Once this *Job Search* stage is reached, if the employer is interested in contacting one more more of the listed job seekers they can make a payment to the portal to access to the mobile number of the listed job seeker(s) and directly call them (on his or her registered phone number) to make the job offer. This process is akin to placing an order for a worker, and henceforth, we will refer to it as *Job Order*. Note that the portal does not record the actual conversation between the two parties or the final outcome of the job offer. However, the employer can ask the platform for reimbursement if they are not satisfied with their search outcome.

The job matching platform potentially reduces the job search costs of blue-collar employers as follows:

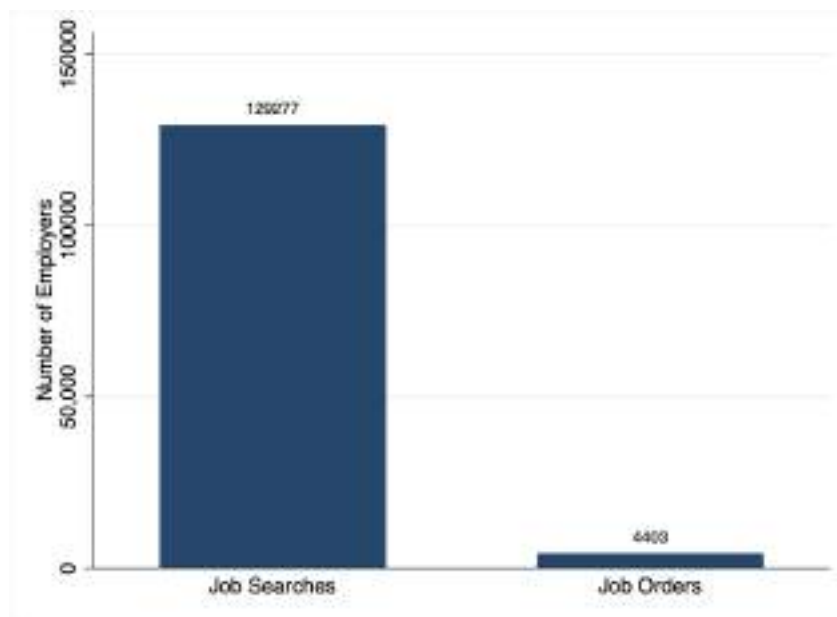
- The employers can post the requirements online and get matched to locally available job seekers.
- The employers specify their search preferences (job profile and location) and are shown the top 5-7 matching candidates. There is a marginal fee for accessing the mobile number of the listed workers.
- On paying this fee, the employer can directly call the matched workers on their registered phone number and discuss the job offer.
- If the employer is not able to find a suitable worker they can ask for a 100% refund within 15 days of placing the order.

4 Employers on the job search portal

For the analysis of employer engagement on the portal, we utilize over 6 years of data from the digital job aggregator platform. In this section, we use two types of data from the portal: (1) *Job Searches* data which includes data of employers searching for workers for over 3 lakhs jobs and (2) *Job Orders* data which includes data of employers that paid for the platform service to access the contact information of job seekers for over 5000 jobs.

Between July 2016 and December 2022, more than 129,000 unique employers used the portal, looking for workers for over 300,000 jobs.

Figure 4.1: **Number of unique employers who searched for workers and who placed an order to contact featured workers**



Figures 4.1 and 4.2 show that the number of visitors is significantly lower than the actual orders placed on the portal. This highlights the existence of a large unmet demand for blue-collar workers. As shown in Table 1, there has been considerable expansion in the usage of the portal since its inception in 2016.

We next delve into the various types of job profiles that interest employers on the portal. Figure 4.3 shows the number of job searches done by various employers for each job profile. Others includes all the remaining job profiles. Almost one-third of the job searches on the portal are for helpers. These helpers include maids, assistants, factory helpers, medical helpers, receptionist, etc. This is followed by cooks, babysitters and drivers.

Figure 4.4 shows the number of searches that transformed into orders on the platform by job profiles. Similar to the search pattern, the highest number of orders were placed for

Figure 4.2: Number of searches for workers & orders to contact featured workers

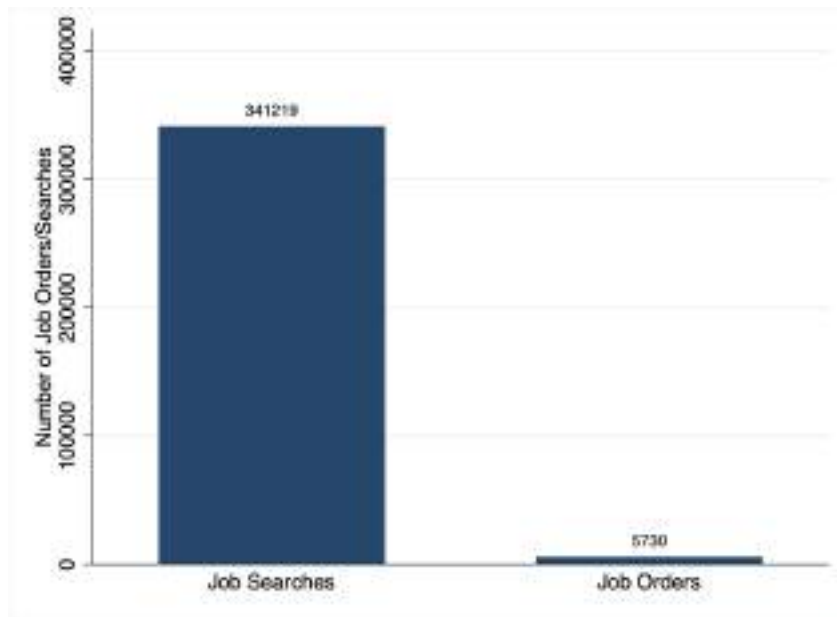


Table 1: Job Searches and Orders by year

Year	Job Searches	Job Orders
2016	7,780	119
2017	13,338	282
2018	12,015	228
2019	32,080	761
2020	51,169	891
2021	99,202	1,687
2022	125,635	1,762
Total	341,219	5,730

helpers, followed by cooks, babysitters and drivers.

Figure 4.3: Number of job searches by job types

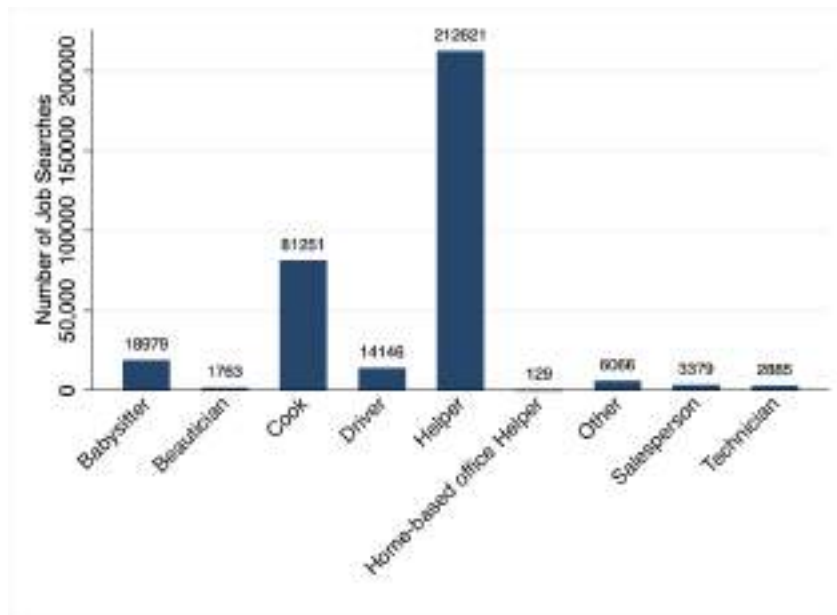
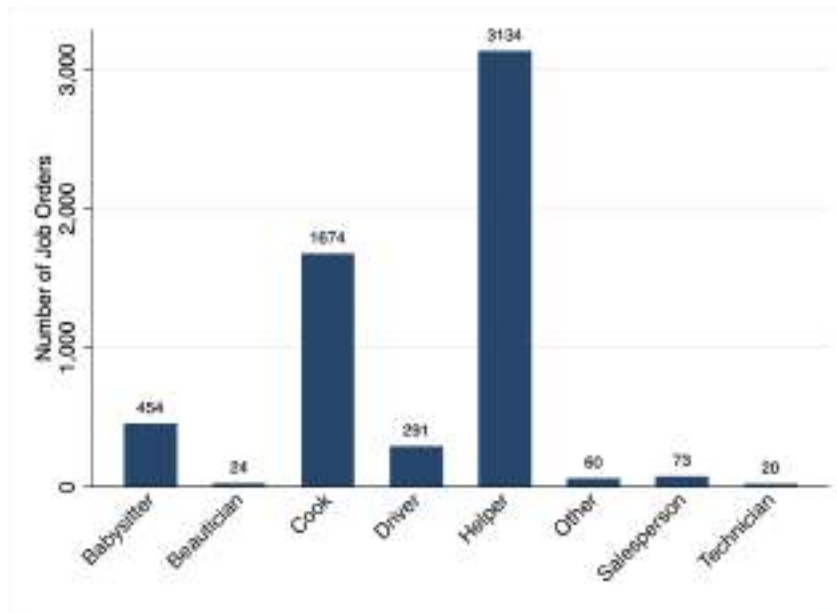


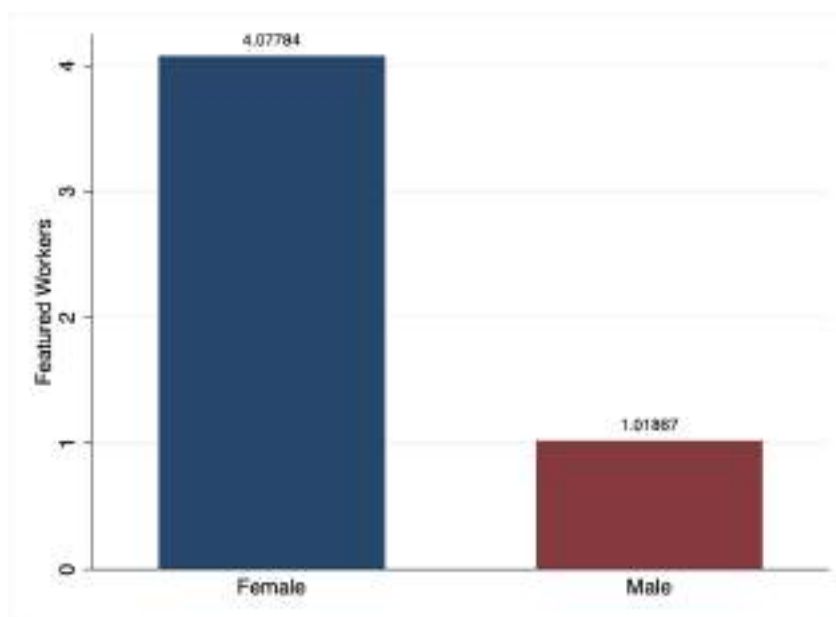
Figure 4.4: Number of job orders by job types



5 Workers featured to employers

Once an employer puts in their preferences, they are matched to the best-fit job seekers on the portal by an AI-based algorithm. In this section, we use data on 5730 job orders placed between 2016 to 2022 to summarise the characteristics of featured workers for each job order. On average, 5 workers were featured for a job order from an employer. Figure 5.1 depicts the gender composition of the workers. Clearly a greater number of women were featured compared to men, which is attributable to the nature of the platform itself as it caters to employers looking primarily for domestic workers.

Figure 5.1: Gender of the workers featured per job order



53% of the jobs had at least one female featured in the list and 57% of the jobs had at least one male featured (Figure 5.2).

Next, we examine the workers who are featured by job types, as shown in Figure 5.3. The figure highlights a clear gender division in workers featured in specific job types. Women are featured in all jobs for babysitters but did not feature as technicians or in other job profiles, e.g. Supervisor, Operator, Logistic Executive, etc. For beautician, cook, and helper profiles, mostly women were featured, while for Driver and Salesperson jobs, mostly men were featured. These data indicate that the job preferences of the registered workers differ significantly by their gender, and also highlight the gender-based occupational segregation in India's labor market.

Figure 5.2: Proportion of jobs featuring at least one female and male worker

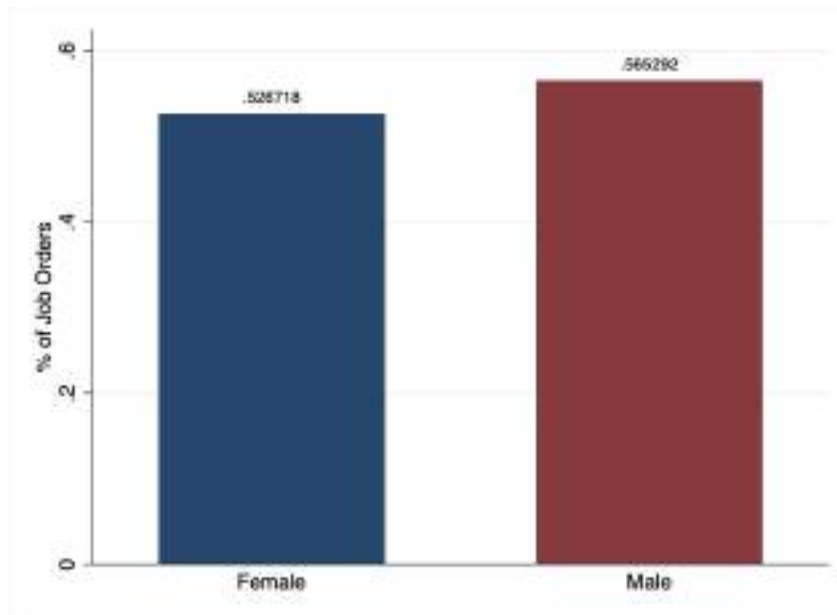
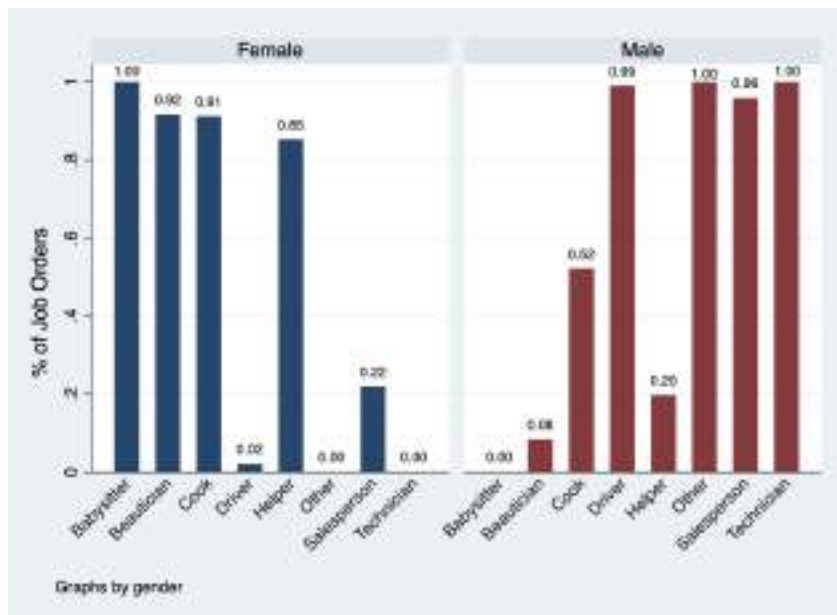
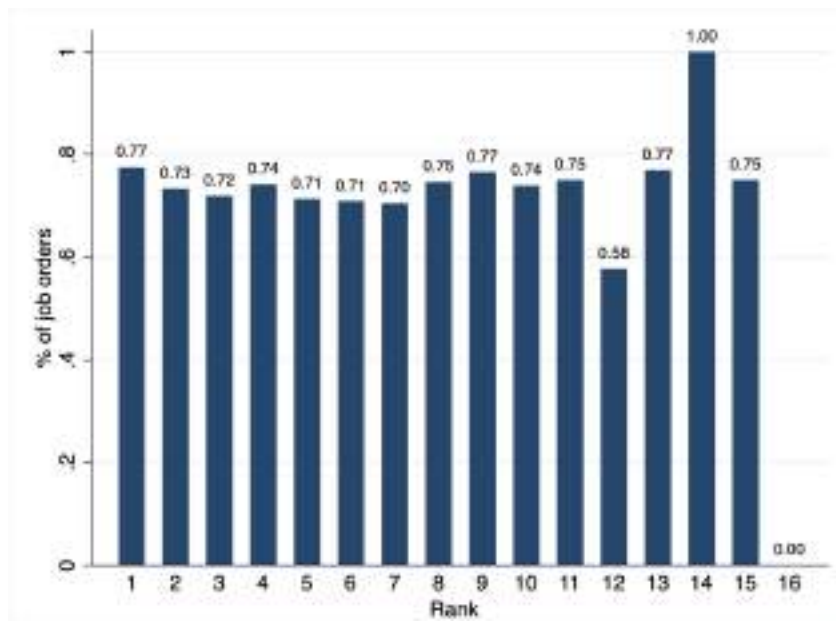


Figure 5.3: Proportion of workers featured atleast once in a job type, by gender



The featured list of workers visible to an employer is rank ordered with the most suitable candidate at the top of the list followed by the other, less suitable candidates. In Figure 5.4, we plot the proportion of female job seekers featured at each rank. In 77% of the jobs, women were ranked at the top of the feature list. Notably, 80% of the featured workers are women.

Figure 5.4: Rank in which female job seeker is featured (% of job orders)

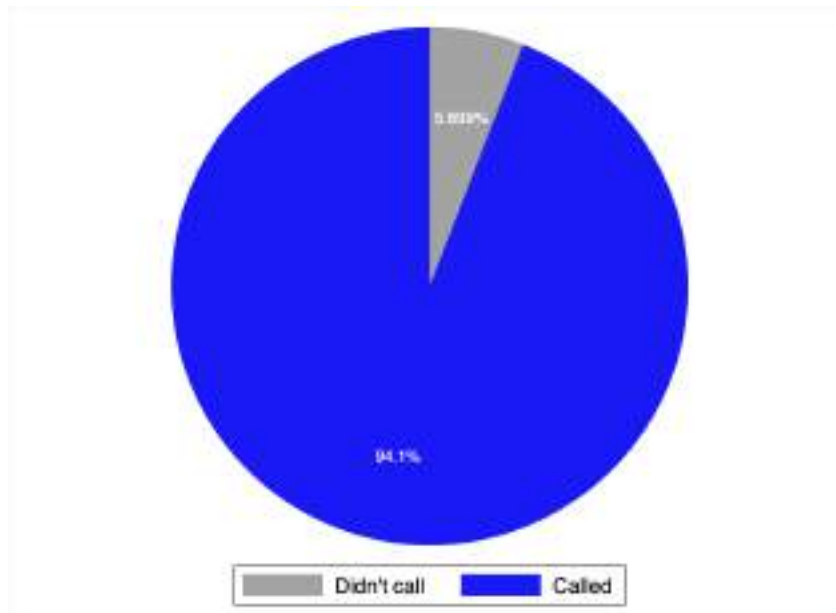


6 Employers response to featured workers

Once an employer subscribes to the portal's services by paying a fee, they gain access to the contact information of workers who match their preferences. The employer can then directly contact these workers to discuss job offers. Multiple job seekers are typically featured for a job, usually 5-7, and the employer can choose the workers they wish to call. They have the option to call multiple workers and can do so multiple times. In this section, we discuss the responses of employers for the 5,730 orders they placed for worker(s).

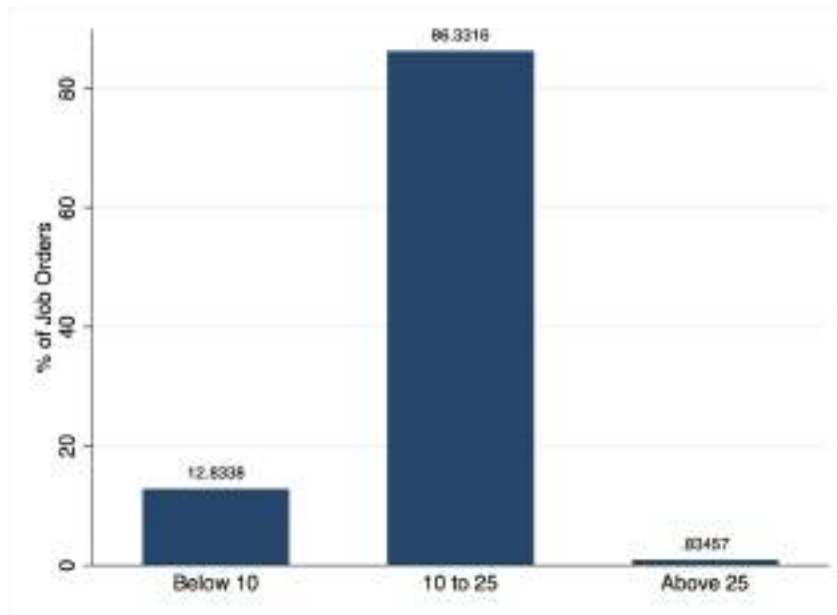
As shown in Figure 6.1, about 94% of the featured workers received calls, while only about 6% did not.

Figure 6.1: **Proportion of employers who called worker(s) featured for the job order**



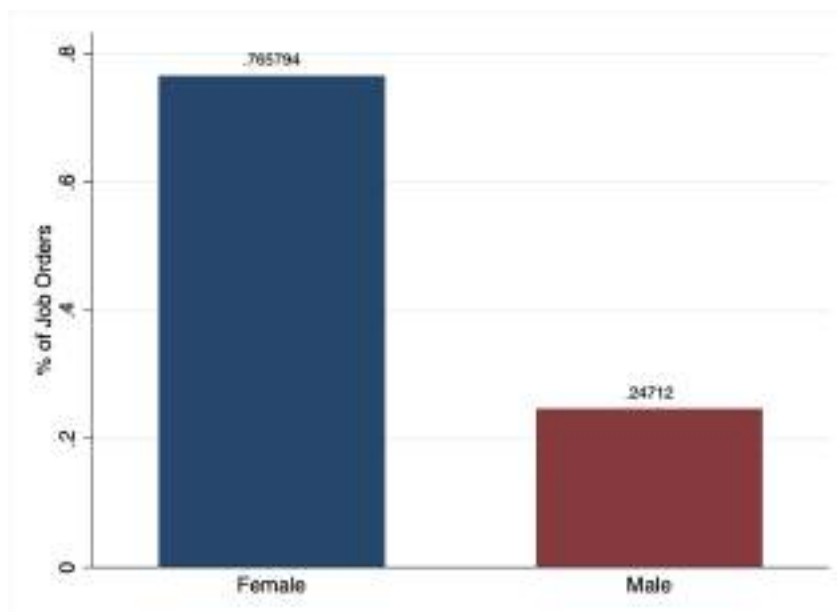
Of the employers who called workers, approximately 86% made between 10-25 calls, 13% made less than 10 calls, and less than 1% made more than 25 calls for a job order.

Figure 6.2: **Number of calls made by employers per job order (conditional on deciding to call)**



We also find that for 77% of the orders at least one female received a call from the employer and for men, it was 25% (refer Figure 6.3). Recall from Figure 5.2 that 53% (57%) jobs featured at least one female (male) job seeker. This indicates the pro-female calling rate by employers on this portal.

Figure 6.3: **Proportion of workers called by employers (per job order), by gender**



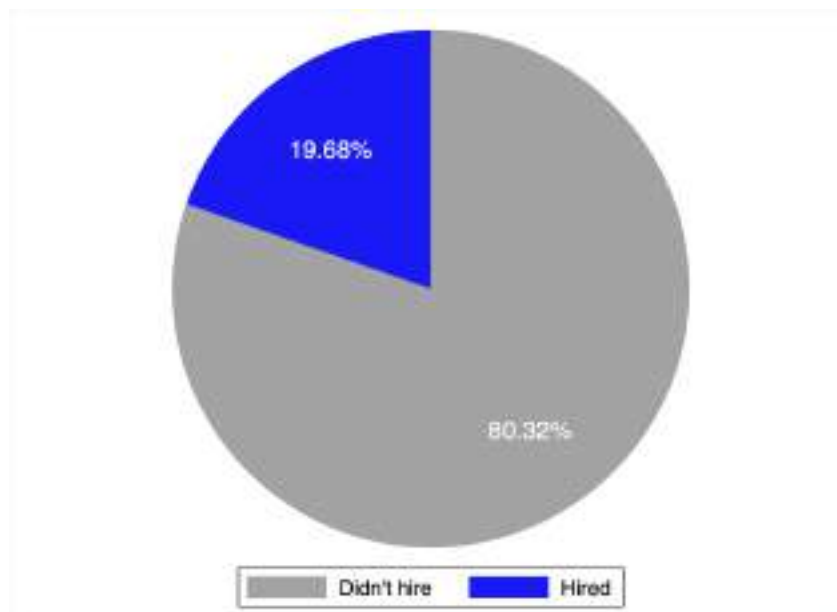
Once the employer contacts the workers, they can continue the process of negotiating

and finalizing the job contract independently, outside the purview of the online portal. This post-call interaction typically occurs directly whereby employers and job seekers discuss specific terms and conditions related to the job. This practice is not specific to this particular digital job platform but is a common feature across most such platforms. As a result, this transition from initial contact on the platform to offline negotiations poses a data challenge for researchers.

In our dataset, we also do not have information about the hiring decisions for 53% of the job orders on the platform. However, for the remaining 47%, the portal has recorded these decisions. While our ability to gain insights into the final job agreements for the entire sample is limited (and possibly selective), we can derive valuable insights from this available subset.

We find that 20% of the employers hired workers from the portal. Of those hired, 83% are women and 17% are men.

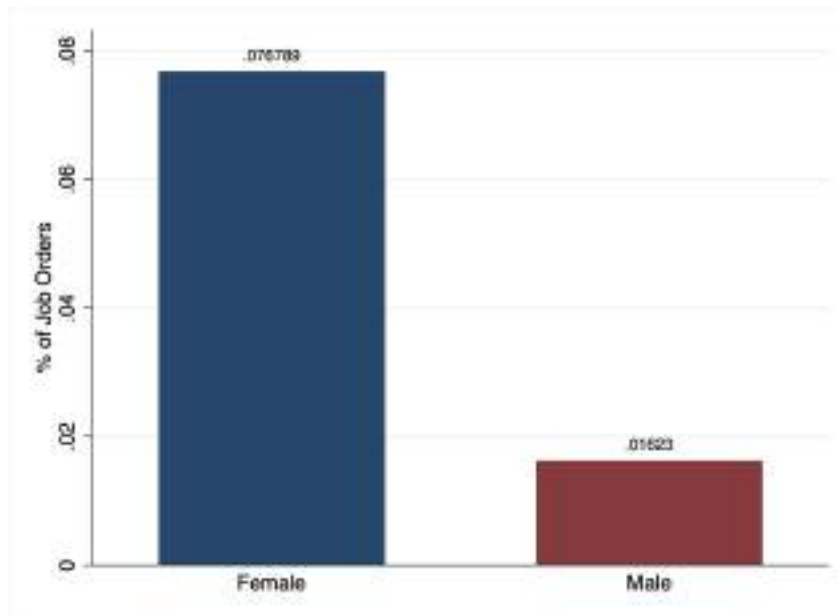
Figure 6.4: **Proportion of employers who hired worker(s) by job order**



We also examine the likelihood of being hired conditional on receiving a call from the employer. Figure 6.5 shows that 8% of women who received a call from the employer were hired but only 2% of men who received a call were hired. Hence the call to hire conversion rate is low, as is apparent with most job matching portals.

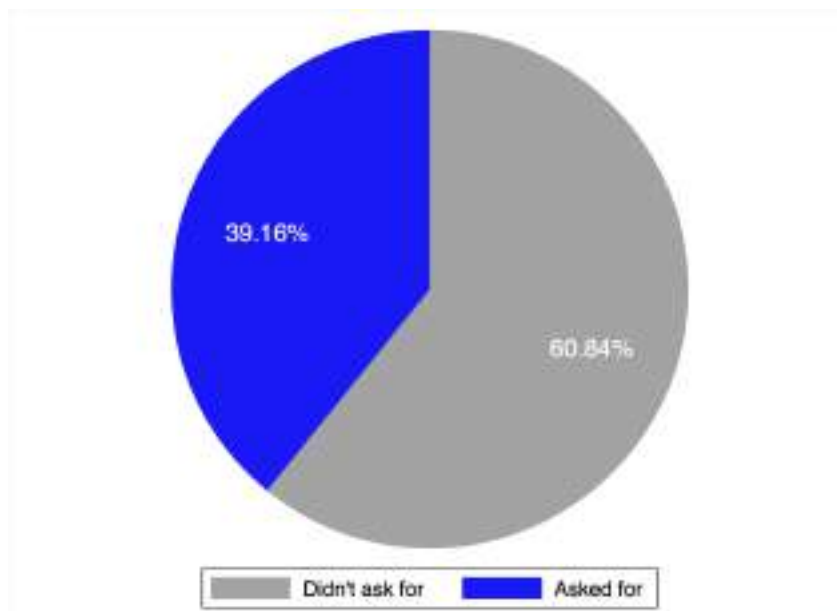
In the scenario, where the employer is not able to find any satisfactory worker from the feature list they are guaranteed a reimbursement from the portal. Figure 6.6 shows that

Figure 6.5: **Proportion of workers hired for a job order (conditional on being called), by gender**



about 39% of employers asked for a reimbursement. This suggests that worker 'quality' is not sufficient to meet the demand for such jobs.

Figure 6.6: **Proportion of employers who asked for reimbursement for a job order**



7 Conclusion

This analysis provides a comprehensive snapshot of the employer dynamics from observations on the digital job portal. This examination of employer preferences, engagement patterns, and hiring outcomes offers valuable insights into the digitised recruitment and employment decisions. The study also highlights the gender disparities in job profile preferences and hiring outcomes. As the digital recruitment landscape is evolving, understanding these patterns becomes important not only for the efficiency of platforms but also for ensuring an inclusive job market. Despite the data limitations and the black-box of offline negotiations, this report contributes to the ongoing discourse on the future of digital job platforms. Notably, the findings from this study pave way for further research into the evolving dynamics of digital hiring and policy considerations from a gender perspective.

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