LABOUR LINK

A report of the project work submitted in partial fulfilment of the requirement of

MASTER OF SCIENCE

IN

COMPUTER SCIENCE - DATA SCIENCE

by

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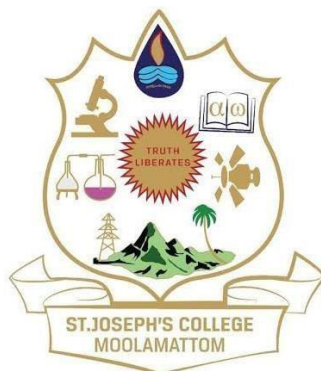
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MARCH 2024

DECLARATION

I declare that the project entitled LABOUR LINK is a work done in partial fulfilment of the requirements of Vth Semester Five Year Integrated MSc. Computer Science – Data Science by St. Joseph's College Moolamattom (Affiliated to Mahatma Gandhi University) under the guidance of Sr. Jinsi Jose (Assistant Professor), Department of Data Science, St. Joseph's College Moolamattom.

I hereby confirm the originality of the work and that there is no plagiarism in any part of the project report.

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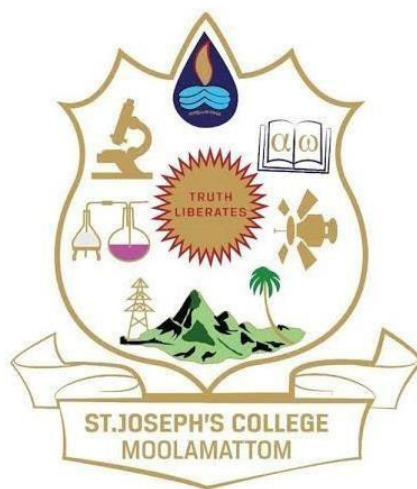
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ABSTRACT

The Labour Link project aims to address the pressing issue of unemployment by creating a user-friendly website that serves as a platform connecting job seekers and recruiters. The website facilitates the posting of labourers details and skills, allowing recruiters to easily find suitable candidates for various job opportunities. The primary objective is to enhance employment prospects by streamlining the recruitment process and eliminating the need for intermediaries. The purpose of the project is to develop a comprehensive website that caters to different categories of labourers while ensuring fair wages and maintaining quality standards. By providing a centralized platform, Labour Link aims to create more job opportunities and bridge the gap between employers and labourers efficiently. The website will feature detailed profiles of labourers, including their skills, location, and preferences, enabling employers to make informed hiring decisions.

Key features of the website include a user-friendly interface, ratings, and reviews functionality, and personalized job recommendations based on workers profiles. These features enhance the usability and effectiveness of the platform, making it easier for both job seekers and recruiters to connect and engage.

The major outcomes of the project are expected to include increased job opportunities for individuals, streamlined recruitment processes, and reduced reliance on traditional employment agencies or intermediaries. Labour Link aims to empower both job seekers and recruiters by providing a transparent and efficient platform for recruitment.

Recommendations for the project include continuous monitoring and updating of the website to ensure its effectiveness and relevance in the dynamic job market. Additionally, efforts should be made to promote the website among target users and stakeholders to maximize its impact on employment opportunities.

Overall, the Labour Link project represents a significant initiative to address unemployment challenges by leveraging technology to connect job seekers with recruiters efficiently. Through its user-friendly interface and innovative features, the website has the potential to revolutionize the recruitment process and create a positive impact on the labour market.

Keywords: Labour Link, unemployment, recruitment, job seekers, recruiters.

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CHAPTER 1

INTRODUCTION

In today's ever-evolving job landscape, individuals seeking employment and employers alike face a myriad of challenges that hinder seamless connections and fruitful opportunities. For job seekers, the journey to finding suitable employment often entails navigating a maze of job listings and intricate application processes. Limited visibility into available job opportunities can result in missed chances for employment and prolonged periods of uncertainty. On the other hand, employers grapple with the task of sourcing qualified candidates to fill vacancies, a task made more daunting by the lack of access to a diverse pool of talent. The absence of transparent platforms for showcasing job openings further compounds the challenge, hampering efforts to attract suitable candidates efficiently. Moreover, the geographical constraints and individual preferences of both job seekers and employers introduce an additional layer of complexity to the job market dynamic, making the process of matching candidates with suitable opportunities a time-consuming endeavor.

Addressing these challenges is crucial for empowering job seekers and facilitating meaningful connections in the job market. It is essential to develop solutions that cater to the diverse needs of both job seekers and employers, ensuring a more efficient and inclusive labour market. Through initiatives aimed at providing comprehensive job listings, transparent information on wages and working conditions we can streamline the job search process and foster a more harmonious employment ecosystem. By empowering individuals to find opportunities that align with their skills and preferences, and assisting employers in connecting with qualified candidates, we can pave the way for enhanced economic growth and prosperity.

1.1 NEED FOR THE STUDY

In urban and rural job markets alike, both job seekers and employers encounter numerous hurdles that hinder effective employment connections and opportunities. Job seekers often face limited access to job listings, leading to missed opportunities and prolonged unemployment. Without a centralized platform, many job seekers struggle to navigate the complex job market, resulting in frustration and disengagement from the workforce. On the other hand, employers grapple with difficulties in finding qualified candidates to fill job vacancies. Without access to a diverse pool of talent, employers may struggle to meet their staffing needs, hampering productivity and growth potential. Additionally, the absence of reliable platforms for showcasing job opportunities limits employers' ability to reach suitable candidates efficiently. Moreover, the geographical constraints and preferences of both job seekers and employers add another layer of complexity to the job market dynamics.

Addressing these challenges is paramount for empowering job seekers and facilitating meaningful employment connections. Labour Link emerges as a solution to these pressing issues, providing a digital platform tailored to the needs of both job seekers and employers. By offering access to a wide range of job listings, transparent information on wages and working conditions, and tools for personalized job recommendations, Labour Link aims to streamline the job search process and foster a more inclusive and efficient labour market. Through Labour Link, job seekers can find opportunities that align with their skills and preferences, while employers can connect with qualified candidates to meet their staffing needs effectively.

1.1.1 Problem statement

- To create a website for various categories of labours while maintaining their wages and quality of work to tackle unemployment.

1.2 OBJECTIVE OF THE STUDY

Recognizing the significant challenges encountered by both job seekers and employers, Labour Link emerges as a vital solution to bridge the gap and enhance opportunities within the labor market. Job seekers often face limited access to employment opportunities, while employers struggle to find suitable candidates, underscoring the critical need for our project. Labour Link is designed as a comprehensive online platform serving as a central hub for connecting job seekers and employers across diverse industries. By addressing pressing issues such as limited market access, pricing uncertainties, and difficulties in acquiring essential supplies, our project seeks to alleviate these challenges. It offers a user-friendly interface simplifying the job search process for both parties, enabling job seekers to showcase their skills and qualifications while facilitating efficient candidate discovery for employers. Additionally, Labour Link incorporates features like ratings and reviews to enhance transparency and detailed listings of labor categories, enabling precise matches between job seekers and available opportunities. Furthermore, the platform allows workers to specify their location and preferences, ensuring relevance and convenience in the job search process. Through outlining these objectives, we aim to provide a clear roadmap, emphasizing the significance of Labour Link and our specific goals in addressing the challenges faced by job seekers and employers.

1.2.1 Primary objective

To develop a website which create a platform that allows job seekers to find job opportunities and also links the employers with the labours.

1.2.2 Secondary objectives

- To create more job opportunities using a user-friendly website.
- To add Ratings and reviews.
- To display detailed list within the website to show various types of labours & their skills.
- To allow workers to specify their location and preferences for job opportunities.

1.3 SUMMARY

Labour Link holds significant promise in revolutionizing the employment landscape by addressing the pressing challenges faced by both job seekers and employers. Labour Link aims to streamline the job search process, facilitate meaningful connections, and foster a more inclusive and efficient labour market. One key aspect of Labour Link's significance lies in its potential to create more job opportunities and empower individuals to find meaningful employment. By providing access to a diverse range of job listings and transparent information on wages and working conditions, Labour Link can help reduce unemployment and underemployment, thereby contributing to economic development and poverty reduction.

Moreover, Labour Link's impact extends beyond the labour market, with implications for social cohesion and empowerment. By connecting job seekers with suitable opportunities and facilitating community engagement, Labour Link can contribute to social empowerment and cohesion, fostering a sense of belonging and inclusion within communities. In summary, Labour Link has the potential to bring about transformative change in the employment sector, shaping a more resilient, equitable, and prosperous future for individuals and communities alike. By addressing the needs of both job seekers and employers and fostering inclusive growth, Labour Link can play a pivotal role in advancing socio-economic development and empowerment.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Unemployment remains a persistent challenge in many societies, with numerous factors contributing to its prevalence. One significant issue is the lack of effective platforms that connect job seekers with suitable employment opportunities while also addressing the concerns of both labourers and employers. This gap underscores the need for innovative solutions like Labour Link, which endeavors to revolutionize the job market by providing a comprehensive and user-friendly platform. Traditional methods of job searching often fall short in meeting the diverse needs of job seekers and employers alike. Laborers struggle to showcase their skills and find suitable employment options, while employers face difficulties in identifying qualified candidates efficiently. Additionally, the absence of transparent systems for evaluating the performance and reliability of labourers further complicates the hiring process. Moreover, the existing job market often fails to address the preferences and requirements of both parties, leading to mismatches and inefficiencies. Geographical constraints and personal preferences are frequently overlooked, resulting in missed opportunities for both job seekers and employers. These challenges highlight the necessity for a solution like Labour Link, which aims to address these issues comprehensively. By providing a platform that enables labourers to showcase their skills, connect with potential employers, and receive fair compensation, Labour Link seeks to alleviate unemployment and promote economic empowerment. Incorporating features such as ratings, reviews, and personalized job recommendations, Labour Link aims to streamline the job search process while fostering transparency and trust within the labour market. In this context, this paper explores the development and implementation of Labour Link, focusing on its objectives, features, and potential impact on addressing unemployment and enhancing the overall efficiency of the labour market. Through an in-depth analysis of the challenges faced by job seekers and employers, as well as the proposed solutions offered by Labour Link, this paper aims to shed light on the importance of innovative platforms in addressing contemporary labour market challenges.

2.2 LITERATURE REVIEW

In this paper[1] presents multidisciplinary nature of job search research, exploring labour economics, sociology, and industrial-organizational (I/O) psychology. It begins with an overview of labour economics, highlighting the neoclassical economic theory and its modifications. Job search is seen as a rational decision-making process, balancing costs and benefits of various search methods until a satisfactory job offer is received. The Diamond–Mortensen–Pissarides (DMP) model is noted as a significant and realistic model, considering the dynamic nature of the changing labour market. Recent empirical studies in labour economics have applied variations of these models, examining factors such as economic conditions, job search effort, individual characteristics, and contextual influences on job-finding success. However, the text criticizes economic models for not explaining individual differences in job search behaviour and emphasizes the polarization between theoretical and empirical approaches in labour economic literature.The discussion then shifts to sociology, highlighting the influence of social relationships and contextual factors on job search.

The authors are [2] discussed the development of a Job Portal System, a web-based application serving as a communication platform for job seekers and companies. The primary goal is to streamline the job search process for candidates and aid companies in identifying qualified individuals. On the company side, features include access to candidate details, resumes, video resumes, and communication with candidates.The introduction emphasizes the importance of job portals in facilitating the connection between job seekers and companies. The system aims to reduce the cost, enhance the quality, and decrease the time involved in the job application process. The study results indicate that the application system simplifies the manual processes, making it more time-consuming for job seekers to view and apply for jobs. The paper suggests that the system is user-friendly, time-saving, and cost-effective, but may require periodic updates to meet evolving requirements. In conclusion, the Job Portal System offers a user-friendly platform for job seekers and companies to interact, simplifying data transfer and communication. The internet serves as a vast platform for information exchange globally, facilitating recruiter-job seeker interactions anytime, anywhere. The system is expected to improve efficiency and organization of records, with potential for future updates to address emerging needs.

In-Text citation[3] paper addresses the development and implementation of a job search system within the Android environment, leveraging intelligent agent technology. It appears to be relevant to contemporary issues in technology and employment.The paper likely explores the intersection of mobile technology, artificial intelligence, and employment services, which is an area of growing importance given the prevalence of smartphones and the increasing demand for efficient job search tools. The paper may contribute to both academic research and practical applications by providing insights into the design, development, and evaluation of intelligent agent-based job search systems on mobile platforms. Without access to the paper itself, it's challenging to assess the quality of the research, the methodology employed, the significance of the findings, or the depth of analysis. A comprehensive review would require a detailed examination of these aspects.Based on the paper and context provided, the paper appears to address an important and timely topic at the intersection of technology and employment, but a thorough evaluation would require access to the full content.

This paper introduces [4] comprehensive analysis of labour recruitment practices within the context of migration between the United Arab Emirates (UAE), Kerala in India, and Nepal. The research sheds light on the intricate dynamics of labour migration, focusing on the role of recruitment agencies in facilitating this movement. Through a combination of qualitative and quantitative methodologies, the paper delves into the challenges faced by migrants, particularly from Kerala and Nepal, as they navigate the recruitment process. It highlights issues such as exploitation, debt bondage, and inadequate legal protection, which often characterize the experiences of migrant workers. Furthermore, the paper offers insights into the regulatory frameworks governing labour recruitment and proposes recommendations for policy reform aimed at ensuring the rights and well-being of migrants. Overall, this research contributes significantly to the understanding of labour migration patterns in the Gulf region and underscores the urgent need for collaborative efforts among stakeholders to address the systemic vulnerabilities faced by migrant workers.

The researchers in[5] paper presents a novel approach to addressing the challenges of labour finding through the development of a web and Android application. The research introduces an innovative platform designed to streamline the process of connecting job seekers with employment opportunities, particularly in the context of labour-intensive

industries. By leveraging web and mobile technologies, the application offers features such as job search, resume creation, and employer profiles, enhancing the efficiency and accessibility of the labour market. Through a systematic analysis of user requirements and technological feasibility, the paper demonstrates the practical implementation of the proposed solution, highlighting its potential to revolutionize traditional labour finding methods. Furthermore, the authors provide insights into the design and development process, emphasizing usability, scalability, and security considerations. Overall, this research contributes to the advancement of labour market solutions by leveraging digital platforms, offering a promising avenue for improving job matching and reducing frictions in the labour market.

In this paper [6] provides an in-depth exploration of the concept and implementation of an online job portal. With the rapid digitization of various sectors, including recruitment and employment, the research addresses the growing demand for efficient and user-friendly platforms to connect job seekers with potential employers. Through a comprehensive examination of existing online job portals and user requirements analysis, the paper proposes a novel framework for the development of an advanced online job portal. This framework integrates essential features such as job search functionality, resume building tools, employer profiles, and application tracking systems to streamline the job search process for both job seekers and employers. The authors offer insights into the design, architecture, and implementation of the proposed portal, emphasizing usability, scalability, and security considerations. Additionally, the research discusses the potential benefits of such a platform in enhancing job market efficiency, reducing search costs, and facilitating better job matches. Overall, this paper contributes to the advancement of online recruitment solutions, offering a valuable resource for researchers, practitioners, and policymakers interested in leveraging technology to address labour market challenges.

In this paper [7] presents a detailed investigation into the development and management of an online job portal. In response to the increasing demand for digital solutions in the recruitment sector, the research aims to address the complexities of job search and hiring processes through the implementation of a robust online platform. The paper offers a comprehensive analysis of the key functionalities required for an effective job portal, including job posting, resume submission, applicant tracking, and communication

features. Drawing upon established software engineering principles and methodologies, the authors outline the design, architecture, and implementation of the proposed job portal management system. Furthermore, the research explores the usability, scalability, and security aspects of the system, ensuring its practical viability and reliability in real-world scenarios. By providing a detailed roadmap for the development and deployment of an online job portal, this paper contributes valuable insights to the field of digital recruitment solutions, offering a foundation for further research and innovation in the domain. Overall, the study represents a significant contribution to the advancement of online job search and recruitment processes, with potential implications for improving labour market efficiency and facilitating better job matches.

In-Text citation [8] paper offers a comprehensive exploration into the perceptions of job seekers regarding online job portals. Recognizing the increasing reliance on digital platforms for job searching, the research seeks to understand the attitudes, preferences, and challenges faced by job seekers when utilizing online job portals. Through a combination of qualitative and quantitative methodologies, including surveys and interviews, the paper examines various factors influencing job seekers' perceptions, such as usability, effectiveness, reliability, and trustworthiness of online job portals. The findings provide valuable insights into the strengths and weaknesses of existing online job portals from the perspective of users, shedding light on areas for improvement and innovation in the design and functionality of these platforms. Moreover, the research discusses the implications of job seekers' perceptions on their behavior and decision-making processes, offering valuable implications for practitioners and policymakers in the recruitment sector. Overall, this study contributes to the growing body of literature on online job portals by offering a nuanced understanding of job seekers' perspectives, thereby informing the development of more user-centered and effective digital recruitment solutions.

The authors in [9] paper addresses the challenges faced by job seekers and recruiters. The application is positioned as a solution to facilitate convenient job searchin for workers and efficient hiring for recruiters. Emphasizing the cost-effectiveness and global reach of online job portals, the paper outlines specific objectives, including providing a platform for tailored job searches, aiding recruiters in hiring based on required skills, and assisting in identifying job seekers' needs. The methodology section

details system modules for job seekers, recruiters, and administrators, specifying functionalities for each user group. System requirements involve tools like Visual Studio 2017 and MongoDB. The literature review explores the shift from traditional job procurement methods to online portals, stressing the continued relevance of both approaches. The paper includes screenshots of the application, a comparison with existing portals, and a commitment to continual improvement. In conclusion, the authors acknowledge the project's learning experience, highlighting its alignment with software production principles, while recognizing the challenges in fully addressing unemployment issues. Overall, the paper presents the Online Job Search Application as a potential solution to streamline job seeking and recruitment processes in the digital age.

2.3 REQUIREMENT ANALYSIS

Understanding the needs and preferences of users is paramount in developing a successful and effective solution. In the context of our project, requirement analysis serves as the cornerstone for identifying the key features and functionalities that will address the challenges faced by our target audience. To achieve this, a comprehensive survey was conducted, involving 30 participants selected to represent diverse perspectives and experiences relevant to the project. The purpose of this introduction is to provide an overview of the requirement analysis process, highlighting the significance of gathering insights from stakeholders to inform the development of our solution. Through the survey, we aimed to capture valuable feedback and data to ensure that the final product aligns closely with the needs and expectations of our intended users. By systematically collecting and analyzing responses from the survey participants, we sought to gain a deeper understanding of their requirements, preferences, and pain points related to the proposed solution. This information serves as invaluable input for shaping the design and functionality of our project, ultimately enhancing its usability, relevance, and effectiveness in addressing the identified challenges.The results of the Survey are:
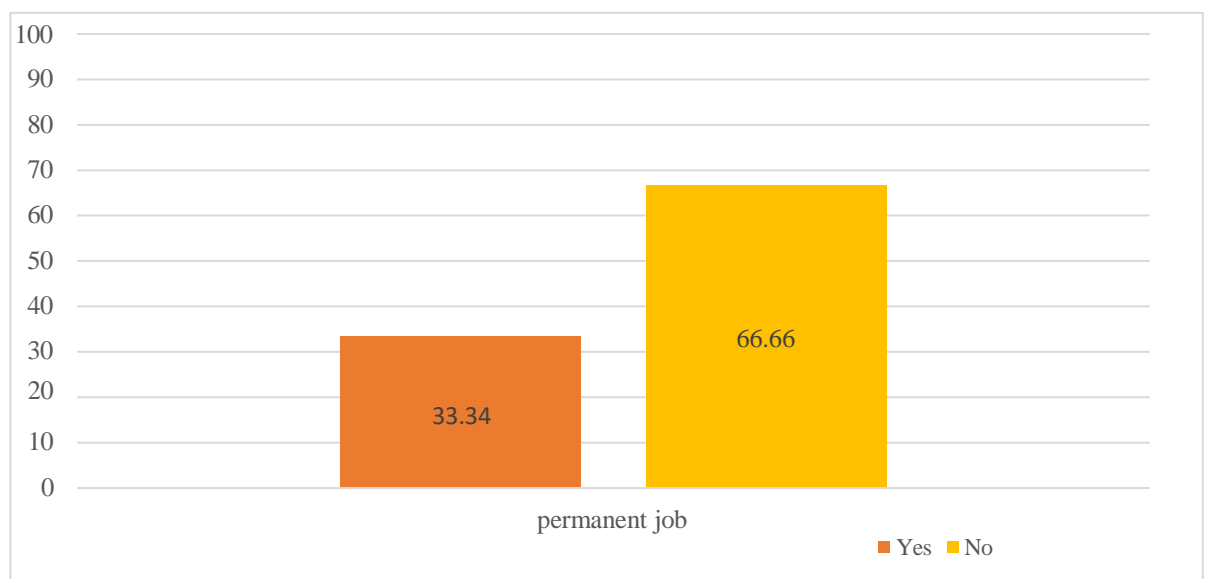
1. People with permanent job.

Figure 2.1: Percentage of permanent jobs

It can be inferred that there is a significant portion of the population without permanent jobs, as only 33.34% have permanent employment. This indicates a substantial need for avenues to connect job seekers with potential employers.

In light of this, the establishment of Labour Link seems highly beneficial. By providing a platform for job seekers to showcase their skills and connect with employers, Labour Link addresses the pressing issue of unemployment. Moreover, the emphasis on maintaining fair wages and quality of work suggests a commitment to not only providing job opportunities but also ensuring decent working conditions for labourers. Thus, the existence of Labour Link is likely to positively impact the labour.

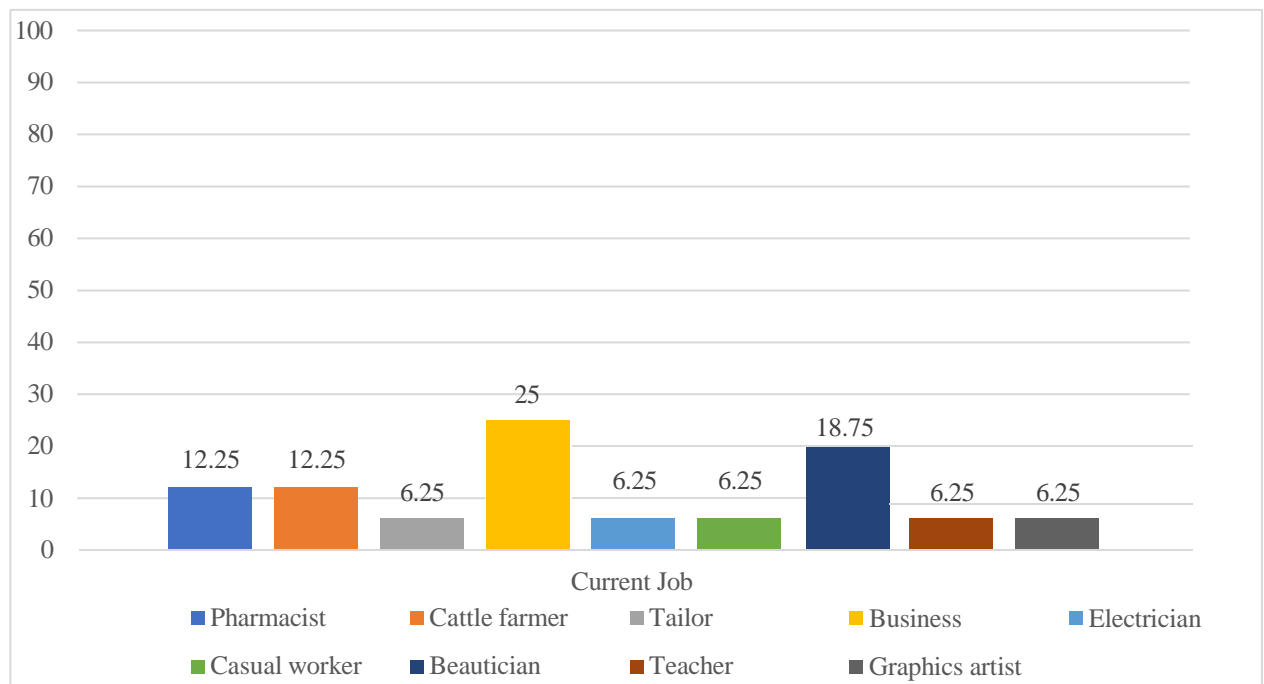2. People with permanent job are engaged in various fields.

Figure 2.2: Current Jobs Result

Among the 16 people who have jobs, it's evident that there's a diverse range of occupations represented. This diversity underscores the need for a platform like Labour Link to cater to various industries and job types.

Labour Link's provision of a platform for job seekers to post their skills and details aligns perfectly with the diverse array of professions mentioned. For instance, pharmacists, cattle farmers, tailors, electricians, casual workers, beauticians can all benefit from such a platform to showcase their expertise and connect with potential employers.
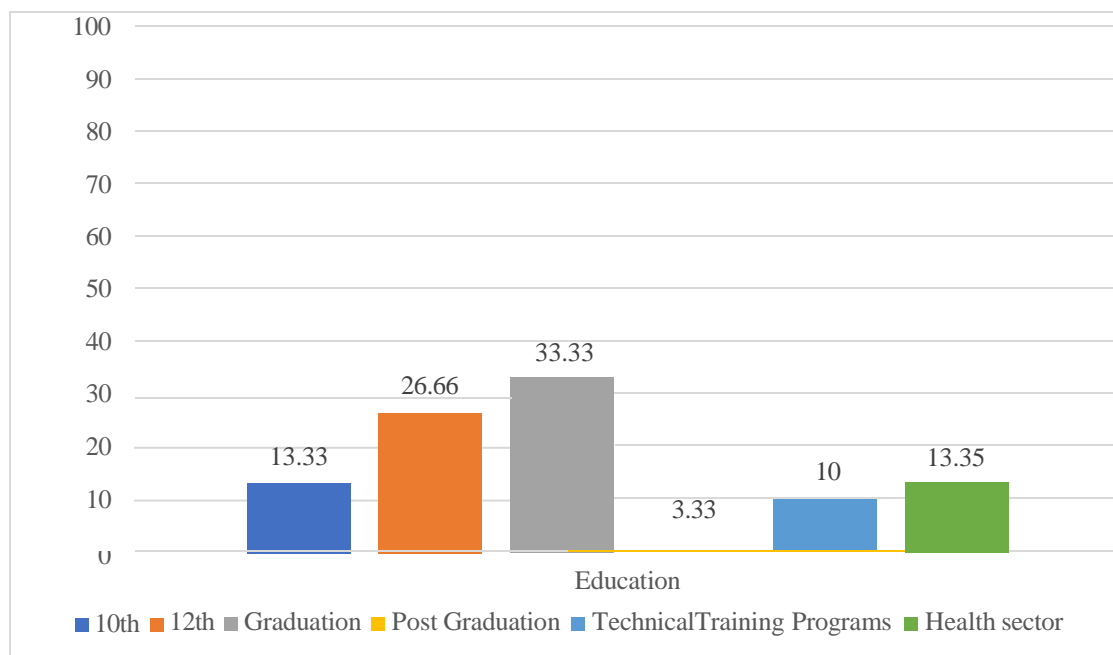
3. Highest educational qualification.

Figure 2.3: Educational Qualification

The educational background data highlights a diverse pool of potential job seekers with varying levels of education and expertise. Labour Link can leverage this information to tailor its platform, offering job listings and resources that cater to individuals with different educational backgrounds. By addressing the diverse needs of job seekers, Labour Link can effectively connect them with relevant employment opportunities across various sectors and skill levels.

4. Targeted career fields.

Labour Link can utilize this information to tailor its platform by providing specialized job listings for individuals interested in these specific fields. By catering to the diverse career aspirations of job seekers, Labour Link can enhance its effectiveness in connecting them with relevant employment opportunities.
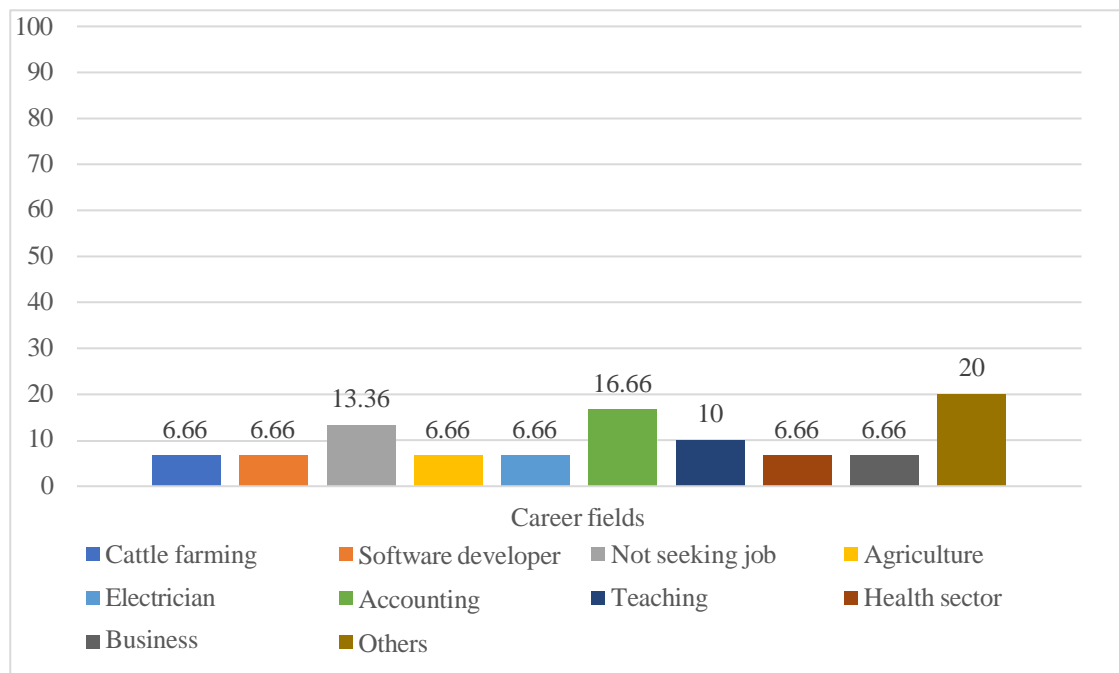
Figure 2.4: Targeted Career Fields

5. Experience in the desired field.

The distribution of work experience among the surveyed individuals highlights a diverse range of expertise levels.

Labour Link can utilize this information to tailor its platform to cater to individuals at different stages of their careers. By matching job seekers with opportunities that align with their experience levels, Labour Link can enhance its effectiveness in connecting individuals with suitable employment options.
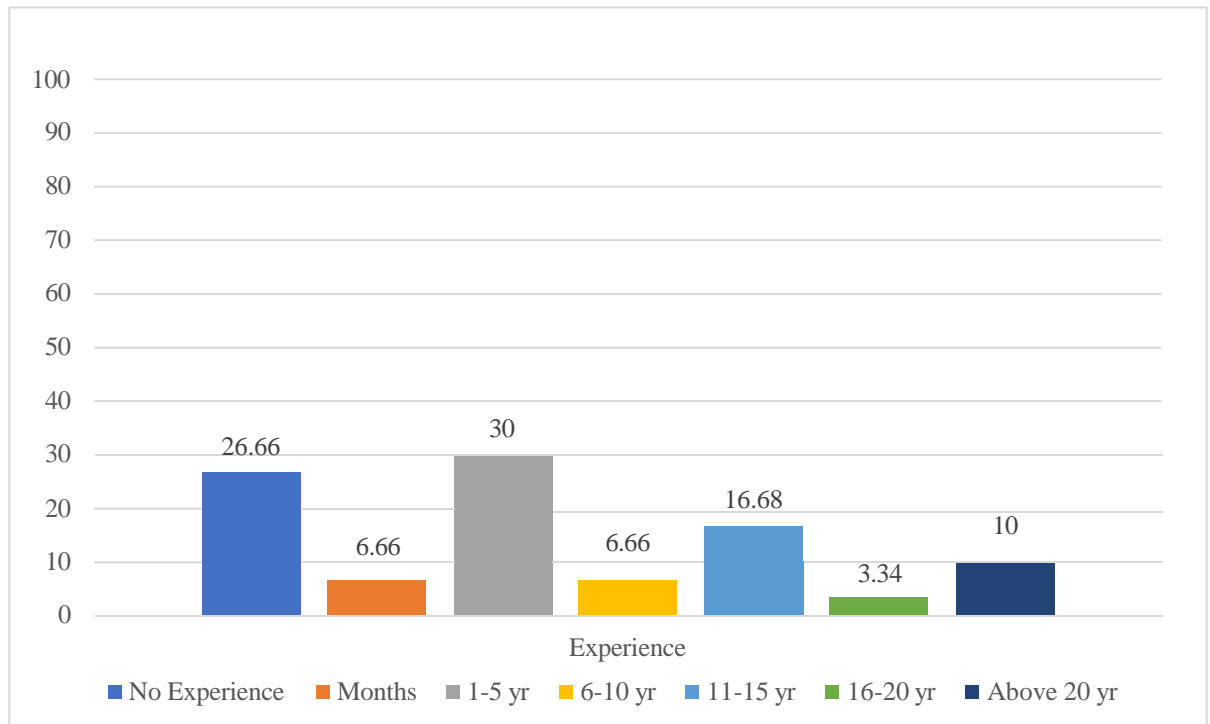
Figure 2.5: Experience in desired field

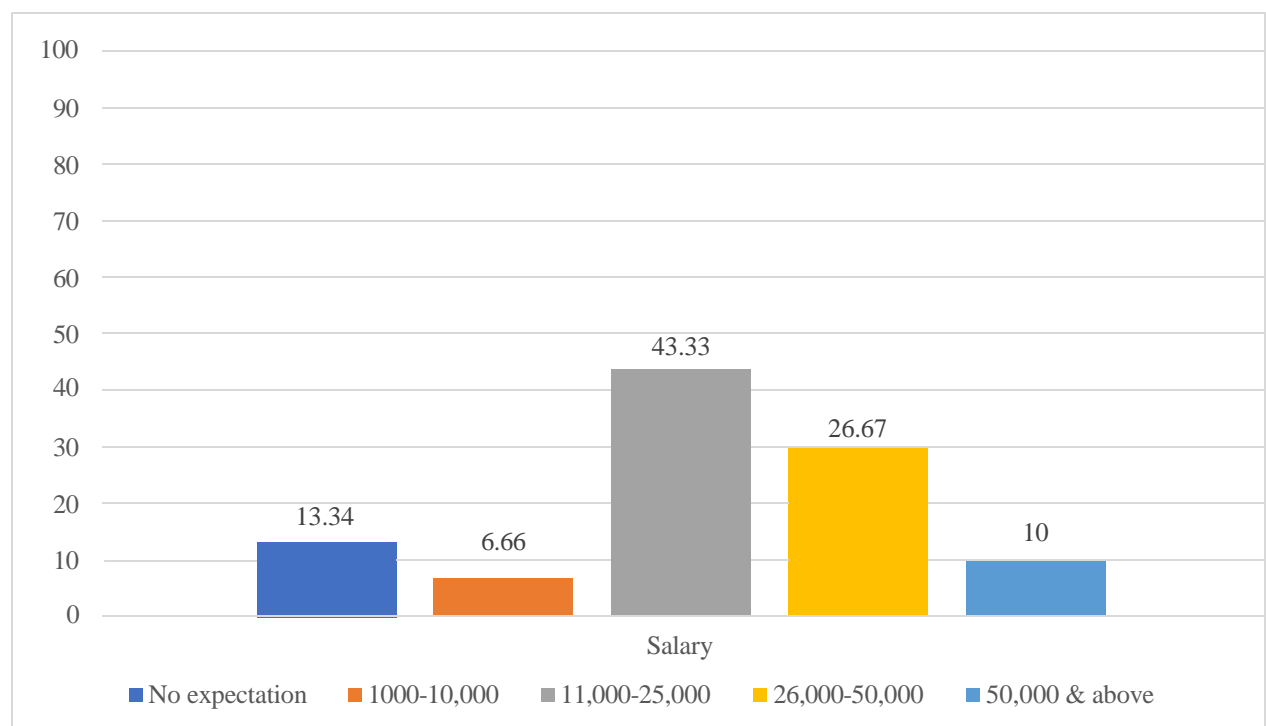6. Expected salary for the desired job.

Figure 2.6: Salary Expectations

The salary expectations of the surveyed individuals reveal a varied range. Labour Link can use this data to better match job seekers with positions that align with their salary expectations. For instance, it can categorize job listings based on salary brackets, making it easier for individuals to find opportunities that meet their financial requirements. This approach can lead to more successful job placements and contribute to overall job satisfaction among the workforce.
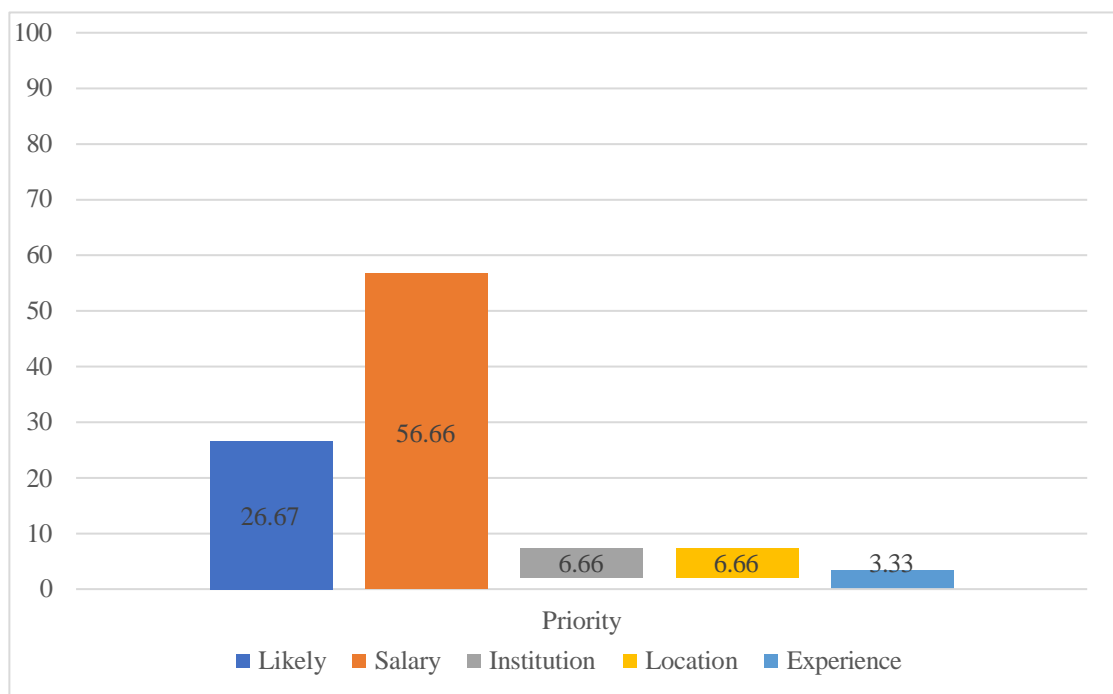
7. How they priorities multiple opportunities.

Figure 2.7 Result of Priority

It's evident that a significant portion of people prioritize job opportunities based on factors like salary (56.66%) and personal preferences or likings (26.67%). Additionally, a smaller but still notable percentage of people prioritize factors such as the institution (6.66%), location (6.66%), and experience (3.33%). This indicates that while salary and personal preferences are crucial, other factors like the reputation of the institution, geographical location, and level of experience are also important considerations for some job seekers.

Therefore, when designing Labour Link, it's essential to create a platform that not only caters to the salary expectations and preferences of job seekers but also provides information about the institutions offering the jobs, their locations, and the level of experience required. By incorporating these elements into the website, Labour Link can

better serve both job seekers and employers by matching them based on a comprehensive understanding of their preferences and requirements.

8. How do you come to know about different job opportunities?
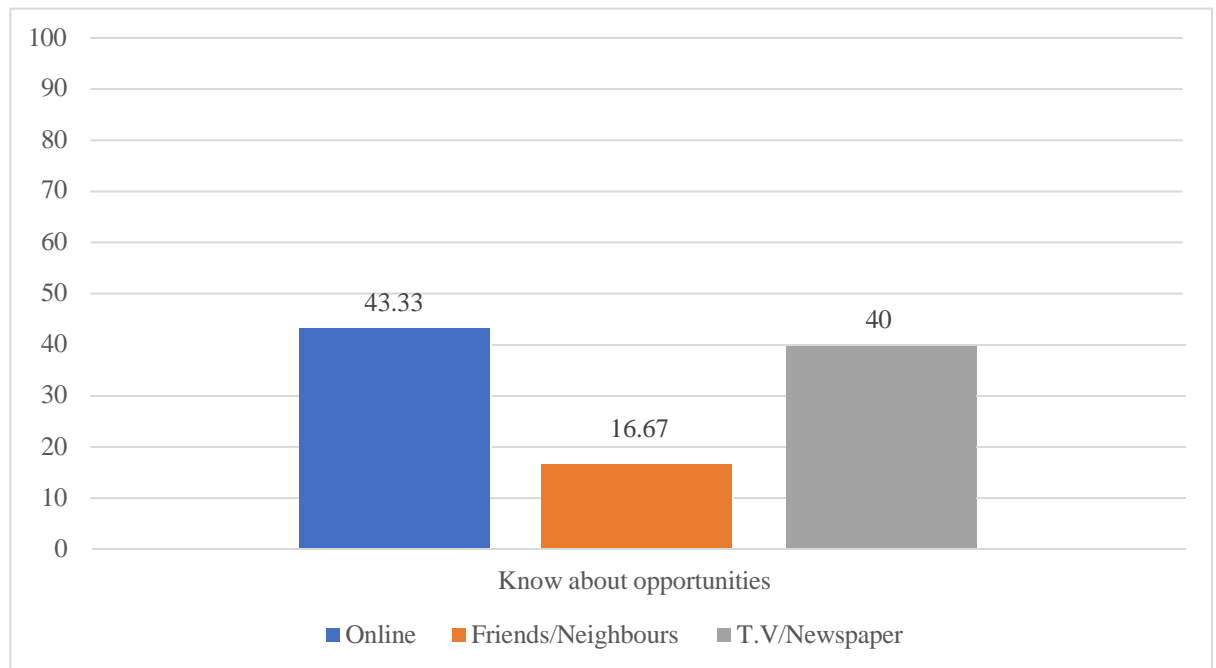

Figure 2.8: Knowledge about job opportunities

With 43.33% of people discovering job opportunities through online sources, Labour Link holds a significant advantage in connecting job seekers with employment opportunities. Its digital platform aligns perfectly with the preferred method of job searching for a substantial portion of the population. By leveraging its online presence and functionality, Labour Link can effectively cater to the needs of modern job seekers, providing them with a convenient and accessible platform to explore job opportunities and connect with potential employers.

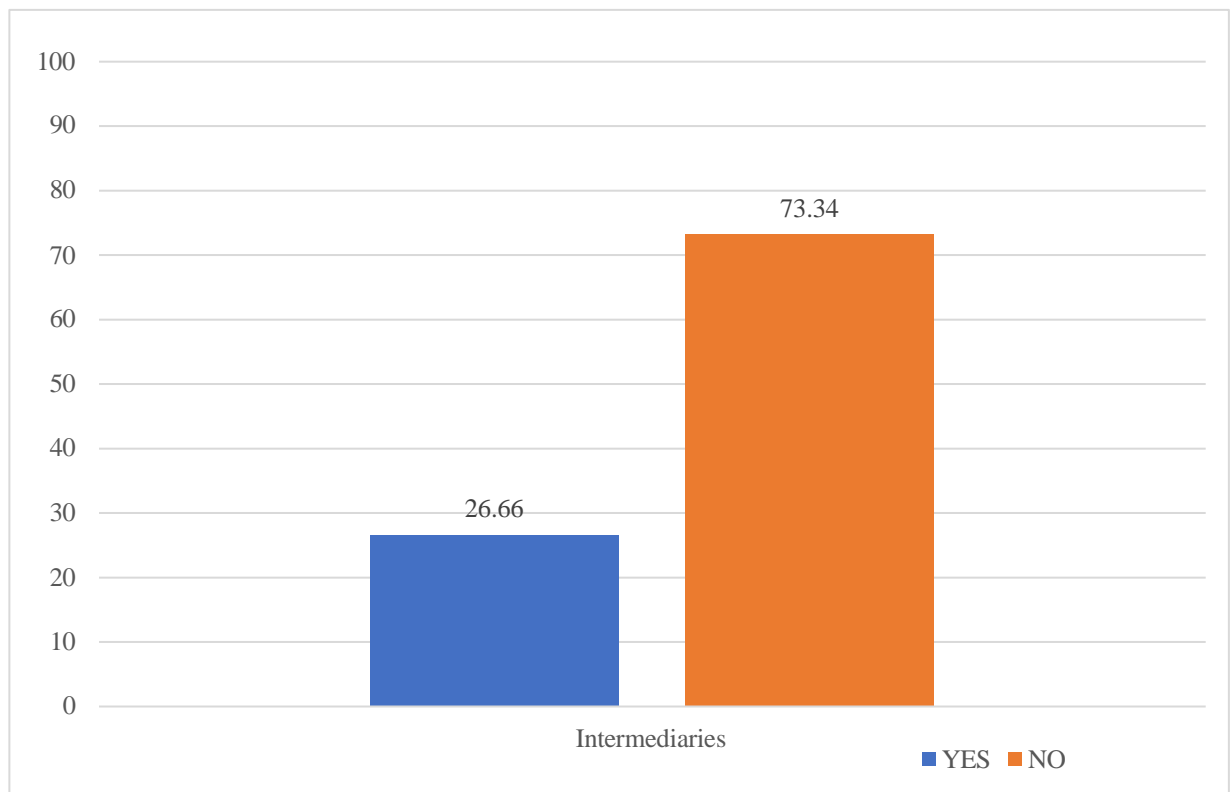9. Are you satisfied with getting jobs through intermediaries?

Figure 2.9: Getting jobs through of Intermediaries

The data suggests that a majority, 73.34%, of people are dissatisfied with traditional job search methods involving intermediaries. This dissatisfaction could stem from inefficiencies, lack of personalized matches, or slow response times. In contrast, Labour Link offers a direct and efficient platform for job seekers to find opportunities without intermediaries. As such, Labour Link presents a favourable solution, aligning with the preferences of the majority by providing a streamlined and direct approach to job hunting, likely increasing satisfaction among users.

10. Are there geographic preferences or restrictions in your job search process?

The data indicates that 36.67% of individuals prioritize geographic preferences in their job search process, while the remaining majority, 63.33%, do not have any specific geographic preferences. This suggests that while a significant portion of job seekers consider location when searching for employment, a substantial number are open to opportunities regardless of geographic constraints. Labour Link can leverage this information by providing job postings with clear location details while also offering

opportunities that cater to individuals without geographic preferences, thereby appealing to a wider audience of job seekers.
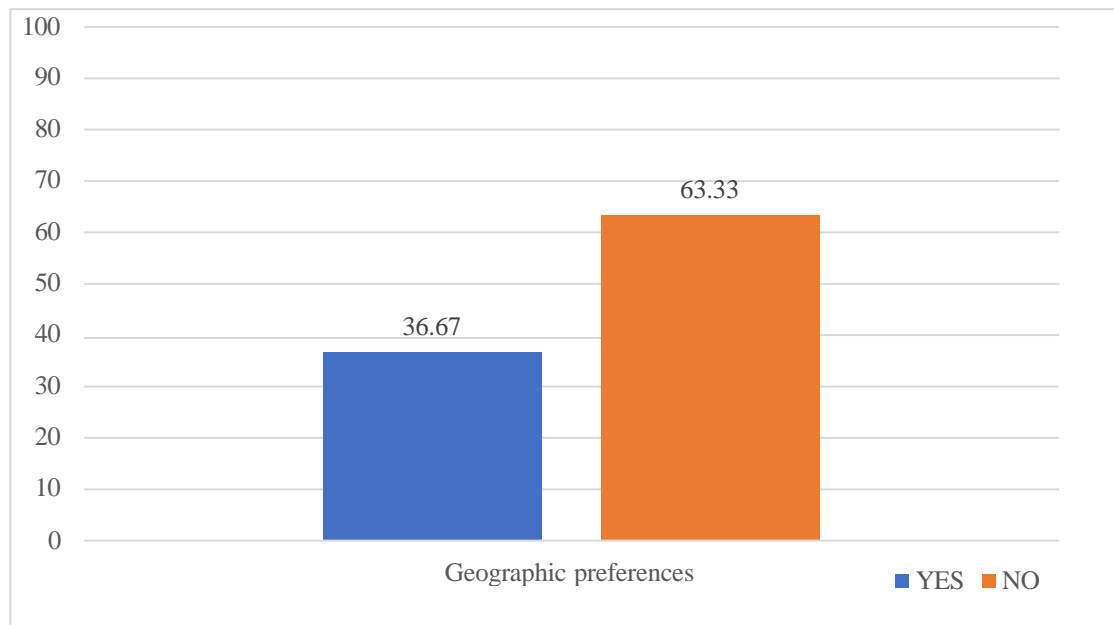

Figure 2.10: Geographic preferences or restrictions in job search process

11. Have you encountered age, gender or other restrictions during the job search process?

The data reveals that 13.33% of individuals have encountered age, gender, or other restrictions during their job search process, while the majority, 86.67%, have not faced any such limitations. This indicates that there is a significant subset of job seekers who may encounter barriers based on age, gender, or other factors when seeking employment opportunities. Labour Link can address this issue by promoting a fair and inclusive platform that provides equal access to job opportunities for all individuals, regardless of demographic characteristics. By prioritizing diversity and inclusivity, Labour Link can attract a broader user base and foster a more equitable job market.
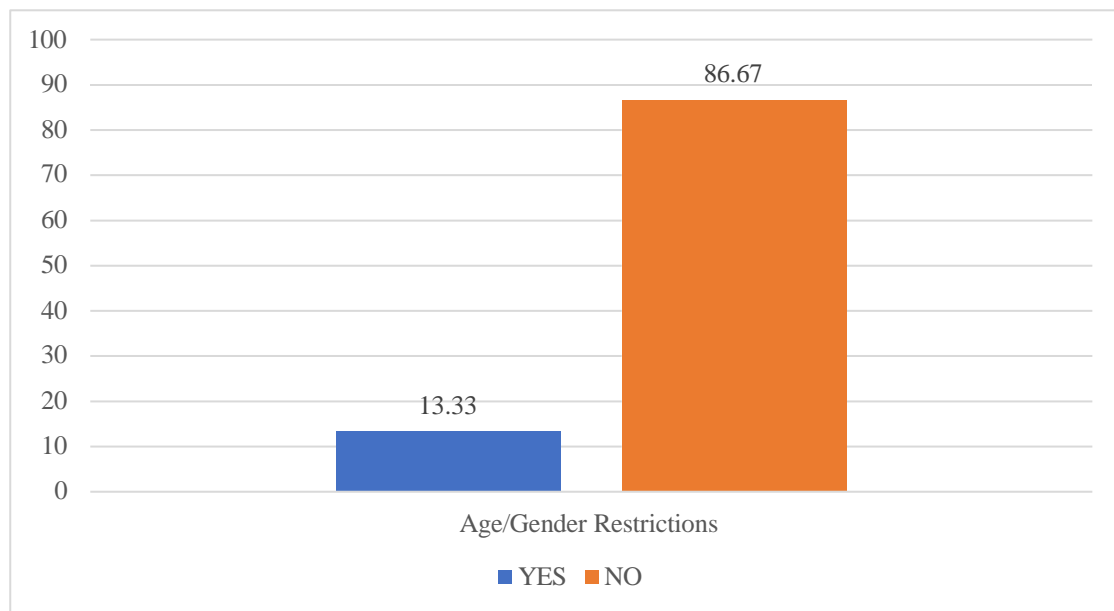
Figure 2.11: Age/gender Restrictions faced

12. How has the Covid-19 pandemic affected your job search or employment situation?
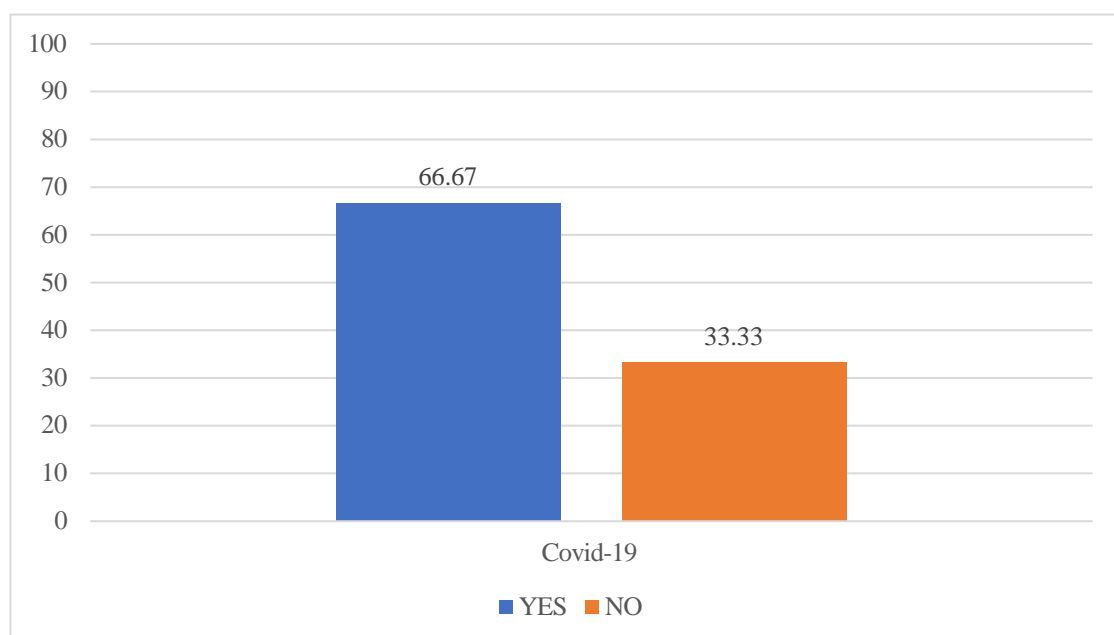
Figure 2.12: covid-19 affected job search

The data from the graph indicates that a significant majority, 66.67% of individuals, had their employment situation or job search affected by the COVID-19 pandemic. This suggests that there has been widespread disruption in the job market due to the pandemic, leading to challenges for job seekers and impacting their employment prospects. In response, Labour Link can tailor its services to address the specific needs and challenges faced by individuals during these uncertain times, offering support and

opportunities to those affected by the pandemic. This could include providing resources for remote work, offering job listings in industries less impacted by the pandemic.

13. Are you a smartphone owner?

The data suggests that over 90% of people are smartphone owners, indicating a high level of mobile device penetration among the target demographic. This presents a significant opportunity for our proposed system, as it can leverage the widespread use of smartphones to provide convenient and accessible access to job search and employment opportunities. By developing a mobile-friendly platform , our system can effectively reach and engage with a large portion of the population, enhancing user accessibility and convenience.
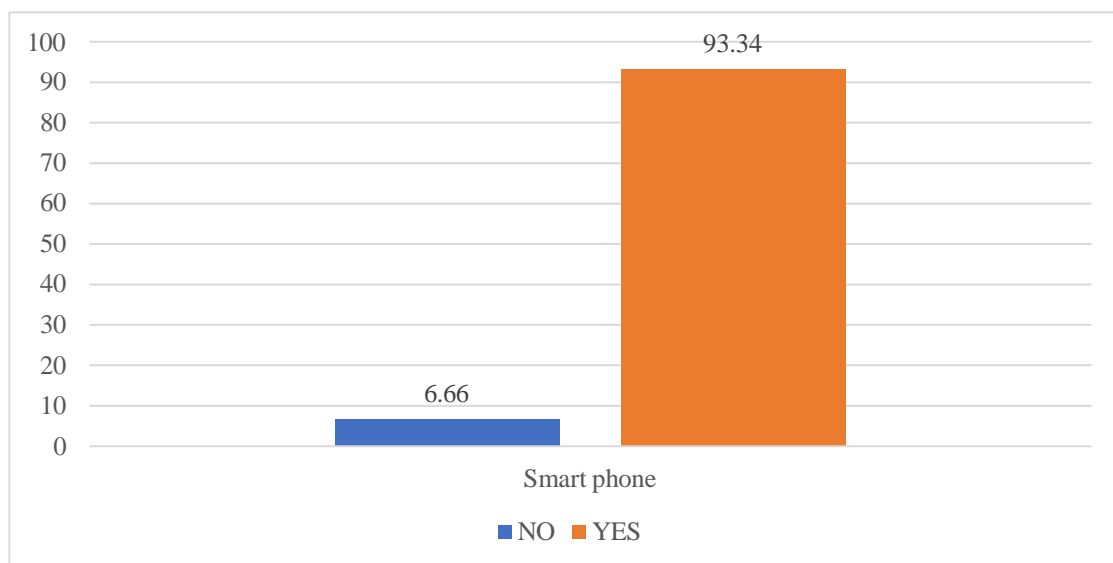
Figure 2.13: Percentage of Smartphone users

14. Do you search for job opportunities using online websites?

With 53.33% of individuals utilizing online websites for job searches, there's a clear alignment between this behaviour and the functionality of our proposed system. This data suggests a significant reliance on digital platforms for job hunting, making it advantageous for our proposed system, which aims to provide an online platform connecting job seekers with employment opportunities. By catering to this prevalent behaviour, our system can effectively meet the needs of a large portion of the job-seeking population, thereby increasing its relevance and potential impact.

Figure 2.14:Online website users

15. If yes, which one? What are its disadvantages?

The issues highlighted with existing systems are as follows:

1. Upwork: Lack of detailed information on job listings, potentially leading to ambiguity for job seekers.
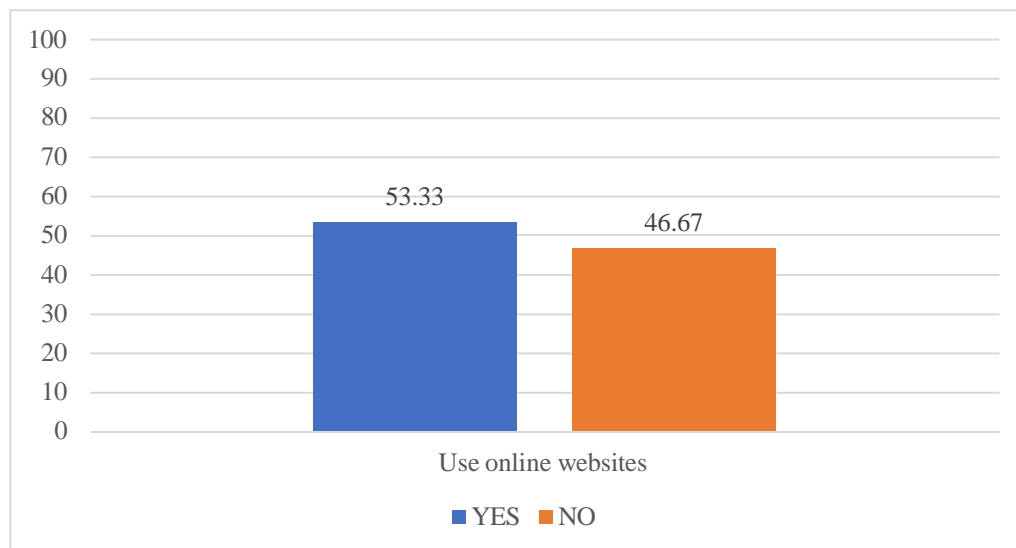
2. Naukri: Geographic constraints, where job seekers may find it challenging to locate opportunities that match their preferred locations.

3. LinkedIn: Difficulty in discerning fake job postings, which can lead to wasted time and effort for job seekers and also high profile jobs.

4. General: Lack of user-friendly interface across platforms, making the job search process less efficient.

5. Paid Services: Many existing platforms require payment for access to certain features or job listings, limiting accessibility for some users.

6. No Contact Information: Absence of contact numbers or direct means of communication with employers, hindering direct engagement between job seekers and potential employers.

Addressing these issues in our proposed system would involve prioritizing detailed job listings, ensuring geographic flexibility, implementing measures to verify job authenticity, enhancing user interface for better usability, providing free access to

essential features. By addressing these pain points, our system can offer a more effective and user-friendly solution for job seekers and employers alike.

16. Do you feel it is important to have a user-friendly interface while using an online recruitment platform?

The data indicating that over 95% of people prioritize a user-friendly interface when using an online recruitment platform underscores the critical importance of this feature. Given that our system provides a user-friendly platform, it directly aligns with the preferences and expectations of the majority of users. This represents a significant advantage for our system, as it ensures that users will have a positive experience while navigating the platform, enhancing usability, satisfaction, and overall effectiveness.
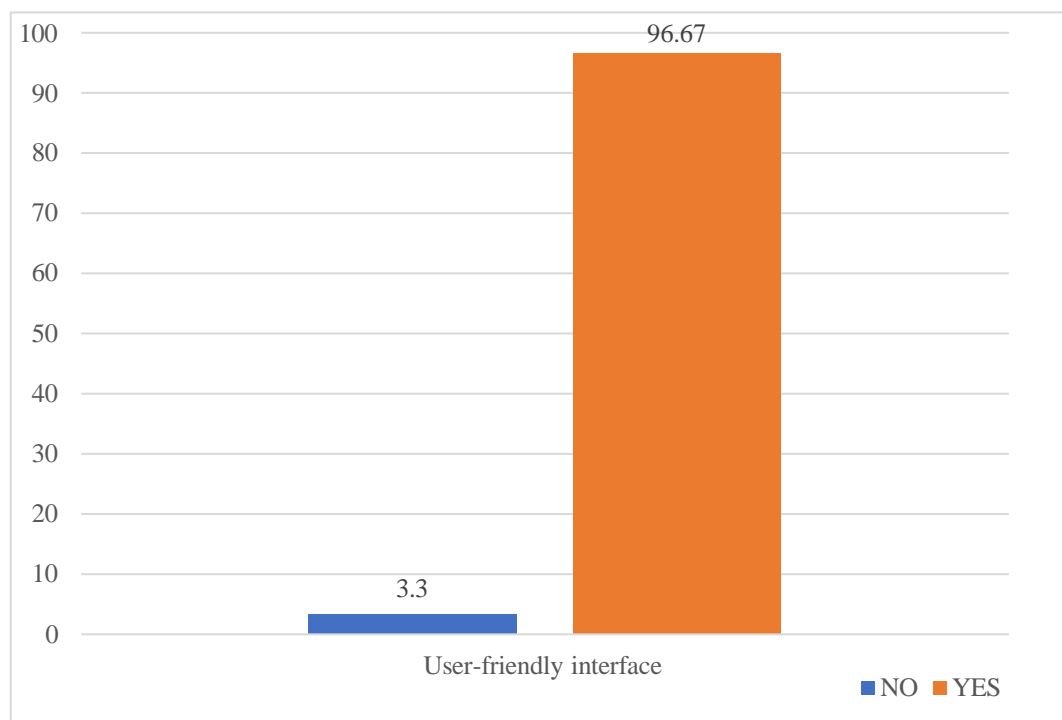

Figure 2.15: Interested in a user-friendly interface

17. Are you unemployed? If so, what was the main cause of unemployment?

- Less number of vacancy.

- Covid-19.

- Age restrictions.

- Business loss.

- Education.

Labour Link can address multiple causes of unemployment by providing a platform that connects job seekers with available opportunities. In response to "Less number of vacancies," Labour Link can aggregate job listings from various sources, maximizing the chances of finding suitable employment for users. Additionally, amidst challenges like "Covid-19" and "Business loss," Labour Link can offer resources for remote work, freelance opportunities, and job postings in industries less impacted by economic downturns. For individuals facing "Age restrictions," Labour Link can promote equal access to job opportunities, focusing on skills and qualifications rather than age. Through these initiatives, Labour Link can effectively mitigate the diverse causes of unemployment and facilitate meaningful employment for its users.

18. Were you actively looking for work during your unemployment period?

The data indicating that 80% of unemployed individuals were actively looking for work underscores a strong willingness and desire among the majority of unemployed people to find employment. This highlights a proactive approach to job seeking and suggests that most unemployed individuals are actively engaged in efforts to secure employment opportunities. This insight is crucial for understanding the motivations and behaviours of job seekers, emphasizing the importance of providing effective support and resources, such as job search platforms like Labour Link, to facilitate their efforts in finding suitable employment.
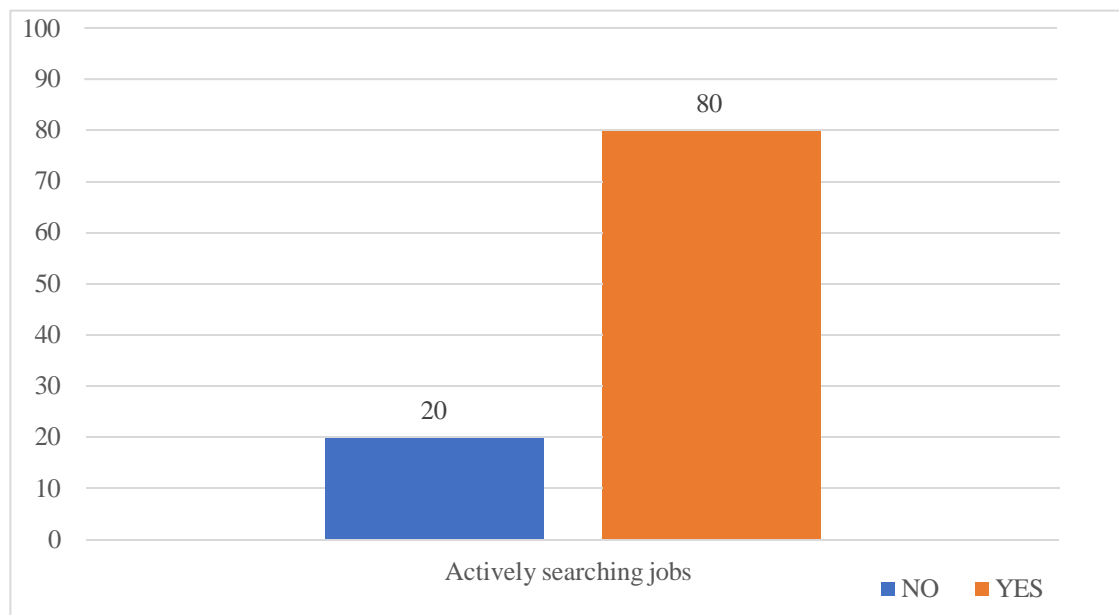
Figure 2.16: Actively searching for a job

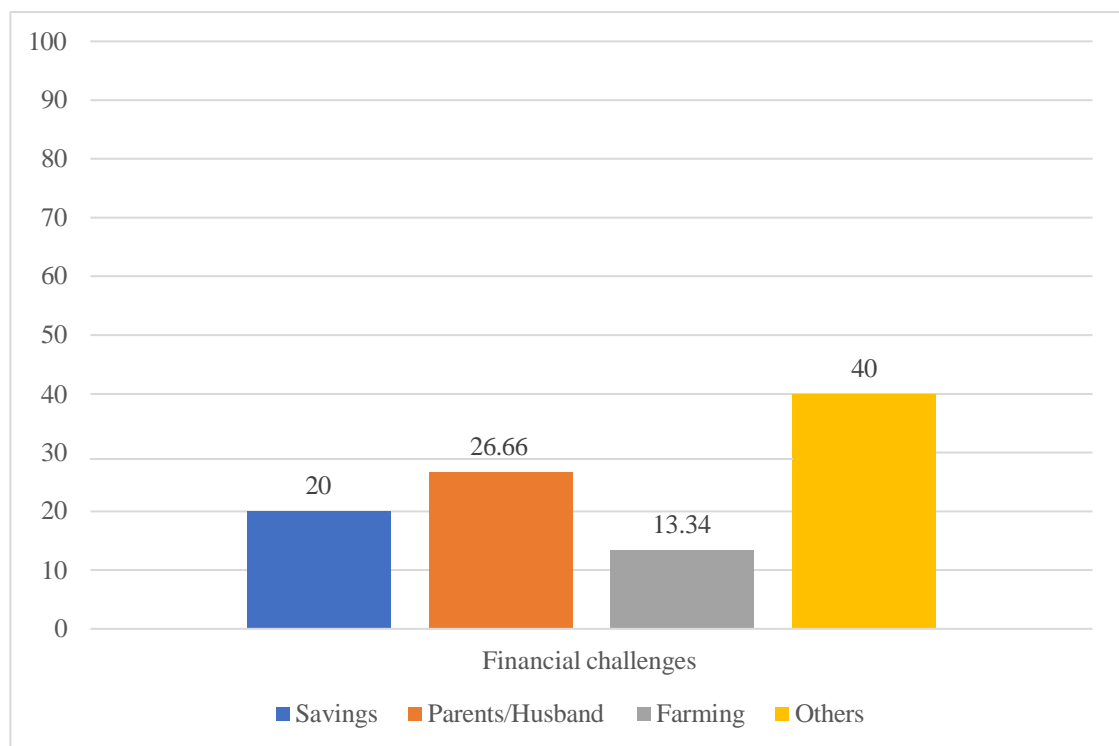19. How do you deal with financial challenges while unemployed?

Figure 2.17: Financial challenges faced

The data underscores the importance of providing diverse support mechanisms for individuals facing financial crises during unemployment. Labour Link can play a crucial role in this by offering a platform that connects job seekers with various employment opportunities. For the 80% actively seeking work, Labour Link can provide a centralized hub for job listings, networking opportunities, and resources to enhance their job search efforts. By addressing the diverse needs of individuals coping with financial crises, Labour Link can serve as a valuable resource in facilitating employment and financial stability during challenging times.

20. Are you Interested in recommending the labour recruitment website you use to a friend or colleague?

The data indicating that 76.66% of individuals are interested in recommending the labour recruiting website they use suggests a high level of satisfaction and trust in the platform's services. This is a favourable indication for Labour Link, as it emphasizes the potential for positive word-of-mouth referrals and organic growth. The platform's ability to meet the needs and expectations of its users may include features such as user-friendly interface, effective job matching, and reliable support services, aligning well with the preferences of the majority of users. This high recommendation rate underscores the platform's credibility and effectiveness in facilitating successful job matches, positioning Labour Link as a valuable resource in the labour recruitment landscape.
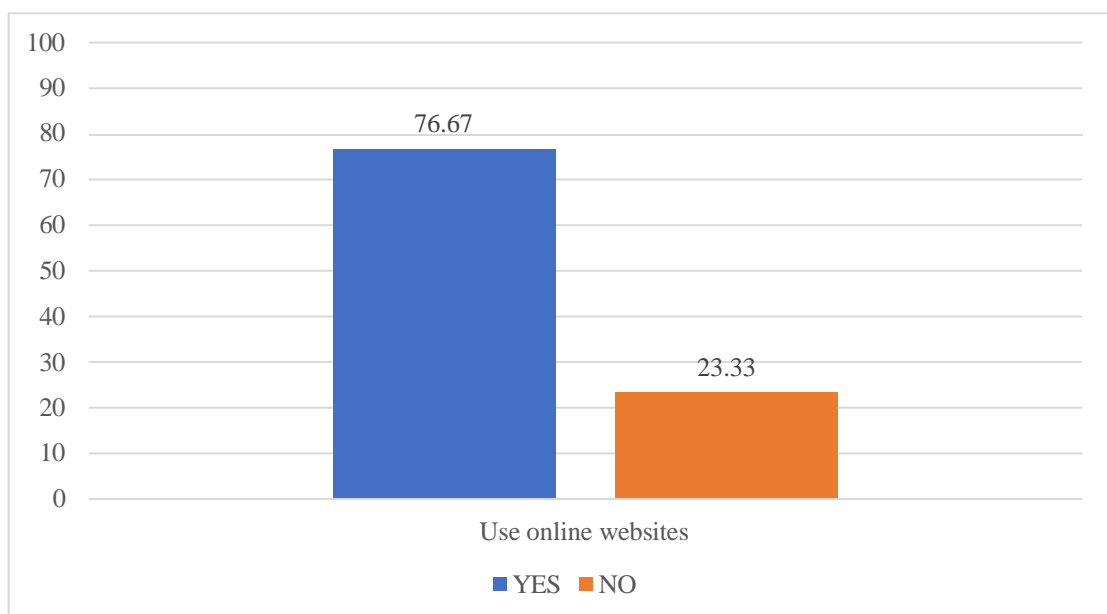

Figure 2.18: Interested in recommending online websites

2.4 PROPOSED MODEL

In the dynamic landscape of today's job market, bridging the gap between job seekers and employers is essential for fostering meaningful employment connections. a revolutionary application designed to provide a comprehensive platform that seamlessly connects job seekers with potential employers, creating a robust network of opportunities. Labour Link serves as a vital conduit for individuals seeking employment by offering a user-friendly interface for labourers to showcase their skills and professional details. By leveraging the power of technology, Labour Link empowers job seekers to present their qualifications and expertise in an easily accessible manner, streamlining the process for employers to identify and connect with suitable candidates. This innovative application stands as a testament to the digital transformation in the job recruitment sphere, making it easier than ever for employers to discover and engage with skilled labourers. Through Labour Link, employers gain access to a diverse pool of talent, while job seekers benefit from an expanded range of employment opportunities. Labour Link doesn't just facilitate connections; it creates a dynamic environment where skills meet opportunities. Job seekers can post their details and skills, allowing employers to browse through profiles and identify candidates who align with their requirements. This not only simplifies the hiring process but also ensures that both parties find the perfect match. In a world where efficiency and connectivity are paramount, Labour Link emerges as a solution that not only meets but exceeds the expectations of both job seekers and employers. Whether you are a skilled labourer looking for the next career move or an employer seeking the perfect fit for your team, Labour Link is the go-to platform, revolutionizing the way employment opportunities are discovered and nurtured.
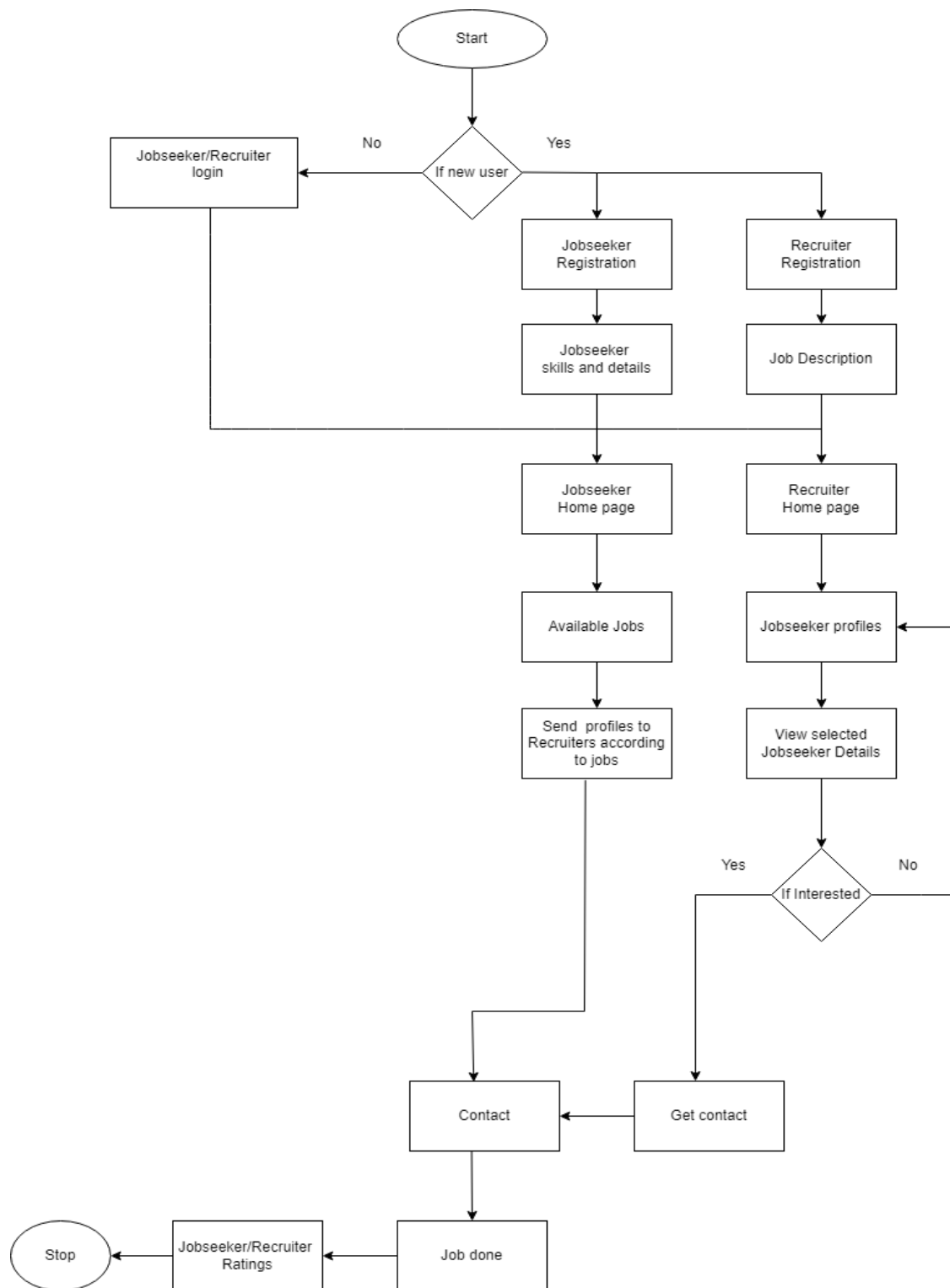
Figure 2.19 proposed Model

2.5 SUMMARY

The emergence of Labour Link represents a transformative shift in the job recruitment landscape, providing a comprehensive solution to bridge the gap between job seekers and employers. Through its user-friendly interface and innovative features, Labour Link empowers individuals seeking employment by allowing them to showcase their skills and professional details effectively. This not only streamlines the hiring process for employers but also expands the range of employment opportunities available to job seekers. Labour Link's role as a dynamic conduit for connecting skills with opportunities is underscored by its ability to facilitate meaningful connections between employers and job seekers. By creating a platform where both parties can easily discover and engage with each other, Labour Link exemplifies the efficiency and connectivity required in today's job market. Its success lies in its ability to exceed the expectations of both job seekers and employers, revolutionizing the way employment opportunities are discovered and nurtured. In conclusion, Labour Link stands as a testament to the digital transformation in job recruitment, offering a solution that revolutionizes the employment landscape for the better.

CHAPTER 3

DESIGN SPECIFICATION

3.1 TABLE DESIGN

Table design refers to the process of organizing and structuring data within a relational database. In a relational database management system (RDBMS), tables are used to store and manage data in a structured format. Each table typically represents a specific entity or concept, and the columns of the table represent the attributes or properties of that entity.

Table 3.1: Admin Table

Field Name	Data Type	Description	Constrains
Email	Varchar(15)	Email	Primary Key
Password	Varchar(10)	Password	Not Null

Table 3.2: Pending Jobs Table

Field Name	Data Type	Description	Constrains
J_name	Varchar(20)	Job Name	Not Null
Rec_name	Varchar(20)	Recruiter's name	Not Null
Rec_id	Varchar(20)	Recruiter's id	Primary Key
Email	Varchar(15)	Recruiter's email	Not Null
Phone_number	Varchar(10)	Recruiter's number	Not Null

Table 3.3: Message Table

Field Name	Data Type	Description	Constrains
id	int(50)	user id	Primary Key
message	Varchar(30)	Reason message	Not Null
Email	Varchar(20)	User_email	Primary Key
sent_at	YYYY-MM-DD HH:MM:SS.	Message sended time	Not Null

Table 3.4: Job Seeker Table

Field Name	Data Type	Description	Constrains
Seeker_id	int	Job Seeker's id	Primary key
Name	Varchar(20)	Job Seeker's name	Not Null
Email	Varchar(10)	Job Seeker's email	Not Null
Password	Varchar(10)	Job seeker's password	Not Null
Contact_Number	Varchar(10)	Job seeker's number	Not Null
Address	Varchar(50)	Job seeker's address	Not Null
DOB	Varchar(10)	Job seekers date of birth	Not Null
Job_Title	Varchar(30)	Title of the job	Not Null
Skills	Varchar (30)	Job seekers skill	Not Null
Work_Experience	Varchar (30)	Job seekers work experience	Not Null
Job_Description	Varchar (30)	Job seekers job description	Not Null
Year_of_Experience	Varchar(10)	Job seekers year of experience	Not Null
Expected_hourly_rate	Varchar (10)	Job seeker expected hourly rate	Not Null
Known_Languages	Varchar (30)	Languages known to the job seeker	Not Null
Location	Varchar (20)	Job seekers location	Not Null

Table 3.5: Job Seeker Review Table

Field Name	Data Type	Description	Constrains
Seeker_id	int(10)	Job Seeker's id	Foreign key
star	int(11)	No of stars in rating	Not Null
review	text	Job seeker's review	Not Null

Table 3.6: Recruiter Table

Field Name	Data Type	Description	Constrains
Recruiter_id	Int(10)	Recruiter's id	Primary key
Name	Varchar(20)	Recruiter's Name	Not Null
Email	Varchar(20)	Recruiter's email	Not Null
Password	Varchar(20)	Recruiter's email	Not Null
address	Varchar(20)	Recruiter's Address	Not Null
pin	Int(6)	Recruiter's Pincode	Not Null
Area	Varchar(20)	Recruiter's Area	Not Null
City	Varchar(20)	Recruiter's city	Not Null

Table 3.7: Recruiter Review Table

Field Name	Data Type	Description	Constrains
Recruiter_id	Int(10)	Recruiter's id	Foreign key
star	Int(11)	No of stars in rating	Not Null
review	text	Recruiter's Review	Not Null

Table 3.8: Job Roles Table

Field Name	Data Type	Description	Constrains
Job_Title	Varchar(20)	Title of job	Primary Key
Job_description	Varchar(50)	Description about the job	Not Null
Location	Varchar(20)	Location	Not Null
Skills_Required	Varchar(20)	Skills required for the specific job	Not Null
Number_of_openings	Varchar(20)	Available vaccancy for the job	Not Null
Date_and_Time	Timestamp	Date and time according to the job	Not Null
Hours	Varchar(20)	Working hours of the job	Not Null
Wage	Varchar(20)	Wage according to the job	Not Null

Table 3.9: Complaint Table

Field Name	Data Type	Description	Constrains
Complaint_against_Email	varchar(50)	User complaint against email	Not Null
Reason	Varchar(30)	Reason	Not Null
Complainter_Email	Varchar(20)	Complainter _email	Not Null

Table 3.10: Rating Table

Field Name	Data Type	Description	Constrains
Five_one_star	int(10)	Five one star gotten users	Not Null
Star_rating	int(5)	Reason	Not Null
Ten_one_star	int(15)	Ten one star gotten users	Not Null

3.1 DATA FLOW DAIGRAM

A data flow diagram (DFD) is a graphical or visual representation using a standardized set of symbols and notations to describe a business's operations through data movement.
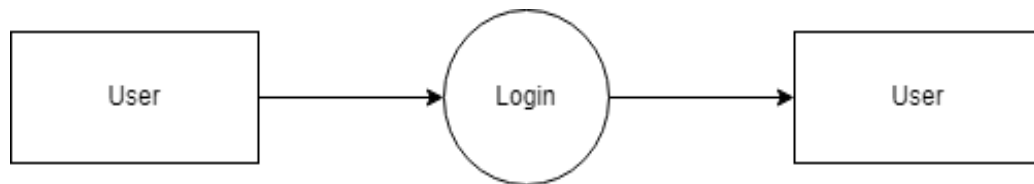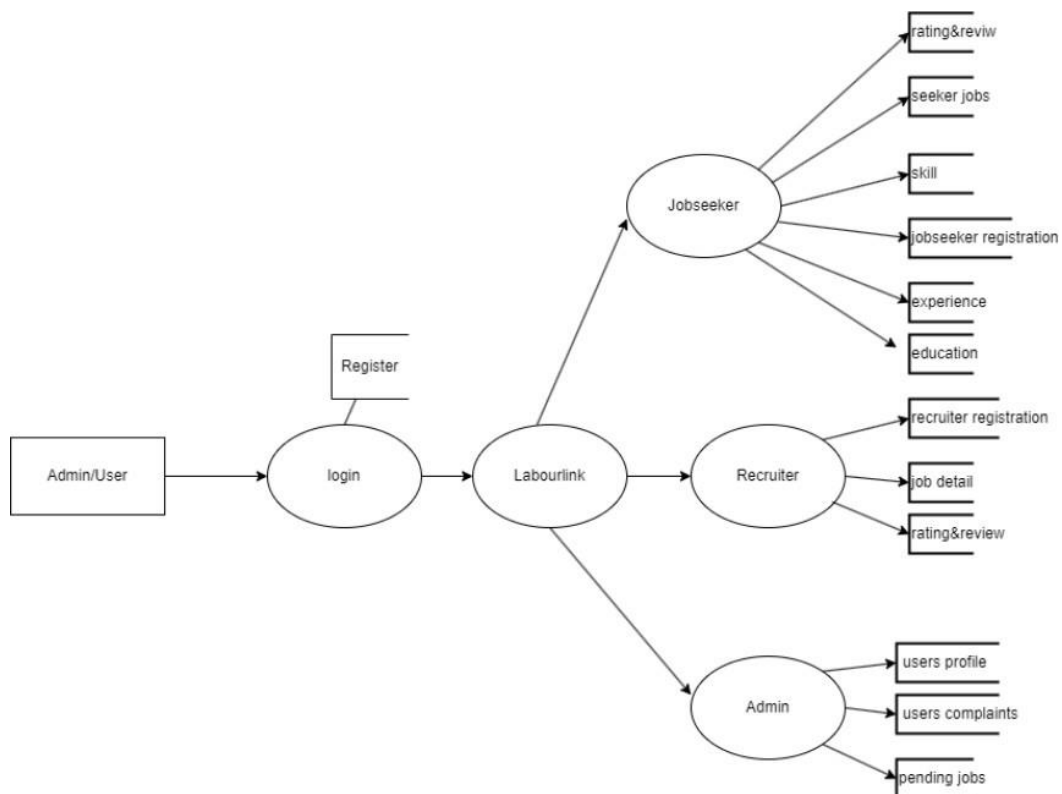

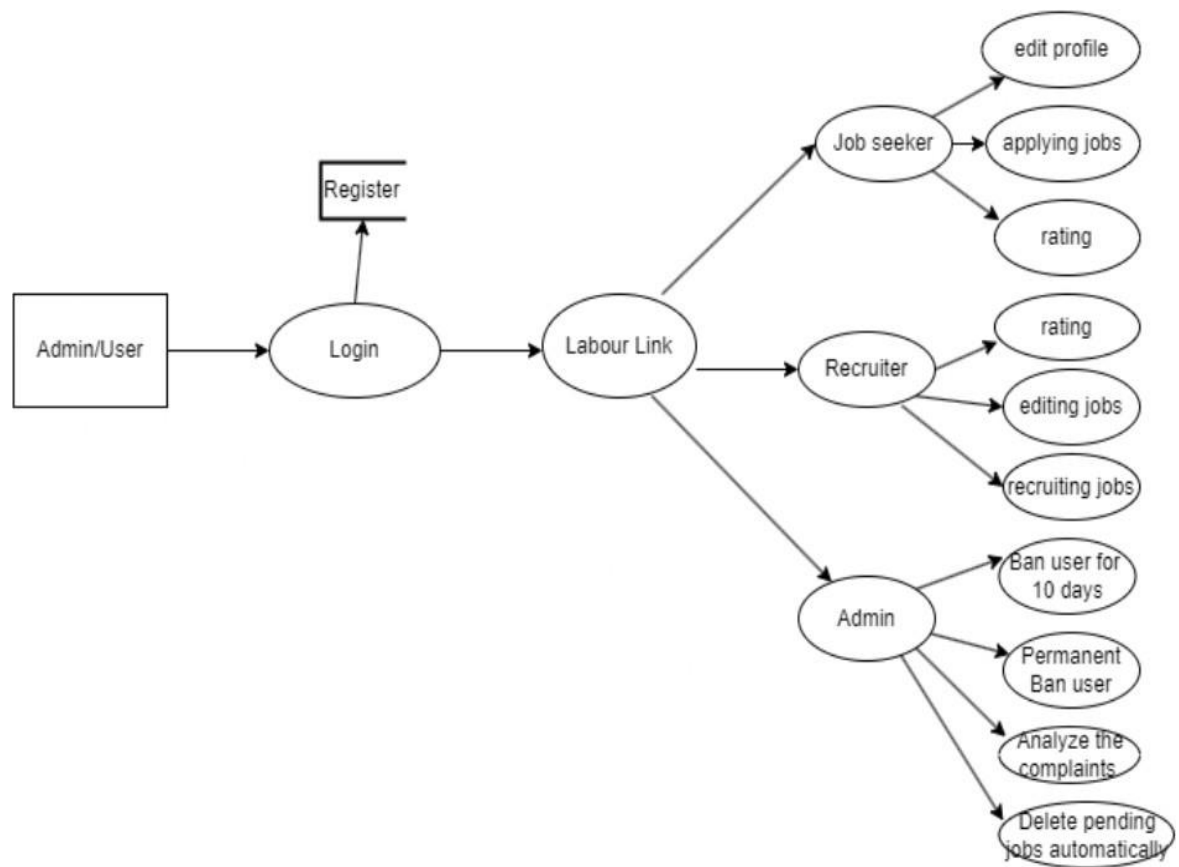Figure 3.2: Level 0 DFD

Figure 3.2: Level 1 DFD

Figure 3.2: Level 2 DFD

CHAPTER 4

CONCLUSION

The project Labour Link is primarily for users, including both job seekers and job recruiters, where they can post jobs and apply for them. This website is designed to be user-friendly and convenient for all users. The proposed system is an enhanced version of the existing system. The main advantage of this project is that it aims to make finding jobs and hiring people easier for everyone involved.

4.1 ADVANTAGES

1.Time-saving: Labour Link streamlines the job search process for both job seekers and employers. With advanced search filters and personalized recommendations, job seekers can quickly find relevant opportunities, saving time and effort. Similarly, employers can efficiently identify suitable candidates from a diverse pool of talent, reducing the time spent on recruitment.

2.User-friendly: Labour Link offers a seamless user experience through its intuitive interface and easy-to-navigate platform. Job seekers can showcase their skills and qualifications effortlessly, while employers can browse through profiles and connect with potential candidates with ease. The platform's user-friendly design enhances engagement and satisfaction for both parties involved.

3. Easy to find jobs: Through Labour Link, job seekers gain access to a wide range of employment opportunities, presented in a clear and organized manner. With detailed job descriptions and intuitive filter options, job seekers can quickly identify positions that align with their skills and preferences. Employers benefit from a streamlined hiring process, as they can easily discover and engage with qualified candidates, ultimately leading to more efficient recruitment outcomes.

4.2 LIMITATIONS

1. Internet Connection: The users must have a stable internet connection to access it. Users without reliable internet access, such as those in rural or low-connectivity areas, may face challenges accessing the platform. Dependence on internet connectivity limits the accessibility of the platform, potentially excluding individuals who cannot afford or access consistent internet services.

2. **Now available as a website only.**

4.3 FUTURE ENHANCEMENTS

Mobile Application Development: To further enhance accessibility, Labour Link could develop a mobile application. This would allow users to access the platform conveniently from their smartphones, increasing user engagement and expanding the reach of the service.

Integration of Advanced Search Features: Implementing advanced search functionalities, such as personalized job recommendations based on user profiles and preferences, would enhance the user experience. This would streamline the job search process and provide users with more tailored job opportunities.

Expansion of Services: Labour Link could explore expanding its services beyond just job postings and applications. This could include features such as career counseling, resume building assistance, and interview preparation resources. By offering a comprehensive suite of services, Labour Link can further support users in their job search journey.

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APPENDIX I

SURVEY

DEPARTMENT OF DATA SCIENCE
ST. JOSEPH'S COLLEGE, MOOLAMATTOM

PROJECT: LABOUR LINK–Connecting workers to opportunities

DATE :	
NAME :	
DISTRICT :	
PLACE :	
AGE :	
ADDRESS :	
PHONE NO :	
DO YOU HAVE A PERMANENT JOB?	

1. What is your current occupation?

2. What is your highest educational qualification?

3. What career fields should you target during the job search process?

4. How long of work experience you have in the field of work sought?

5. What is the expected salary for the job you are looking for?

6. How do you prioritize opportunities when multiple offers come in?

7. How do you come to know about different job opportunities?

8. Are you satisfied with getting jobs through intermediaries?

9. Are there geographic preferences or restrictions in your job search process?

10. Have you encountered age, gender or other restrictions during the job search process?

11. How has the Covid-19 pandemic affected your job search or employment situation?

12. Are you a smartphone owner?

13. Do you search for job opportunities using online websites?

14. If yes, which one? What are its disadvantages?

15. How satisfied are you with the current online job recruitment websites?

16. What features and functions do you feel are lacking in existing online job recruitment websites?

17. Do you feel it is important to have a user-friendly interface while using an online recruitment platform?

18. Are you (have you been) unemployed? If so, how long?

19. If so, what was the main cause of unemployment?

20. Were you actively looking for work during your unemployment period?

21. How do you deal with financial challenges while unemployed?

22. Are you Interested in recommending the labour recruitment website you use to a friend or colleague?

23. Do you have any additional comments on job search methods?

Name :

Signature: