

## Investigating the Effectiveness of Labor Market Interventions in Addressing Unemployment Challenges

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### Abstract

*This research focuses on the impact of a number of policies that exist in the labor market and seek to answer the following question: How successful are those policies to train the unemployed people, subsidize their wages, and briefly match them to jobs? In the context of the current study, a survey was carried out on 500 unemployed individuals following the use of a quantitative research design to determine their employment status before and after participation in the intervention program. Data collection included a structured employment outcome and demographic questionnaire alongside the secondary data from records of the official tertiary programmes for cross-checking. Data analyses, comprising of descriptive and ANOVA, established that employment result varied with the type of intervention, with skills training showing the most favourable results. In addition, the results show that successful labor market measures to promote employability depend on the design, which needs to be adjusted according to the target population. The current study enriches the existing literature by presenting findings on the effectiveness of the interventions and filling the gaps of the variability of the demographic characteristics of the subjects. Accordingly, future research for long term effect of such intervention is needed, and also ways it can be made more effective for diverse population groups.*

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## Introduction

Unemployment is still a significant problem in the field of economic development and social Integration at the national and international level affecting the lives of people and the state's economy. Large scale unemployment affects the welfare of stretched welfare systems, cause low levels of tax collection, inhibit social wellbeing due to poverty, increased levels of inequality and anxiety among the unemployed and their families (Hajighasemi & Oghazi, 2022). Due to engorged easement in economy complexity and integration, previous solutions to address unemployment are no longer effective, thus leading to more specific targeting of LMIs intended for supporting sustainable employment as well as economic development (Roye, 2023). Drawing from the question of whether labor market interventions work for unemployment challenges this study aims to establish the effectiveness of labor market interventions in tackling unemployment difficulty and determine which strategies would benefit different categories.

Employment policies and programmes are one of the broadly defined types of labour market interventions, which involves learning, matching, paying, and supporting policies and programmes that promote skills training, job search and referral, wage subsidies, and entrepreneurship development (Jackson & Tomlinson, 2020). There are mainly four types of intervention proposed in literature that focus on different aspects of unemployment with a bid to enhance the employability skills or help the unemployed secure jobs more easily or to motivate the employer to hire more employees. Training activities for instance aims at bridging the gap between the competency skills that candidate has and that which employers require for them in the market especially in more dynamic areas like technology a health sectors (Zeidan

& Bishnoi, 2020). Meanwhile, job-matching services increase the performance of labor market by providing proper jobs for people and wage subsidies make employers hire people with some barriers in the job market, students or people who were fired from jobs for a long time (Yang & Hu, 2023).

Nevertheless, there is empirical evidence demonstrating the efficiency of LMIs because the performances change depending on the type of LMIs, target population, and characteristics of LMIs (Chu, 2023). analyses indicate that the wage subsidy rates are most useful in the regions with high labour costs as the costs that arise due to additional human resource hires can be addressed (Makin & Layton, 2021). On the other hand, skills training programs are more useful mainly in the supply constraint specific sectors where skills hindrances prevent those seeking employment from securing the existing job vacancies (Stek & Schiele, 2021). However, there is a lack of quantitative research documenting how various types of interventions are effective or ineffectiveness when implemented in one context as compared to other contexts, which results in a research gap regarding the efficiency and cost-effectiveness of such strategies.

The fluidity and dynamism of the present-day international employment arena have also propounded the need and relevance of utilising proper and effective intervention methods and their suggestion and organization (Armstrong & Wabuke, 2022). Employment initiatives in post-crisis societies have called for push for labour market policies that are sensitive to technological change, aging population, and business cycles (Adăscăliței & Heyes, 2021). For instance, due to technologization, some identified categories of jobs are likely to be made redundant thereby requiring manpower diversions to re-tool or tool them up to fit into other emerging market needs. Furthermore, various demographic characteristics including age, level of education and geographical location of the target population can affect the outcomes of interventions, meaning that a single method for all is ineffective (Wang et al., 2020).

To address these questions, this study aimed to review the available literature and analyse the results of various interventions in the labour market concentrating on the impact of the range of interventions on employment effects with the view to define the most effective measure to reduce unemployment. Specifically, the study seeks to help policymakers and other stakeholders in the labor market to have empirical evidence on which options of the greatest return on investment exist and how particular policy initiatives may be most effective in meeting the needs of various client categories. Specifically, this study addresses the following research questions: The first research question is as follows: (1) How do selected programmes in the labour market affect employment percentages? This research seeks to answer the following questions: (2) which labor market interventions reveal the highest decline in unemployment rates? Thus, questions (3) include whether these interventions are more effective with certain demographics, different forms of the interventions produce disparate results by region, or neither of these Squarable: In responding to these questions, the study aims at making its input to the already existing literature on labor market policy effectiveness and inform future initiatives (Sharifi et al., 2021).

Therefore, the importance of this study is based on the fact that it may make major contribution to the designing of effective practices to address the issue of unemployment. As per previous studies, many isolated interventions have been undertaken for the HL, but in the current scenario, very little is available for comparative effectiveness of multi-intervention studies, particularly using quantitative measurement techniques to determine the variable employment rate (van et al., 2021). Furthermore, by analyzing the differences in the outcomes of interventions by demographic and geographical characteristics of participants, this study contributes to the problem of heterogeneous effects of labor market policies across subpopulations. The results of this study could inform the design of likely effective future labor

market policies by mapping what policy instruments work well where, which would be a key consideration towards fair and efficient labor markets.

## Method

This research therefore adopted a descriptive and causal-comparative research approach in ascertaining the adequacy of the mentioned labor market interventions in addressing unemployment. This approach made it possible to conduct systematic comparisons of several types of interventions and their effects on the employment rate among different population groups, as well as to describe some interventions' characteristics and discuss their efficiency in terms of causal relationships. The target population of this study comprised unemployed people who had engaged in labor market intervention services which are skill training, wage subsidies and job referrals by the governmental as well as non-governmental organizations. In a bid to ensure that the sample was a representative sample, a special technique called the stratified random sampling was used. The sample was chosen to be stratified by the type of intervention received by the population and a comparison was made between the subgroups.

A total of 500 respondents completed the questionnaire which was sufficient to supply a big data for statistical analysis. The calculation of the sample size was done using the required confidence interval and acceptable margin of error, and the results show that the selected sample was adequate in terms of detecting group differences among the intervention conditions. Subjects included program participants identified from participant databases of the involved organisations and stakeholders ensuring validity and reliability of data. Data were collected using two main instruments: Semi-structured interviews were specially designed for the current study to obtain both qualitative data related to clients' employment status before and after the intervention, and sector, age, educational level and geographical area of the clients.

Asked questions regarding age, gender, education level and region as a way of performing a demographic analysis. Employment history before and after the intervention was obtained using questions aimed at the period required to find employment, and the nature of employment acquired, full-time or part-time. A purposeful set of five Likert-scale questions on a scale of 1 = Strongly Disagree to 5 = Stronged Agree evaluated the participants' attitudes about the effectiveness of the intervention in enhancing their likelihood of getting a job. Facial validity was established through consultation with the labor market specialists to set suitability of the contents of the questionnaire, Meanwhile, methodological validation was accomplished assessment of the 30 participants to ensure clarity of the questions asked. Internal consistency of the measure was tested using Cronbach's alpha and returned a high reliability coefficient of  $\alpha = 0.82$ .

Secondary data were collected from the official records of the program which were developed and implemented by the various intervention organizations. Such records included information on employment reported by the programs staff and reinforced by the survey findings of clients themselves. This means the collection of secondary data gave a more objective record of employment status, making the set more reliable in the analysis of intervention impact. Before GE being implemented, the types of labor market interventions which include the skills training, subsidies to wages, and job-specific services. Source of employment and employment index referring to finding a job after the completion of the specific intervention. Apurtenant demographic characteristics of the populace that could potentially moderate the outcomes of the interventions included age, education level, and geographic location of study participants.; Age, education, and geographic region as possible moderator and consequently controlled for.

The data were collected by questionnaires from January to March of the specified year 2024. Some participants preferred online participation and thus, questionnaires were also given online with an addition of face-to-face administration. There was an 85% response rate, the final sample therefore constituted of 425 participants. The secondary data were retrieved with the consent of the organization, and the participant IDs were concealed for purpose of anonymity. Data were analyzed using SPSS (Statistical Package for the Social Sciences) to conduct a range of statistical analyses, including descriptive and inferential methods: Analyzed the demographic characteristics of participants and presented the employment outcome by type of intervention. Descriptive statistics involving means, frequencies and standard deviations were used in order to compare the group's employment records and establish patterns and fluctuations within the various subgroups. Applied in order to test the differences between different kinds of intervention and employment results, with consideration of the specified demographical characteristics. This had the effect of establishing the particular effect of each intervention type on the employment status at the Andersen Clinic.

Administered to assess the impact of different type of interventions on employment status of clients. Further analysis (Tukey's HSD); these revealed which intervention was significantly most effective as a means of confirming and drawing between-group comparisons. Used to compare the types of interventions and categorical types of results, such as employment status, and to compare results in relation to demographic characteristics.

The reliability of the survey instrument was also analysed internally using Cronbach's alpha coefficient which provides an internal consistency that suggests a high reliability of 0.82. Regarding the content validity, the questionnaires were reviewed and revised by several scholars and educators and the pilot testing was done to ensure that the pressursor survey questions reflect the goals of the studies. Furthermore, combining the survey data with the secondary data increased the study's credibility due to data verification of respondents, and that from objective sources.

## Result and Discussion

In this research, the authors tested efficacy of a range of LMI measures, namely, training activities, wage subsidies, and employment services with a view of ascertaining their ability to cause a positive change on the unemployment status of the target participants. Because of a large, diverse sample of 425 unemployed participants who experienced these interventions, the study used a descriptive and causal-comparative research design to assess quantitative data from the structured questionnaire in addition to secondary data from organizational files. The findings were obtained through statistical analysis such as ANOVA and post hoc comparisons, which enhanced understanding about the association between intervention kinds and employment status. The tables 1-4 simplified hereinafter provide participants' demographic data, employment results yielded by every intervention type, coefficient of reliability of the surveying instrument, and significance of the analyzed data to show how the labor market interventions may help reduce the unemployment difficulties.

Table 1. Demographic Characteristics of Participants

Demographic Variable	Category	Frequency (N)	Percentage (%)
Age	18-24 years	85	20.0
	25-34 years	120	28.2
	35-44 years	90	21.2
	45-54 years	75	17.6
	55 years and above	55	13.0
Gender	Male	215	50.6

	Female	210	49.4
Education Level	High School	150	35.3
	Bachelor's Degree	200	47.1
	Master's Degree	75	17.6
Geographic Region	Urban	250	58.8
	Rural	175	41.2

This table outlines the demographic characteristics of the participants in the study. A total of 425 participants are categorized by age, gender, education level, and geographic region. The distribution of participants allows for an understanding of the sample's diversity and aids in analyzing how demographic factors might influence the effectiveness of labor market interventions.

Table 2. Employment Outcomes by Intervention Type

Intervention Type	Employed (%)	Unemployed (%)	Mean Time to Employment (Weeks)	Satisfaction Score (Mean ± SD)
Skills Training	60	40	6.2	3.7 ± 0.8
Wage Subsidies	75	25	4.5	4.2 ± 0.6
Job-Matching Services	65	35	5.5	4.0 ± 0.7

This table presents the employment outcomes based on the type of intervention received by participants. It shows the percentage of participants who were employed versus unemployed after each intervention, the average time taken to secure employment, and participants' satisfaction scores. The Wage Subsidies intervention demonstrated the highest employment rate and satisfaction score, indicating its effectiveness in addressing unemployment.

Table 3. Summary of Employment Status Pre- and Post-Intervention

Employment Status	Pre-Intervention (%)	Post-Intervention (%)
Employed	20	65
Unemployed	80	35

This table compares participants' employment status before and after the interventions. It illustrates a significant increase in employment rates, from 20% pre-intervention to 65% post-intervention, demonstrating the overall effectiveness of the labor market interventions implemented in the study.

Table 4. Cronbach's Alpha for Survey Instrument Reliability

Instrument	Number of Items	Cronbach's Alpha ( $\alpha$ )
Employment Status Questionnaire	15	0.82

This table presents the reliability assessment of the survey instrument used in the study, specifically the Employment Status Questionnaire. A Cronbach's Alpha score of **0.82** indicates high internal consistency among the items, confirming the reliability of the instrument in measuring participants' perceptions and experiences regarding the labor market interventions.

Table 5. Statistical Analysis Results for Employment Outcomes

Analysis Type	Value	Significance (p-value)	Conclusion
ANOVA (F-statistic)	15.67	0.0002	Significant differences among groups

Post-hoc (Tukey's HSD)	-	-	Identified significant differences between Wage Subsidies and other interventions
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This table summarizes the results of the statistical analyses conducted to evaluate the effectiveness of labor market interventions. The ANOVA test revealed significant differences in employment outcomes among the different intervention types ( $p = 0.0002$ ). The post-hoc analysis (Tukey's HSD) provided insights into which specific interventions significantly differed, indicating that Wage Subsidies were notably more effective than Skills Training and Job-Matching Services.

These findings point to the internal validity of the study findings as to whether or not different labour market policies can assist contain unemployment issues. More specifically, the assessment identified disparities in employment characteristics of participants in skills training, wage subsidies and job connect programmes. This tallies with earlier research capturing the need for focused efforts to improve employment chances (Chandrasekaran et al., 2020). For instance, Bhuller et al. (2022) have established that wage subsidies are ideal for employment triggers since they almost halve the cost of hiring new workers to employers while at the same time spurring the job-search behavior of potential employees at the same level. These assertions are supported by this study, which adores evidence of that wage subsidies do not only increase levels of employment but also promote employment equity since employers are encouraged to employ the most vulnerable groups, for instance individuals with low skills or long-term unemployed citizens (Olubusoye et al., 2023). This informs the need for policymakers to consider wage subsidies for the employment of the desired disadvantaged groups.

Besides, the present research adds to the knowledge base by securing 425 participants for analysis and using both primary and secondary collection techniques to increase credibility and reliability of the study. To address common response bias evident in many studies where participants provide self-reports about their employment status, the research incorporates both self-reported employment status alongside, the actual job statuses officially recorded by program staff (Jürgens et al., 2020). This sort of methodological rigour is important, as response biases can lead to quite wrong conclusions about the effectiveness of labor market programs. The relatively high reliability score of the survey instrument ( $\alpha = 0.82$ ) supports the overall validity of the data collected, which means that survey questions employed to interview participants were valid enough in order to describe their perception and experiences of lecturers' teaching style. From the earlier research, we have seen that reliable surveys that possess high reliability enable conclusion of the performance of the program in question (Stecula & Wolniak, 2016). Therefore, when validated structured questionnaires and objective employment records complement the results, they strengthen and broaden the understanding of labor market interventions.

Furthermore, this research explores how employment outcomes vary across demographic factors, although other research works fail to consider this factor. Through the process of covariate adjustment, certain patterns emerged that imply that putative beneficiaries of specific types of intervention may be more effectively reached by such approaches." For example, the study shows that younger individuals might have reacted enthusiastically towards skills training, thus confirming literature by Newman & Anderson (2021) who further clarify that young candidates are sensitive to skill development programmes. On the other hand, improved results were witnessed in the sub-sample of older workers indicating that highly targeted services are required to address the varying job placement needs of different population groups in the labour market. This is in line with earlier literature that underlines the need to design customized solutions within which different age groups struggle in the workplace (Nguyen et al., 2022). Thus, the findings of this study can help to enrich the knowledge base as regards

labor market interventions for different demographics and can be useful for designing effective targeted measures.

Although this study contributes to the proposition that labour market intervention is capable of addressing unemployment in the country, the work also recognizes the need for constant assessment and tweaking of the programmes. Given the dynamism in the labor market occasioned by technological development and changes in the economy, such interventions must be reviewed from time to time in order to attend to the new needs of the workforce (Magawi et al., 2021). This finding implies that what is done today may not have the same positive impact on the employment rates in the future due to dynamism of the employment markets; thus, the need to establish feedback mechanisms for these interventions (de Jong et al., 2021). It is also suggested that future research pay attention to accumulate data in the long-term effects of those interventions as well as the effects that have not been explored yet just like extended working from home and use of contract employment through the gig economy. This type of inquiry is especially important in the work of monitoring and maintaining the appropriateness and efficacy of these labor market policies in a changing world economy.

## Conclusion

Thus, the reported research offers important findings about the effectiveness of different forms of LM interventions in tackling unemployment problems with special emphasis on skill training, wage subsidies, job placement services. This research not only confirms prior literature through a sound methodology that included primary and secondary data, but also meets significant research questions by examining the demographic differences in intervention efficacy. Therefore, it is crucial for policymakers to acknowledge their small study as evidence for the need to call for growing and substantiated programs that must meet the needs of diverse population groups in a transforming labor market. Thus, the analysis of these programs has to be continued in the future to preserve their effectiveness and applicability due to further changes in labor market conditions and improve employment outcomes.

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