

Dynamics of Job Placement Matching Among Vocational High School Students in A Heterogeneous Regional Area: A Psychological Assessment-Based Analysis in Bogor Regency (2023–2025)

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Abstract.

The transition of Vocational High School (SMK) graduates into the labor market constitutes a strategic challenge within Indonesia's workforce development policy, particularly at the regional level. This study analyzes the dynamics of job placement matching among SMK students in Kabupaten Bogor during the 2023–2025 period using secondary data derived from the Job Placement Assessment implemented under national labor policy. The assessment measures psychological readiness across seven dimensions and generates recommendations for domestic employment, overseas employment, and entrepreneurship. Using a quantitative descriptive design with a limited longitudinal perspective, this study examines year-to-year changes in the distribution of job placement recommendations. The results show that while the psychological readiness profiles of SMK students remain relatively stable over the observed period, job placement outcomes experience significant shifts. Recommendations for domestic employment decline, whereas recommendations for overseas employment and entrepreneurship increase. These findings indicate that changes in job placement outcomes are primarily driven by structural and contextual labor market dynamics rather than by changes in individual readiness. The study underscores the importance of integrating psychological assessment data with regional labor market analysis to support adaptive career counseling, targeted workforce planning, and region-specific employment policies. By emphasizing the need for longitudinal and territorial interpretation of assessment outcomes, this research contributes to evidence-based policymaking in vocational education and labor market governance.

Keywords: Vocational education; job placement policy; labor market dynamics; workforce planning and career guidance.

I. INTRODUCTION

Indonesia is entering a critical phase of demographic transition marked by a growing proportion of productive-age population [1], [2]. This demographic bonus is expected to peak around 2030, creating both opportunities and pressures for the national labor market [3], [4]. One of the key challenges emerging from this transition is the effective absorption of young labor force entrants, particularly graduates of Vocational High Schools (Sekolah Menengah Kejuruan/SMK), who are institutionally designed to enter the labor market immediately after graduation [5]. Despite this mandate, the transition from SMK to employment remains problematic. Many SMK graduates experience difficulties in securing work that aligns with their competencies, aspirations, and psychological readiness. This phenomenon reflects a persistent issue of *person–job mismatch*, in which employment outcomes are not solely determined by technical skills but are influenced by broader psychological, cultural, and contextual factors. Consequently, job placement should be understood not merely as an administrative process, but as a psychological matching process between individual readiness and labor market opportunities [6]. In response to this challenge, the Ministry of Manpower of the Republic of Indonesia introduced the *Asesmen Penempatan Kerja* (Job Placement Assessment) through the Regulation of the Minister of Manpower Number 18 of 2024 concerning the Placement of Domestic Workers as a national policy instrument repeal the Regulation of the Minister of Manpower No.39 of 2016 concerning the Placement of Workers in Work Placement Procedures [7].

The assessment is designed to support career guidance and placement decisions by systematically mapping job seekers' profiles using a standardized psychological framework. Rather than focusing exclusively on aptitude or vocational interests, the assessment integrates psychological readiness, cultural orientation, and business-related capabilities to generate recommendations for three main job placement pathways: domestic employment, overseas employment, and entrepreneurship [7]. The Job Placement Assessment is theoretically grounded in an integrative framework combining Indonesian Standard Culture, Global Readiness–Psychological Capital, and Business Management Capabilities [7], [8]. These foundations are operationalized into seven psychological dimensions: spirituality, social bonding, diversity

orientation, communication style, skill type (generalis–specialist), global capacity, and business capacity. Collectively, these dimensions capture both internal psychological resources and contextual competencies that shape individuals’ capacity to navigate different work environments [9]. From a psychological standpoint, these dimensions represent relatively stable characteristics formed through long-term socialization, education, and cultural experience [10].

Cultural values, communication styles, and core psychological resources tend to remain consistent over short to medium time spans [11]. However, while psychological readiness may remain stable, job placement outcomes are highly sensitive to external labor market dynamics, including economic conditions, regional employment structures, mobility opportunities, and policy environments [6], [12], [13], [14]. This distinction between stable psychological profiles and dynamic job placement outcomes is particularly relevant in heterogeneous regional contexts such as Kabupaten Bogor. As a regency characterized by diverse socio-economic conditions—ranging from industrial zones to semi-rural and informal economic areas—Bogor presents a complex labor market landscape for SMK graduates. Employment opportunities within the region may fluctuate due to industrial restructuring, wage disparities, and proximity to major urban labor markets in the Greater Jakarta area. Policy implementation data from 2023 to 2025 indicate a notable shift in job placement recommendations for SMK students in Kabupaten Bogor. Specifically, recommendations for domestic employment show a declining trend, while recommendations for overseas employment and entrepreneurship demonstrate a gradual increase. Importantly, these shifts occur alongside relatively stable profiles across the seven psychological dimensions measured by the assessment. This pattern raises a critical question: how can job placement compatibility change over time when underlying psychological readiness remains largely unchanged?

Most existing studies on vocational readiness and career development rely on cross-sectional designs that provide a snapshot of individual characteristics at a single point in time [13], [14]. While valuable, such approaches often overlook temporal dynamics and the interaction between stable psychological attributes and evolving labor market conditions. As a result, limited attention has been given to understanding how job placement outcomes shift longitudinally within the same population despite consistent psychological profiles. Addressing this gap, the present study adopts a longitudinal descriptive perspective to examine the dynamics of job placement matching among SMK students in Kabupaten Bogor over the period 2023–2025. Rather than evaluating the psychometric properties of the Job Placement Assessment—which have been established through prior development and validation processes—this study focuses on interpreting assessment outcomes as indicators of labor market alignment [3], [6], [15], [16]. By emphasizing changes in placement recommendations across time, the study highlights the role of structural and contextual factors in shaping career trajectories. The contribution of this research lies in demonstrating that changes in job placement compatibility do not necessarily reflect changes in individual psychological readiness. Instead, they signal shifts in labor market structures, mobility opportunities, and career orientations at the regional level. Understanding this distinction is essential for developing more adaptive career counseling strategies, designing context-sensitive labor policies, and enhancing the use of psychological assessments as tools for evidence-based workforce planning.

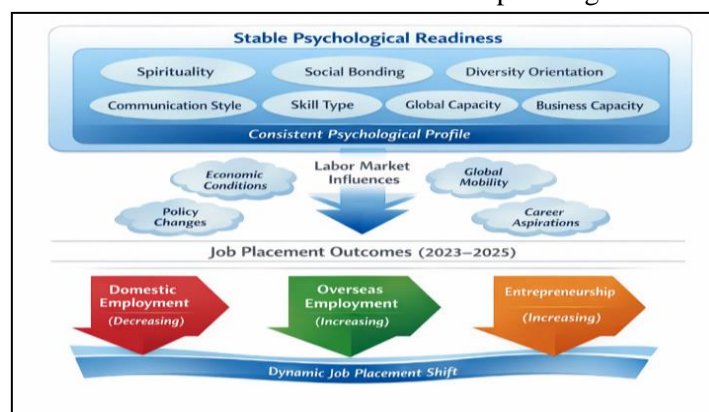


Fig 1. Conceptual Framework of Job Placement Matching Dynamics

Figure 1 illustrates a dual-layer conceptual framework in which stable psychological readiness, measured through seven dimensions of the Job Placement Assessment, forms the foundation for job placement matching outcomes. While psychological profiles remain relatively stable over time, job placement recommendations dynamically shift in response to labor market influences, resulting in changes in domestic employment, overseas employment, and entrepreneurship pathways during the 2023–2025 period.

II. METHODS

A. Research Design

This study employed a quantitative descriptive design with a limited longitudinal perspective [17], [18], [19]. The design was selected to examine temporal dynamics in job placement matching outcomes among vocational students without manipulating variables or intervening in the assessment process. The longitudinal aspect of the study is considered limited, as it relies on repeated observations of aggregated assessment outcomes across three consecutive years (2023–2025), rather than tracking the same individuals over time. This approach is appropriate for capturing year-to-year shifts in job placement compatibility while maintaining a stable analytical focus on psychological readiness profiles. The study does not aim to test causal relationships, but rather to describe and interpret observable patterns emerging from policy-based assessment data.

B. Data Source and Policy Context

The data used in this study consist of secondary data derived from public policy implementation, specifically the Job Placement Assessment (Asesmen Penempatan Kerja) administered by the Ministry of Manpower of the Republic of Indonesia. The assessment was implemented as part of career guidance and job counseling activities conducted by the local Manpower Office (Dinas Ketenagakerjaan) in Kabupaten Bogor. Data were collected over a three-year period from 2023 to 2025 and reflect the outcomes of assessment administration among vocational high school students. The use of secondary data allows the study to analyze real-world policy outcomes within an authentic institutional context, enhancing the practical relevance of the findings. Researchers did not alter assessment procedures, scoring mechanisms, or recommendation algorithms, and functioned solely as analysts of existing data.

C. Research Subjects

The research subjects comprised students enrolled in Vocational High Schools (SMK) in Kabupaten Bogor who participated in the Job Placement Assessment during the specified period. Kabupaten Bogor was selected due to its heterogeneous regional characteristics, encompassing industrial, semi-urban, and non-industrial areas, which present diverse labor market conditions for vocational graduates. The study focuses on aggregated assessment results at the regional level rather than individual-level longitudinal tracking. This approach aligns with the study's objective of examining regional patterns and temporal dynamics in job placement matching rather than individual psychological change.

D. Instrument: Job Placement Assessment

The primary instrument utilized in this study was the Job Placement Assessment (Asesmen Penempatan Kerja), a standardized psychological assessment developed under the initiative of the Ministry of Manpower [7]. The instrument is designed to support career guidance and job placement decisions by mapping individuals' readiness across multiple psychological and capability-based dimensions. The assessment framework integrates three main theoretical foundations: Indonesian Standard Culture, Global Readiness–Psychological Capital, and Business Management Capabilities. These foundations are operationalized into seven dimensions: spirituality, social bonding, diversity orientation, communication style, skill type, global capacity, and business capacity [7], [9]. Based on the combined profile of these dimensions, the assessment generates job placement recommendations in three categories: domestic employment, overseas employment, and entrepreneurship.

Recommendations may be provided as single or combined categories, reflecting the multidimensional nature of job placement readiness. It is important to note that in this study, the Job Placement Assessment is treated strictly as a measurement tool, not as an object of psychometric evaluation. Instrument development, validation, and reliability testing were conducted prior to the period of analysis and

are documented in separate technical reports. Consequently, this study does not assess validity or reliability, but instead focuses on interpreting assessment outcomes as indicators of job placement compatibility within a policy implementation context.

E. Data Analysis

Data analysis was conducted using descriptive statistical techniques to examine distributions, trends, and changes in job placement recommendations across the three-year period. The primary analytical procedures included frequency distribution analysis, percentage comparison, and visual inspection of trends across years. Comparative analysis was applied to identify shifts in the proportion of job placement recommendations for domestic employment, overseas employment, and entrepreneurship from 2023 to 2025 [17], [18]. In addition, stability in the seven psychological dimensions was examined descriptively to assess whether changes in placement recommendations coincided with changes in psychological readiness profiles. Rather than employing inferential statistical testing, the analysis emphasized pattern recognition and temporal interpretation, consistent with the descriptive and policy-oriented nature of the study. This analytical strategy allows for a nuanced understanding of how job placement outcomes evolve over time within a relatively stable psychological framework.

F. Ethical Considerations and Researcher Position

Ethical considerations were addressed through the use of anonymized secondary data obtained with institutional permission. No personally identifiable information was accessed or analyzed. The researchers did not participate in assessment administration or scoring and had no influence over participants' responses or placement recommendations. The researchers' role was limited to data interpretation and academic analysis, ensuring objectivity and compliance with ethical standards for secondary data research. The study thus adheres to principles of responsible data use in applied psychological and policy research.

III. RESULT AND DISCUSSION

A. Stability of Psychological Readiness Dimensions

The descriptive analysis of Job Placement Assessment data collected between 2023 and 2025 demonstrates a remarkable stability across all seven psychological readiness dimensions among SMK students in Kabupaten Bogor. Aggregated distributions of spirituality, social bonding, diversity orientation, communication style, skill type, global capacity, and business capacity show no substantive variation across the observed years. From a psychological standpoint, this stability is theoretically expected. Dimensions such as spirituality, social bonding, and communication style are deeply embedded within cultural and socialization processes that develop over long periods of time [12], [16]. These constructs reflect internalized value systems and habitual patterns of interaction that are not easily altered by short-term changes in labor market conditions. Similarly, dimensions associated with psychological capital—such as global capacity—are cumulative in nature and tend to evolve gradually rather than fluctuate abruptly [3], [6], [12], [13]. The persistence of these profiles suggests that the vocational student population in Kabupaten Bogor maintains a consistent psychological readiness structure across cohorts. This finding is crucial, as it establishes a stable baseline against which changes in job placement outcomes can be meaningfully interpreted. In other words, the assessment results indicate that individual readiness is not the primary driver of observed changes in placement recommendations. Table 1 presents a summary of the stability pattern observed across years.

Table 1. Stability of Psychological Readiness Dimensions (2023–2025)

Psychological Dimension	2023	2024	2025	Trend Pattern
Spirituality	Stable	Stable	Stable	No change
Social Bonding	Stable	Stable	Stable	No change
Diversity Orientation	Stable	Stable	Stable	No change
Communication Style	Stable	Stable	Stable	No change
Skill Type	Stable	Stable	Stable	No change
Global Capacity	Stable	Stable	Stable	No change
Business Capacity	Stable	Stable	Stable	No change

This stability confirms that the psychological readiness of vocational students is largely shaped by long-term cultural and developmental processes. As such, psychological characteristics function as a constant foundation rather than a fluctuating variable within the observed timeframe.

B. Temporal Shifts in Job Placement Recommendation Distribution

In contrast to the stability observed in psychological readiness, the distribution of job placement recommendations exhibits clear temporal dynamics over the 2023–2025 period. The most salient pattern is a progressive decline in recommendations for domestic employment, accompanied by incremental increases in recommendations for overseas employment and entrepreneurship. This redistribution of placement pathways reflects structural transformations in the regional labor market rather than changes in individual capacity. The declining domestic employment recommendations may indicate reduced absorption capacity of local industries, increased competition for formal sector jobs, or a mismatch between vocational training outputs and available positions. As a result, domestic employment becomes a less dominant pathway within the overall placement landscape. Conversely, the rising proportion of overseas employment recommendations suggests an increasing strategic emphasis on transnational labor mobility.

This shift aligns with broader labor market trends in which overseas employment functions as an alternative route for skill utilization and income generation. Importantly, this does not imply a growing desire for migration per se, but rather an adaptive reorientation facilitated by existing psychological readiness for global engagement. The upward trend in entrepreneurship recommendations further underscores the adaptive nature of placement strategies. Entrepreneurship emerges not solely as an expression of heightened business capacity, but as a contextually activated pathway in response to constrained formal employment opportunities. This pattern is consistent with the concept of necessity-oriented or hybrid entrepreneurship, which often arises in regions with limited wage employment options. In contrast to the stable psychological profiles, job placement recommendations exhibit clear temporal dynamics. Analysis of assessment outcomes shows a declining proportion of domestic employment recommendations, alongside increasing proportions of overseas employment and entrepreneurship recommendations between 2023 and 2025. These shifts are summarized in Table 2.

Table 2. Distribution of Job Placement Recommendations by Year

Job Placement Category	2023	2024	2025	Direction of Change
Domestic Employment	High	Moderate	Lower	Decreasing
Overseas Employment	Moderate	Increasing	Higher	Increasing
Entrepreneurship	Low	Moderate	Higher	Increasing

The declining alignment with domestic employment suggests reduced compatibility between local labor market opportunities and vocational graduates’ profiles. Conversely, the increasing recommendations for overseas employment and entrepreneurship reflect adaptive responses to structural labor market conditions rather than changes in individual readiness.

C. Visualizing the Shift in Job Placement Outcomes

To clearly illustrate these temporal dynamics, this study employs a trend-based bar chart visualization that depicts changes in the distribution of job placement recommendations across the three-year period.

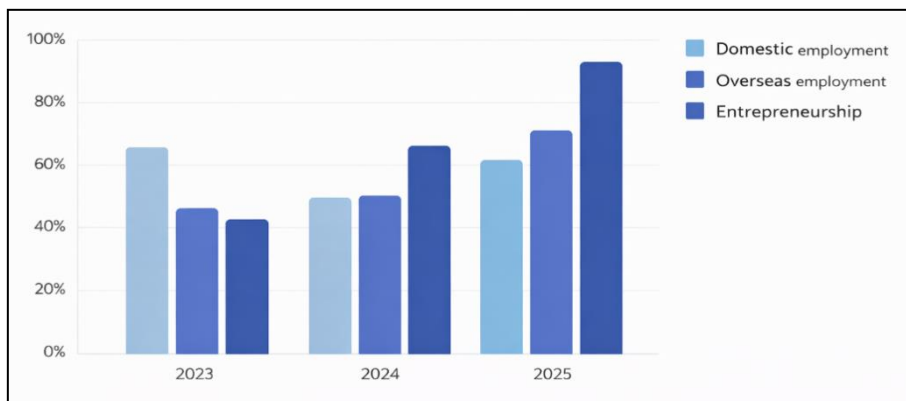


Fig 2. Trends in Job Placement Recommendations among SMK Students in Kabupaten Bogor (2023–2025)

Figure 2 illustrates the declining trend in domestic employment recommendations alongside increasing trends in overseas employment and entrepreneurship over the 2023–2025 period. The visualization highlights the divergence between stable psychological readiness and dynamic job placement outcomes.

D. Career Psychology Interpretation of the Observed Dynamics

1) Aspirations under Structural Constraints

The observed shifts in placement recommendations can be interpreted as manifestations of adaptive career aspirations. While individual aspirations are grounded in psychological readiness, they are continuously reshaped by perceived opportunity structures. As domestic employment opportunities contract, aspirations are redirected toward pathways that offer greater feasibility or sustainability.

2) Mobility as a Structural Adaptation

The increasing emphasis on overseas employment reflects the emergence of mobility as a strategic career adaptation. From a career psychology perspective, mobility here functions not as an intrinsic motivational shift, but as a rational response enabled by stable global readiness capacities.

3) Activation of Global Readiness

The findings demonstrate that psychological attributes can remain stable while their functional relevance changes over time. Global readiness, in particular, becomes increasingly salient as labor markets internationalize and mobility-oriented pathways gain prominence.

4) Contextual Entrepreneurship

Entrepreneurship recommendations reflect a form of contextualized career construction, where self-employment is positioned as a viable alternative within constrained labor markets. Stable business capacity provides the foundation, while structural necessity determines its activation.

E. Synthesizing Stability and Change

The juxtaposition of stable psychological dimensions and shifting placement outcomes confirms the central argument of this study is *Career outcomes are shaped by the interaction between enduring psychological readiness and evolving structural labor market conditions.* This finding reinforces the importance of interpreting assessment results within their socio-economic context and cautions against attributing employment outcomes solely to individual characteristics.

IV. CONCLUSION

This study examined the dynamics of job placement matching among Vocational High School (SMK) students in Kabupaten Bogor over the 2023–2025 period using data derived from the Job Placement Assessment implemented as part of national labor policy. The findings demonstrate a clear distinction between stable psychological readiness and dynamic job placement outcomes [6], [12], [16]. Across the three-year observation period, the seven psychological readiness dimensions—spirituality, social bonding, diversity orientation, communication style, skill type, global capacity, and business capacity—remained relatively stable. This stability indicates that the core psychological profiles of SMK students are shaped by long-term cultural, developmental, and educational processes and do not fluctuate substantially in the short term. As such, psychological readiness functions as a consistent foundation for career decision-making. In contrast, job placement recommendations showed significant temporal shifts. Recommendations for domestic employment declined, while recommendations for overseas employment and entrepreneurship increased. These changes occurred without corresponding shifts in psychological profiles, suggesting that variations in job placement outcomes are primarily driven by structural and contextual labor market dynamics, rather than by changes in individual readiness. This finding confirms the central argument of this study: employment outcomes reflect the interaction between stable psychological capacities and evolving opportunity structures [5], [6], [12], [13], [16].

A. Implications for Career Counseling in SMK

For career guidance practices in SMK, the results highlight the importance of moving beyond static interpretations of assessment scores. Counselors should recognize that stable psychological readiness can be translated into different career pathways depending on labor market conditions. Career counseling programs

therefore need to be adaptive, incorporating up-to-date labor market information and encouraging students to consider multiple pathways—including mobility and entrepreneurship—without framing such shifts as deficiencies in readiness.

B. Implications for Regional Labor Policy

From a policy perspective, the findings underscore the necessity of region-specific workforce planning. In heterogeneous areas such as Kabupaten Bogor, declining compatibility with domestic employment signals the need for policy interventions that address local labor absorption capacity. At the same time, increasing orientations toward overseas employment and entrepreneurship call for supportive policies related to migration preparedness, skills certification, and entrepreneurship development that are aligned with regional characteristics.

C. Implications for Assessment Development and Use

Finally, this study contributes to the development and utilization of psychological assessments in labor policy by demonstrating the value of territorially contextualized interpretation. While the Job Placement Assessment provides a standardized measure of psychological readiness, its outcomes gain greater relevance when analyzed longitudinally and regionally. Future assessment-based policies should therefore integrate temporal and spatial analyses to better align individual readiness with evolving labor market realities. In conclusion, this study affirms that effective job placement policy requires both robust psychological measurement and nuanced contextual interpretation. By highlighting the coexistence of psychological stability and structural change, the research provides a valuable framework for advancing evidence-based career guidance and regional labor policy in vocational education contexts.

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