



# Educational Credentials as Employability Signals: Educational Attainment and Perceived Employment Opportunities among Generation Z in Urban Indonesia

Devy Putri Kussanti<sup>1\*</sup>, Windu Tiastuti<sup>2</sup>, Sri Wulandari<sup>3</sup>, Nur Ridwan<sup>4</sup>

<sup>1</sup> Program Studi Hubungan Internasional, Universitas Bina Sarana Informatika, Indonesia

<sup>2-4</sup> Program Studi Ilmu Komunikasi, Universitas Bina Sarana Informatika, Indonesia

\*Corresponding Author: [devy.dpk@bsi.ac.id](mailto:devy.dpk@bsi.ac.id)

**Abstract.** This study examines the relationship between educational attainment and perceived employment opportunities among Generation Z in urban Indonesia, using Bekasi as the empirical context. Drawing on signaling theory, educational credentials are viewed as communicative signals of competence, credibility, and potential value in the labour market. A quantitative cross-sectional survey was conducted involving 100 Generation Z respondents in Bekasi. Data were analyzed using descriptive statistics, item-total correlation, reliability analysis, residual normality testing, and simple linear regression. The findings indicate a strong positive relationship between educational attainment and perceived employment opportunities. The regression model explains 76.0% of the variance in perceived employment opportunities, with educational attainment identified as a statistically significant predictor. These findings suggest that educational credentials function not only as formal qualifications but also as signals through which young people assess their position, competence, and prospects in the labour market. The study highlights the informational role of education in shaping Generation Z's perceptions of employment opportunities in urban Indonesia. The results further indicate that higher educational attainment may strengthen young people's confidence in accessing employment opportunities and navigating competitive labour-market conditions. This study contributes to the understanding of education as a signalling mechanism and provides empirical evidence regarding its relevance to employment perceptions among Generation Z in Indonesia.

**Keywords:** Educational Attainment; Employment Opportunities; Generation Z; Signaling Theory; Labour Market.

## 1. BACKGROUND

The transformation of the labour market over the past decade has altered how younger generations perceive their readiness to enter employment. Digitalisation, automation, platform-based work, and increasing competition for entry-level positions have made the transition from education to employment less linear and more uncertain. Within this context, employability has become more relevant than employment status alone because it refers to individuals' capacity and perceived ability to obtain and sustain appropriate employment. Employability is increasingly understood as an outcome shaped by interactions among students, higher education institutions, employers, and changing labour market conditions (Cheng et al., 2022). It also represents a multidimensional construct involving knowledge, skills, behaviours, and the ability to translate educational experiences into forms of value recognised by employers (Bennett & Ananthram, 2022). Recent Indonesian communication research likewise indicates that digitally mediated institutional messages can shape young people's perceptions and choice decisions through information quality, credibility, and symbolic representation (Fatah & Sidharta, 2026).

From a communication perspective, educational credentials can be understood as signals that convey information about the potential quality of job applicants to employers. Degrees, educational attainment, institutional reputation, and academic achievements can reduce uncertainty when an individual's actual productivity cannot be directly observed during recruitment. Employers frequently use educational credentials as classificatory devices to assess candidates' potential competence, capability, and suitability for particular occupations (Tholen, 2023). The value attached to such signals is also influenced by institutional context and by how employers interpret the origin and prestige of educational qualifications. University prestige and the geographical location in which education is obtained can influence the economic value attributed to educational credentials in the labour market (Argue & Velema, 2022). Experimental evidence further indicates that higher education itself can alter employers' perceptions of candidate quality even when additional information about applicants is available (Stans et al., 2026).

The signalling power of educational credentials, however, is not static. The expansion of higher education has increased the number of degree holders while simultaneously reducing the relative distinctiveness of certain qualifications. Credential inflation emerges when the widespread possession of educational qualifications gradually diminishes their comparative value in competition for employment opportunities (Araki & Kariya, 2022). As a result, job seekers increasingly need to construct additional signals beyond formal degrees. Work experience, extracurricular participation, and university-based activities can contribute differently to students' employability and shape how they distinguish themselves from other candidates (Jackson & Tomlinson, 2022). The growing importance of micro-credentials further extends this signalling process because short-form certificates can communicate specific competencies and strengthen candidates' differentiation in competitive labour markets. Students tend to perceive micro-credentials as valuable for curriculum vitae development and professional identity, whereas employers are more likely to interpret them as indicators of additional knowledge and skills (Ha et al., 2026).

These developments are particularly relevant to perceived employment opportunities, which refer to individuals' subjective assessments of their likelihood of obtaining employment based on both personal resources and perceived external conditions. Graduate employability is influenced by communication skills, learning capacity, positive attitudes, problem-solving abilities, and labour-market demand (Mainga et al., 2022). Educational environments and support from teaching staff can also enhance students' perceived employability by strengthening the resources they believe they can mobilise during the transition to work

(Petruzziello et al., 2023). Perceived employability, therefore, requires consideration of both individuals' evaluations of their own capacities and their interpretation of external employment opportunities (Noori & Azmi, 2024). Employment opportunity is consequently not merely an objective labour-market condition but also an interpretive judgement through which individuals evaluate the strength of the signals they possess and anticipate how those signals may be received by employers.

This interpretive dimension makes employability particularly relevant to communication studies. Job seekers are required to translate educational capital into professional narratives that can be recognised and evaluated by labour-market audiences. Career identity, cultural capital, self-efficacy in job interviews, and self-perceived employability are interconnected during the transition from education to employment (Petruzziello et al., 2024). Employability development can also be understood as a process involving preparation, practice, and presentation, in which individuals acquire capabilities, demonstrate them through experience, and communicate evidence of those capabilities to prospective employers (Grant et al., 2024). Career engagement and perceived employability are similarly connected through dynamic processes that continue to evolve after graduation (Grosemans et al., 2024). Related research on communicative sensemaking under conditions of ambiguity shows that information becomes actionable through interpretation, negotiation, and communicative validation rather than through technical information alone (Sidharta et al., 2026).

These findings suggest that employability is produced through the creation, transmission, and interpretation of signals. Communication therefore becomes an important mechanism through which information is transformed into perceptions, trust, and behavioural responses. Research on digital marketing communication also demonstrates that educational content, storytelling, transparency, and trust-building can shape audience responses and engagement in digitally mediated environments (Rendi, Linawati, Novita, & Ngadiono, 2026). Educational credentials can similarly be understood as signals whose value depends not only on possession but also on how their meaning and credibility are communicated to relevant audiences.

Higher education institutions also help shape the quality and credibility of employability signals. Collaboration between universities and employers can reduce information asymmetry by aligning educational experiences more closely with labour-market expectations. Employer involvement in higher education can strengthen the relevance of learning experiences and improve the alignment between graduate capabilities and

employability requirements (O'Regan et al., 2023). University support during the job-search process may also improve the quality of the match between graduates' educational backgrounds and their subsequent employment (Albert & Davia, 2023). Nevertheless, the effectiveness of employability programmes depends considerably on how such interventions are designed and implemented across institutions (Scandurra et al., 2024). Considerable variation also remains in the ways higher education institutions operationalise employability interventions, indicating that no single institutional mechanism can guarantee that educational experiences will automatically translate into either perceived or actual employment opportunities (Barachino et al., 2025).

These issues have become increasingly important for Generation Z, which is entering the labour market at a time when formal educational credentials coexist with digital portfolios, professional certifications, project experience, micro-credentials, and other emerging forms of competence signalling. In Indonesia, the employability and competitiveness of Generation Z are closely associated with their preparedness for the transition from education to employment (Fahadayna et al., 2025). Emerging evidence on Generation Z employability gaps also suggests that expectations, environmental support, technological preparedness, and motivation shape younger workers' responses to contemporary labour-market demands (Mandal et al., 2026). These dynamics are especially relevant in urban Indonesia, where concentrations of higher education institutions and employment opportunities coexist with intense competition among young job seekers.

Digital exposure itself does not mechanically produce behavioural change, because young users interpret mediated messages through digital literacy, social context, and individual judgement (Manik & Sidharta, 2026). This interpretation process is consistent with communication research demonstrating that digital messages can function as stimuli that are processed through internal cognitive and affective mechanisms before generating behavioural responses (Rendi, Satria W, P., & Sidharta, 2026).

Despite the growing literature on graduate employability, several conceptual and empirical gaps remain. Existing studies have largely focused on employability skills, graduate capital, university interventions, psychological resources, or employers' evaluations of job applicants. Research adopting a signalling perspective has tended to prioritise employers' interpretations of applicants' qualifications, whereas studies of perceived employability have more frequently examined skills, experiences, psychological capital, and career-related resources. Consequently, limited attention has been given to the direct relationship between educational attainment and perceived employment opportunities as a communication-based

signalling process, particularly among Generation Z in developing and urban contexts. There remains insufficient understanding of the extent to which educational attainment functions as a signal through which young people evaluate their own position and perceived opportunities within the labour market.

This study addresses this gap by examining the relationship between educational attainment and perceived employment opportunities among Generation Z in urban Indonesia. By positioning educational credentials as communicative signals, the study extends employability research beyond conventional human-capital explanations and highlights the informational and interpretive functions of educational attainment in labour-market interactions. The study, therefore, conceptualises educational credentials not merely as accumulated qualifications but as signals through which young job seekers communicate, validate, and assess their potential value within an increasingly competitive employment environment.

## **2. LITERATURE REVIEW**

### **Educational Credentials as Employability Signals and Perceived Employment Opportunities**

Educational credentials operate in labour markets as information-bearing signals that help reduce uncertainty about applicants whose productivity, skills, and behavioural qualities cannot be fully observed before hiring. Contemporary employability research increasingly treats signalling as reciprocal: graduates communicate evidence of capability, while employers interpret and respond to these signals throughout recruitment and early-career transitions (Akkermans et al., 2024). Experimental evidence shows that successful university graduation itself influences employers' judgements, as degree completion is interpreted as an indicator of occupation-specific knowledge and non-cognitive attributes beyond applicants' observable characteristics (Neugebauer et al., 2026). The informational content of credentials is therefore important because hiring managers assess otherwise comparable candidates less favourably when specific degree information is absent from their CVs (Civile et al., 2026).

The communicative function of credentials becomes more complex in digitally mediated recruitment. Applicants must learn how to translate qualifications, skills, and experience into recognisable signals across online application systems, assessment platforms, and interviews (Handley & den Outer, 2024). This requirement is particularly salient for Generation Z, whose job-search practices increasingly combine formal credentials with social-media-based personal branding and strategic online self-presentation (Trang et al., 2024).

Personal branding can provide employability information beyond conventional indicators of human capital, suggesting that labour-market value depends partly on whether professional resources are made visible and credible to relevant audiences (Gorbatov et al., 2024). New forms of certification similarly seek to make employability skills more transparent and portable through digital recognition mechanisms (Maina et al., 2022). Yet employers attach greater value to alternative credentials when they provide credible evidence of applied competence, illustrating that the effectiveness of a signal depends on its perceived validity rather than its mere existence (Bruguera et al., 2025).

Educational attainment can also be understood as part of a wider portfolio of employability resources. Recent conceptual work identifies multiple forms of employability capital, including scholastic, social, cultural, psychological, identity, and market-value resources that shape graduates' capacity to navigate labour-market transitions (Donald et al., 2024). Empirical evidence likewise indicates that human, cultural, psychological, and social capital contribute differently to graduates' perceived employability, reinforcing the view that educational resources acquire value through their interaction with other career assets (Agnihotri et al., 2023).

Self-perceived employability captures individuals' evaluations of their ability to secure employment and remain competitive, making it an important psychological mechanism linking accumulated resources with career-related decisions and behaviour (Duggal et al., 2024). Perceived employability is therefore sensitive to both acquired resources and the context in which those resources are evaluated. Work experience obtained before entering university can strengthen students' confidence in their employability and influence subsequent employability-related behaviour (Bennett et al., 2023).

Formal, informal, and self-regulated learning also contribute differently to internal, external, quantitative, and qualitative forms of perceived employability (Decius et al., 2024). External opportunity structures matter because perceptions of declining employment opportunities can condition the relationship between human and social capital and employability assessments (Yang et al., 2022). Graduates consequently need agency to identify, combine, and strategically mobilise different forms of capital when seeking access to employment opportunities (Pham et al., 2024).

### **Generation Z and the Digital Labour Market**

For Generation Z, perceived employment opportunities are formed within an increasingly digital and technologically uncertain labour market. Digital technologies influence how young job seekers search for information, evaluate occupational alternatives, prepare

applications, and make career choices (Ma & Fang, 2024). Their job-pursuit decisions are also shaped by symbolic and instrumental information about employers, demonstrating that employment choices depend on how organisational signals are interpreted alongside candidates' own career expectations (Nguyen Ngoc et al., 2022). At the same time, automation and artificial intelligence are altering task structures and skill requirements, increasing pressure on graduates to continuously demonstrate adaptable, technology-relevant capabilities (Jung et al., 2024).

Recent mapping of the employability field shows a broader shift away from treating a degree as an automatic guarantee of employment toward understanding employability as a dynamic relationship among skills, resources, institutional conditions, and labour-market expectations (Wahab et al., 2025). The expansion of micro-credentials reflects the same shift by offering more granular and shareable evidence of learning, although questions of recognition, comparability, quality assurance, and employer trust remain unresolved (Varadarajan et al., 2023). Formal educational attainment, therefore, remains a consequential signal, but its perceived labour-market value is increasingly assessed alongside competing forms of evidence.

Taken together, the literature suggests that educational attainment should affect how Generation Z evaluates its employment prospects because credentials simultaneously represent accumulated educational resources and signals of capability to labour-market audiences. Existing research has examined employer interpretations, employability capitals, digital self-presentation, and alternative credentials, yet the direct relationship between educational attainment and perceived employment opportunities remains underexamined in urban settings in emerging economies. This study, therefore, tests the following hypothesis:

H1: Educational attainment has a positive and significant effect on perceived employment opportunities among Generation Z in urban Indonesia.

### **3. RESEARCH METHODS**

#### **Research design**

This study employed a quantitative cross-sectional survey design to examine the relationship between educational attainment and perceived employment opportunities among Generation Z in Bekasi, Indonesia. A quantitative design was considered appropriate because the study aimed to empirically examine the statistical association between a predictor variable and an outcome variable using standardized numerical data. The cross-sectional approach enabled data on educational attainment and perceived employment opportunities to be collected

from respondents within the same period without manipulating the research conditions. Such a design is commonly used to investigate associations among variables within a defined population, although its findings should be interpreted as statistical relationships rather than definitive causal effects, as temporal ordering cannot be established from cross-sectional data alone (Wang & Cheng, 2020).

The study was situated in Bekasi, an urban area within the Greater Jakarta metropolitan region. The urban context is particularly relevant because young people in metropolitan areas encounter relatively diverse educational opportunities while simultaneously facing substantial competition in entering the labour market. The research design was structured to ensure consistency among the research objective, constructs, measurement instruments, and statistical procedures, in accordance with the principles of transparent reporting in survey-based quantitative research (Sharma et al., 2021).

### **Participants and Sampling**

The unit of analysis was the individual respondent from Generation Z. The analytical sample comprised 100 Generation Z respondents in Bekasi. Respondents were selected in accordance with the population characteristics established for the study, particularly their generational membership and relevance to the educational and employment context examined.

The dataset available for this study contained the completed respondent data used for statistical analysis. Because detailed documentation of the original sampling frame and respondent recruitment procedure was not included in the analytical dataset, the study does not make claims about probability-based representativeness that cannot be empirically verified. This approach was adopted to maintain methodological transparency and prevent overstatement of the generalizability of the sample.

### **Research Variables and Measurement**

The study examined two main variables. The independent variable was educational attainment, while the dependent variable was perceived employment opportunities. Educational attainment represented respondents' education-related resources, as operationalized in the research instrument, whereas perceived employment opportunities reflected respondents' assessments of their prospects for employment in the labour market. Each construct was operationalized through ten questionnaire items. The indicators for educational attainment were coded X1–X10, whereas the indicators measuring perceived employment opportunities were coded Y1–Y10. Responses to the individual indicators were combined to generate composite scores representing each construct for subsequent statistical analysis.

Before hypothesis testing, the questionnaire's measurement quality was evaluated. Item validity was examined using item–total correlations to determine the extent to which each indicator was consistently associated with the overall construct it was intended to represent. Item–total correlation is useful for identifying whether individual questionnaire items contribute meaningfully to the composite measurement of a construct (Abd ElHafeez et al., 2021). Internal consistency reliability was assessed using Cronbach's alpha. Reliability assessment was conducted separately for the educational attainment and perceived employment opportunities measures. Cronbach's alpha is widely used to evaluate the internal consistency of multi-item scales, although reliability coefficients should be interpreted alongside the conceptual coherence and measurement structure of the indicators rather than as standalone evidence of measurement quality (Hayes & Coutts, 2020).

### **Data Collection Procedure**

Data were obtained through a structured questionnaire designed to produce standardized responses for quantitative analysis. The questionnaire contained separate sets of indicators representing the independent and dependent variables. Responses were subsequently coded and organized into a statistical dataset, with each respondent corresponding to one analytical case and each questionnaire indicator corresponding to an observed variable. Prior to inferential analysis, the dataset was examined to ensure that observations and variable coding were appropriate for statistical processing. Composite scores were subsequently generated from the indicators associated with each construct. The resulting dataset was then prepared for descriptive, measurement-quality, assumption, and regression analyses.

### **Data Analysis**

Data analysis was conducted using IBM SPSS Statistics 27. The analytical procedure consisted of several stages. First, descriptive statistics were used to summarize the variables' characteristics and provide an overview of their distributions. Second, item total correlations were used to evaluate the validity of the indicators, followed by Cronbach's alpha analysis to assess internal consistency. The statistical assumptions relevant to regression analysis were subsequently examined. Residual normality was evaluated using the one-sample Kolmogorov–Smirnov procedure. In linear regression, assessing the residual distribution is more relevant than requiring the predictor and outcome variables themselves to be perfectly normal, because regression assumptions primarily concern the behaviour of model errors (Bilon, 2023). The proposed relationship between educational attainment and perceived employment opportunities was tested using simple linear regression with the Enter method. Educational

attainment was specified as the predictor variable, and perceived employment opportunities as the dependent variable. The regression model was formulated as:

$$Y = \beta_0 + \beta_1 X + \varepsilon \dots\dots\dots(i)$$

Where Y represents perceived employment opportunities,  $\beta_0$  denotes the regression intercept,  $\beta_1$  represents the regression coefficient associated with educational attainment, X represents educational attainment, and  $\varepsilon$  denotes the residual error term. Hypothesis testing was conducted using a two-tailed significance criterion of  $p < .05$ . Model evaluation was based on the regression coefficient, standardized coefficient, coefficient of determination, analysis of variance, and associated significance statistics. This procedure was used to determine whether educational attainment was significantly associated with perceived employment opportunities among Generation Z in the urban Indonesian context.

## 4. Result and Discussion

### Finding

The analysis was based on 100 valid responses from Generation Z respondents in Bekasi. No cases were excluded from the analytical dataset. The results are presented in four stages: descriptive statistics, measurement reliability, assessment of the regression residual distribution, and simple linear regression testing of the proposed relationship between educational attainment and perceived employment opportunities.

**Table 1.** Descriptive Statistics and Internal Consistency of The Study Variables

| Construct                          | N   | Min | Max | Mean  | SD   | Cronbach's $\alpha$ | Corrected item-total correlation |
|------------------------------------|-----|-----|-----|-------|------|---------------------|----------------------------------|
| Educational attainment             | 100 | 20  | 50  | 40.23 | 7.04 | .912                | .584-.758                        |
| Perceived employment opportunities | 100 | 20  | 50  | 40.19 | 6.51 | .910                | .633-.705                        |

As shown in Table 1, both variables occupied the same observed score range. The educational attainment construct had a mean of 40.23 (SD = 7.04), while perceived employment opportunities had a mean of 40.19 (SD = 6.51). Internal consistency was high for both multi-item measures. Cronbach's alpha was .912 for educational attainment and .910 for perceived employment opportunities. The corrected item–total correlations were positive and consistently above commonly used minimum thresholds, indicating that the items contributed coherently to their respective composite scores.

The regression residuals were examined before hypothesis testing. The one-sample Kolmogorov–Smirnov test produced a test statistic of .061 with an asymptotic significance value of .200. The residual distribution therefore did not show a statistically significant

deviation from normality at the .05 level, supporting the use of the specified linear regression model.

**Table 2.** Simple Linear Regression Predicting Perceived Employment Opportunities

| Predictor              | B     | SE    | $\beta$ | t      | p      |
|------------------------|-------|-------|---------|--------|--------|
| Constant               | 7.799 | 1.868 | —       | 4.175  | < .001 |
| Educational attainment | .805  | .046  | .872    | 17.600 | < .001 |

Model statistics:  $R = .872$ ;  $R^2 = .760$ ; adjusted  $R^2 = .757$ ; SE of estimate = 3.206;  $F(1, 98) = 309.761$ ;  $p < .001$ .

The regression model was statistically significant,  $F(1, 98) = 309.761$ ,  $p < .001$ . The correlation between the predictor and the outcome was strong ( $R = .872$ ), and the model accounted for approximately 76.0% of the variance in perceived employment opportunities ( $R^2 = .760$ ; adjusted  $R^2 = .757$ ). Educational attainment was a positive and statistically significant predictor of perceived employment opportunities ( $B = .805$ ,  $SE = .046$ ,  $\beta = .872$ ,  $t = 17.600$ ,  $p < .001$ ). The resulting regression equation was  $Y = 7.799 + .805X$ . This indicates that a one-unit increase in the educational attainment score was associated with an estimated .805-unit increase in perceived employment opportunities. Accordingly, H1 was supported.

## Discussion

The central finding of this study is that the educational attainment construct is strongly and positively associated with perceived employment opportunities among Generation Z respondents in Bekasi. The magnitude of the standardized coefficient indicates that respondents with higher educational attainment scores tended to evaluate their employment prospects more favourably. This relationship is consistent with the view that educational credentials serve an informational function in labour markets: qualifications are not only accumulated resources but also signals through which competence, readiness, and potential value can be inferred under conditions of incomplete information (Tholen, 2023; Akkermans et al., 2024).

The result also extends the signalling argument beyond the employer as the receiver of information. Much of the signalling literature has focused on whether employers interpret university completion, degree type, institutional status, or additional credentials as indicators of applicant quality. Recent experimental research demonstrates that successful university graduation can alter employer evaluations because degree completion communicates information about both occupational knowledge and less directly observable attributes (Neugebauer et al., 2026). The present findings suggest a complementary mechanism operating on the applicant side: educational credentials appear to shape how young people themselves anticipate their position in the labour market. In this sense, signalling is simultaneously external

and reflexive. A credential is sent outward as evidence to employers and interpreted inwardly by the credential holder as evidence of labour-market competitiveness.

This reflexive interpretation is important for perceived employability because job-search behaviour is partly driven by whether individuals believe that their resources will be recognised by labour-market audiences. Employability capital encompasses scholastic, social, cultural, psychological, identity, and market-value resources, and these forms of capital become consequential when individuals can mobilise and communicate them in career transitions (Donald et al., 2024). The strong association observed in this study, therefore, implies that education may contribute to employment expectations not simply by increasing knowledge but by providing a relatively legible marker through which young job seekers judge their own competitiveness.

The result is particularly relevant in digitally mediated recruitment. Contemporary applicants increasingly encounter online application systems, algorithmically filtered vacancy platforms, professional networking sites, digital portfolios, and remote interviews. Under these conditions, possessing a resource and successfully communicating that resource are distinct processes. Young applicants must translate educational qualifications into recognisable evidence through CVs, profiles, interviews, and other recruitment encounters, making employability partly dependent on the ability to signal capability convincingly (Handley & den Outer, 2024). Personal branding further contributes to this process, as the visibility and credibility of professional resources can provide information beyond conventional human capital indicators (Gorbatov et al., 2024).

Generation Z is especially exposed to this transformation because its transition into employment occurs in a labour market where formal degrees coexist with digital portfolios, certifications, project histories, social media profiles, and micro-credentials. Research on Generation Z job search shows that digital technology increasingly affects how young people identify vacancies, compare employers, present themselves, and form expectations about future work (Ma & Fang, 2024). Social-media-based personal branding is also becoming part of job-seeking strategies among Generation Z, illustrating that professional identity is increasingly communicated through combinations of formal and informal signals (Trang et al., 2024). Educational credentials consequently remain important, but they function within a broader communication environment in which multiple signals compete for employer attention.

The relatively high explanatory power of the model deserves careful interpretation. An  $R^2$  of approximately .760 indicates that the measured educational attainment construct explains a substantial proportion of variation in perceived employment opportunities within this sample.

This should not be interpreted to mean that education alone determines employment prospects. Perceived employability is shaped by a wider combination of human capital, social capital, career clarity, work experience, psychological resources, labour-market conditions, and access to opportunity structures (Yang et al., 2022; Donald et al., 2024). The high shared variance may also partly reflect the fact that both variables were measured through self-reported multi-item scales within the same survey. Future research should therefore assess potential common-method effects and incorporate external indicators of employment outcomes.

From a communication perspective, the findings contribute by repositioning educational credentials as more than static qualifications. Their value emerges through processes of encoding, presentation, recognition, and interpretation. This perspective helps explain why two individuals with apparently similar educational resources may experience different employment trajectories: the signalling environment, the credibility of the signal, and the individual's ability to articulate its relevance all affect how educational resources translate into labour-market opportunities. The development of employability has accordingly been described as a cycle in which preparation and practice must eventually be converted into presentable evidence for employers (Grant et al., 2024).

The finding also has practical implications for higher education institutions. Universities should not assume that awarding a credential automatically enables graduates to communicate its labour-market relevance. Career preparation needs to help students translate educational experiences into evidence of competence through CV writing, interview communication, portfolios, professional networking, and digital identity management. Alternative credentials may strengthen this signalling portfolio by providing specific, credible evidence of learning, although their effectiveness depends on recognition and employer trust (Varadarajan et al., 2023). For Generation Z, employability education should therefore combine skill development with the communication of the value of skills.

The urban Indonesian context provides another important dimension. Bekasi is part of the Greater Jakarta metropolitan labour market, where access to higher education and employment opportunities coexist with considerable competition for professional and entry-level positions. The results suggest that educational resources may operate as an important source of perceived advantage within this environment. At the same time, the study should not imply that all credential holders encounter equal opportunity. Structural differences in networks, socioeconomic background, occupational sector, institutional prestige, work experience, and access to digital recruitment channels may influence both the credibility of signals and the probability that they lead to employment.

### ***Theoretical and Practical Implications***

Theoretically, the study supports a communication-oriented extension of employability signalling. Conventional signalling models generally emphasise the sender–receiver relationship between applicants and employers. The current findings point toward a dual signalling process in which educational credentials influence both employer-facing communication and applicants' self-assessment of market opportunity. This suggests that perceived employment opportunities can be conceptualised as an anticipatory interpretation of the reception of expected signals. Such an interpretation links labour-market signalling to perceived employability and provides a useful basis for examining how young people build confidence in their employment prospects before an actual hiring decision occurs.

Practically, universities, career centres, and employment programmes should focus on making educational capital legible to employers. Training in professional storytelling, CV construction, interview communication, digital portfolios, and evidence-based presentation of competencies can help graduates connect formal education with specific occupational value. Employers can also contribute by clarifying recruitment criteria, thereby reducing ambiguity about which educational and skill signals are actually valued. More transparent signalling environments may help Generation Z make more realistic assessments of employment opportunities and invest in credentials that have meaningful labour-market relevance.

### ***Limitations and Future Research***

Several limitations should be acknowledged. First, the study used a cross-sectional design, so the statistical relationship should not be interpreted as definitive causal evidence. Second, the analytical sample consisted of 100 respondents from a single urban setting, which limits generalisation to the broader Generation Z population in Indonesia. Third, the dependent variable represents perceived employment opportunities rather than verified employment outcomes. Longitudinal research could follow respondents from education into actual job searches and employment experiences to determine whether perceived opportunity predicts subsequent labour market outcomes.

A further measurement issue requires particular attention. In the available dataset, educational attainment is operationalised as a ten-item composite score rather than as discrete categories such as secondary school, diploma, bachelor's degree, or postgraduate education. The present results, therefore, pertain to the educational-attainment construct as operationalised by the survey instrument. Future studies should distinguish objective educational level from perceptions of educational value or educational credentials, test their discriminant validity, and examine whether each dimension produces different signalling effects. Future models could

also incorporate work experience, digital skills, socioeconomic background, institutional prestige, social capital, and employer-side evaluations to provide a more complete explanation of perceived and actual employability.

## 5. CONCLUSIONS

This study examined the relationship between educational attainment and perceived employment opportunities among Generation Z in Bekasi, as an urban Indonesian context. The results provide clear statistical support for the proposed hypothesis: higher educational attainment scores were strongly associated with more favourable perceptions of employment opportunities. The model explained a substantial proportion of the variance in the outcome, demonstrating the central role that educational resources play in how young respondents assess their prospects in the labour market. The contribution of the study lies in interpreting this relationship through a communication-based signalling perspective. Educational credentials function not only as resources accumulated through schooling but also as communicative markers that make competence and potential value more visible under conditions of labour-market uncertainty. The findings indicate that this signalling process may operate in two directions. Credentials are presented externally to employers, while credential holders also use them internally to evaluate how competitive they believe themselves to be. Perceived employment opportunity can therefore be understood as partly shaped by an individual's anticipation of how educational signals will be recognised by labour-market audiences.

For higher education institutions, the findings reinforce the importance of helping students convert their educational experience into credible, intelligible employability signals. Formal credentials should be complemented by opportunities to demonstrate competencies through professional profiles, portfolios, interviews, work experience, and other evidence employers can evaluate. For Generation Z, the value of education increasingly depends on both what is learned and how effectively that learning translates into a professional signal in digitally mediated recruitment environments. The conclusions remain bounded by the cross-sectional design, the single-city sample, the use of self-reported perceptions, and the composite operationalisation of educational attainment. Further research should test the proposed signalling mechanism using larger and more diverse samples, longitudinal employment outcomes, objective educational categories, and data from both job seekers and employers. Such extensions would clarify when educational credentials become credible signals of employability and when additional forms of capital are required to transform education into an actual employment opportunity.

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