

# The Analysis of Urbanization's Impact on Increasing Unemployment in Bandung

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## ABSTRAK

*Urbanisasi dapat memiliki berbagai implikasi sosial-ekonomi. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi literatur untuk mengeksplorasi secara komprehensif hubungan antara urbanisasi dan tingkat pengangguran di Kota Bandung. Analisis didasarkan pada tinjauan sistematis terhadap sumber-sumber literatur yang relevan, seperti artikel jurnal ilmiah, laporan penelitian, dan publikasi otoritatif. Temuan mengungkapkan dampak multidimensi dari urbanisasi, seperti peningkatan persaingan kerja, ketidaksesuaian antara keterampilan dan peluang kerja, serta tekanan pada infrastruktur perkotaan dan layanan publik. Studi ini memberikan wawasan tentang tantangan yang dihadapi oleh daerah perkotaan seperti Kota Bandung dalam mengelola urbanisasi dan konsekuensinya terhadap ketenagakerjaan. Rekomendasi diberikan bagi para pembuat kebijakan dan pemangku kepentingan untuk mengembangkan strategi yang mengatasi masalah terkait urbanisasi dan mendorong pembangunan perkotaan yang berkelanjutan.*

**Kata Kunci:** Urbanisasi, Pengangguran, Sektor Informal, Pembangunan Kota

## ABSTRACT

*Urbanization can have various socio-economic implications. This study employs a qualitative approach with a literature review method to comprehensively explore the relationship between urbanization and unemployment rates in Bandung. The analysis is based on a systematic review of relevant literature sources, including scholarly journal articles, research reports, and authoritative publications. The findings reveal the multidimensional impacts of urbanization, such as increased labor market competition, mismatches between skills and job opportunities, and pressure on urban infrastructure and public services. This study provides insights into the challenges faced by urban areas like Bandung in managing urbanization and its consequences on employment. Recommendations are offered to policymakers and stakeholders to develop strategies that address urbanization-related issues and promote sustainable urban development.*

**Keywords:** urbanization, unemployment, informal sector, urban development

## **INTRODUCTION**

Urbanization is an economic and social phenomenon that characterizes urban development in Indonesia. Bandung, a major economic and educational hub in West Java, is no exception to the effects of urbanization. As urban populations grow, numerous challenges arise, one of which is unemployment.

According to data from the Bandung Statistics Agency (BPS), the population of Bandung has steadily increased over the years. In 2018, the city's population reached 2,456,853 and grew to 2,562,144 in 2022, with an average annual growth rate of 1.09% (BPS of Bandung, 2022a). This population increase is largely attributed to ongoing urbanization flows. Meanwhile, the open unemployment rate (TPT) in Bandung has also shown an upward trend. BPS data reveals that the TPT increased from 7.24% in 2018 to 8.27% in 2022. This figure consistently remains higher than the overall TPT of West Java Province, which stood at 8.12% in 2022 (BPS of West Java, 2022).

Previous studies have highlighted the relationship between urbanization and unemployment levels in urban areas. Research by Nur'aini and Muktiali (2019) found that urbanization in Bandung has led to intensified job market competition due to a growing number of job seekers, while job creation has not always kept pace (Nur'aini & Muktiali, 2019). Furthermore, Nurhadi and Suryani (2020) revealed a gap between the skills of new migrants and the qualifications required in the city, which increases the risk of unemployment (Nurhadi & Suryani, 2020).

Urban unemployment may be caused by various factors, including an imbalance between workforce growth and job opportunities, mismatched worker qualifications with market demands, and a lack of new job opportunities. Urbanization can exacerbate unemployment in

Bandung as rural-to-urban migration adds pressure to the labor market (Nurhadi & Suryani, 2020).

Based on the data and previous research, it can be argued that urbanization has a significant impact on unemployment levels in Bandung. The population growth driven by urbanization not only intensifies competition in the job market but also creates mismatches between available skills and the needs of the urban labor market. Additionally, rapid population growth places stress on the city's infrastructure and public services, which in turn can affect the investment climate and job creation (Susilawati & Susanti, 2022).

## **RESEARCH METHODS**

This study employs a qualitative approach. The literature review method used in this research involves collecting and analyzing various sources related to the topic, such as scholarly journals, research reports, reference books, and other relevant documents. By utilizing this method, the author aims to provide an in-depth analysis of the impact of urbanization on unemployment rates, particularly in Bandung, and to propose new ideas that could contribute to the advancement of knowledge and understanding of the subject.

## **RESULT AND DISCUSSION**

### **Urbanization and Urban Population Growth**

Urbanization is the process of population migration from rural to urban areas. This phenomenon arises from the overall quality of urban economic levels and governmental activities (Mauluddin, 2015). A study by Siahaan and Sari (2021) indicates that Bandung has experienced rapid population growth in recent years, with an average annual growth rate of 1.8% during 2015–2020.

Population growth in Bandung is primarily driven by migration from other regions, particularly rural areas surrounding Bandung and other cities in West Java. Urbanization is one of the most significant factors contributing to population growth in Bandung, where rural residents are highly motivated to seek better economic opportunities and employment in major urban centers (Siahaan & Sari, 2021).

Regarding the drivers of urbanization, Gottdiener and Hutchison (2011) identify several key factors, migration from rural to urban areas in search of better economic opportunities. The growth of industries and services in urban areas, attracting workers from rural regions. Poverty and the lack of economic opportunities in rural areas, pushing people to seek better livelihoods in cities. In addition to economic impacts, urbanization also brings significant socio-cultural changes, such as shifts in values and lifestyles from rural to urban societies, the emergence of subcultures and new social groups in urban environments, and changes in interaction patterns and social relationships due to urban density and anonymity.

Gottdiener and Hutchison (2011) also discuss the phenomena of segregation and stratification in urban areas, where populations tend to separate based on socio-economic status, race, or ethnicity. These dynamics lead to the formation of slums and impoverished areas on the urban periphery. The concentration of high-income residents in elite neighborhoods and city centers. Disparities in access to public facilities and services among different population groups.

**Table 1. Urban Population Growth in Bandung (2018–2022)**

Year	Urban Population	Urban Population Growth Rate
2018	2.456.853	1,21%
2019	2.487.826	1,26%
2020	2.513.183	1,02%
2021	2.537.745	0,98%
2022	2.562.144	0,96%

(Source: Bandung Statistics Agency)

From the table above, it can be seen that the urban population in the city of Bandung has continued to increase every year over the past five years (2018-2022). Although the growth rate of the urban population has slowed down in recent years, the overall trend of population growth is still ongoing.

The continuous increase in the urban population can have an impact on the unemployment rate in the city of Bandung. As discussed earlier, uncontrolled urbanization and urban population growth can lead to increased competition for jobs, a skills gap between available job opportunities and the workforce, as well as pressure on infrastructure and public services. With the growing urban population in Bandung, the labor force will also increase. If job creation does not keep pace with the growth of the labor force, the unemployment rate in Bandung has the potential to rise.

### **The Impact of Urbanization on Unemployment in the City of Bandung**

Urbanization has a significant impact on the increase in unemployment in the city of Bandung. The migration of people from rural areas to the city leads to increased job competition. This issue arises

because the number of job seekers in Bandung continues to rise along with the population growth, while job creation does not always match the growth in the labor force (Nur'aini & Muktiali, 2019). As a result, competition for jobs becomes more intense.

Furthermore, urbanization creates a gap between the skills possessed by new migrants and the skills needed in the city. A study conducted by Nurhadi and Suryani (2020) shows that many newcomers in Bandung have skills that do not match the available jobs, increasing the risk of unemployment. This is because the shift in the workforce from agriculture to industry and services in urban areas is often not accompanied by adequate skill development (Nurhadi & Suryani, 2020).

Another impact of urbanization is the pressure on infrastructure and public services in Bandung. The rapid population growth due to urbanization can put pressure on infrastructure such as transportation, housing, and healthcare facilities. According to research by Susilawati and Pramono (2022), the lack of adequate infrastructure can hinder economic growth and create social instability, which can ultimately impact the unemployment rate.

In facing the intense competition for jobs in the formal sector, many migrants in Bandung are forced to turn to the informal sector or undesirable jobs. A study by Widyastuti and Saputri (2021) found that most migrants in Bandung work in the informal sector, such as street vendors, construction workers, or casual laborers, with uncertain income and poor working conditions. This reflects the impact of urbanization on the rise of informal and undesirable jobs in the city of Bandung (Widyastuti & Saputri, 2021).

**Table 2. Comparison of Open Unemployment Rate (OUR) in Bandung and West Java**

Year	Bandung OUR (%)	West Java OUR (%)
<b>2018</b>	7,24	7,04
<b>2019</b>	7,38	7,18
<b>2020</b>	8,12	8,06
<b>2021</b>	8,45	8,29
<b>2022</b>	8,27	8,12

(Source: Central Statistics Agency of Bandung and Central Statistics Agency of West Java)

The table above shows that the open unemployment rate in Bandung has always been higher than the unemployment rate for the West Java province as a whole over the past five years. This indicates that the pressure of urbanization and higher urban population growth in Bandung may contribute to the higher unemployment rate compared to the provincial average.

### **Migration Trends to Bandung**

Bandung has become a magnet for migrants, especially from West Java and surrounding provinces. BPS data shows that the population growth of Bandung reached an average of 1.8% per year from 2015 to 2020, with a significant contribution from in-migration (BPS Bandung, 2021). The migration pattern to Bandung shows diverse characteristics. The majority of migrants come from districts around Bandung, indicating a dominance of short-distance migration (Muttaqin & Sari, 2019). Additionally, there is a seasonal migration pattern related to the academic calendar of higher education institutions and the harvest season in the migrants' places of origin (Suryadarma & Suryahadi, 2018). Many

migrants who initially came for temporary purposes, such as education or seasonal work, eventually decide to settle permanently in Bandung, adding complexity to the migration dynamics (Ananta & Arifin, 2014).

Migration to Bandung is influenced by various push factors from the place of origin and pull factors in the destination city. The main push factors include limited job opportunities in the origin areas, low income levels in the agricultural sector, lack of access to quality higher education, and, in some cases, natural disasters or conflicts (Sukamdi & Mujahid, 2015). On the other hand, Bandung offers attractions such as more diverse job opportunities in both formal and informal sectors, availability of quality higher education institutions, better urban infrastructure and facilities, and a perception of a more attractive urban lifestyle. A study by Ananta and Arifin (2014) confirmed that economic factors, especially job opportunities, are the main reasons for migration to Bandung, followed by educational factors (Firman, 2016).

Migration has had a significant impact on the demographic structure of Bandung. About 60% of the city's population growth in the last decade has been contributed by migration. The majority of migrants are in the productive age group (15-64 years), resulting in an increased proportion of the working-age population in the city (Muhidin, 2020). Population density has also increased rapidly, especially in the city center and industrial areas, with some districts reaching a population density of over 15,000 people per km<sup>2</sup> (Bandung Spatial Planning and Construction Agency, 2022). Migration has also increased ethnic diversity in Bandung, with a significant rise in the population of Sundanese, Javanese, and other ethnic groups. The urbanization process has been accelerated by migration flows, with the urbanization rate in Bandung reaching 93.2% in 2020. These demographic impacts pose new challenges in urban planning,



public service provision, and labor force management. The Bandung Government needs to develop policies that are responsive to this migration dynamic to ensure sustainable and inclusive city development.

Bandung has undergone significant economic transformation in recent decades, shifting from an economy dominated by traditional sectors to a more diversified modern economy. In the early 20th century, Bandung's economy was still dominated by agriculture and simple manufacturing industries (Suharto, 2016). However, since the 1980s, there has been a drastic shift toward the services sector and knowledge-based industries. Currently, the contribution of the agricultural sector to Bandung's GRDP is less than 1%, while the services and industrial sectors account for over 80% of the total GRDP (BPS of Bandung, 2021a). This transformation has not only changed the city's economic landscape but also influenced urbanization patterns and labor market demands. Migrants from rural areas coming to Bandung often face challenges in adapting to the demands of the modern economy, which contributes to structural unemployment issues.

One characteristic feature of Bandung's economic development is the rapid growth of the services and creative industries sectors. Bandung has become a center for the creative industry in Indonesia, with significant contributions from subsectors such as design, fashion, culinary, and information technology (Aritenang, 2015). In 2020, the creative industries sector contributed about 15% to Bandung's GRDP and absorbed over 20% of the city's workforce (Bandung Department of Culture and Tourism, 2021). This development has created many new job opportunities, particularly for young people and university graduates. However, this growth also presents challenges for migrants from rural

areas who may lack the skills required to participate in the creative economy. This may exacerbate the gap between migrants and the city's native population in terms of access to quality jobs (Fahmi & Koster, 2017).

**Table 3. Percentage of the Working-Age Population in Bandung by Education Level**

Education Level	Percentage (%)
No School/Incomplete Primary	2.1%
Incomplete Primary School	6.8%
Primary School/MI	15.4%
Junior High School/MTs	18.9%
Senior High School/SMK/MA	37.6%
Diploma I/II/III/Academy	4.7%
University	14.5%

(Source: Central Statistics Agency of Bandung, National Workforce Survey 2022)

The table indicates that the majority of the working-age population in Bandung has relatively low educational attainment, with only 19.2% having completed secondary or higher education. This may suggest a mismatch between rural migrants and the demands of the labor market in the modern urban economy.

This additional data provides a more detailed picture of the impact of urbanization on unemployment in Bandung, such as higher unemployment rates compared to the provincial average, lower unemployment rates due to the expansion of the informal sector, and a lack of access to labor market information.

The economic structural changes in Bandung have significantly impacted labor market needs. There has been a shift in demand from unskilled labor to skilled and knowledgeable workers. The service and creative industries require employees with digital skills, creativity, and critical thinking abilities (World Bank, 2019a). This has created a gap between the skills possessed by many migrants from rural areas and the demands of the urban labor market. As a result, despite economic growth, unemployment rates in Bandung remain relatively high, particularly among new migrants and low-skilled workers (BPS of Bandung, 2022b). This phenomenon reflects structural unemployment caused by a mismatch between workforce skills and the requirements of the modern economy.

Economic structural changes have also altered employment patterns in Bandung. There has been an increase in part-time, contract-based, and project-based work, particularly in the creative industry sector (Yusuf & Sumner, 2015). While this provides flexibility, it can also lead to income instability and a lack of job security for many workers, especially newly arrived migrants.

Addressing these challenges requires integrated policies that combine urbanization management with economic development. Targeted training and skills development programs for migrants and low-skilled workers can help bridge the skills gap. Additionally, policies that promote the growth of sectors capable of absorbing workers with varying skill levels are essential to creating more inclusive employment opportunities (OECD, 2019).

## **Urbanization and Pressure on Urban Infrastructure**

The rapid urbanization of Bandung has placed significant pressure on its urban infrastructure. An analysis of infrastructure capacity reveals that population growth resulting from urbanization often exceeds the city's ability to provide adequate facilities. According to a study conducted by the Bandung Public Works Office, road capacity in several central areas has exceeded 120% of its initial design, causing chronic congestion that adversely affects economic productivity (Bandung Public Works Office, 2021). Similarly, the city's drainage system faces severe strain, with approximately 30% of urban areas experiencing routine flooding during the rainy season due to insufficient capacity (Bandung Disaster Management Agency, 2022). Clean water and sanitation infrastructure also face considerable challenges, with only 72% of households having access to safe water and 68% having access to proper sanitation facilities (Bandung Health Office, 2021). These infrastructure deficiencies not only diminish residents' quality of life but also risk impeding economic growth and job creation.

Increasing population density due to urbanization has also significantly affected public services in Bandung. Healthcare services are under heavy strain, with the hospital bed ratio dropping from 1.8 per 1,000 residents in 2010 to 1.5 in 2020, well below the WHO standard of 3 beds per 1,000 residents. Similarly, the education sector faces challenges, with the average student-teacher ratio in primary schools reaching 1:35, exceeding the national standard of 1:28 (Bandung Education Office, 2022). Public transportation services, despite improvements such as the Bus Rapid Transit (BRT) system, remain insufficient to meet the growing mobility needs of residents, with only 15% of urban trips relying on public transit (Bandung Transportation Office, 2021). These pressures on public

services risk exacerbating social and economic inequalities, particularly for migrants and low-income groups who often have limited access to alternative services.

To address these challenges, the Bandung Government has developed several strategies for sustainable infrastructure development. One key initiative is the Bandung Smart City program, which aims to optimize the use of information and communication technology to enhance urban service efficiency (Bandung Government, 2020). This program includes implementing intelligent traffic management systems, real-time environmental monitoring, and e-government platforms to improve public service accessibility. The city has also adopted a Transit-Oriented Development (TOD) approach to integrate housing and commercial development with public transport networks (Bandung Regional Development Planning Agency, 2021). Furthermore, the local government collaborates with the private sector through Public-Private Partnership (PPP) schemes to expedite the construction of critical infrastructure such as wastewater treatment facilities and waste management systems (Bandung Housing and Settlement Office, 2022).

These strategies aim not only to address current infrastructure challenges but also to lay the foundation for sustainable and inclusive economic growth. By doing so, they have the potential to reduce unemployment by creating new job opportunities in infrastructure construction and maintenance sectors.

### **The Development of the Informal Sector in Bandung**

The growth of the informal sector in Bandung is closely linked to the phenomenon of urbanization and the city's unemployment levels. The informal sector has become an integral part of Bandung's urban economy,

providing employment and income for many residents, particularly migrants from rural areas who may struggle to find work in the formal sector.

The characteristics and dynamics of Bandung's informal sector reflect the complexity of a rapidly evolving urban economy. This sector is defined by small-scale, labor-intensive enterprises that often operate outside formal regulations (Chen, 2012). In Bandung, the informal sector encompasses a wide range of economic activities, including street vendors, motorcycle taxi drivers, home-based workers, and micro-enterprises in various fields. A study by Anwar and Joesron (2018) revealed that approximately 60% of Bandung's workforce is engaged in the informal sector, with a high concentration in densely populated areas and economic hubs (Anwar, 2018).

The dynamics of the informal sector in Bandung also demonstrate high levels of flexibility and adaptability. During periods of economic crisis or shocks to the formal sector, the informal sector often acts as an economic "buffer" for the city. For instance, during the COVID-19 pandemic, many workers who lost formal jobs turned to the informal sector for survival (Kusnandar, 2021). However, this flexibility also highlights the vulnerability of the informal sector to urban policies and macroeconomic changes.

The informal sector's contribution to Bandung's economy is significant, even though it is often underrepresented in official economic statistics. Research by the Center for Economic Studies and Public Policy at Universitas Padjadjaran (2020) estimates that the informal sector contributes approximately 30–35% to Bandung's Gross Regional Domestic Product (GRDP) (Center for Economic Studies and Public Policy, Universitas Padjadjaran, 2020). Additionally, the sector plays a crucial

role in providing affordable goods and services for low-income residents and in redistributing income among economically disadvantaged groups.

The informal sector also plays an essential role in reducing open unemployment rates in Bandung. By absorbing labor that cannot be accommodated by the formal sector, including migrants and residents with limited skills, the informal sector helps mitigate potential social issues that could arise from mass unemployment. However, it is important to note that while the informal sector reduces open unemployment, it may also conceal problems of underemployment and inadequate work conditions.

**Table 4. Percentage of Workforce Employed in the Informal Sector in Bandung**

Year	Percentage Employed in the Informal Sector (%)
2018	28,6%
2019	29,1%
2020	30,4%
2021	31,2%
2022	32,8%

(Source: Bandung Statistics Agency, processed from the National Labor Force Survey)

This table shows the increasing percentage of residents employed in the informal sector in Bandung over the past five years. The informal sector often becomes a fallback option for migrants from rural areas who face difficulties securing employment in the formal sector. The growth of

the informal sector may indicate the impact of urbanization on the rise of hidden unemployment or underemployment in Bandung.

The main challenges faced by Bandung's informal sector include low productivity, limited access to capital and technology, and vulnerability to economic shocks. Many informal workers also lack adequate social and legal protection. A study by Pratomo and Saputra (2021) revealed that more than 70% of informal workers in Bandung do not have health insurance or other forms of social security (Pratomo & Saputra, 2021).

The formalization of the informal sector is a key agenda for the Bandung Government. Formalization efforts aim to improve productivity, expand access to credit and markets, and enhance working conditions in the informal sector. However, this process faces several challenges, including resistance from informal sector actors concerned about additional costs and regulations, as well as the government's limited capacity to manage the transition (Williams & Kedir, 2018).

On the other hand, formalization also offers opportunities to improve the welfare of informal workers and contribute to the city's overall economic growth. Programs such as simplified business licensing, access to microcredit, and business skills training have been implemented in Bandung with promising results (Department of Cooperatives, 2022).

In the context of the discussion on urbanization's impact on unemployment in Bandung, the development of the informal sector holds significant relevance. The informal sector has served as a "safety valve" for many migrants and city residents who are unable to find employment in the formal sector. However, overreliance on the informal sector may also indicate the formal economy's inability to absorb available labor, reflecting structural challenges within Bandung's urban economy (Rothenberg et al., 2016).



To address unemployment and urbanization challenges, Bandung's urban policies must consider the dual role of the informal sector: as an employment provider and as an indicator of structural issues. An integrated strategy—including gradual formalization, productivity improvements in the informal sector, and the development of a more inclusive formal sector—is essential to build a more resilient and sustainable urban economy in Bandung (Ministry of National Development Planning/National Development Planning Agency, 2019).

### **The Impact of Technology on the Labor Market**

The impact of technology on the labor market has significant relevance to urbanization and unemployment levels in Bandung. Technological advancements, particularly digitalization and automation, have dramatically transformed the employment landscape, creating both challenges and opportunities for urban workers.

The influence of digitalization and automation on the labor market in Bandung has been the subject of intensive research in recent years. A study by the Economic Research Center of LIPI (2020) revealed that approximately 30% of jobs in Bandung are at high risk of automation in the coming decade (Economic Research Center of LIPI, 2020). Sectors such as manufacturing, retail, and office administration are projected to experience the most significant impacts. This phenomenon could potentially increase structural unemployment, particularly among workers with low to medium skills.

However, digitalization has also created new opportunities. Research conducted by the Ministry of Communication and Informatics (2021) found that Bandung's digital economy grew by an average of 8.5% annually, far exceeding the growth of the conventional economy (Ministry

of Communication and Informatics, 2021). This growth has spurred the emergence of new job categories in the digital economy era. Professions such as app developers, data analysts, digital marketing specialists, and social media managers are increasingly in demand. A study by the Bandung Institute of Technology (2022) projected that approximately 15–20% of new jobs in Bandung over the next five years would come from the digital economy sector (Bandung Institute of Technology, 2022).

The emergence of these new jobs carries important implications for urbanization dynamics and unemployment in Bandung. On one hand, it creates new employment opportunities that can absorb urban labor, especially among youth who are more adaptive to technology. On the other hand, the skills gap between emerging job requirements and the qualifications of existing job seekers may exacerbate structural unemployment (World Bank, 2019b).

Labor adaptation strategies to technological changes are crucial in this context. The Bandung Government, in collaboration with educational institutions and the private sector, has initiated various training programs and digital skill enhancement initiatives. The "Bandung Digital Valley" program, for example, aims to train 10,000 workers in advanced digital skills during the 2020–2025 period (Bandung Communication and Informatics Office, 2020). Additionally, curriculum revisions in higher education and vocational institutions to include more technological and digital skill components are being actively promoted (Ministry of Education and Culture, 2020).

However, significant challenges remain in adapting the workforce. Research by Frey and Osborne (2017) indicates that the pace of technological change often outstrips the speed of workforce adaptation, particularly among older workers or those from non-technical

educational backgrounds (Frey & Osborne, 2017). This gap could widen the skills divide and potentially increase structural unemployment in Bandung.

In the context of urbanization, the impact of technology on the labor market also influences migration patterns. Cities with robust digital infrastructure and thriving startup ecosystems, such as Bandung, tend to attract more migrants with digital skills. This phenomenon may heighten competition for technology-based jobs in the city, potentially creating an urban "digital elite" and widening economic disparities (Florida, 2019).

Addressing these challenges requires a holistic approach involving various stakeholders. The Bandung Government needs to develop policies that encourage technological innovation while protecting workers vulnerable to disruption. Initiatives such as stronger social security for gig economy workers, incentives for companies to reskill their employees, and lifelong learning programs should be prioritized (ILO, 2021).

Furthermore, inclusive urban development strategies are essential to ensure that the benefits of digital transformation are equitably distributed. The development of comprehensive digital infrastructure across the city, digital literacy programs for marginalized groups, and support for MSMEs in adopting technology can help create a more resilient and inclusive urban economy.

In conclusion, the impact of technology on the labor market has profound implications for urbanization dynamics and unemployment in Bandung. While it presents new challenges, particularly in the form of potential technological unemployment, technological advancements also offer opportunities for inclusive economic growth and job creation. Bandung's success in managing this transition will largely depend on its

ability to craft adaptive policies, foster innovation, and ensure equitable access to opportunities in the digital economy.

### **Comparison with Other Cities**

A comparison of Bandung with other major cities in Indonesia in the context of urbanization and unemployment provides valuable insights into the specific dynamics faced by Bandung and potential solutions that could be adopted. This comparative study not only highlights shared challenges but also uncovers the unique situation of Bandung within the urban landscape of Indonesia.

A comparative study conducted by the Institute for Economic and Social Research, Education, and Information (LP3ES) in 2021 compared urbanization patterns and unemployment rates in five major cities in Indonesia: Jakarta, Surabaya, Medan, Makassar, and Bandung (LP3ES, 2021). The study revealed that Bandung experienced a higher urbanization rate than the national average, with an urban population growth of 2.1% per year, compared to Jakarta's 1.7% and Surabaya's 1.9%. However, Bandung's unemployment rate (8.27% in 2022) was higher than Jakarta's (7.91%) and Surabaya's (7.52%) (Statistics Indonesia, 2022).

The unique challenges of urbanization in Bandung are shaped by several factors. First, Bandung's geographical proximity to Jakarta creates complex migration dynamics, with many people migrating to Bandung as a "stepping stone" before moving on to Jakarta. Second, Bandung's status as a hub for higher education attracts students from various regions, many of whom tend to settle in the city after graduation, adding pressure to the local labor market (Aritenang, 2020). Third, Bandung's development as a center for creative industries and technology has created a significant

skills gap between available jobs and the qualifications of job seekers (Ministry of Industry of the Republic of Indonesia, 2021).

Learning from best practices in urban management from other cities can provide valuable insights for Bandung. Surabaya, for instance, has successfully implemented the "Kampung Improvement Program," which integrates infrastructure development with micro-level economic empowerment of local communities (Das, 2018). This program not only improved living conditions in densely populated areas but also created local job opportunities, alleviating urbanization pressures on the city center.

Meanwhile, Yogyakarta has developed an effective triple-helix cooperation model between government, academia, and industry to develop a startup ecosystem and creative economy (Purbani, 2020). This model has successfully generated new jobs in the technology and creative sectors, while also reducing brain drain. Bandung could adapt elements of this model to better optimize its creative economy potential.

Jakarta, despite facing larger urbanization challenges, has been successful in developing an integrated mass transportation system that effectively reduces access disparities to employment across city regions (Lo & Lam, 2021). Jakarta's experience in this regard can offer valuable lessons for Bandung in developing a more efficient transportation system.

An analysis of the unique urbanization challenges in Bandung must also consider its historical and cultural context. As a city with a rich architectural and cultural heritage, Bandung faces a unique challenge in balancing modern development with the preservation of cultural heritage (Voskuil, 2017). This affects urban development patterns and, in turn, the distribution of employment.

Furthermore, Bandung's more diverse economic structure, compared to other major cities, with significant contributions from the education, tourism, and creative industries sectors, creates unique labor market dynamics (Bandung Culture and Tourism Office, 2020). This diversity, on the one hand, provides better economic resilience but also presents challenges in labor planning and skills development.

Another unique challenge for Bandung is the phenomenon of "hidden urbanization" due to the development of the Bandung Raya metropolitan area. Many residents live administratively in the surrounding districts but work in the city, creating complex commuter patterns and pressure on transportation infrastructure (Hudalah & Winarso, 2016). This phenomenon requires a more integrated spatial planning and labor market approach at the metropolitan level.

In terms of unemployment, Bandung also faces a unique challenge related to the high number of educated unemployed individuals. As a city with a high concentration of higher education institutions, Bandung produces many graduates who often struggle to find jobs that match their qualifications (Alisjahbana & Manning, 2018). This reflects a mismatch between higher education output and the needs of the local labor market.

## **CONCLUSION**

Urbanization has had a significant and multidimensional impact on the unemployment rate in the city of Bandung. Through a comprehensive analysis of secondary data and relevant literature, this study reveals that the migration of people from rural areas to Bandung has substantially increased labor market competition, especially in the limited formal sector. The skill gap between newcomers from rural areas and the demands of the urban labor market has also amplified the risk of structural unemployment and underemployment.

The rapid population growth due to urbanization puts additional pressure on Bandung's infrastructure and public services, potentially hindering economic growth and the creation of new jobs. In response to limited formal employment opportunities, many migrants have turned to the informal sector, which, while reducing open unemployment rates, has also created new challenges related to precarious jobs and economic insecurity. Data shows that the open unemployment rate in Bandung is consistently higher than the average for West Java Province, indicating greater urbanization pressures in the city.

To address the complexity of this issue, a holistic and collaborative approach from various stakeholders is needed. Strategic recommendations include sustainable urban planning, skill development and vocational training, entrepreneurship promotion, education quality improvement, regional migration management, strengthening the informal sector, and strategic infrastructure investment. The implementation of these strategies requires close cooperation between the government, the private sector, and the community.

Further research, including longitudinal studies and comparative analyses with other cities facing similar challenges, is needed to identify specific steps to address the impact of urbanization on unemployment in Bandung. Active involvement of all stakeholders in the research process and policy formulation is essential to ensure the effectiveness and sustainability of the implemented solutions.

By understanding the complex relationship between urbanization and unemployment, and taking proactive and integrated actions, Bandung can better manage the challenges of urbanization and create inclusive economic opportunities for all its residents. Transforming Bandung into a

more resilient, sustainable, and prosperous city requires long-term commitment, policy innovation, and close cooperation among all parties. Through these joint efforts, Bandung can optimize the potential of urbanization while minimizing its negative impact on unemployment and the overall well-being of the community.

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