

*Full length article*

Construction of the SME Business Environment Index: The Case of Depok City in Indonesia

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This study aims to identify key factors in the business environment and develop them into a business environment quality index for the SME segment. In building this index, the study considers several important factors as its constructs, namely (i) economic conditions, (ii) political and security, (iii) financing conditions, (iv) infrastructure conditions, and (v) competitive environment. This research is an explanatory study. SME actors were selected using a simple random sampling method. A total of 107 SME actors completed and returned the online questionnaire, resulting in a response rate of approximately 76%. The research findings show that the business environment condition index for SMEs in Depok City is 0.709, placing it in the moderate category. This indicates that the business environment conditions for SMEs, observed from economic condition, political and security, financing, infrastructure, and competitive environment factors, are sufficiently supportive of SME business development in Depok. Among the factors analyzed, infrastructure contributes the most to shaping the business environment in Depok. However, the business environment for SMEs in Depok City can be further improved by enhancing performance in the areas of economic, political and security, financing, and competitive environment factors.

1. Introduction

Small and Medium Enterprises (SMEs) are considered the economic locomotive, both at the national level and regionally. On a national level, SMEs are responsible for 61% of Indonesia's GDP and employ 97% of the workforce. The role of SMEs in Indonesia as the engine of economic growth and poverty reduction (Virgiawan, 2023). Furthermore, SMEs contribute to the stimulation of exports (Dean & McMullen, 2007), development of entrepreneurial skills (Saez-Martinez, Diaz-Garcia, & Gonzalez-Moreno, 2016), enhancement of social values (Armas-Cruz, Gil-Soto, & Oreja-Rodríguez, 2017), and even aiding the economy in times of economic crises (Tambunan, 2016).

Nevertheless, SMEs, like other business units, experienced a great deal of negative pressures during Covid-19

(Erdawati & Desda, 2021). According to a report from the Ministry of Cooperatives and SMEs, 56% of SMEs experienced a decline in sales, 22% faced financing issues, 15% encountered distribution problems, and 4% had difficulty in obtaining raw materials during the Covid-19 pandemic (Hernikawati, 2021).

This somehow proves that different types of economic stimuli to SMEs have been inadequate. For example, the central government's policies to reduce taxes and SME bank credit have not been effective for small and micro businesses, because (i) the majority of SMEs are not connected to the formal financial sector, (ii) most SMEs incurred losses during the pandemic, so tax relaxation is irrelevant, and (iii) most SME actors do not have a tax identification number, so they are not even taxpayers in the first place.

The situation becomes more dire as the majority of SMEs have no other choice but to face transactions daily still. And even if few SMEs have turned to online marketing and sales platforms, the transition from a traditional business model to an online business model has been gradual due to a lack of technological literacy. One such area that is critical in the context of economic recovery, especially for SMEs, is a focus on providing an enabling environment for business. The quality of the business environment is an essential basis for the growth of SMEs, according to Cepel, Stasiukynas, Kotaskova, and Dvorsky (2018). The fastest way to support SMEs' business recovery and encourage others to do their businesses is by ensuring that the businesses can operate and grow (Bunoa, Nadanyiova, and Hraskova, 2015).

Thus, this study intends to find key factors in the business environment and develop a business environment quality index related to the SME segment. So far, neither data consolidation nor the formation of a business environment as a specific index of SMEs has been found in Indonesia in facing the Covid-19 pandemic. This study differs from previous studies that only discussed Covid-19 on SMEs and assessed recovery policies for SMEs in the face of the Covid-19 virus (Pakpahan, 2020; Sugiri, 2020; Harirah & Rizaldi, 2020).

This study makes reference to several earlier studies on the SME performance and business environment index in different countries (regions) such as China (Yifan & Yusof, 2022); Slovakia and the Czech Republic (Cepel, Stasiukynas, Kotaskova & Dvorsky, 2018); Vietnam (Dinh, 2018); Africa (Topliceanu & Sorcaru, 2022); and Thailand (Chittithaworn, Yusuf & Islam, 2011). It contains five considerable factors in forming the SME business environment quality index, which are: (1) economic factors, (2) political and security factors, (3) financing factors, (4) infrastructure, and (5) competitive environment.

Securistically, this study takes the city of Depok as the research location. This is due to Depok also being one of the cities with the most significant economic effects in Indonesia during the Covid-19 pandemic, the economic growth rate of Depok, which contracted -2.92% in 2020. Furthermore, the business activities of SMEs in Depok have a more significant impact on Depok's local economy than in other areas of West Java, so any disruption to SMEs in Depok is more likely to cause major disruption to the local economy.

An SME business climate index is of great importance as one of the economically hardest-hit regions to recover

quickly so that post-pandemic enhanced SMEs. By this mechanism of evaluating the business environment index, it will be possible to see how conducive the current business environment is in supporting SME growth and to identify where the business environment needs improvement to facilitate and create a more conducive business environment for SMEs. This will allow for the development of suitable SME recovery policy measures.

2. Literature Review and Hypotheses Development

The business environment quality is an important element of SME development and economic growth (Petrenko et al., 2017; Cepel, Stasiukynas, Kotaskova, & Dvorsky, 2018). According to Betila (2021), a favorable business environment, measured by high ease-of-doing-business scores, positively and significantly contributes to economic growth in 44 African countries in the period 2010–2018. When companies know that business development allows them to create many job opportunities, thus reducing unemployment, driving economic growth, and improving the living standards of society (Chladkova, 2015). This can be seen clearly with SMEs in Indonesia as the underpinning of economic growth and poverty reduction (Virgiawan, 2023). SMEs are also identified by Dean & McMullen (2007) as crucial in relation to export stimulation, by Saez-Martinez, Diaz-Garcia, & Gonzalez-Moreno (2016) in connection with the cultivation of entrepreneurial initiatives, by Armas-Cruz, Gil-Soto, & Oreja-Rodríguez (2017) in nurturing social values, and according to Tambunan (2016) in sustaining the economy amid downturns. Hence, the business environment every now and then nurtures economic development, which sustains itself.

A study by Aterido et al. (2009) highlighted the role of four elements in establishing a conducive business environment in building an SME-led growth, including finance, regulation, corruption, and infrastructure. Financing has always been something that has been a challenge for SMEs. A study by Gustika et al. SMEs also find it difficult to apply for loans due to complicated application procedures and collateral (2024) in Indonesia. Similarly, in Turkey, Seker and Correa (2010) discovered that once SMEs were denied credits/loans, they could not grow their production capacity and adopt new technology. Access to finance is a foundation for business development and a platform for firms to mitigate economic shocks (Cooley & Quadrini, 2001). Financial institutions, particularly banks, are averse to lending money to the SME sector, especially micro and small businesses, since they are deemed to be high-risk and incapable of managing cash flows (Chittithaworn, Yusuf, & Islam, 2011).

Compliance with licensing requirements is one of the regulatory barriers faced by SMEs (Dinh, 2018). Business owners in Indonesia often complain of the high financial burdens, complicated regulations, and poor networks involved in the process of obtaining the necessary business permits (Imran et al., 2023). As a consequence, issuing licenses to SMEs requires SME owners to spend additional money just to process their businesses.

Access to supporting infrastructure (Dinh, 2018) is another vital factor influencing the business ecosystem, such as road networks, water, electricity, internet, and public transportation, which can directly or indirectly facilitate business activities. Electricity supply shortages have devastating effects on production lines and business activities that lead to increased operating costs. A study by Scott et al. (2014) in Nigeria, Uganda, Bangladesh, and

Nepal, four low-income countries, revealed that extensive power outages increased the cost of doing business because of machinery damage. Electric power shortages raise production costs and increase the inefficiency of SMEs (Fjose et al., 2010). Additionally, poor road conditions also cause high internal logistics costs, which will decrease product and business competitiveness (Rooyen, 2010).

According to Cepel, Stasiukynas, Kotaskova, and Dvorsky (2018), a competitive environment is another contributing factor that plays a critical role in developing a supportive business environment. This is a description of the competitive environment, which briefly speaks of the degree of business competition, the consumer's outlook on product use, and the sources. Business competition has been known to spur innovation among SMEs (Feng et al., 2024). Conversely, intense competition can also affect SMEs in a negative way, particularly in developing countries. Greater competition creates the conditions for corruption, rent-seeking activities, and financial pressure, all of which erode SME performance (Javadi et al., 2024).

Building on the various findings from previous studies, this study aims to develop an SME business environment index with a focus on Depok City, Indonesia. Depok was chosen because it was one of the cities most economically affected during the Covid-19 pandemic in Indonesia, as evidenced by its economic growth rate, which contracted by -2.92% in 2020, necessitating efforts to accelerate recovery. Since the characteristics of each region or country differ, previously developed business environment indices cannot be directly applied (Man et al., 2018). Therefore, developing an SME business environment index tailored to the specific context of Depok City is crucial to driving accelerated economic recovery.

Drawing on findings from previous studies in this field, the aim of this study is to establish a small and medium-sized enterprise (SME) business environment index based on data from Depok City in Indonesia. Depok was chosen as it was one of the areas hardest hit by the COVID-19 pandemic within Indonesia, evidenced by its economic growth rate falling -2.92% in 2020. To accelerate recovery became necessary. Regional or national characteristics of this kind mean that business environment indices previously developed cannot simply be transferred between different localities (Man et al., 2018). Therefore, to drive the recovery in Depok, it is important to develop a small and medium-sized enterprise (SME) business environment index adapted to local conditions.

3. Material and Methods

This research is an exploratory study. A survey collected the data. According to Depok City Disdagkoperind's statistics, there are 3,773 units of micro-businesses and small enterprises. The survey was done online, using the Google Forms platform as its technology. Referring to the Slovin formula ($MoE=10\%$), we got a minimal sample size of 97 units. To ensure that the minimal sample size was reached, we sent the research questionnaire to 140 SMEs in Depok City. The SMEs interviewed were selected with simple random sampling. A total of 107 SMEs returned the questionnaire online, for an e-survey response rate of about 76%. So, the data analyzed to construct the SME business environment index for Depok City comes from these 107 selected SMEs.

After reviewing several recently published articles on business environment indices and SME performance in different countries (regions), such as China (Yifan & Yusof, 2022), Slovakia and the Czech Republic (Cepel, Stasiukynas, Kotaskova, & Dvorsky, 2018), Vietnam (Dinh, 2018), Africa (Topliceanu & Sorcaru, 2022), and Thailand (Chittithaworn, Yusuf, & Islam, 2011), there are five key factors in the construction of the SME business environment quality index: (1) Economic factors, (2) Political and security environment, (3) Financing conditions, (4) Infrastructure, and (5) Competitive landscape. Specific aspects of each factor are listed in the table below:

Table 1: List of Variables

Factor	Indicator
Economic	1. Consumer Purchasing Power (FE1)
	2. Accessibility of Business Location (FE2)
	3. Economic Activities around Business Location (FE3)
Political and Security	1. Protection from Extortion (FPK1)
	2. Ease of Business Bureaucracy/Licensing (FPK2)
	3. Security Personnel Services (FPK3)
	4. Security Patrol Intensity (FPK4)
Financing	1. Ease of Access to Loans (FP1)
	2. Fulfillment of Loan Application Requirements (FP2)
	3. Affordability of Loan Interest Rates (FP3)
Infrastructure	1. Availability of Road Access (FI1)
	2. Availability of Water Supply (FI2)
	3. Availability of Electricity and Internet Access (FI3)
	4. Availability of Supporting Facilities and Infrastructure (Public Transportation, Gas Stations, Bus Stops, etc.) (FI4)
Competitive Environment	1. Market Competition Conditions (LK1)
	2. Consumer Attitude towards Products and Prices (LK2)
	3. Reach of Raw Materials and Supplier Networks (LK3)

After carefully selecting metrics and determinants as the framework for cultivating an enabling business landscape for small and medium enterprises, validating the newly devised instruments was indispensable. This validation guaranteed that the metrics utilized precisely quantified the intended ideas and notions (Siswanto, Sjafruddin, & Aisha, 2018). Dual forms of validation were performed in this research: criterion validation and

construct validation. Criterion validation ascertained that the evolved instrument could segregate between persons dependent on each criterion applied. In the meantime, construct legitimacy relates to how well the signs/consequences align with the notion planned to be quantified (Sekaran & Bougie, 2016). The outcomes of the benchmark soundness test on the exploration tool can be perceived in the accompanying table, which summarizes how adequately the metrics differentiate organizations.

Table 2: Test of Validity

Factor	t	df	Sig	Mean Diff	95% Confidence Interval of the Difference	
					Lower	Upper
Economy	49,3	106	0,00	10,4	9,9	10,8
Political and Security	69,6	106	0,00	14,7	14,3	15,1
Financing	38,3	106	0,00	9,3	8,8	9,8
Infrastructure	65,0	106	0,00	15,2	14,8	15,7
Competitive Environment	69,6	106	0,00	11,1	10,7	11,4
Test Value = 0						

In the t-test of the criterion validity test for this instrument, the value of significance is < 0.01 or significant at a 1% level. We can therefore say that each indicator distinguishes significantly among the actors in SME. So it can be confirmed that the instrument has passed the criterion validity test. The study also conducted a validation test of the research instrument in order to ensure that the developed indicators accurately reflect the factors under analysis. The results of the construct validity test in this study are shown in Table 6 by the confirmatory factor analysis (CFA) approach below:

Table 3: Kaiser-Meyer-Olkin Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.777
Bartlett's Test of Sphericity	Approx. Chi-Square	707.05
	df	136
	Sig	0.00

The initial test results applying the CFA approach indicated a KMO MSA test value of 0.777, which was significant at < 0.001 . Therefore, it can be concluded that the CFA approach, as a means to test the basis for small and medium-sized enterprise (SME) operational environment index five factors of construct validity, can go ahead.

Table 4: Anti-Image Correlation

Anti-Image Correlation	Score
FE1	0.867
FE2	0.799
FE3	0.818
FPK1	0.789
FPK2	0.731
FPK3	0.737
FPK4	0.817
FP1	0.689
FP2	0.652
FP3	0.794
FI1	0.917
FI2	0.728
FI3	0.740
FI4	0.668
LK1	0.650
LK2	0.862
LK3	0.865

Factor analysis requires that the data matrix contains correlations before a factor analysis can be performed. These correlation values are provided by the anti-image correlation matrix. The anti-image matrix test result shows that all indicator values for each factor are greater than 0.5. Thus, it may be said that every one of these indicators has met its required condition.

Table 5: Rotated Component Matrix

	1	2	3	4	5
FE1	0.785				
FE2	0.854				
FE3	0.824				
FPK1		0.843			
FPK2		0.924			
FPK3		0.785			
FPK4		0.531			
FP1			0.809		
FP2			0.786		
FP3			0.692		
FI1				0.791	
FI2				0.734	
FI3				0.575	
FI4				0.646	
LK1					0.827

LK2					0.528
LK3					0.696

Moreover, the rotated component matrix test results validated five-factor formations with indicator compositions consistent with the operational factor development presented in Table 1 above. This shows that the questionnaire instrument that has been developed to construct the SME business environment index, referring to the dimensions of (1) economy, (2) politics and security, (3) financing, (4) infrastructure, and (5) competitive environment, has fulfilled the construct validity requirement.

Table 6: Total Variance Explained

Faktor	Eigenvalue	% of Variance	% of Cumulative Variance
1	5.24	30.84	30.84
2	1.93	11.35	42.19
3	1.66	9.76	51.95
4	1.19	6.97	58.92
5	1.05	6.15	65.07

The percentage of the data variability from the original variable, which in this case is the SME business environment index, that can be explained by the five formed factors is described in the "Total Variance Explained" table. As described in the table, the number of factors contributing to eigenvalues greater than 1 is equal to five factors, and the total cumulative variability explained by these five factors is 65.07%. Thus, at least five factors have well represented the SME business environment.

A business environment index was constructed to quantify and compare the critical variables that influence the business atmosphere in the SME segment operationally. The index represents the average value of the respondents' evaluations of the factors under study. The method of construction of the index of the business environment of SMEs in this study is based on the method of Cepel, Stasiukynas, Kotaskova, & Dvorsky (2018), which is presented as follows:

$$AI_{ILB} = \left(\sum_{i=1}^3 \phi FE_i + \sum_{i=1}^4 \phi FPK_i + \sum_{i=1}^3 \phi FP_i + \sum_{i=1}^4 \phi FI_i + \sum_{i=1}^3 \phi LK_i \right) / 5$$

AI_{ILB} = Aggregate Business Environment Quality Index; ϕFE , ϕFPK , ϕFP , ϕFI , ϕLK = the average evaluation values of respondents for each factor integrated into the index. The evaluation scale for the resulting index values includes: (i) very low category (0.001 – 0.250), (ii) low category (0.251 – 0.500), (iii) moderate category (0.501 – 0.750), and (iv) high category (> 0.750).

4. Results

The discussion section will begin with an overview of the descriptive statistics of the research sample, including age, gender, duration of business, and average monthly revenue. The explanation of each profile of the research sample is as follows:

4.1 Sample Age

This section maps the age distribution of SME actors in Depok City who participated in the survey. The results show that the majority of respondents are in the age range of 46 – 50 years, with 28 individuals, or 26.2% of the total respondents. The detailed distribution is shown in the table below:

Table 7: Sample Age Distribution

Age Range	Number of Respondents	Percentage (%)
17 – 25 years	4	3,7
26 – 30 years	1	0,9
31 – 35 years	3	2,8
36 – 40 years	21	19,6
41 – 45 years	25	23,4
46 – 50 years	28	26,2
51 – 55 years	20	18,7
56 – 60 years	5	4,7
Total	107	100,0

The data reveals that among SME participants, there are 22 individuals (20.6%) with business experience ranging from 6 to 10 years, 15 individuals (14.0%) who have been operating for 11 to 15 years, and only 4 individuals (3.7%) with over 15 years of history in their respective businesses. The relatively low percentage of SMEs exceeding six years in operation suggests ongoing challenges in maintaining their enterprises. Research and various initiatives aimed at supporting SMEs in Indonesia have pinpointed several persistent issues, such as access to markets, securing financing, inadequate production techniques, insufficient quality control measures, and overall management deficiencies. According to a study by Urata (2000), which examined SMEs across seven major Indonesian cities, the primary obstacles identified included limited market access (29%), financial constraints (19.2%), lack of technical information and training opportunities (19.2%), challenges in quality control (9.6%), and difficulties related to managing production equipment (4%).

4.2 Gender

In terms of gender, women are the dominant SME actors in this study, with 82 individuals, or 76.6% of the total respondents. This dominance of women in SME activities in Depok City aligns with national data; according to BPS data from 2021, women manage 64.5% of all SMEs in Indonesia. This condition highlights the importance of women's roles and contributions to economic growth and job creation in Indonesia (World Bank, 2016).

Table 8: Gender Distribution

Gender	Number of Respondents	Percentage (%)
Female	82	76,6
Male	25	23,4
Total	107	100,0

Although women are dominant in terms of numbers, female SME actors in Indonesia, including those in Depok City, still face various challenges. Compared to men, women entrepreneurs face the dual burden of managing their businesses on one hand and family and household responsibilities on the other. Additionally, factors such as lack of property ownership, limited business experience, restricted mobility, and greater dependence on husbands and family are some of the obstacles that hinder the growth and development of women-managed SMEs (World Bank, 2016).

4.3 Length of Business Operation

The majority of SME actors in Depok City who participated in this study have been in business for 1 – 5 years, with 66 individuals, or 61.7% of the total respondents. Therefore, based on business duration, most of the SMEs in this study are relatively new enterprises. The detailed distribution is shown in the table below:

Table 9: Length of Business Operation

Length of Business Operation	Number of Respondents	Percentage (%)
1 – 5 years	66	61,7
6 – 10 years	22	20,6
11 – 15 years	15	14,0
> 15 years	4	3,7
Total	107	100,0

4.4 Business Turnover

Revenue refers to the amount of income generated by SME actors before deducting expenses, often referred to as 'gross revenue.' The majority of SME actors in Depok City who participated in this study reported an average monthly revenue of less than IDR 5,000,000, totaling 56 individuals or 52.3% of the total respondents. The detailed distribution of average monthly revenue among the businesses can be seen in the table below:

Table 10: Business Turnover

Business Turnover (thousand Rp)	Number of Respondents	Percentage (%)
< 5.000	56	52,3

5.000 – 10.000	27	25,2
10.000 – 15.000	9	8,4
15.000 – 20.000	2	1,9
20.000 – 25.000	3	2,8
25.000 – 30.000	3	2,8
> 30.000	7	6,5
Total	107	100,0

Based on the distribution of monthly revenue, nearly all of the business actors who are subjects of this study qualify as micro-enterprises, as they have revenues of less than IDR 2 billion per year, as regulated in Government Regulation No. 7 of 2021 concerning the Facilitation, Protection, and Empowerment of Cooperatives and Micro, Small, and Medium Enterprises, Articles 35 to 36. This data aligns with national distribution, where the majority are micro-enterprises, accounting for 80% of the total SMEs.

4.5 SME Business Environment Index

The development of the SME Index for Depok City, which is the primary focus of this study, consists of several factors: economy, politics and security, financing, infrastructure, and competitive environment. These factors are adapted from the SME index development study conducted by Cepel et al. (2018). The following are the average indicator values for each factor analyzed in this study:

4.6 Economic Factor

In this study, the economic factor is measured by three indicators: (1) purchasing power of the community, (2) accessibility of business location, and (3) overall economic activity in the business area.

Table 11: Business Turnover

Indicator	Value	Category
Purchasing power of the community near business location	0,690	Moderate
Affordability of business location	0,702	Moderate
Economic conditions in the business area	0,688	Moderate
Economic Factor	0,693	Moderate

Based on the evaluation of the economic factor, SME actors assess that the community around their business locations has good purchasing power. Among the 11 sub-districts analyzed in Depok City, Sukmajaya is rated as having the best purchasing power conditions. Furthermore, SME actors also perceive that their business locations are relatively accessible to consumers. The prospects for the development of SMEs in Depok City are considered favorable due to the overall conducive economic conditions.

4.7 Political and Security Condition

The political and security factor is measured using four indicators: (1) protection from extortion and criminal activities, (2) ease of bureaucracy/permits for business, (3) cooperation from security personnel, and (4) intensity of patrols.

Table 12: Political and Security Score

Indicator	Indicator	Category
Security from thuggerly	0,776	High
Ease of bureaucracy/business licensing	0,776	High
Cooperation with security personnel	0.760	High
Patrol intensity	0,648	Moderate
Political and Security Factor	0,740	Moderate

According to the political and security factors, small and medium-sized manufacturers believe that their business area is still relatively free from extortion and criminal acts, which cause frequent disruption to production as well as large economic loss. It also happens that applying for a business license in Depok City is not too difficult. Another reason this is easy is that the city government offers online licensing as part of its integrated services to subordinate governments. Through an online business licensing clinic located at a single window for management purposes, Depok City continues labor-intensive licensing services offline for businesses already completed. This one-hour goal for the acquisition of business permits is recommended by the city authorities. A further contribution recognized by owners of businesses is the Police (security)-subject acts of policing in public places. However, people running concerns think that the police may strengthen patrols or environmental monitoring even more for the sake of safety.

4.8 Financing Factor

The financing factor is measured using three indicators: (1) ease of obtaining business loans, (2) loan application requirements, and (3) affordability of loan interest rates.

Table 13: Financing Factor

Indicator	Value	Category
Ease of obtaining business loans	0,600	Moderate
Loan application requirements	0,620	Moderate
Affordability of loan interest rates	0,620	Moderate
Financing Factor	0,614	Moderate

SME actors find it less difficult to obtain a business loan or credit from a bank compared to financing factor assessments. The said high perceived risk on the part of financial institutions is one of the primary reasons for this. SMEs are considered more sensitive to economic downturns, changes in the market, and problems in management, which leads banks not to give loans due to the risk of lack of payment. According to a study

conducted by Indonesia’s Central Statistics Agency (BPS), the major reasons for SME loan rejection are the unstructured financial reports and the limited amount of collateral that can be offered.

Another area of weakness for SMEs is the shortage of readily available information and lack of knowledge about the style of loan processes and requirements. SMEs often lack the knowledge or skills required to put together a compelling business proposition or create a solid financial plan. As such, they do not satisfy the criteria established by banks, like proper collateral or robust credit guarantees. We see that most SME actors fail to meet the loan application criteria.

Moreover, one of the key problems that SMEs encounter is high interest rates on loans, which are often considered too heavy for business people. The high loan interest rates are hoisting a burden on the SMEs, especially for the new ones and those facing thin financial shackles. Again, the problem with SME actors in Depok City is loan interest affordability; this is also a major concern where current appropriate interest rates are questionable.

4.9 Infrastructure Factor

The infrastructure factor is measured using three indicators: (1) availability of road access, (2) water cycle management, and (3) availability of electricity and internet connectivity.

Table 14: Infrastructure Factor

Indicator	Value	Category
Availability of road access	0,768	High
Water cycle governance	0,742	High
Availability of electricity and internet networks	0,756	High
Availability of other supporting facilities	0,756	High
Infrastructure Factor	0,756	High

Infrastructure is vital for the growth of SMEs. It connects to accessibility, connectivity, efficiency, and fast economic development. Good transportation infrastructure will make it easier and cheaper for SMEs to access, and thus participate in, markets. Good accessibility can enable SMEs to deliver products to clients, supply materials to suppliers, and broaden their distribution networks. This also improves the operational efficiency of SMEs and their competitiveness in local and foreign markets.

Engagement with customers, business partners, and global markets is possible only with high-quality telecommunications infrastructure. Improved internet speed also means faster access to e-commerce platforms, the ability to communicate through emails and social media, as well as easier access to business information and resources. This helps in increasing the visibility and accessibility of SMEs not only in local and national markets but also in the global market.

Having stable energy infrastructure is important for SMEs as it allows them to operate without worrying about over-reliance on energy sources. A stable supply of this also enables SMEs to minimize losses from production interruptions and maximize the optimal utilization of machinery and equipment. Furthermore, renewable energy-based energy infrastructure, including energy-efficient technologies or solar panels, will minimize long-run operational costs in SMEs.

For some other SMEs, especially in Depok, they consider that their business location has good access considering the presence of roads. Moreover, good management of the water cycle helps prevent floods that can disrupt business activity. The City Government of Depok routinely maintains and repairs drainage systems on arterial roads in the city.

Furthermore, the results of this study show that SMEs still consider the availability of electricity and internet connectivity at their business locations to be relatively good. This is shown by how rarely power outages occur in Depok. When these outages do occur, they are typically a result of transformer or substation outages—incidental things, not structural things like coverage problems or insufficient electricity supply.

4.10 Competitive Environment Factor

The competitive environment factor is measured by three indicators: (1) market competition conditions, (2) consumer acceptance of prices and products, and (3) access to raw materials and suppliers.

Table 15: Competitive Environment Factor

Indicator	Value	Category
Market competition conditions	0,728	Moderate
Consumer acceptance of prices and products	0,742	Moderate
Availability of raw materials and suppliers	0,752	High
Competitive Environment Factor	0,742	Moderate

In terms of the competitive environment factor, small and medium-sized enterprises (SMEs) in Depok assess that the market conditions are relatively good. SMEs acknowledge that competition at their business locations is quite tight but remains healthy. This is important because healthy competition can drive product and service innovation, quality improvement, and operational efficiency in SME businesses. Generally, SMEs also believe that consumers are fairly accepting of the products and prices they offer. SMEs appreciate and value the accessibility of their business locations to raw materials and suppliers. This condition is supported by adequate infrastructure in Depok, which enhances connectivity and accessibility for SMEs to obtain the necessary raw materials and suppliers.

4.11 Construction of the SME Business Environment Index

After tabulating and analyzing the respondent profile data, as well as outlining the factors that constitute the business environment index, the next step is to construct the SME Business Environment Index for Depok City as follows:

Table 16: SME Business Environment Index

Factor	Value	Category
Economy	0,693	Moderate
Politics and Security	0,740	Moderate
Financing	0,614	Moderate
Infrastructure	0,756	High
Competitive Environment	0,742	Moderate
SME Business Environment Index for Depok City	0,709	Moderate

Overall, the analysis of Depok City's business environments for SMEs classifies it as moderate with the score value of 0.709. This means the business environmental assessment is positively supportive of SME development in Depok, which is viewed from the economic, political and security, financing, infrastructure, and competitive environment. Of all these factors, infrastructure is a major force that influences the business climate in Depok. But other aspects such as the economy, political and security situation, financing, and competitive environment can still improve. For example, related to financing, the Depok City government can provide financial assistance to help SMEs develop their businesses in the domestic market and strengthen their business conditions. Financing is critical for SMEs to improve their competitiveness. Greater access to capital leads to investment, innovation, new products, and new services, which in turn supports better performance in the marketplace. A key part of that relates to regulatory factors. These barriers were identified as a potential deterrent to the development of SMEs: the high cost that start-up poses and the long chains in business registration have a negative impact as well. Bureaucratic procedures and sluggish regulatory processes force SME operators into bribery and other illegal actions to expedite business document processing. The high tax burden and complex tax reporting also inhibit SMEs' operations. Hence, the quality and efficient bureaucracy of government increases SME performance and output significantly.

5. Conclusion

The research findings indicate that the index of business environment conditions for SMEs in Depok City shows an overall score of 0.709, categorizing it as moderate. In this regard, the business environment conditions, observed from economic, political and security, financing, infrastructure, and competitive environment factors, have sufficiently supported the development of SMEs in Depok. Among the analyzed factors, infrastructure contributes significantly to the formation of a fairly favorable business environment in Depok. However, the

business environment for SMEs in Depok City could be further enhanced by improving performance in economic, political and security, financing, and competitive environment factors.

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