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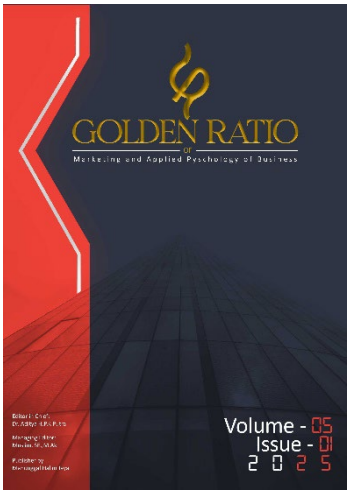

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MARKETING | RESEARCH ARTICLE

Analysis of The Factors of Competitive Advantage of Women SME Actor: Empirical Study From Limo Sub-District, Depok City, Indonesia

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Abstract: The development of the SME sector plays a vital role in the Indonesian economy, contributing significantly to gross domestic product, employment, and exports. Despite the complex challenges, attention to women's SMEs is increasing in the Limo District, Depok City. This quantitative research uses the factor analysis method to analyze the competitive advantage factors of women SME actors with a sample of 100 persons. This study identifies and analyzes the application of competitive advantage factors that support the performance of women SMEs. The results show that women SMEs can adapt and innovate despite capital and knowledge limitations. The implications of this research guide for the government and related institutions to formulate strategies to improve the performance and contribution of women SMEs in sustainable economic development in the region.

Keywords: SME, Competitive Advantage, Factor Analysis

JEL Classification Code: L26, L25, M13, O12, J16

1. INTRODUCTION

The development of the SME sector (Micro et al.) is a critical factor in the Indonesian economy. SMEs play an essential role in the structure of the Indonesian economy, contributing significantly to Gross Domestic Product (61.1%), employment (97.1%), and exports (14.4%). Bank Indonesia, as the Central Bank, is committed to strengthening the positive contribution of SMEs to the economy. The development of SMEs by Bank Indonesia is integrated with its core tasks and in line with its vision, mission, and strategic programs. The focus involves supporting inflation control, especially in the volatile food sector from the supply side, boosting the export potential of SMEs and the tourism sector to reduce the current account deficit, and increasing access to finance for SMEs, which supports overall financial system stability. With this strategy, Bank Indonesia plays an active role in realizing inclusive and sustainable economic growth. (Bank Indonesia. 2023) The government has carried out several SME support programs, including incentive and financing assistance through the PEN program, People's Business Credit, the National Movement for Proudly Made in Indonesia (Gernas BBI), Digitalization of SME marketing, Strengthening Alumni Entrepreneurship of the Pre-Employment Card Program through KUR financing, and including a long-term strategy to raise the SME class through the Job Creation Law, (Limanseto, H. 2021).

Based on data from the Indonesian Ministry of Cooperatives and SMEs, there are approximately 64.2 million business units in Indonesia, with 99.6% being micro businesses, 0.30% small businesses, 0.07% medium businesses, and 0.01% large businesses. SMEs are estimated to contribute more than 60% to Indonesia's Gross Domestic Product or around IDR 8,573,896 billion annually, absorbing around 97% of the national workforce (116 million people), mainly by micro-enterprises. The microenterprise sector, with revenues below IDR 50 billion, as per Law No.20/2008 and now adjusted by Presidential Regulation No.7/2021, including warungs, street vendors, restaurants, and cafes, has constraints such as business management, financial record keeping, limited capital, minimal utilization of digital technology, and recruitment difficulties due to low salaries. Small and medium

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enterprises, while facing capital constraints, focus more on business expansion and innovation, with additional challenges related to less efficient business management due to the absence of an optimized system (Anastasya, A. 2023).

In the Limo District, Depok City, attention is increasing for women in SMEs. Women have a significant role in driving the economy, but the challenges women SMEs face are still quite complex. The results of training and mentoring 55 housewives who are members of PKK RW 02 Limo Depok show that the entrepreneurial motivation of these housewives is relatively high. However, they still face several obstacles, such as limited knowledge, skills, capital, and time management (Cahyani Pangestuti, D., Nastiti, H., & Husniaty, R. 2022). The eco-print batik training in Limo, Depok, increased women's empowerment and supported the local economy through skills and business development. This program contributes to the growth of the creative economy with a creative home industry, enabling the creation of quality products, while business mentoring can strengthen the capacity of SMEs (Nastiti et al., D., & Husniati, R. 2023). Therefore, an in-depth understanding of the competitive advantage factors that can improve the performance of women SMEs in this region is needed. The existence of women SMEs in Limo Sub-district, Depok City, has a significant positive impact on the sustainability of the community and local economy. Through various initiatives such as training for housewife empowerment during the pandemic, Joint Business Entrepreneurship (WUB) and Women Entrepreneurs programs, and SME product exhibitions, Women SMEs in Limo Sub-district have been able to increase business opportunities and promote local products. Women empowerment assistance through eco-print batik cloth entrepreneurship is part of the effort to support and develop the business of women's SMEs in this area. These initiatives prove that Women SMEs in the Limo Sub-district have positively contributed to strengthening the local economy and helping Women SME players earn additional income (Depok News, 2023).

This research will focus on formulating two main issues: first, to identify the factors of competitive advantage possessed by women SMEs, and second, to analyze how these factors are applied in practice by women SMEs. The main objective of this study is to identify the competitive advantage factors that play a role in the success of SMEs managed by women, as well as analyze how the application of these factors impacts their business performance. This research is essential as it contributes to a deeper understanding of the role of women SMEs in the local economy, particularly in the Limo Sub-district, Depok City. This research is expected to provide strategic guidance for the government, economic development agencies, and women SME players by identifying the competitive advantage factors and analyzing how they are utilized. These guidelines are expected to help improve the performance and contribution of women SMEs to sustainable economic development in the region.

Recent research shows that attention to Micro, Small, and Medium Enterprises (SME) and women's empowerment is increasingly becoming a key focus in local economic development. While many studies have highlighted the critical role of SMEs in the national economy, few have specifically explored the factors that support the competitive advantage of SMEs managed by women. Previous research has identified several key factors that contribute to the success of women SMEs, such as knowledge, skills, capital, and time management. However, in-depth studies on how these factors can be integrated and optimized to create a competitive advantage at the local level are limited.

According to Barney and Porter's theory, a company's competitive advantage can be measured through several indicators, including value, which refers to the ability of the company's resources or capabilities to create significant added value in a competitive environment; rarity, which measures the level of uniqueness or rarity of the company's resources or capabilities compared to competitors; inimitability, which indicates the level of difficulty for competitors to imitate the company's resources or capabilities; and non-substitutability, which means that the resources or capabilities have no equivalent strategic substitutes. In addition, competitive advantage can also be measured through financial performance, market share, product innovation, customer satisfaction, and operational efficiency. By paying attention to these indicators, companies can evaluate the extent to which they can create and maintain a competitive advantage in their market.

Competitive advantage refers to a company's ability to create more excellent economic value than competitors in the same industry. Sustainable competitive advantage emphasizes that the company continues to create more excellent value than competitors, and competitors cannot replicate the benefits of the strategy. An essential aspect of sustainable competitive advantage involves consideration

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of potential future competitors and is not dependent on a specific duration of time. Sustainability relies on "duplication conditions," where competitors cannot replicate the advantage but do not guarantee continuity forever. Changes in technology and industry context can shift valuable resources, such as the so-called "Schumpeter Shock."

The "Schumpeter shock," redefines which resources of a company are valuable and which are not. A firm that enjoys a sustainable competitive advantage may experience significant shifts in the competitive structure and see its competitive advantage annulled by those changes. In such cases, the sustained competitive advantage is not lost through other firms' efforts to replicate the advantages' fundamentals. However, the sustained competitive advantage is superseded when alternative technologies, changes in demand, or other significant changes occur. (Barney, J. B., & Clark, D. N. 2007).

Several studies related to competitive advantage and micro-enterprise performance show significant findings. The competitive advantage of SMEs can be obtained through adaptability to the environment and value product development (Porter et al., 1987). There is a positive relationship between the human capital of women entrepreneurs and Company performance (Yuleva-Chuchulayna et al.; R., 2019). Positive relationships with customers, suppliers, and employees are essential in supporting a successful business model for SMEs (1 Welsh, D. H. B., Kaciak, E., & Shamah, R. 2018). There is a positive contribution of entrepreneurial leadership to entrepreneurial success through mediating entrepreneurial opportunity recognition and innovation ability (1 Dvorský, J., Čepel, M., Simionescu, M., & Ďurana, P. 2021). Social capital and entrepreneurial competencies positively impact innovation and competitive advantage of micro-enterprises, especially women-owned (Taleb et al.; N., 2023). Funding, entrepreneurship training, business mentoring, and partnerships are essential in improving the competitiveness of SME in ASEAN (Ali et al.; T., 2019). Entrepreneurial competencies, including conceptual ability, commitment, and organizing ability, shape micro-enterprise performance in Malaysia (Taleb et al.; N., 2023). This research provides diverse insights into the factors influencing competitive advantage and microenterprise performance in various contexts.

Based on existing research and literature, several factors significantly affect a company's competitive advantage. First, the company's resources and capabilities are essential in creating a competitive advantage. Resources and capabilities that have high value, are rare, difficult to imitate, and cannot be replaced will provide a long-term competitive advantage for the company. Second, innovation is critical to maintaining the company's competitiveness. The ability to produce new products or services or improve existing ones enables a company to meet changing customer needs and improve its operational efficiency.

Third, high product or service quality is a determining factor in winning the competition. Customers prefer quality products or services, so companies that can provide superior quality will more easily differentiate themselves from competitors. Fourth, operational efficiency also plays an important role. Companies that can reduce production costs and increase profits through operational efficiency will be able to compete effectively, primarily by offering more competitive prices and increasing market share. Furthermore, branding and good reputation are the fifth essential factors. Strong branding and a positive reputation help companies build customer loyalty and maintain a competitive advantage in the market. Sixth, an effective marketing strategy is essential to expand the range of products or services and increase market share. Companies that can understand customer needs and develop appropriate marketing strategies will find it easier to create a competitive advantage. Finally, good management skills are indispensable in managing the company's resources and capabilities effectively. Competent management can make the right decisions and develop successful strategies so that the company can survive and thrive amid intense market competition. In order to create and maintain a competitive advantage, companies need to pay special attention to these factors and formulate appropriate strategies to meet customer needs and overcome challenges in the market.

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2. RESEARCH METHOD AND MATERIALS

The factor analysis method is a statistical technique used to identify the relationship between correlated variables in a dataset to reduce the dimensionality of the variables and explore the structure of the data. The following is a description and steps of the factor analysis research method: Factor analysis is used to identify latent or unseen factors that might influence patterns in a data set. It helps simplify datasets by grouping interrelated variables into smaller, more measurable factors. The first step in research using the factor analysis method is to formulate the research objectives and determine the variables to be included in the analysis. After the objectives are formulated, the next step is to prepare the data. At this stage, the relevant dataset should be obtained, and the data should be cleaned of missing values and outliers to ensure the data is ready for use in factor analysis.

Next, prerequisite tests were conducted to assess the appropriateness of the data, such as the Bartlett test and the Kaiser-Meyer-Olkin (KMO) test. These tests are essential to ensure the dataset is suitable for factor analysis. Once the prerequisites are met, the factor analysis model is built by selecting the appropriate rotation method and determining the number of factors to be extracted. The number of factors can be determined based on domain knowledge or statistical criteria such as Kaiser criteria, scree plot, or elbow method. Researchers use Principal Component Analysis (PCA) or Principal Axis Factoring (PAF) to extract factors from the covariance or correlation between variables in the factor extraction stage. Once the factors are extracted, factor rotation is performed to optimize the interpretation of the results, using methods such as Varimax, Promax, or Oblimin. This step makes the resulting factors easier to understand and interpret.

After the factors were rotated, the researcher interpreted each factor based on the pattern of factor loadings and gave names corresponding to the core of the variables that contained high values on each factor. The results were then further analyzed to understand the relationships between factors and identify the variables that most influenced each factor. Evaluating these results is essential to ensure that the factors generated represent the measured concept. Next, factor reliability and validity tests were conducted. Reliability tests, such as Cronbach's alpha, are used to ensure consistency in factor measurement, while validity tests are conducted to ensure that the factors match the concepts being measured. Finally, the factor analysis results are presented in tables, graphs, or diagrams to facilitate understanding and interpretation. This factor analysis method is beneficial for researchers to understand complex data structures and present findings concisely. Thus, the analysis results can help make better decisions based on a deeper understanding of the variability in the dataset.

3. RESULTS AND DISCUSSION

3.1. KMO and Bartlett's Test

The 100 respondents, consisting of female SME business actors, have filled out a questionnaire by responding to 25 questions from 25 variables related to the competitive advantage of female SMEs. The assessment of the questionnaire is measured based on a Likert scale with category weights for each answer given as follows: Score 5 for Strongly Agree answers, Score 4 for Agree answers, Score 3 for Neutral or Undecided answers, Score 2 for Disagree answers, and Score 1 for Strongly Disagree answers.

The resulting *Kaiser-Meyer-Olkin Measure of Sampling Adequacy* (KMO) value is 0.637 for the 25 factors tested. Thus, the KMO value is> 0.50; this indicates that the factors of Competitive Advantage of Women SMEs are suitable for further analysis.

Table 1. KMO and Bartlett's

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.637
Bartlett's Test of Sphericity	Approx. Chi-Square	654.995
	df	300
	Sig.	.000

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3.2. Anti-Image Matrix Test

To determine the feasibility of these factors, an Anti-Image Matrix test is held to determine whether a variable is feasible for inclusion in the following testing process.

Table 2. Anti-image Matrices

	SME Competitive Advantage Variable	MSA Value
Anti-image Correlation	Entrepreneurial Leadership (X1)	.614[a]
	Entrepreneurial Opportunity Recognition (X2)	.419[a]
	Innovative and Proactive (X3)	.621[a]
	Risk-Taking (X4)	.680[a]
	Innovation Capability (X5)	.689[a]
	Innovation Breadth (X6)	.767[a]
	Innovativeness (X7)	.521[a]
	Creative Ideas (X8)	.655[a]
	Product Innovation (X9)	.664[a]
	Brand reputation (X10)	.676[a]
	Entrepreneurial Marketing (X11)	.716[a]
	Adoption of New Technologies in Marketing (X12)	.679[a]
	E-Commerce Adoption (X13)	.657[a]
	Business Networks (X14)	.663[a]
	Employee Involvement (X15)	.752[a]
	Information Technology (X16)	.638[a]
	Operational efficiency improvement (X17)	.625[a]
	Competitive Environment (X18)	.520[a]
	Quality of Business Environment (X19)	.802[a]
	Trust in Digital Technology (X20)	.523[a]
	Adoption of New Technologies in Business Models (X21)	.590[a]
	Commitment Competencies (X22)	.594[a]
	Organizing Competencies (X23)	.673[a]
	Relationship Competencies (X24)	.510[a]
	Opportunity competencies (X25)	.545[a]

In addition to checking the KMO and *Bartlet's test*, the *Anti Image Matric* is also checked to determine whether the related factors are partially suitable for analysis and not to be excluded. Based on Table 2, it can be seen that of the 25 variables analyzed, there are still values that have Measure of Sampling Adequacy (MSA) < 0.5, namely Entrepreneurial Opportunity Recognition (X2) 0.419, so this variable cannot be analyzed further and must be excluded from the analysis for further testing. In contrast, other variables can continue to be analyzed.

3.3. Communalities

Next, the extraction process will be carried out from all the variables that have been processed in Table 3:

Table 3. Communalities

Communalities		
	Initial	Extraction
Entrepreneurial Leadership (X1)	1.000	.713
Entrepreneurial Opportunity Recognition (X2)	1.000	.608
Innovative and Proactive (X3)	1.000	.770
Risk-Taking (X4)	1.000	.538
Innovation Capability (X5)	1.000	.689
Innovation Breadth (X6)	1.000	.667
Innovativeness (X7)	1.000	.653
Creative Ideas (X8)	1.000	.588
Product Innovation (X9)	1.000	.677

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Communalities		
Brand reputation (X10)	1.000	.687
Entrepreneurial Marketing (X11)	1.000	.654
Adoption of New Technologies in Marketing (X12)	1.000	.505
E-Commerce Adoption (X13)	1.000	.629
Business Networks (X14)	1.000	.721
Employee Involvement (X15)	1.000	. 477
Information Technology (X16)	1.000	.811
Operational efficiency improvement (X17)	1.000	.683
Competitive Environment (X18)	1.000	.787
Quality of Business Environment (X19)	1.000	.636
Trust in Digital Technology (X20)	1.000	.804
Adoption of New Technologies in Business Models (X21)	1.000	.599
Commitment Competencies (X22)	1.000	.760
Organizing Competencies (X23)	1.000	.635
Relationship Competencies (X24)	1.000	.535
Opportunity competencies (X25)	1.000	.619
Extraction Method: Principal Component Analysis.		

Table that there is still one variable with a commonalities value commonalities: Employee Involvement (X15) 0.477. This indicates that the variable must be excluded from further analysis. The greater the value of commonalities, the better the factor analysis because the more significant the characteristics of the original factors can be represented by the factors formed. The second test, after removing the variables that have a value of <0.5, namely: Entrepreneurial Opportunity Recognition (X2) and Employee Involvement (X15), so that the variables analyzed further are variables X1, X3, X4, X5, X6, X7, X8, X9, X10, X11, X12, X13, X14, X16, X17, X18, X19, X20, X21, X22, X23, X24, X25. KMO and Bartlett's results after retesting, namely in Table 4, are 0.649, so these variables can be analyzed further.

Table 4. KMO and Bartlett's

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.649
Bartlett's Test of Sphericity	Approx. Chi-Square	603.512
	df	253
	Sig.	.000

Communalities testing of variables that affect the competitive advantage of SMEs overall has a Communalities value> 0.5, as shown in Table 5.

Table 5. Communalities

Communalities		
	Initial	Extraction
Entrepreneurial Leadership (X1)	1.000	.731
Innovative and Proactive (X3)	1.000	.760
Risk-Taking (X4)	1.000	.567
Innovation Capability (X5)	1.000	.737
Innovation Breadth (X6)	1.000	.669
Innovativeness (X7)	1.000	.688
Creative Ideas (X8)	1.000	.664
Product Innovation (X9)	1.000	.646
Brand reputation (X10)	1.000	.693
Entrepreneurial Marketing (X11)	1.000	.654
Adoption of New Technologies in Marketing (X12)	1.000	.533
E-Commerce Adoption (X13)	1.000	.721
Business Networks (X14)	1.000	.706
Information Technology (X16)	1.000	.786
Operational efficiency improvement (X17)	1.000	.765

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Communalities		
Competitive Environment (X18)	1.000	.799
Quality of Business Environment (X19)	1.000	.656
Trust in Digital Technology (X20)	1.000	.794
Adoption of New Technologies in Business Models (X21)	1.000	.723
Commitment Competencies (X22)	1.000	.768
Organizing Competencies (X23)	1.000	.610
Relationship Competencies (X24)	1.000	.546
Opportunity competencies (X25)	1.000	.655
Extraction Method: Principal Component Analysis.		

Source: Data processed

After the Communalities test is carried out and produces a value of> 0.5, proceed with testing Reproduced Correlations. Table 6 demonstrates that reproduced Correlations results have a value of > 0.5.

Table 6. Reproduced Correlations

Reproduced Correlation	Entrepreneurial Leadership (X1)	.731 a
	Innovative and Proactive (X3)	.760 a
	Risk-Taking (X4)	.567 a
	Innovation Capability (X5)	.737 a
	Innovation Breadth (X6)	.669 a
	Innovativeness (X7)	.688 a
	Creative Ideas (X8)	.664 a
	Product Innovation (X9)	.646 a
	Brand reputation (X10)	.693 a
	Entrepreneurial Marketing (X11)	.654 a
	Adoption of New Technologies in Marketing (X12)	.533 a
	E-Commerce Adoption (X13)	.721 a
	Business Networks (X14)	.706 a
	Information Technology (X16)	.786 a
	Operational efficiency improvement (X17)	.765 a
	Competitive Environment (X18)	.799 a
	Quality of Business Environment (X19)	.656 a
	Trust in Digital Technology (X20)	.794 a
	Adoption of New Technologies in Business Models (X21)	.723 a
	Commitment Competencies (X22)	.768 a
	Organizing Competencies (X23)	.610 a
	Relationship Competencies (X24)	.546 a
	Opportunity competencies (X25)	.655 a
Extraction Method: Principal Component Analysis. Reproduced commonalities. Residuals are computed between observed and reproduced correlations. There are 111 (43.0%) nonredundant residu		

3.4. Total Explained Variance

Of the factors analyzed, all variable results can be explained by the factors that will be formed as follows: Total Variance *Explained* shows the percentage of total diversity that the diversity of the factors formed can explain. In the table, *eigenvalues of* each factor are also formed, andonents with eigenvalues> 1 beingare. The Cumulative % column shows the cumulative percentage of variance that factors can explain. Based on this analysis, nine components have eigenvalues> 1, with a *Cumulative* % of 69.010. this explains that from the 10th component to the 23rd component, the eigenvalue is less than 1, which means that each component explains less than 1% of the total variance in the data. Table 7 shows that the first principal component explains most of the variance in the data, and each subsequent component explains an additional, more minor variance. The first to ninth components explain 69.010% of the total variance, meaning most of the information in the data can be represented with these first nine components.

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Table 7. Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.355	18.937	18.937	4.355	18.937	18.937
2	2.285	9.937	28.874	2.285	9.937	28.874
3	1.703	7.403	36.276	1.703	7.403	36.276
4	1.523	6.624	42.900	1.523	6.624	42.900
5	1.411	6.134	49.034	1.411	6.134	49.034
6	1.274	5.538	54.573	1.274	5.538	54.573
7	1.172	5.098	59.670	1.172	5.098	59.670
8	1.121	4.873	64.543	1.121	4.873	64.543
9	1.027	4.467	69.010	1.027	4.467	69.010
10	.905	3.935	72.945			
11	.838	3.643	76.588			
12	.748	3.251	79.839			
13	.656	2.854	82.693			
14	.581	2.526	85.218			
15	.568	2.472	87.690			
16	.516	2.242	89.932			
17	.478	2.078	92.010			
18	.447	1.943	93.953			
19	.350	1.521	95.474			
20	.300	1.305	96.779			
21	.279	1.211	97.990			
22	.278	1.209	99.200			
23	.184	.800	100.000			
Extraction Method: Principal Component Analysis.						

3.5. Scree Plot Graph

The proportion of data diversity that is more evenly distributed after rotation indicates that the uniformity of the initial data explained by each factor is maximum. Furthermore, the table above can also be explained through the scree plot graph below:

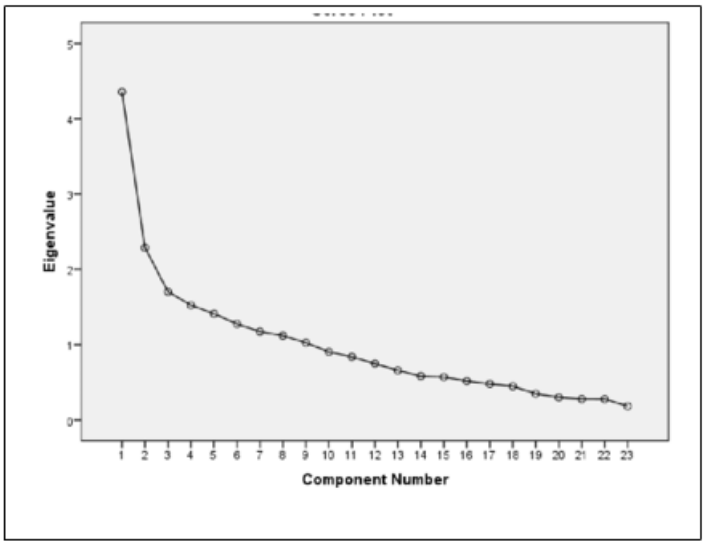

Figure 1. Scree Plot Graph

The *scree plot* graph above shows that the components are formed, with nine having eigenvalues > 1.

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3.6. Rotated Component Matrix a

The rotated Component Matrix shows a more transparent and obvious distribution of variables than if no rotation is performed. The results of this process are shown in table 8 below:

Table 8. Rotated Component Matrix [a]

Rotated Component Matrix [a]									
	Component								
	1	2	3	4	5	6	7	8	9
Product Innovation (X9)	.783	-.112	.046	.037	-.028	.088	.030	-.042	-.078
Entrepreneurial Marketing (X11)	.668	.024	.081	.289	-.044	.097	-.094	.065	.304
Brand reputation (X10)	.622	.175	.248	.181	.146	-.077	.372	.011	-.126
Innovation Breadth (X6)	.476	.016	.307	-.168	.354	-.134	.073	-.122	.395
Adoption of New Technologies in Marketing (X12)	.475	.273	.000	-.027	.115	.293	.006	.361	.054
Information Technology (X16)	.096	.851	-.047	.059	.088	-.046	-.027	.118	.148
Innovative and Proactive (X3)	-.115	.813	.043	.075	.017	-.121	.175	.129	.124
Risk-Taking (X4)	.084	.594	.088	-.168	.042	.374	.078	-.151	.007
Trust in Digital Technology (X20)	.195	-.051	.821	.070	-.100	.045	.245	.005	.046
Opportunity competencies (X25)	.104	.082	.702	.054	.034	.114	-.316	-.144	-.088
Relationship Competencies (X24)	-.125	-.026	.471	.240	.459	.046	.066	.092	.156
Quality of Business Environment (X19)	.357	.155	.400	.226	.317	.397	-.092	.144	.077
Innovation Capability (X5)	.165	-.092	.045	.812	.046	.022	.047	.185	-.028
Innovativeness (X7)	.220	.104	.142	.605	-.212	.142	-.293	-.239	.185
Organizing Competencies (X23)	-.059	.222	.273	.511	.376	.018	.259	-.036	-.108
Adoption of New Technologies in Business Models (X21)	.122	.108	-.066	-.044	.804	.117	.068	.035	-.157
Competitive Environment (X18)	-.029	-.172	-.036	.106	.406	.755	-.063	-.125	.043
E-Commerce Adoption (X13)	.188	.103	.226	.040	-.180	.701	.303	.087	.003
Creative Ideas (X8)	.059	.089	-.024	-.048	.132	.134	.736	.094	.252
Commitment Competencies (X22)	.104	.428	.031	.113	-.093	.076	.554	-.399	-.282
Entrepreneurial Leadership (X1)	.138	.215	-.091	.187	.054	-.017	.047	.784	.057
Business Networks (X14)	.335	.252	-.085	.261	.108	.053	-.007	-.551	.371
Operational efficiency improvement (X17)	.024	.212	.001	.022	-.147	.051	.132	.013	.823
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.									
a. Rotation converged in 13 iterations.									

After rotation with the Varimax method, it can be seen that some variables have a high load on specific components, which helps identify the data's underlying structure. Each component can be interpreted based on the variables that have a high load on that component. This can be explained in Table 8. The Rotated Component Matrix is obtained after rotating the factors with the varimax method. It can be seen that each factor is strongly correlated with one of the factors, where the correlation is> 0.5 on these factors. There are nine components formed from the Rotated Component Matrix results with the varimax method, but only seven components are grouped, and two components are not grouped, namely adoption of new technologies in business models (X21) 0.804, Operational efficiency improvement (X17) 0.823, which has a high correlation of> 0.5. However, there are five variables whose correlation value is <0.5 so that they cannot form groups, namely Innovation Breadth (X6), Adoption of New Technologies in Marketing (X12), Relationship Competencies (X24), Quality of Business Environment (X19), Business Networks (X14) Thus the components formed are

- Component 1: Variables that have a strong correlation with factor 1 are Product Innovation (X9): 0.783; Entrepreneurial Marketing (X11): 0.668; Brand reputation (X10): 0,622
- Component 2: Variables that have a strong correlation with factor 2 are Information Technology (X16): 0.851; Innovative and Proactive (X3): 0.813; Risk-Taking (X4): 0,594

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- Component 3: Variables that have a strong correlation with factor 3 are Trust in Digital Technology (X20): 0.821; Opportunity competencies (X25): 0,702
- Component 4: Variables that have a strong correlation with factor 4 are Innovation Capability (X5): 0.812; Innovativeness (X7): 0.605; Organizing Competencies (X23): 0,511
- Component 5: The variable that has a strong correlation with factor 5 is the adoption of new technologies in business models (X21): 0,804
- Component 6: Variables that have a strong correlation with factor 6 are Competitive Environment (X18): 0.755; E-Commerce Adoption (X13): 0,701
- Component 7: Variables that have a strong correlation with factor 7 are Creative Ideas (X8): 0.736; Commitment Competencies (X22): 0,554
- Component 8: Variables that have a strong correlation with factor 8 are Entrepreneurial Leadership (X1): 0.784; Business Networks (X14): 0,551
- Component 9: The variable that has a strong correlation with factor 9 is Operational efficiency improvement (X17): 0,823

The results of this Rotated Component Matrix provide insight into the underlying factor structure of the data and indicate which variables are most associated with each principal component. This interpretation can help understand the essential dimensions underlying the phenomenon under study.

3.7. The process of Coding factors

The process of Coding factors is the final step in factor analysis. In this step, the factors that have been formed are given names based on the author's consideration.

Table 9. Factor Coding

Factor	Variables	Correlation	Factor Name
Factor 1	Product Innovation	0,783	Entrepreneurial Innovation and Marketing
	Entrepreneurial Marketing	0,668	
	Brand Reputation	0,668	
Factor 2	Information Technology	0,813	Information Technology and the Courage to Innovate
	Innovative and Proactive	0,813	
	Risk-Taking	0,594	
Factor 3	Trust in Digital Technology Opportunity	0,821	Trust in Technology Digital and Opportunity Competencies
	Competencies	0,702	
Factor 4	Innovation Capability	0,812	Innovation Capability and Regularity
	Innovativeness	0,605	
	Organizing Competencies	0,511	
Factor 5	Competitive Environment E-Commerce	0,755	Competitive Environment and ECommerce
	Adoption	0,701	
Factor 6	Creative Ideas	0,736	Creativity and Competency Commitment
	Commitment Competencies	0,554	
Factor 7	Adoption of new Technologies in Business Models	0,804	Adoption of New Technology in Business Models
Factor 8	Entrepreneurial Leadership	0,784	Entrepreneurial Leadership and Business Networking
	Business Networks	0,551	
Factor 9	Operational efficiency improvement	0,823	Improved Operational Efficiency

3.8. Discussion

The 25 factors affecting SMEs' competitive advantage were analyzed three times to get correlated results of >0.5. As shown in the table below:

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Table 10. Variable factors of competitive advantage

Variable	KMO & Sig	MSA	Community	Eigenvalues	Rotated Component Matrix	Total Variance Explained (% Cum)
Factors Competitive Advantage	0,6490 0,000	> 0,5	> 0,5	> 1	9	69.010

Source: Data processed

Table 10 provides some important statistical indicators from factor analysis for variables related to competitive advantage. The meanings of these values are:

- KMO & Sig:
  - KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy): The KMO value is 0.649. This value indicates whether the data used is suitable for factor analysis. KMO values range from 0 to 1, with higher values indicating a better fit. Values above 0.5 are generally considered adequate.
- Sig: The significance value for Bartlett's test is 0.000. This value indicates that Bartlett's test is significant, which means there is a strong enough correlation between the variables to proceed with factor analysis.
  - MSA (Measure of Sampling Adequacy): The value of each variable in this table is more significant than 0.5, indicating that each variable is suitable for factor analysis.
  - Communalities: This value indicates the proportion of variance of each variable that the extracted factors can explain. This value is more significant than 0.5 for all variables, indicating that each variable contributes sufficiently to the extracted factor.
- Eigenvalues: The eigenvalues are more significant than 1 for the extracted factors. The eigenvalues indicate the amount of variance explained by each factor. Factors with eigenvalues greater than one are considered significant.
- Rotated Component Matrix: This table shows the loadings of each variable on each factor after rotation. Rotation is done to maximize the variable loadings on one factor and minimize on the other factors, facilitating interpretation.
- Total Variance Explained: This column shows the percentage of total variance the extracted factors explain. In this case, the seven factors explain 69.010% of the total variance in the data. This means that the extracted factor model can explain about 69% of the information contained in the original data.

From the 25 Competitive Advantage variables for SMEs, which were analyzed using the factor analysis method, nine factors represent them as follows:

- Entrepreneurial Innovation and Marketing
- Information Technology and the Courage to Innovate
- Trust in Digital Technology and Opportunity Competencies
- Innovation Capability and Regularity
- Competitive Environment and E-Commerce
- Creativity and Competency Commitment
- Adoption of New Technology in Business Models
- Entrepreneurial Leadership and Business Networking
- Improved Operational Efficiency

Based on the factor analysis results, it is important for SME actors to apply the factors that are formed when running their business.

4. CONCLUSION

The conclusion that can be drawn from the results of this study is that the factor analysis of the competitive advantage of women's SME actors in Limo District, Depok City, shows that several key factors affect the success and competitiveness of women's SMEs. Of the 25 competitive advantage

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variables analyzed using the factor analysis method, nine main factors represent these variables: entrepreneurial innovation and marketing, information technology and the courage to innovate, trust in digital technology and opportunity competence, innovation capability and regularity, competitive environment and e-commerce, creativity and competence commitment, adoption of new technologies in business models, entrepreneurial leadership and business networks, and improved operational efficiency. This research emphasizes the importance of integrating and optimizing these factors to create a sustainable competitive advantage for women SMEs. SME players need to apply these factors in running their businesses. In addition, empowerment initiatives such as training and entrepreneurship programs have effectively increased business opportunities and income for women SME players. This research also guides the government and relevant agencies to formulate better strategies to support the development of women SMEs, which can contribute to sustainable local economic development in the region. Thus, a deeper understanding of these competitive advantage factors is critical to improving the performance and contribution of women SMEs in the economy.

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