



Analysis of Inhibiting Factors of Agility of Women's MSME's in Makassar City

Karmilah Karmilah

Universitas Islam Makassar, Makassar, Indonesia

karmilah.dty@uim_makassar.ac.id

Abstract. This study aims to examine the key barriers faced by female-owned Small and Medium Enterprises (SMEs) in Makassar City, focusing on financial access, education and training opportunities, and social-cultural factors. Using factor analysis, data were collected from female entrepreneurs across various sub districts in Makassar. The results highlight that access to financial resources, such as loans and venture capital, and participation in business networks are the most significant challenges faced by these women. Additionally, issues related to household responsibilities and limited access to quality education and training programs further hinder the agility of female-owned SMEs. The study also identifies that financial constraints, particularly high loan costs and difficulties in obtaining funding approvals, are the primary obstacles. While participation in education programs plays a moderate role, social factors like unequal household work distribution also impact business success.

However, the research is limited by its focus on a single geographic area, reliance on self-reported data, and a cross-sectional design, which may not capture the full complexity of challenges faced by female entrepreneurs over time. The findings suggest that policy interventions should prioritize improving access to financial resources and business networks, enhancing educational opportunities, and addressing gender-related social barriers to support the growth of female-owned SMEs in Makassar City.

Keywords: Female SMEs, financial access, education, social-cultural barriers, Makassar City.

1 Introduction

The role of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia's economy, particularly in Makassar City, is undeniably significant. MSMEs contribute not only to employment generation but also to the overall economic resilience of the region. Makassar, as a rapidly urbanizing city, presents both opportunities and challenges for MSMEs. The increasing population and urbanization create a burgeoning market for products and services, thus providing fertile ground for MSMEs to thrive. However, in parallel, urbanization intensifies competition in the job market, especially for vulnerable groups such as women, who often face discrimination and stereotyping in various sectors of the workforce. Despite the

important role that women play in driving the MSME sector, particularly in selling and production, they encounter numerous challenges that can inhibit their agility and ability to adapt to rapidly changing market conditions. This research aims to examine the factors that hinder women's agility in MSMEs in Makassar City, drawing on the findings of various studies and data.

2 Research Methodology

2. Research Method

The factor analysis method is a statistical approach used to identify patterns of relationships between a large number of related variables. In the context of this study, the factor analysis method can be used to identify the factors underlying the barriers to the agility of female employees in MSMEs in Makassar City.

2.1. Type and Source Data

1. Quantitative data, namely data obtained from questionnaire answers given to respondents.
2. Qualitative data, namely data in the form of information, both oral and written, obtained from respondents.

The data sources used are:

1. Primary data, namely data taken directly from the research object. The method used to obtain primary data is by using a questionnaire method given to lecturers at private universities in Makassar City.
2. Secondary data, namely data obtained in writing by collecting documents and other literature related to the research to be conducted, such as data on the number of MSMEs in Makassar City obtained from the Makassar City Cooperative and MSME Office.

2.3. Data Collection

In this study, the data collection techniques used was field research, where the data collection technique was to prepare statements in each questionnaire in their form of closed statements. Scoring or value for their answers in the questionnaire that had been provided was divided into five alternative answers that had been graded with the provision of a value weight (score).

2.4. Population and Sample

The population in this study is the number of Women's MSMEs that are registered with the cooperative and MSME office in Makassar City, which is 5,833 people. The sample used is Purposive Sampling with the following criteria:

1. MSMEs registered with the cooperative and MSME office in Makassar City
2. Women's MSMEs with a business history of more than 3 years

In determining the number of samples, the Slovin sampling method Akob (2022) was used.

2.5. Data Analysis Method

The type of research used in this study is quantitative descriptive, namely research used to describe, explain, or summarize various conditions, situations, phenomena, or various research variables according to events as they are obtained from the questionnaire. (Ghozali, 2016) which is measured on a Likert scale of 1 to 5. Then the data is processed using a statistical tool, namely Factor Analysis. The stages of data processing in this study are:

1. Testing the validity of the research instrument, where the validity or otherwise of an instrument item can be determined by comparing the Pearson product moment correlation index with a level of significance of 5% to its correlation value. If the significance of the correlation result is less than .05, it is declared valid and vice versa, it is declared invalid (Sugiyono, 2022).
2. Testing the reliability of the research instrument, where reliability shows the extent to which a measuring instrument can be trusted or relied upon. One approach to reliability testing is the Cronbach Alpha approach. If Cronbach's Alpha is greater than 0.6, the research data is considered good enough and reliable to be used as input in the data analysis process (Siregar, 2013).
3. The analysis method used is factor analysis which aims to determine the factors formed from several observable variables or manifest variables (Didiharyono, 2022)

3 Results

This study aims to analyze the Inhibiting Factors of Agility of Women's MSMEs in Makassar City using the Analysis method with a total of 5,833 respondents. The following are the results of the study based on the data that has been collected and analyzed.

Figure 1. Distribution Respondents Female SME’s Based on Subdistrict in Makassar City

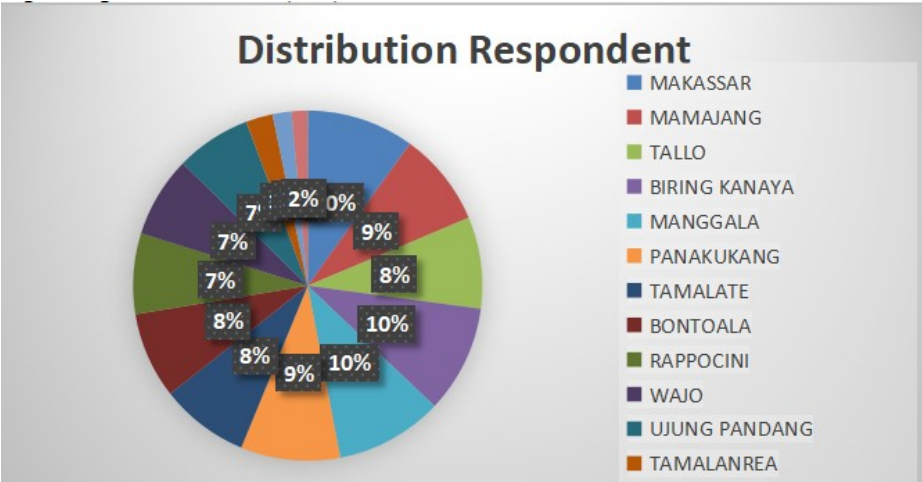


Figure. 1 illustrates the distribution of respondents based on sub districts in Makassar City. The data reflects the representation of female entrepreneurs from different areas participating in the study, which aims to identify the challenges faced by women-owned Small and Medium Enterprises (SMEs) in the city. Each color segment in the pie chart corresponds to a specific sub district, with percentages indicating the proportion of respondents from that area.

The distribution shows that sub districts such as Makassar, Panakkukang, and Tallo have the highest representation, each contributing a significant percentage of the total respondents. On the other hand, certain subdistricts like Rappocini and Mamajang have a smaller share of respondents. This distribution provides insights into the concentration of female entrepreneurs across the city, highlighting areas where SMEs are more densely represented. The diverse geographical representation ensures a comprehensive understanding of the challenges faced by female SME owners in Makassar

Table 1. Hasil Uji KMO dan Bartlett

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.891
Bartlett's Test of Sphericity	Approx. Chi-Square	2725.019
	Df	105
	Sig	.000

Based on the table displays the results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity, which are used to assess the suitability of the data for factor analysis. From limited resources (X1) Access to Loans, (X2) Amount of Accessible Capital, (X3) Loan Costs and Interest, (X4) Availability of Venture Capital and Investment, (X5) Access to Financial Programs and Services, (X6) Participation in Education and Training Programs, (X7) Access to Education and Training Programs, (X8) Quality of Education and Training Programs, (X9) Access to Mentors and Business Consultants, (X10) Participation in Business and Community Networks, (X11) Division of Household Work, (X12) Opportunities for Innovation and Business Development, (X13) Loan and Funding Approvals, (X14) Difficulty Negotiating Business Deals, (X15) Access to Business Networks. The KMO value ranges between 0 and 1, and a higher value indicates better sampling adequacy. A KMO value of 0.891 suggests that the data is suitable for factor analysis and that the correlations between the variables are substantial enough for such an analysis. Generally, a value above 0.8 is considered meritorious. The KMO score suggests that the relationships between factors such as (X1) Access to Loans, (X2) Amount of Accessible Capital, and the others are sufficient to conduct

factor analysis. These variables have meaningful correlations, making them appropriate to group into underlying factors.

Table 2. Anti Image Matrices Test Results

Variabel	Anti Image Correlation
X1	0.903
X2	0.901
X3	0.901
X4	0.901
X5	0.899
X6	0.904
X7	0.906
X8	0.903
X9	0.904
X10	0.898
X11	0.901
X12	0.901
X13	0.900
X14	0.902
X15	0,905 years

The results based on each variable from the table 2 explain that X1 (Access to Loans) – Anti-Image Correlation: 0.903, this high value indicates that the variable "Access to Loans" has a strong correlation with the other variables, making it a good candidate for factor analysis. X2 (Amount of Accessible Capital) – Anti-Image Correlation: 0.901, similar to X1, the high anti-image correlation means that "Amount of Accessible Capital" is well-correlated with other variables, suggesting its relevance in the analysis. X3 (Loan Costs and Interest) – Anti-Image Correlation: 0.901 the variable "Loan Costs and Interest" also shows a strong relationship with the other variables, making it suitable for inclusion in factor analysis. X4 (Availability of Venture Capital and Investment) – Anti-Image Correlation: 0.901 the variable "Availability of Venture Capital and Investment" has a high correlation, indicating its importance in the overall analysis.

Table 3. Communalities Test Results

	Awal	Ekstraksi
X1	1.000	.714
X2	1.000	.643
X3	1.000	.579
X4	1.000	.601
X5	1.000	.665
X6	1.000	.724
X7	1.000	.682
X8	1.000	.465
X9	1.000	.480
X10	1.000	.578
X11	1.000	.524
X12	1.000	.621
X13	1.000	.642
X14	1.000	.526
X15	1.000	.510
Extraction Method: Principal Component Analysis.		

The Communalities table in factor analysis represents the proportion of variance in each variable that can be explained by the extracted factors. Each variable starts with an initial value of 1.000, indicating that the total variance of the variable is accounted for. After extraction, the values (labeled as Extraction) show the amount of variance explained by the factors retained in the analysis.

Table 4. Component Matrix Results

	1
X1	.656
X2	.686
X3	.702

X4	.709
X5	.739
X6	.600
X7	.545
X8	.632
X9	.602
X10	.760
X11	.691
X12	-.688
X13	.698
X14	.669
X15	.566
Extraction Method: Principal Component Analysis.	

The Component Matrix in Principal Component Analysis (PCA) shows the loadings of each variable on the extracted component or factor. These loadings represent how much each variable correlates with the component. In simpler terms, the component matrix shows how strongly each variable contributes to the factor(s) being extracted.

4 Discussion

These results of KMO Bartlett show that the data related to barriers for female-owned SMEs (including financial access, participation in education and training programs, access to mentors, and household responsibilities) is suitable for factor analysis. This means that the variables are significantly interrelated, and you can now proceed with further statistical analysis to identify key factors that may group together (e.g., financial access, social-cultural barriers, training opportunities) and explain the main obstacles faced by female entrepreneurs in Makassar (Larashati & Hariyat, 2021).

The Anti-Image Correlation matrix indicates that all the variables (X1–X15) are strongly correlated with each other, as all values are close to or exceed 0.9. This means that the selected variables are suitable for factor analysis, as they are sufficiently correlated with one another. The analysis suggests that variables related to financial access (e.g., loans, venture capital), education and training, social responsibilities (e.g., household work), and access to networks all play significant

roles in understanding the barriers to agility for female-owned SMEs (Mahmood et al., 2013).

The Component Matrix in Principal Component Analysis (PCA) shows the loadings of each variable on the extracted component or factor. These loadings represent how much each variable correlates with the component. In simpler terms, the component matrix shows how strongly each variable contributes to the factor(s) being extracted, while the component matrix suggests that access to financial resources (e.g., loans, venture capital, and financial programs) and participation in business networks are the strongest contributors to the underlying factors in your analysis. These are the key areas where female SMEs face significant challenges, and they should be prioritized in any intervention strategies (Lambey et al., 2018).

The analysis reveals that the primary barriers to the agility of female-owned SMEs in Makassar are financial access and business networking opportunities. While education and social responsibilities also play a role, the most critical areas to address in order to improve the agility and success of female entrepreneurs are enhancing access to financial services and facilitating stronger participation in business networks. Efforts to improve financial literacy, streamline access to loans and venture capital, and create supportive business communities will likely have the most significant impact in overcoming the challenges these entrepreneurs face (Al Kausar et al., 2022).

Recomendations

Based on the analysis, several key recommendations can be made to address the barriers faced by female-owned SMEs in Makassar City. First, improving access to financial resources should be a priority. Financial institutions, both private and governmental, should simplify loan application processes for female entrepreneurs, reducing paperwork and offering more flexible collateral requirements. Additionally, financial products specifically tailored for female-owned SMEs should be developed, such as low-interest loans or micro-financing options to help mitigate financial constraints. Furthermore, enhancing the availability of venture capital and investment for women-led businesses can help bridge the funding gap.

Second, promoting participation in business and community networks is essential. Establishing mentorship programs and creating spaces for female entrepreneurs to connect, collaborate, and share experiences can empower women and foster business growth. Governments and NGOs can organize business networking events and support programs that facilitate these connections.

Third, there is a need to improve access to quality education and training programs. Developing targeted educational initiatives that focus on business management, financial literacy, and digital marketing will equip female entrepreneurs with the necessary skills to compete in an evolving market. Training should be made more accessible through online platforms and community-based programs, particularly for those who are time-constrained by household responsibilities.

Finally, addressing social and cultural barriers, such as the unequal distribution of household work, is crucial. Policymakers should consider implementing community awareness campaigns that promote gender equality and encourage the shared

responsibility of household duties. By addressing both financial and social barriers, these recommendations will help improve the agility and success of female-owned SMEs in Makassar City.

Limitations

The results of the analysis provide valuable insights into the barriers faced by female-owned SMEs in Makassar City, but there are several limitations to consider. First, the study's findings may have limited generalizability. Since the focus is specifically on female entrepreneurs in Makassar, the results may not reflect the experiences of female SME owners in other regions with different economic conditions, cultural norms, or government policies. This limits the applicability of the conclusions to broader populations.

Second, the data likely relies on self-reported information from respondents, which can introduce bias. Participants may overstate positive behaviors or underreport certain challenges, particularly with sensitive topics like financial difficulties or household responsibilities. This could affect the accuracy and reliability of the data.

Third, the study focuses on certain key variables, such as financial access, education, and social barriers, but does not account for other important factors that may influence SME success, such as technology adoption, digital literacy, or market competition. The exclusion of these variables limits the comprehensiveness of the analysis.

Lastly, the study's cross-sectional nature means it captures data from a single point in time, making it difficult to observe changes or trends over time. This limits the ability to understand how these barriers evolve or how interventions might impact female-owned SMEs in the long term. Addressing these limitations in future research could provide a more comprehensive understanding of the challenges faced by female entrepreneurs.

5 Conclusion

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