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Gender-based leadership disparities: obstacles to women becoming leaders in student organizations

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ABSTRACT

This study identifies internal and external factors that hinder women from becoming leaders of student organizations. Traditional leadership stereotypes consider men to be more worthy of leadership than women, resulting in disparities in gender-based leadership. In fact, men and women should have equal opportunities to become leaders. This study simultaneously examines internal and external factors that hinder women from becoming leaders based on statistical and empirical evidence that has never been found in previous studies. The survey-based sampling study involved 90 respondents who were divided into female students who were and were not leaders of student organizations. The survey data were analyzed using binary logistic regression analysis. This study found that self-confidence and responsibility have a statistically significant effect on women's leadership. Women with lower self-confidence and responsibility show a lower tendency to become leaders. Understanding, knowledge, patriarchal culture, ability, and relationships did not show a significant effect. However, women who become leaders generally have higher knowledge, perceive less patriarchal culture, and have stronger relationships. The main obstacle for women in taking leadership positions is internal factors. Therefore, development programs that focus on increasing self-confidence and responsibility need to be a priority.

Keywords: culture; gender inequality; gender-based leadership; student organizations; women's leadership

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1. INTRODUCTION

Leadership profoundly influences every aspect of people's lives within organizations, ranging from families to broader contexts. It involves the ability to influence individuals or groups by persuading and directing them toward a desired goal (Hellriegel & Slocum, 1996). Leadership enables alignment between ideas and goals, as leaders must bridge differing perspectives within an organization to achieve a shared vision. Leaders convince their members that their vision is a collective goal that can be implemented together (Syarifudin, 2004). Individuals who hold leadership positions possess inherent demographic characteristics, such as sex or gender, which significantly influence leadership styles and shape gender perception. Although some people think that gender and sex are the same thing, the term gender is different from sex. Sex is a biological term that distinguishes between men and women from birth. Meanwhile, gender is a psychological and cultural term that arises because someone is a man or woman; that is, it has implications for different social lives between men and women (Oakley, 2015; Beauvoir, 2011). Leadership is the process of influencing others or a group of people to understand and agree on what will be done so that they can work together to achieve common goals (Robbins, Judge, & Judge, 2018; Yukl & Gardner, 2019; Terry, 1994).

Leadership differences between men and women become evident through their characteristics; men tend to emphasize action, whereas women focus more on relationships and communication (Eagly & Karau, 2002). With its transformative approach, women's leadership inspires and empowers others, fostering job satisfaction and improved performance among followers (Kim & Cruz, 2022). Despite the distinct leadership styles of men and women, societal norms often favor men as leaders, perpetuating traditional stereotypes in organizational settings. These stereotypes link leadership with masculine traits, such as strength, assertiveness, aggressiveness, authority, risk-taking, independence, and self-confidence. Consequently, women who exhibit more feminine traits encounter significant hurdles in reaching leadership positions because of these gender stereotypes (Eagly & Karau, 2002). Furthermore, research suggests that women who display more masculine traits often face negative biases, highlighting the injustice and inequality in the system, and are seen as less suitable for leadership roles (Paustian-Underdahl et al., 2014). Women must perform exceptionally well to achieve parity with men (Tremmel & Wahl, 2023). A persistent issue in leadership is the inequality between men and women in attaining leadership positions because of deeply rooted gender stereotypes. These stereotypes shape social norms and expectations, often leading to the perception that women's leadership does not align with the weighty societal standards.

Leadership as part of human social life cannot be separated from the influence of gender, considering the biological differences and social constructions that differentiate the roles of men and women. Understanding these differences underlies gender-based leadership. Gender-based leadership refers to how gender roles, expectations, and stereotypes influence a person's leadership style, effectiveness, and opportunities (Eagly & Carli, 2009; Northouse, 2018). In gender-based leadership, men and women face different social expectations. With their masculine nature, men are more readily accepted as leaders because they meet society's expectations of a firm, dominant, and rational leader. Meanwhile, more participatory and transformational women are often considered less likely to meet these criteria (Eagly & Johnson, 1990). This stereotype creates disparities in gender-based leadership.

Obstacles to women's leadership can arise in various domains, including social, corporate, religious, political, governmental, and educational settings, such as campus environments. This study examines the conditions at Politeknik Statistika STIS, which facilitates students in developing their potential beyond academics through various activities aligned with their interests and talents within student organizations. Each organization has a leader responsible for coordinating its members in every activity as a form of active contribution and self-development. According to Eagly and Carli's (2009) gender equality theory, every individual, both men and women, has an equal opportunity to become a leader, as leadership potential exists equally in everyone regardless of gender. However, the leadership conditions at Politeknik Statistika STIS, as reflected in student organizations, do not fully represent gender equality.

Student organizations at Politeknik Statistika STIS from the 2022/2023 to 2024/2025 academic years have predominantly been led by men, accounting for almost 80%, while women comprise only

approximately 20% of leaders. However, the percentage of student organizations with women leaders in the 2024/2025 academic year is 21%, marking a 3% decline from the previous period. This decline is particularly concerning, given that the majority of students eligible for leadership roles in student organizations and activity units at Politeknik Statistika STIS are women. Students eligible for leadership positions include those in levels II to IV, and in the 2024/2025 academic year, women in these levels comprise 56% of the total student population.

Several collaborative studies have explored women's obstacles in leadership roles within campus environments. Hafsari and Daulay (2023) analyzed women's leadership in student organizations at the University of North Sumatra by employing a qualitative approach to provide a collective understanding. Meldianto and Hanani (2022) investigated the relationship between gender and decision-making in student organizations at the DEMA Faculty of IAIN Bukittinggi, offering valuable insights through descriptive analysis. Faristiana (2021) also contributed by studying gender inequality in the student organizational structure of the Faculty of Ushuluddin, Adab, and Da'wah at IAIN Ponorogo using a qualitative approach to provide a nuanced analysis. Nurbayani et al. (2019) used a qualitative approach to examine women's leadership management in the campus organizational environment at the Indonesian Education University, focusing on academic and non-academic structural officials as well as subordinates of women leaders. Putri and Fatmariza (2020) further enriched the discourse by analyzing the low level of women's leadership in student organizations at Padang State University, combining qualitative and quantitative approaches to provide a comprehensive understanding. Their study measured the low level of women's leadership in student organizations based on variables such as self-confidence, patriarchal cultural traditions, understanding, ability, relationships, knowledge, and responsibility. Therefore, the obstacles women face in becoming leaders of student organizations can be viewed from internal and external factors.

Internal factors are obstacles for women to become leaders from within themselves, not from the environment or social structure around them. One internal factor hindering women from becoming leaders is low self-confidence. Self-confidence in leadership refers to the extent to which a leader dares to take risks, makes firm and quick decisions, and can deal with uncertainty (Robbins et al., 2018; Yukl & Gardner, 2019). Thus, we hypothesize that self-confidence has a positive and significant influence on women's leadership. The following internal factor is understanding. In leadership, knowledge is interpreted as a deep understanding of social dynamics and existing values, including the needs, values, and perspectives of the people being led, so that they can move many people and have a broad impact (Heifetz & Linsky, 2002; Northouse, 2018; Yukl & Gardner, 2019). Thus, we hypothesize that understanding has a positive and significant influence on women's leadership. Knowledge is also an internal factor that influences women's leadership. Knowledge is essential in leadership because it allows leaders to predict future trends and understand problems, resulting in the organization's effectiveness, tasks, and people being led (Yukl & Gardner, 2019; Northouse, 2018; Mumford et al., 2000). Thus, we hypothesize that knowledge has a positive and significant influence on women's leadership. Another internal factor that hinders women from becoming leaders is a low level of responsibility within themselves. A leader's responsibility is not just a position but also responsibility for the needs of others and the ethical consequences of decisions (Northouse, 2018; Kouzes & Posner, 2023). In addition, a responsible leader must be able to confront people with real problems, including tension, conflict, or change, so that they can grow, learn, and participate in finding solutions (Heifetz, 2009). Thus, we hypothesize that responsibility has a positive and significant influence on women's leadership.

External factors are obstacles for women to become leaders from the surrounding environment or social system that form behavioral patterns and expectations of gender roles. The cause of the obstacles for women to become leaders that come from external factors is the existence of a patriarchal culture that is still inherent in the organizational environment. Patriarchal cultural practices are often found in organizations that emerge through dominant masculine norms that are identical to the role of men, thus marginalizing women (Acker, 1990; Connell, 2014). Thus, we hypothesize that patriarchal culture has a negative and significant influence on women's leadership. External factors that also influence women's leadership are abilities. Effective leadership can be realized by leaders who can influence the behavior of others by maintaining discipline and commitment to organizational goals (Hersey et al., 2013). Thus, we

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hypothesize that ability has a positive and significant influence on women's leadership. Another external factor is the relationships that women have. Relationships reflect the connectedness between individuals in a social system formed by a shared desire (Fiske, 1992). To occupy a leadership position, women need to build relationships with people to gain support, thereby expanding women's opportunities to be promoted as leaders (Ibarra, Ely, & Kolb, 2013; Eagly & Carli, 2009). High-quality relationships between leaders and members can produce reciprocal relationships that positively impact performance (Graen & Uhl-Bien, 1995). Thus, we hypothesize that relationships have a positive and significant influence on women's leadership.

Given the significance of this topic, numerous studies have examined women's leadership in campus environments, particularly in student organizations. However, research that simultaneously analyzes self-confidence, understanding, knowledge, and responsibility as internal factors, along with patriarchal culture, ability, and relationships as external factors influencing women's leadership, remains limited. Furthermore, no study has conducted an inferential analysis to conclude the population based on sample data. Inferential analysis enables researchers to statistically test whether independent variables significantly affect the dependent variable through hypothesis testing (Kutner et al., 2016). This study contributes by raising the issue of gender disparity in leadership in higher education. This study focuses on the obstacles women face to becoming leaders of student organizations, as seen from internal and external factors, by applying inferential statistical methods that previous studies have never conducted. Therefore, this study aims to identify the variables that hinder women from becoming leaders in student organizations, considering internal and external factors.

2. RESEARCH METHOD

2.1. Sampling Design

This study is a survey sampling-based study that collected data from randomly selected respondents from the target population to obtain a representative picture. The survey population was 812 women students of Politeknik Statistika STIS for the 2022/2023 to 2024/2025 academic years, with the target population and unit of analysis being all women students, both those who are and are not leaders of student organizations. This survey only involved female students in years II to IV because first-year students have not been allowed to become leaders of student organizations; thus, it is relevant to answer the research objectives, namely, to determine the obstacles for women to become leaders of student organizations. The determination of sample size referred to the Slovin formula. The Slovin formula determines the number of samples needed from a population with the desired level of accuracy or margin of error (Yamane, 1973). Using a margin of error of 10% of the population size of 812 students, the minimum number of samples obtained was 89.035. Rounding this number, we used 90 samples.

In this study, disproportionate stratified random sampling was employed as the sampling technique. This method is used when the population is stratified, but the strata are not proportional in size (Sugiyono, 2021). The population comprised 24 women students who were leaders of student organizations and activity units and 788 women students who were not. Given the stark difference in the sizes of the two strata, disproportionate sampling was considered appropriate. In such cases, it is common to take the entire population from the smaller stratum to ensure adequate representation (Kalton, 2020). Therefore, from a minimum required sample of 90 respondents, all 24 women student leaders were included, while the remaining 66 respondents were randomly selected from the 788 women students who were not leaders.

2.2. Data Collection

Data collection in this study was through an online survey using Google Forms as a medium for filling out the questionnaire. The Google Form was distributed to the respondents selected as samples via their respective emails. The purpose of collecting respondents' data was to obtain data representing the research variables that the research objectives will analyze. This data collection resulted in a response rate of 98.89%. The response rate was very high; therefore, the data obtained were representative and could reduce the potential for non-response bias. Thus, further analysis, such as inferential analysis, is feasible.

2.3. Measurements

The research variables were measured using a measurement instrument in the form of a questionnaire. Because the survey was online, the questionnaire used was in the form of a Google Form. The questionnaire used a four-level Likert scale (1: strongly disagree – 4: strongly agree) to measure self-confidence, understanding, knowledge, responsibility, patriarchal culture, ability, and relationships as independent variables. Each independent variable was measured using three statement items. Subsequently, each respondent had a score for each variable, which was calculated from the average total score of the three items. The scores were categorized as low, moderate, and high. Meanwhile, the dependent variable was measured through respondents' answers to questions related to their leadership status, with the answer choices '1' if they were a leader and '0' if they were not. Thus, the dependent variable was in binary form, which had two possible outcomes.

This study requires ensuring that the questionnaire can measure what it should measure consistently; therefore, a questionnaire test needs to be conducted. The questionnaire test consists of validity and reliability tests. A questionnaire is valid if the statements can reveal something that the questionnaire will measure (Ghozali, 2018). The validity test in this study uses item analysis, namely, calculating the correlation score between items and the total score of each factor. A statement item is declared valid if the correlation coefficient is > r_tabel with a significance level of α or p-value < α. Meanwhile, a questionnaire is declared reliable if the respondents' answers to the statement are consistent or stable over time (Ghozali, 2018). In this study, the technique for measuring the reliability of the questionnaire is with Cronbach's alpha $⟦(r⟧\_α)$. If Cronbach's alpha is > 0.7, the level of reliability is high, which means the questionnaire can be declared reliable.

2.4. Data Analysis

The data in this study will be analyzed using an inferential approach with binary logistic regression. Binary logistic regression is a statistical analysis method used to model the relationship between one or more independent variables and a binary dependent variable (Agresti, 2021; Azen & Walker, 2021). Since the dependent variable in this study consists of two possible outcomes, namely, becoming a leader and not becoming a leader, this method is suitable for determining the causal relationship of internal and external factors to women's leadership status. The primary purpose of binary logistic regression is to predict the probability of one outcome marked with Y = 1, namely, becoming a leader. At the same time, Y = 0 represents the alternative outcome: not becoming a leader. Binary logistic regression uses the logit function to represent the relationship between the independent variables and the probability of the outcome (Agresti, 2021; Azen & Walker, 2021).

3. RESULTS AND DISCUSSION

3.1. Questionnaire Testing

The questionnaire testing comprised validity and reliability tests. The validity test used the Pearson product-moment correlation for each of the 21 item statements. The results of the questionnaire validity test are as follows:

Table 1. Questionnaire Validity Test Results

Variables	Item	Correlation Coef.	Sig.
Self-Confidence	1	0.855	<0.001
	2	0.892	<0.001
	3	0.785	<0.001
Understanding	4	0.697	<0.001
	5	0.885	<0.001
	6	0.552	<0.001
Knowledge	7	0.777	<0.001

	8	0.879	<0.001
	9	0.827	<0.001
Responsibility	10	0.810	<0.001
	11	0.821	<0.001
	12	0.806	<0.001
Patriarchal Culture	13	0.645	<0.001
	14	0.840	<0.001
	15	0.791	<0.001
Ability	16	0.952	<0.001
	17	0.962	<0.001
	18	0.865	<0.001
Relationships	19	0.904	<0.001
	20	0.907	<0.001
	21	0.901	<0.001

Source: Processed from primary data (2025)

As shown in Table 1, the correlation coefficient produced from the Pearson product-moment is close to 1, or the p-value produced for all statement items is < 0.05, which means that all statement items are declared valid in measuring the desired construct. In addition to validity, the reliability of the questionnaire also needs to be tested. Reliability testing was conducted using Cronbach's alpha for the entire questionnaire. The results of the questionnaire reliability test are presented below.

Table 2. Questionnaire Reliability Test Results

Cronbach's Alpha	N of Items	Criteria
0.886	21	High-Reliability

Source: Processed from primary data (2025)

As shown in Table 2, Cronbach's alpha generated for the questionnaire instrument consisting of 21 statement items was 0.886. This figure is more than 0.7, which is included in the high-reliability criteria. Therefore, this research questionnaire was suitable as a research instrument. Since the questionnaire that was formed met the criteria of validity and reliability as a research instrument, the variables measured using this questionnaire could be analyzed further. Thus, the analysis results are expected to answer the research objectives precisely and accurately.

3.2. Descriptive Analysis

Descriptive analysis aims to portray each research variable through descriptive statistics. In this study, the descriptive statistics used are the percentage of women based on the category of each variable. This description allows us to understand the distribution pattern of respondents in each variable before conducting further inferential analysis.

Table 3. Respondent Characteristics

Characteristic	Category	Women who Become Leaders		Women who Do Not Become Leaders	
		n	*%*	*n*	*%*
Internal Factor					
Self-Confidence	Low	1	4.2	16	24.6
	Moderate	8	33.3	38	58.5
	High	15	62.5	11	16.9
Understanding	Low	1	4.2	4	6.2
	Moderate	7	29.2	45	69.2
	High	16	66.7	16	24.6
Knowledge	Low	11	45.8	48	73.8
	High	13	54.2	17	26.2
Responsibility	Low	7	29.2	48	73.8
	High	17	70.8	17	26.2
External Factor					
Patriarchal Culture	Low	7	29.2	12	18.5
	Moderate	11	45.8	30	46.2
	High	6	25.0	23	35.4
Ability	Low	1	4.2	8	12.3
	Moderate	10	41.7	39	60.0
	High	13	54.2	18	27.7
Relationships	Low	7	29.2	42	64.6
	High	17	70.8	23	35.4

Source: Processed from primary data (2025)

Data collection on women respondents, both those who are and are not leaders, revealed that 27% were not leaders of student organizations. This figure is lower than that of women who are leaders, which reached 73%. This condition shows that the number of women who can occupy leadership positions is still very low. Thus, this study will answer the allegations of factors that hinder women from becoming leaders, ranging from internal to external factors.

As shown in Table 3, in the group of women who occupy leadership positions, the percentage for each variable tends to increase along with the increase in the category from low to moderate to high. This condition shows that most women who become leaders have high self-confidence, understanding, knowledge, responsibility, ability, and relationships. In other words, the higher the achievement in these variables, the greater the possibility of women occupying leadership positions. However, a similar pattern was not found in the patriarchal culture variable. Most women who become leaders assessed that the student organizations they lead were in the moderate patriarchal culture category, while the lowest percentage was in the high patriarchal culture category. This condition illustrates that women's leadership is often found in organizational environments that are not at a high level of patriarchal culture. However, most still considered the existence of a moderate patriarchal culture.

Most women who do not hold leadership positions have a moderate level of self-confidence, understanding, and ability, as well as patriarchal culture. Meanwhile, the majority of the variables of relationships, knowledge, and responsibility are at a low level. When comparing the low, moderate, and

high categories, it was found that in the variables of self-confidence, patriarchal culture, understanding, and ability, the frequency of women who do not become leaders tends to increase from the low to moderate category and decrease in the high category. An exception occurs in the variable of self-confidence, where the frequency decreases consistently from the low, moderate, and high categories. Meanwhile, in the variables of relations, knowledge, and responsibility, the frequency of women who are not leaders decreases from low to high, indicating that the higher the category of these variables, the fewer women are in leadership positions.

3.3. Obstacles to Women Becoming Leaders

Identifying the factors that hinder women from becoming leaders is done through a causal relationship analysis using a binary logistic regression model. This regression model predicts women's chances of being included in the leader category or not being a leader based on internal and external factors that are suspected of influencing them. The following are the results of the binary logistic regression analysis

Table 4. The Results of Binary Logistic Regression Analysis with Backward Stepwise (Wald)

Step	Variables	Category	Coef.	S.E.	Sig.	aOR	90% CI
1	Self-Confidence	Low	-2.590	1.425	0.069*	0.075	0.007 – 0.782
		Moderate	-0.503	0.784	0.521	0.605	0.166 – 2.197
		High $^{r)}$					
	Understanding	Low	0.549	1.417	0.709	1.731	0.154 – 19.473
		Moderate	-0.541	0.796	0.497	0.582	0.157 – 2.155
		High $^{r)}$					
	Knowledge	Low	0.305	0.746	0.683	1.356	0.397 – 4.628
		High $^{r)}$					
	Responsibility	Low	-1.005	0.899	0.263	0.366	0.083 – 1.605
		High $^{r)}$					
	Patriarchal Culture	Low	0.716	0.879	0.415	2.047	0.482 – 8.690
		Moderate	0.630	0.707	0.373	1.878	0.587 – 6.009
		High $^{r)}$					
	Ability	Low	0.827	1.564	0.597	2.286	0.175 – 29.932
		Moderate	-0.179	0.688	0.795	0.836	0.270 – 2.592
		High $^{r)}$					
	Relationships	Low	-0.879	0.824	0.286	0.415	0.107 – 1.610
		High $^{r)}$					
	Constant		0.122	0.686	0.859	1.130	
2	Self-Confidence	Low	-2.223	1.213	0.067*	0.108	0.015 – 0.796
		Moderate	-0.559	0.767	0.466	0.572	0.162 – 2.019
		High $^{r)}$					
	Understanding	Low	0.512	1.473	0.728	1.669	0.148 – 18.832
		Moderate	-0.583	0.785	0.457	0.558	0.154 – 2.029
		High $^{r)}$					

	Variable	Category	B	S.E.	Sig.	Exp(B)	95% CI
	Knowledge	Low	0.274	0.734	0.709	1.315	0.393 – 4.401
		High r)					
	Responsibility	Low	-0.966	0.817	0.237	0.381	0.099 – 1.458
		High r)					
	Patriarchal Culture	Low	0.707	0.856	0.409	2.027	0.496 – 8.284
		Moderate	0.604	0.702	0.390	1.829	0.576 – 5.802
		High r)					
	Relationships	Low	-0.780	0.799	0.329	0.459	0.123 – 1.707
		High r)					
	Constant		0.071	0.675	0.916	1.074	
3	Self-Confidence	Low	-2.174	1.210	0.072*	0.114	0.016 – 0.833
		Moderate	-0.568	0.767	0.459	0.567	0.160 – 2.000
		High r)					
	Understanding	Low	0.531	1.463	0.717	1.701	0.153 – 18.871
		Moderate	-0.608	0.785	0.439	0.545	0.150 – 1.980
		High r)					
	Responsibility	Low	-0.865	0.769	0.261	0.421	0.119 – 1.492
		High r)					
	Patriarchal Culture	Low	0.712	0.856	0.406	2.038	0.499 – 8.327
		Moderate	0.588	0.702	0.402	1.800	0.568 – 5.706
		High r)					
	Relationships	Low	-0.648	0.720	0.368	0.523	0.160 – 1.710
		High r)					
	Constant		0.139	0.650	0.830	1.150	
4	Self-Confidence	Low	-2.156	1.203	0.073*	0.116	0.016 – 0.838
		Moderate	-0.756	0.740	0.307	0.470	0.139 – 1.586
		High r)					
	Understanding	Low	0.549	1.496	0.714	1.732	0.148 – 20.279
		Moderate	-0.473	0.763	0.536	0.623	0.177 – 2.188
		High r)					
	Responsibility	Low	-1.037	0.733	0.157	0.355	0.106 – 1.183
		High r)					
	Relationships	Low	-0.467	0.689	0.497	0.627	0.202 – 1.945
		High r)					
	Constant		0.599	0.433	0.167	1.819	
5	Self-Confidence	Low	-2.248	1.166	0.054*	0.106	0.016 – 0.719
		Moderate	-0.932	0.713	0.191	0.394	0.122 – 1.272
		High r)					
	Responsibility	Low	-1.078	0.653	0.099*	0.340	0.116 – 0.997
		High r)					

	Relationships	Low	-0.602	0.632	0.341	0.548	0.194 – 1.550
		High [r)]					
	Constant		0.575	0.428	0.179	1.777	
6	**Self-Confidence**	Low	-2.415	1.162	0.038**	0.089	0.013 – 0.604
		Moderate	-1.192	0.667	0.074*	0.304	0.101 – 0.910
		High [r)]					
	Responsibility	Low	-1.149	0.653	0.078*	0.317	0.108 – 0.928
		High [r)]					
	Constant		0.489	0.417	0.241	1.631	

Notes: *p < 0.10; **p < 0.05; r) reference; Coef.: Coefficient; S.E.: Standard Error; Sig.: Significance; aOR: adjusted Odds Ratio; CI: Confidence Intervals

Source: Processed from primary data (2025)

Based on Table 4, self-confidence and responsibility are significant factors influencing women's leadership. The tendency of women with low self-confidence (aOR = 0.089; 90% CI = 0.013 – 0.604) to become leaders of student organizations is smaller than that of women with high self-confidence. Women with moderate self-confidence (aOR = 0.304; 90% CI = 0.101 – 0.910) also have a smaller tendency to become leaders of student organizations than women with high self-confidence. In general, lower self-confidence inhibits women from becoming leaders. Self-confidence is an important factor determining women's decisions to take on leadership roles. In line with previous research, high self-confidence encourages women's participation in leadership (Hafsari & Daulay, 2023; Hidayah & Munastiwi, 2019; Nurhilaliati, 2019; Putri & Fatmariza, 2020). Eagly and Carli (2009) emphasized that low self-confidence is a significant psychological barrier for women in achieving leadership positions. In the context of transformational leadership, women have high potential, but perceptions of their abilities can limit their active participation, especially in taking on leadership roles (Hoyt, 2005). Women often lack confidence that their leadership style will be accepted or positively evaluated in the organizational environment, which ultimately reduces their confidence in taking on leadership positions. The mismatch between gender norms and leadership roles creates "second-generation gender bias," which subtly but systematicallyreducesn people's confidence in their competence (Ibarra et al., 2013; Ely, Ibarra, & Kolb, 2011).

Women with low responsibility (aOR = 0.317; 90% CI = 0.108 – 0.928) are less likely to become leaders of student organizations than women with high responsibility. Therefore, the lower a woman's responsibility, the lower her chances of becoming a leader. This result is consistent with previous studies,whicht have shown that women with a higher sense of responsibilitfindke it easiem to engage in leadership (Setyoningrum, 2021; Putri & Fatmariza, 2020). Responsibility is one of the core components of leadership identity that develops through organizational experience (Komives et al., 2005). Value-based leadership emphasizes the importance of personal responsibility in directing and influencing others positively (Kezar & Moriarty, 2000). Individual responsibility plays an important role in forming intrinsic motivation to lead, especially in the context of student leadership. When students, especially women, have a high sense of responsibility for themselves and their communities, they tend to be more active in taking on roles as agents of change by becoming leaders (Dugan & Komives, 2007).

Table 4 also shows that internal factors that do not have a statistically significant effect on women's leadership are understanding and knowledge. The understanding variable shows that, regardless of whether women are leaders or not, most are at a high level of understanding. This finding suggests that understanding leadership or organizational issues does not automatically differentiate women's tendency to engage in leadership. In a higher education environment, exposure to critical information and discourse has the potential to create a relatively equal level of understanding among students (Magolda & Astin, 1993; Mayhew et al., 2010). However, understanding or cognitive insight into leadership does not

necessarily result in leadership actions without being accompanied by other intrapersonal factors, such as self-efficacy and motivation to lead (Komives et al., 2005; Dugan & Komives, 2007).

Subsequently, the knowledge variable shows a tendency for categories with high levels of knowledge to dominate female respondents who become leaders, while those who do not become leaders are more likely to be in the low knowledge category. Although not significant, this pattern indicates the potential role of knowledge as a source of leadership capital. Adequate knowledge serves as a foundation for decision-making, buildsbuilding leadership legitimacy, and increasesincreasing individual self-confidence (Bass & Bass, 2008; Ng, Eby, Sorensen, & Feldman, 2005; Hannah, Avolio, Luthans, & Harms, 2008). However, this cognitive capacity mustneeds to be accompanied by personality factors and environmental support in order to be actualized asin the form of leadership behavior (Dugan & Komives, 2007; Murphy & Johnson, 2011).

Meanwhile, none of the external factors had a statistically significant influence, including patriarchal culture, ability, and relationships on women's leadership. In the patriarchal culture variable, the majority of women in both groups perceived being in an environment with a moderate level of patriarchal culture. This condition reflects that the dominance of patriarchal values in the student organization environment is no longer too striking (Hafsari & Daulay, 2023). However, there is an interesting tendency, namely that women who become leaders are more in the low patriarchal culture category. In contrast, those who do not become leaders tend to be in the highly patriarchal culture category. This pattern shows that perceptions of structural or cultural barriers also influence the tendency to take on leadership roles. Second-generation gender bias is still present in the form of organizational norms and expectations that implicitly inhibit women's involvement in leadership (Ibarra et al., 2013; Ely et al., 2011). Women who do not perceive the existence of such barriers tend to have a greater sense of security and confidence in participating as leaders.

The ability variable shows that both women leaders and non-leaders are mainly in the high-ability category. This finding may reflect that the ability to discipline others, especially men, is generally possessed by female students who are active in student organizations. However, high ability is not necessarily the primary determinant of involvement in leadership roles. In the context of contemporary leadership theory, personal ability tends to be viewed as a necessary but not sufficient supporting factor to explain leadership behavior, especially if it is not accompanied by internal motivation and social support (Northouse, 2018; Chan & Drasgow, 2001; Lord & Hall, 2005). Therefore, although most respondents possessed high ability, other psychological and structural factors may have played a more determining role in encouraging leadership involvement.

Meanwhile, the relationships variable shows a more striking tendency. Groups with high relationships dominate women who become leaders, while those who are not leaders are mainly in the low relationship category. Although not statistically significant, this pattern indicates the importance of social networks in supporting leadership participation. Strong interpersonal relationships, whether with colleagues, seniors, or organizational coaches, can function as a source of emotional support, opportunities for collaboration, and space to build confidence in leadership (Komives et al., 2005; Magolda & Astin, 1993). In addition, in the relational leadership approach, relationships are considered the core of inclusive and transformative leadership practices, in which leaders do not work individually but in the context of the community (Komives et al., 2013).

However, this study has limitations in the dimensions studied to analyze women's obstacles to becoming leaders. The dimensions studied are limited to internal and external factors; therefore, they do not cover deeper aspects such as psychological and structural factors. In addition, this study only uses a women's perspective; therefore, it does not capture the dynamics of leadership more holistically, including perceptions from men or other parties in the organizational environment. Therefore, further research is warranted to integrate a multidimensional approach involving psychological factors, such as identity pressure or role conflict, as well as structural factors, such as institutional policies or organizational norms and even religion. In addition, further research can also expand the analytical perspective from a men's perspective to provide a more comprehensive picture of the obstacles and opportunities for women's leadership.

The findings of this study confirm that self-confidence and responsibility are key factors influencing women's leadership in student organizations. Although other factors show interesting patterns, only these two factors are statistically significant. This study shows the importance of strengthening intrapersonal aspects and environmental support to encourage women's leadership and opens up opportunities for further research with a multidimensional approach.

4. CONCLUSION

This study found that the main internal obstacles preventing women from becoming leaders in student organizations are low self-confidence and a lack of responsibility. Through inferential statistical analysis, only these two internal variables showed a significant adverse effect on women's leadership, whereas other internal and external factors did not have a statistically significant impact. This finding indicates that the limited participation of women in leadership roles is mainly influenced by internal psychological factors rather than external constraints. The significant negative effects of low self-confidence and a lack of accountability suggest that women's leadership potential is closely linked to their self-perception and sense of responsibility. These results highlight that the barriers to women's leadership may arise more from internalized attitudes and behavioral tendencies than from structural or environmental limitations.

These findings provide practical implications for student organizations to increase women's self-confidence through self-confidence training, such as public speaking and soft skills development, self-love campaigns, and discussions with female role models. In addition, increasing the sense of responsibility can be encouraged through gender-perspective leadership training, the active involvement of women in strategic positions, and the formation of a collaborative and inclusive organizational culture.

Ethical Approval

Not Applicable

Informed Consent Statement

Not Applicable

Authors' Contributions

Conceptualization, SDR., FN., and NNH; methodology, SDR., and KH.; validation, SDR., and MBR; formal analysis, SDR., FN., and KH; resources, FN.; writing – original draft preparation, SDR.; writing – review and editing, SDR.

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The authors declare that there is no conflict of interest.

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