

WHAT STRATEGY TO DEVELOP FEMALE LEADERSHIP TO SUPPORT A COMPANY'S SUSTAINABILITY IN STATE OWNED ENTERPRISES (SOES)?

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Abstract: This paper was to explain the result of current study and use it to further explore the characteristics that need to be improved by female leaders in Indonesian State-Owned Enterprises (SOEs) to support the company's sustainability. The research method was quantitative-based and used an online survey on all female leaders in Indonesian SOEs. It was found that female leaders in SOEs had characteristics of Visionary and Organic Leadership, with indicators of ability to decision making, power distance between leaders and follower, key organizational players, sources of organizational commitment and responsibility and leadership situations. Using Partial Least Square-Structural Equation Modeling (PLS-SEM) and software WarpPLS, the study discovered that visionary female leadership had no impact on the company's sustainability. Nevertheless, by fully mediating business competency and partially mediating of organizational competency, there was a significant impact of Female Visionary Leadership on Companies' Sustainability. Based on the model from the current study of the influence of female leadership on corporate sustainability, this study developed a strategy for the development of women leadership by providing indicators that should be increased in women leaders. Using AHP method, it was necessary to develop the character of Visionary Female Leadership in Indonesian SOEs by increasing the source of organizational commitment and responsibility, leadership skill and ability to make decision.

Keywords: female leadership, visionary leadership, organizational commitment, leadership skills ability in decision making

Abstrak: Studi ini meneliti keterampilan yang perlu ditingkatkan oleh pemimpin perempuan di Badan Usaha Milik Negara (BUMN) berdasarkan riset saat ini tentang pengaruh kepemimpinan perempuan bagi keberlanjutan perusahaan yang menggunakan sampel seluruh direktur perempuan di BUMN dan anak usaha BUMN. Dengan metode penelitian kuantitatif, penelitian ini menggunakan survei online pada seluruh pemimpin perempuan di BUMN. Ditemukan bahwa pemimpin perempuan di BUMN memiliki karakteristik Kepemimpinan Visioner dan Organik, dengan indikator kemampuan pengambilan keputusan, jarak kekuasaan antara pemimpin dan pengikut, pemain kunci organisasi, sumber komitmen organisasi dan tanggung jawab dan situasi kepemimpinan. Selanjutnya dengan metode PLS-SEM dan software WarpPLS, penelitian ini menemukan bahwa tidak ada dampak kepemimpinan perempuan visioner terhadap keberlanjutan perusahaan. Namun demikian melalui mediasi penuh kompetensi bisnis dan mediasi parsial kompetensi organisasi, terdapat dampak signifikan kepemimpinan perempuan visioner terhadap keberlanjutan perusahaan. Berdasarkan model yang dihasilkan dari penelitian ini tentang pengaruh kepemimpinan perempuan terhadap keberlanjutan perusahaan, paper ini menyusun sebuah strategi pengembangan kepemimpinan perempuan melalui peningkatan indikator kepemimpinan para pemimpin perempuan. Berdasarkan metode AHP, selanjutnya diperoleh hasil bahwa untuk mendukung keberlanjutan perusahaan, maka pemimpin perempuan di BUMN perlu mengembangkan karakter kepemimpinan perempuan visioner dan meningkatkan indikator kepemimpinan yaitu sumber komitmen dan tanggung jawab organisasi, keterampilan kepemimpinan dan kemampuan mengambil keputusan.

Kata kunci: kepemimpinan perempuan, kepemimpinan visioner, keberlanjutan perusahaan, pengembangan kepemimpinan perempuan

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INTRODUCTION

According to McKinsey (2018), female leadership in companies was not just a gender issue but it was a business issue. With a feminine style of indirect, conciliatory, facilitative, collaborative, minor contribution (in public), supportive feedback, person/process oriented, and affectively oriented (Holmes and Stubbe 2003, Szymanska and Rubin 2018), female leadership was important, and the existence of their positions in top management of the companies was known as diversity in directors or Board iversity (Cucari et al. 2018; Delloite, 2021). The attractive character of female leaders and the challenge of increasing their presence in corporate management were the background for conducting this study.

In the “Fortune 500” and “Fortune 100”, which were annual lists compiled and published by Fortune Magazine and ranked 500 and 100 companies based on their gross income, it was mentioned that in 2018, the number of African Americans and females in Asia Pacific who occupied board positions continued to increase. Table 1 shows that Board Diversity existed in Fortune 500 companies. There was an increased percentage of minority females and white females on the seats of the boards, in which there were 15,8% female directors in the Fortune 100 and 26,6% female directors in the Fortune 500 (Delloite, 2021). This, among other things, reflected the increasing presence of female leaders in global companies and revealed the growing role of women’s leadership.

Meanwhile, according to Asri (2017), who researched 347 companies listed on the Indonesian Stock Exchange

(IDX) from 2011 until 2015, a female director had a significant positive effect on firm performance. Slomka-Golebiowska et al. (2023) presented the study result that reaching 33% women on boards, which is the threshold mandated by the Italian gender board quota law, makes a difference for strategy tasks in the corporation. While Cucari et al. (2018) examined board diversity as a determinant of environment, social and Governance (ESG) disclosure. The three previous studies showed that the leadership of women in companies and the presence of women in top management affected the performance and disclosure of company performance and the types of tasks in management. This also showed the influence of female leaders in the company. This study aimed to examine the influence of women’s leadership on a company’s sustainability based on current study, to explain the characteristics of women leaders in SOEs and to provide a strategy for women’s leadership development in SOEs.

Leadership was such a significant factor in an organization, let alone a company. It was often related to the company’s performance and sustainability (Avery, 2011; Shinbrot et al. 2019; Pierli et al. 2022). Nowadays, there are two emerging leadership styles: of visionary leadership and organic leadership (Gardner et al. 2010, Kantabutra and Suriyankietkaew, 2012; Piwowar-Sulej and Iqbal, 2022; Shinbroat et al. 2019), and those leadership paradigms are related to a company’s sustainability (Jing and Avery, 2016; Pierli et al. 2022) because of their characteristics that can help companies achieve good performance and promote sustainability (Graham, 2019; Pierli et al 2022; Piwowar-Sulej and Iqbal, 2022).

Table 1. Board Diversity in in the Fortune 100 and Fortune 500 for 2020

Board Diversity	Fortune 100		Fortune 500	
	Person	Percentage	Person	Percentage
Minority Female	54	4.4%	333	5.7%
Minority Male	58	4.7%	694	11.8%
White Female	141	11.4%	1226	20.9%
White Male	987	79.5%	3627	61.6%
Total	1240	100.0%	5880	100.0%
% Female Directors	195	15.8%	1559	26.6%

Source: Missing Pieces Report: The Board Diversity Census of Women Minorities on Fortune 100 & Fortune 500 (Delloite 2021)

Visionary leadership encouraged transformation within the organisation from a condition of self-interest to a collective or shared interest, which occurred through understanding each employee’s vision, values, preferences, and aspirations (Avery, 2011). Visionary leadership is related to motivation, organisational commitment, performance (Bass and Riggio, 2006; Shahzad et al. 2022), teamwork, and team performance (Schaubroeck et al. 2007, Lough, 2021). Whereas organic leadership, which is also believed to be related to a company’s sustainability, emerged after entering the 21st century, where organic leadership used a leader-centric leadership paradigm to move on to collective work (teamwork) for the same goal. In organic leadership, the formal distinction between leader and follower is somewhat blurred because this paradigm depends on reciprocal action. Company employees will partner with leaders to determine how to face changes and the company’s goals and directions. Organic leadership and organisations tended to have many leaders, with the weakness being autonomy, freedom, and discretion, which could end up with a loss of control and increased uncertainty (Avery, 2011; Lough, 2021).

Data from Srikandi BUMN showed that based on SOEs Cluster (Table 2), the number of female directors in Indonesian SOEs was 63 out of 488 directors, or

13%. The percentage was expected to increase as the Government of the Republic of Indonesia, in this case the Ministry of SOEs, believed that female leaders could play a role in company’s growth. It was expected to be 25% in 2024 (Ministry of SOEs Annual Report, 2021).

The measurement of the leadership paradigm presented by Avery (2004, 2011) involved several indicators, which were reviewed by Jing and Avery (2016), Jing et al. (2020), and five indicators used in the surveys to categorise the style of female leadership. The indicators were (1) Ability to decision making, (2) The power of closeness (distance) between the leader and staff (power distance between the leader and followers), (3) Key player of the organisation, (4) Sources of organisational commitment and responsibility, (5) Situation of management and leadership in the organisation. Suriyankietkaew (2013) and Jing et al. (2020) stated that the visionary and organic leadership paradigms had a relationship with a company’s performance and sustainability. The effectiveness of the two paradigms of the company’s performance and sustainability was driven by several factors, namely strong shared vision and values, self-leadership and self-management, team orientation, and devolved and consensual decision-making.

Table 2. Number and Percentage of Female Directors in SOEs in September 2021

Cluster/Holding	Directors		Number of Directors	%
	Male	Female		
Oil, Gas & Energy	13	4	17	24%
Minerals & Coals	4	1	5	20%
Plantation Co	14	0	14	0%
Food.id	37	6	43	14%
Health	6	1	7	14%
Manufacture	37	3	40	8%
Banking & Finance	51	11	62	18%
Insurance & Guarantee	20	5	25	20%
Telco & Media	87	12	99	12%
Infrastructure	53	8	61	13%
Logistic	62	6	68	9%
Tourism	41	6	47	13%
Total	425	63	488	13%

Current research by Dewi et al. (2023) regarding the influence of female leadership on companies' sustainability in SOEs was used as a reference for this article. The study found that there was no impact between Visionary Female Leadership and corporate sustainability in SOEs. However, through fully mediated business competence and partial mediation of organisational competence, there was a significant impact of visionary female leadership on the sustainability of SOEs. Piwovar-Sulej and Iqbal (2022) studied the linkage between leadership styles and sustainable performance through systematic literature reviews. They revealed that the most discussed leadership styles were sustainable leadership and transformational leadership and found that leadership influenced sustainable performance directly and indirectly. Meanwhile, Shahzad et al. (2022) studied the relationship between the impacts of transformational leadership on corporate performance, and the mediating role of knowledge sharing. Pierli et al. (2022) studied five Italian companies that had women in leadership positions. They revealed that female leadership contributed to the promotion and implementation of environmental and social practises through several characteristics intrinsic to women's nature, such as the ability to emphasise and listen and the predisposition to sharing and collaboration.

Every previous study examined the role of women's leadership in corporate performance and sustainability. Pierli et al. (2022) focused on women leaders in Italian companies, Shahzad et al. (2022) focused on China; and Piwovar-Sulej and Iqbal (2022) reviewed literature. While the studies were conducted on private companies in developed countries like Italy and China, Dewi et al. (2023) focused their study on developing countries, namely Indonesian SOEs. The current study emphasized the need to examine the influence of women's leadership on a company's sustainability, but it did not yet address the strategy to develop female leadership. The purpose of this paper was to explain the result of the previous study by Dewi et al. (2023) and use the result to further explore the characteristics that need to be improved by female leaders in Indonesian SOEs to support the company's sustainability. Dewi et al. (2023) found that most of the female leaders in SOEs had visionary leadership characteristics. Meanwhile, visionary leadership was examined from characteristics including ability for decision making, the strength of the distance between leaders and followers, key

players of the organisation, sources of organisational commitment and responsibility, leadership skills in management, and organisational situations.

The objective of this paper was to describe the result of current study of the influence of women's leadership on corporate sustainability. The model that developed by the study then was used to further investigate the characteristics of female leaders that need to be developed to support the company's sustainability in State-Owned Enterprises (SOEs). This paper was to provide managerial implication for women leaders in SOEs to develop themselves to be able to support corporate sustainability.

METHODS

This paper refers to the results of the current research by Dewi et al. (2023) that was held in Jakarta in the period of April 2022 to March 2023. The type of data used for this paper was primary survey data that was then processed based on current research (Dewi et al. 2023) and primary data from questionnaire filling by experts. This research used secondary data, namely data on women leaders as well as women leaders in SOEs and secondary information from other sources.

The research was carried out using a survey method in which questionnaires were provided in Indonesian and distributed by sending them using the Whatsapp application in October 2023 to the female leaders, which consisted of female directors and female general managers of SOEs. The population of these women leaders was 293 people, and all women leaders were invited to participate in the study. The sample, or respondents, of the research was 214 people, or 73% of the whole population.

Regarding the questionnaire, it consisted of 107 question items, which were indicators of the predetermined variables as described in Table 3. For exogenous variables of Visionary Female Leadership and Organic Female Leadership, the questions in the questionnaire were fully adopted by the questionnaires provided by Avery (2011). Meanwhile, for the endogenous variables of business competence, organisational competence, and corporate sustainability, the questions in the questionnaire referred to each dimension based on the references referred to.

Regarding data analysis, the primary data was taken from the answers of respondents who provided answer choices on a Likert scale of 5 points. Utilising the Structural Equation Modelling (SEM) approach, data analysis was carried out. Prior to structural model analysis, the research model was tested through Confirmatory Factor Analysis (CFA) to see whether indicators (observed variables) truly reflected latent variables (Hair et al. 2013). For the CFA test, the Goodness of Fit Index (GOFI) test, t-value, and factor loading were observed. To find out whether the indicators reflected the latent variables, the validity test and the reliability test were both run.

In the research, the significance test was carried out at a 1% chance of error and a 5% chance of error through the F test, and the results were compared with Table F. As for the path model analysis, it used the WarpPLS software (Solimun et al. 2017), which was considered very appropriate for a multivariate analysis model that used many latent variables simultaneously. WarpPLS also had a structured causal relationship hierarchy that used many indicators from each variable and could be analysed through the PLS-SEM approach.

The model of the current research followed a pathway that described three constructs: visionary female leadership and organic female leadership; business competency and organisational competency; and

a company's sustainability. The female leadership characteristic is measured by five indicators, namely: ability in decision-making, the power of the distance between leaders and staff, key players of the organisation, sources of organisational commitment and responsibility, and leadership skills or organisational situations. Meanwhile, business competency variables were considered from the dimensions of digital leadership, global business intelligence, customer focus, building strategic partnerships, strategic orientation, and encouraging execution. The organisational competency variable was considered in terms of driving innovation, building organisational capabilities, leading change, and managing diversity. Meanwhile, companies' sustainability was estimated based on financial performance, employee satisfaction, customer satisfaction, and corporate governance.

Referring to the theory of Upper Echelons (Hambrick, 2007), the characteristics of top management in the company determine strategic choices to achieve company profitability, growth, and sustainability. In the corporate context, agency theory underlines the relationship between directors and all stakeholders. As leaders were the important factor that influence company's performance, the research framework and hypothesis development were based on theory and empirical studies, as described in Table 3.

Table 3. Research variables, dimensions, and references

Variables	Dimension	Reference
Visionary Female Leadership	Ability for decision making	Avery (2004, 2005), Jing et al. (2020)
	The strength of the distance between leaders and followers	
	Key players of the organization	
Organic Female Leadership	Sources of organizational commitment and responsibility	Avery (2004, 2005), Jing et al. (2020)
	Leadership skills in management and organisational situations	
Business Competency	Digital Leadership	Miharjo et al. (2019), Gibbons (2019), Crandel and Orr (2021), Tseng et al. (2021)
	Global Business Savvy	
	Customer Focus	
	Building Strategic Partnership	
	Strategic Orientation	
	Driving Execution	
Organizational Competency	Driving Innovation	Swedjemark (2018), Mu et al. (2018), Crandell and Orr (2021)
	Developing Organisations Capabilities	
	Leading Change	
	Managing Diversity	
Company's Sustainability	Financial Performance	Graham (2019), Jing et al. (2020)
	Employee Satisfaction	
	Customer Satisfaction	
	Corporate Governance	

The research framework began with identifying the leadership characteristics of women in SOEs, whether they could be classified as visionary or organic female leadership. Furthermore, it was studied whether the existing leadership character was related to the sustainability of the company. Meanwhile, the capacity of SOEs women leaders was learned from their abilities and skills in managing businesses (business competence) and their ability to manage organisations (organisational competence). With the above thinking, the research framework and hypotheses were arranged as shown (Figure 1).

According to the research framework, the SEM-PLS model estimated 12 hypotheses: (H1) Visionary Female Leadership had significant impact on company's sustainability, (H2) Visionary Female Leadership had significant impact on Female Business Competency, (H3) Visionary Female Leadership had significant impact on Female Organisational Competency, (H4) Organic Female Leadership had significant impact on Company's Sustainability, (H5) Organic Female Leadership had significant impact of Female Business Competency, (H6) Organic Female Leadership had significant impact on Female Organisational Competency, (H7) Female Business Competency had

significant impact on Company's Sustainability, (H8) Female Organisational Competency had significant impact on Company's Sustainability, (H9) Female Business Competency mediated the impact of Visionary Female Leadership on Company's Sustainability, (H10) Female Business Competency mediated the impact of Organic Female Leadership on Company's Sustainability, (H11) Female Organisational Competency mediated the impact of Visionary Female Leadership on Company's Sustainability, and (H12) Female Organisational Competency mediated the impact of Organic Female Leadership on Company's Sustainability.

Based on the research framework and hypothesis testing, the research produced a model of female leadership that has an impact on the sustainability of SOEs. Then, to develop a strategy for maturing women's leadership, the Analytical Hierarchy Process (AHP) method was used to analyse the development priorities based on the order of indicators on women's leadership. The AHP method was carried out based on the opinions of six experts in the fields of leadership and HR, by providing them with AHP questions that adopted the results of the SEM-PLS.

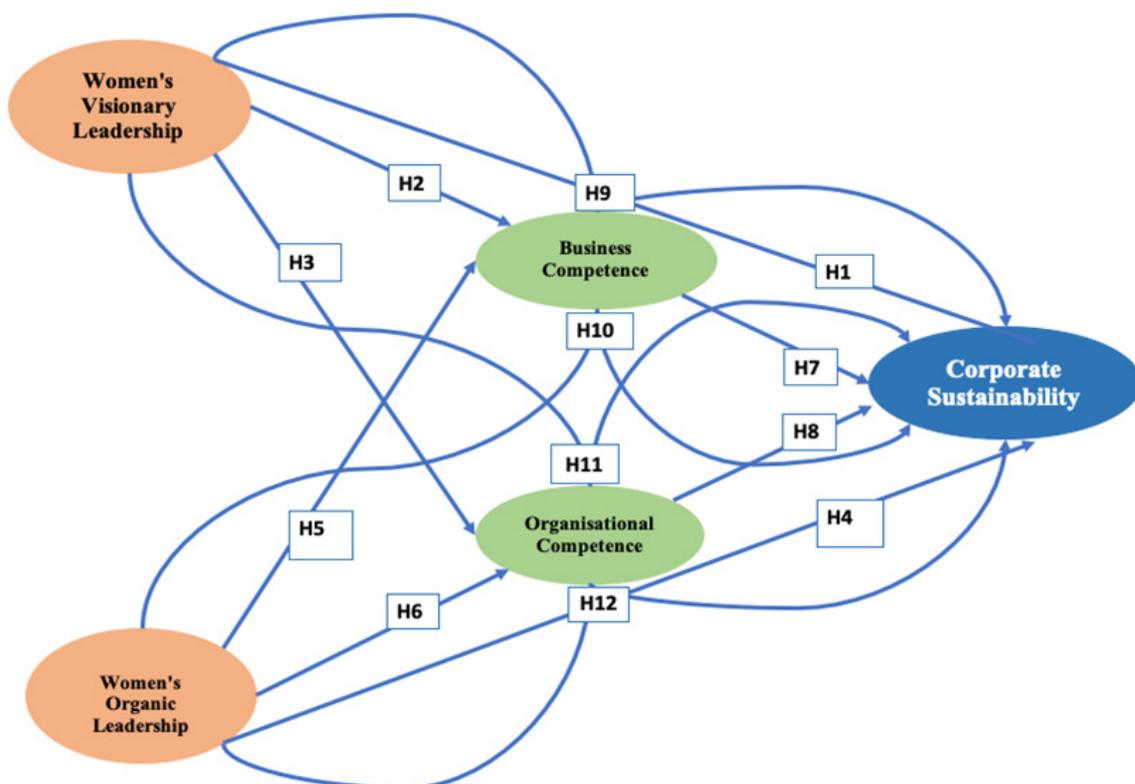


Figure 1. Research framework and hypothesis

RESULTS

Leadership is a critical factor for the growth and sustainability of any organisation (Loeis et al. 2023). Previous studies had used various definitions of leadership, and visionary leadership, known as transformational, charismatic, and inspirational leadership, was defined as a type of leadership that involved employees emotionally in the organisation (Avery, 2011). This type of leadership had high competence and vision to achieve success, and the leader inspired and activated the followers to perform beyond expectations. Meanwhile, organic leadership is a relatively new paradigm in organisational studies. This leadership allowed people with different skill levels to interact with all members and could also become leaders. Under organic leadership, an organisation adopted a collective agreement in decision making. Members had a high degree of power because of shared leadership, and shared accountability and responsibility (Avery, 2011).

The results of SEM-PLS and hypothesis testing based on Dewi et al. (2023) are described by the evaluation of the outer model, which was done by examining the reliability indicator's value, the variance of the

indicator's magnitude, and the Average Variance Extracted (AVE) for the reflective-type construct. Whereas for the formative-type construct, the outer model evaluation was carried out by WarpPLS software, looking at the weight significance of the resampling procedure. SEM-PLS results showed that all items forming reflective construct were valid with outer loading values of >0.6 with an AVE >0.5 all constructs met the convergent validity criteria. Meanwhile, for formative constructs, all constructs were significant with a value of >0.7 . Hence, testing the outer model showed the feasibility of a good model by passing the test for construct validity and reliability.

Based on the evaluation, the current research on the impact of female leadership to the companies' sustainability in SOEs showed the results of SEM-PLS as described in Figure 2. It was shown that the P-value of the model was significant to determine the effect of variables based on the hypotheses that were built. The significance value used is two-tailed with a P-value of 0.05 (significance level = 5%). Figure 2 was the result of the analysis of the PLS structural model, which described in detail the path coefficient and its significance.

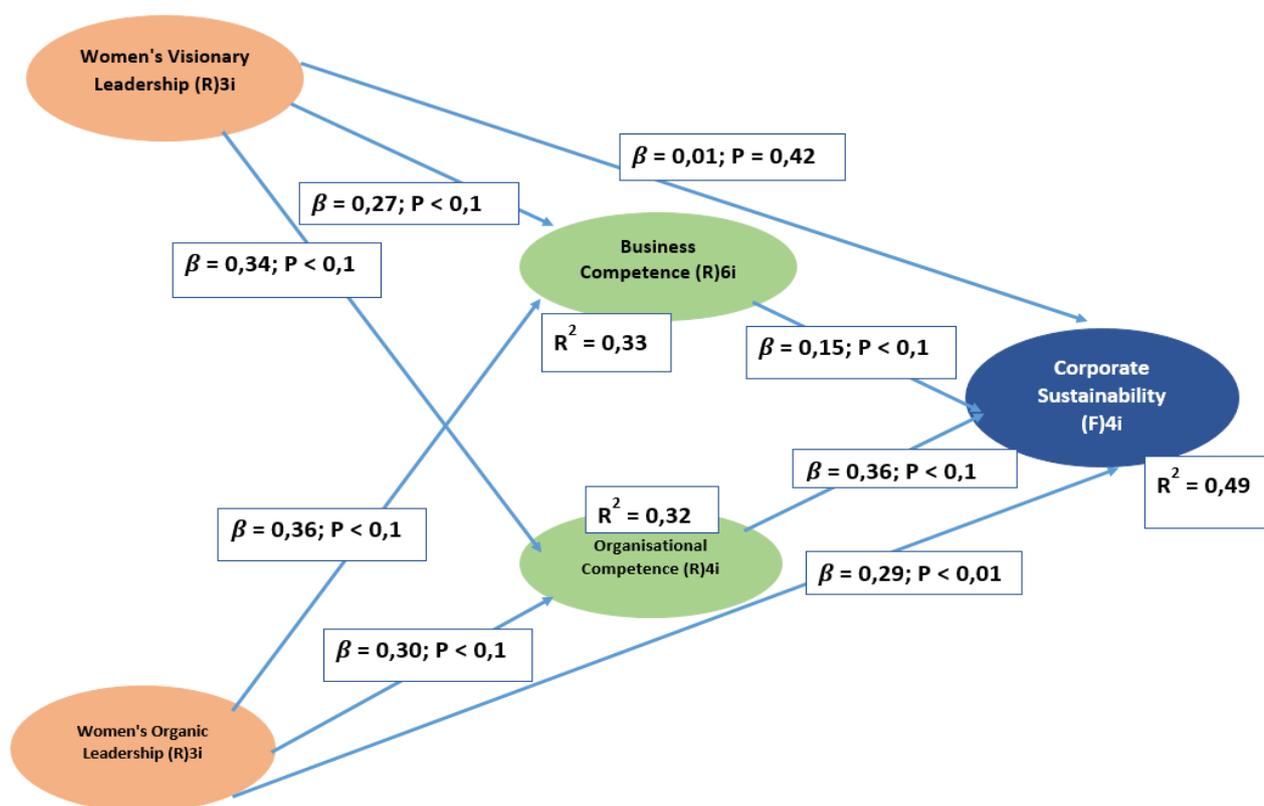


Figure 2. Results of structural model analysis (Dewi et al. 2023)

Table 4 showed the results of the testing conducted on the research by Dewi et al. (2023), which conveyed that there was no significant effect on visionary female leadership on a company's sustainability (H1). The structural coefficient value was 0.012 and the P-value was > 0.05, proving that the higher visionary female leadership skills of female leaders in SOEs did not have a significant impact on the company's sustainability. Whereas there was a significant effect of Organic Female Leadership on a company's sustainability (H4), with a structural coefficient value of 0.294 and a P-value <0.001, the higher the character of Organic Female Leadership in SOEs, the greater the company's sustainability.

Further, the study showed that there was a mediating role for Business Competency (H9) and Organisational Competency (H11) on the influence of Visionary Female Leadership and a company's sustainability. The structural coefficient values were 0.074 and 0.185, with P-values of 0.034 and <0.001. This proved the existence of a full mediation role for Business Competency on the influence of Visionary Female Leadership and the company's sustainability. Then there was a mediating role of Business Competency (H10) and Organisational Competency (H12) on the influence of Organic Female

Leadership on a company's sustainability. The structural coefficient value was 0.078 and 0.177 with P-value of 0.027 and <0.001. It meant partial mediation or indirect effect of Business Competency and Organisational Competency towards Organic Female Leadership on the company's sustainability. Meanwhile, other hypotheses were accepted and showed that there were significant effects of female leadership on a company's sustainability. The study revealed that business and organisational competency were factors that supported the influence of female leadership on corporate sustainability. This was aligned with the result of the research by Crandell and Orr (2021) and Katsaros (2022) that conveyed the importance of business competence for the top management of a corporation. This is because the knowledge and skills in business of the top leaders would make the people in the organisation more productive in doing business. The study result was also in line with the research by Miharjo et al. (2019), where the effectiveness of one's leadership in organisations, especially in companies or businesses, was strongly determined by the leader's ability to influence and direct its members following the direction and goals of the company (Piwowar-Sulej and Iqbal, 2022).

Table 4. Result of the hypothesis testing

Hypothesis	Path	Path Coefficient	P-Value	Result of Testing
H1	Visionary Female Leadership had significant impact on company's sustainability,	0.012	0.418	Un-accepted
H2	Visionary Female Leadership had significant impact on Female Business Competency	0.273	<0.001	Accepted
H3	Visionary Female Leadership had significant impact on Female Organizational Competency,	0.336	<0.001	Accepted
H4	Organic Female Leadership had significant impact on Company's Sustainability,	0.294	<0.001	Accepted
H5	Organic Female Leadership had significant impact of Female Business Competency,	0.364	<0.001	Accepted
H6	Organic Female Leadership had significant impact on Female Organizational Competency,	0.298	<0.001	Accepted
H7	Female Business Competency had significant impact on Company's Sustainability,	0.149	0.005	Accepted
H8	Female Organizational Competency had significant impact on Company's Sustainability,	0.359	<0.001	Accepted
H9	Female Business Competency mediated the impact of Visionary Female Leadership on Company's Sustainability,	0.074	0.034	Accepted
H10	Female Business Competency mediated the impact of Organic Female Leadership on Company's Sustainability,	0.078	0.027	Accepted
H11	Female Organizational Competency mediated the impact of Visionary Female Leadership on Company's Sustainability,	0.185	<0.001	Accepted
H12	Female Organizational Competency mediated the impact of Organic Female Leadership on Company's Sustainability.	0.177	<0.001	Accepted

According to Swedjemark (2018) and Sierdovski et al. (2022), organisational competency is the skill to integrate the people, processes, systems, and tools in the organisation to manage the business through the changes in the organisation and create the competitive advantage. There was a positive relationship between the competencies of the organisations and sustainable development in the company. The leaders with organisational competency would be able to manage their people in the organisation including increasing the role of corporate social responsibility, technical and managerial skills, and commercial competency to increase performance of the company.

Regarding the characteristics of female leadership that are divided into visionary and organic female Leadership, the discussion was conducted based on the respondents' answers. It was then analysed by using descriptive statistics, considering the average, standard deviation, and frequency distribution.

As shown in Table 5, the score of the visionary female leadership variable had an average of 4.40 with a standard deviation of 0.47. With an average of 4.40 from the highest score of 5.00, the respondents to this

study had a visionary leadership character of 88%. Further explained in Table 5, the measurement results showed that the AVE (*Average Variance Extracted*) of Visionary Female Leadership was below 0.5 (<0.5), namely 0.393, so it must be re-estimated by eliminating or dropping indicators that had low loading factors. The AVE value increased after dropping indicators such as organizational commitment and responsibility and leadership skills. Based on the data analysis, the visionary leadership of women in SOEs was reflected in the dimensions of decision-making, strength of distance between leaders and staff, and organisational key players. These three dimensions were significant as a measurement of Visionary Female Leadership where the value of the load or loading factor of the three is above 0.5 (> 0.5).

The next descriptive statistical analysis was for the organic leadership variable, as shown in Table 6. The score for Organic Female leadership, had an average of 4.02 with a standard deviation of 0.50. With an average of 4.02 from the highest score of 5.00, the respondents of this study have an organic leadership character of 80%.

Table 5. Description and measurement model of visionary female leadership

Variable	Indicator	Avg	Std Dev	Strongly Disagree		Disagree		Doubtful		Agree		Strongly Agree		Total	
				Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
				Visionary Female Leadership	Ability for Decision Making (KV1)	4.40	0.85	3	1.4	8	3.7	11	5.1	86	40.2
	Strength of distance b/w leaders & staff (KV2)	4.33	0.62	0	0.0	1	0.5	11	5.1	88	41.1	114	53.3	214	100
	Key Players of the organization (KV3)	4.47	0.50	0	0.0	0	0.0	2	0.9	70	32.7	142	66.4	214	100
	Organizational commitment/responsibility (KV4)	4.65	0.73	2	0.9	4	1.9	9	4.2	107	50.0	92	43.0	214	100
	Leadership Skills (KV5)	4.32	0.81	3	1.4	6	2.8	15	7.0	104	48.6	86	1.7	214	100

Average of Visionary Female Leadership = 4.4 (88%), Std Dev = 0.44
 Outer Loading KV1 = 0.546; KV2 = 0.715; KV3 = 0.809; KV4 = 0.478; KV5 = 0.523; AVE = 0.393
 Re-estimation AVE = 0.537 with outer loading KV1 = 0.576; KV2 = 0.735; KV3 = 0.860
 Indicators with less outer loading: KV1, KV4, KV5

Table 6. Description and measurement model of organic female leadership

Variable	Indicator	Avg	Std Dev	Strongly Disagree		Disagree		Doubtful		Agree		Strongly Agree		Total	
				Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
				Organic Female Leadership	Ability for Decision Making (KO1)	4.02	0.50	10	4.7	39	18.2	71	33.2	77	36
	Strength of distance b/w leaders & staff (KO2)	3.24	1.00	1	0.5	4	1.9	20	9.3	109	50.9	80	37.4	214	100
	Key Players of the organization (KO3)	4.23	0.73	0	0.0	6	2.8	21	9.8	107	50	80	37.4	214	100
	Organizational commitment/responsibility (KO4)	4.22	0.73	9	4.2	27	12.6	35	16.4	99	46.3	44	20.6	214	100
	Leadership Skills (KO5)	3.66	1.07	3	1.4	6	2.8	15	7.0	104	48.6	86	40.2	214	100

Average of Organic Female Leadership = 4.0 (80%), Std Dev = 0.50
 Outer Loading KV1 = 0.284; KV2 = 0.724; KV3 = 0.717; KV4 = 0.430; KV5 = 0.753; Average Variance Extracted (AVE) = 0.374
 Re-estimation AVE = 0.551 with outer loading KV2 = 0.717; KV3 = 0.722; KV5 = 0.786
 Indicators with less outer loading: KV1, KV4, KV5

Further described in Table 6, the results of the measurement model described that the AVE (Average Variance Extracted) value of the Organic Female Leadership was below 0.5 (<0.5) and 0.374, so it should be re-estimated by eliminating or dropping dimensions that had low loading factors. The AVE value increased after re-estimation after dropping two dimensions: ability for decision-making (KO1) and organizational commitment and responsibility (KO4). Based on the load value of these factors, the Organic Leadership of women in SOEs was more reflected by the dimensions of leadership skills, with the highest loading factor of 0.786, followed by key organisational players of 0.722, and Strength of Distance between Leaders and Staff of 0.717.

According to Jing et al. (2020) and Shahzad et al. (2022), visionary or transformational leadership had a vision and a set of values that guided collaboration between leaders and their followers to achieve goals that had been determined or mutually agreed upon. With the high score of indicators of Key Organisational Players and the Strength of the distance between leaders and staff, female leaders in SOEs were able to encourage transformation within the organisation from a condition of personal interest (self-interest) to a condition of common interest, or collective or shared interest. This

took place in the organisation through understanding the vision, values, preferences, and aspirations of every employee in the company.

Leaders in the organisation also acted as sources and references to build employee motivation and the company's work attitudes, especially organisational commitment and responsibility. Meanwhile, the leadership skills reflected the situation of the leadership style of the leaders, whether they were more of a person that motivated and influenced people in the organisation, or just leaders for managing the daily jobs of the subordinates. Current research by Du and Bao (2023) mentions that leaders with visionary character would enhance employee behavior towards employee self-efficacy. Visionary leadership was related to motivation, organisational commitment, and performance (Bass and Reggio, 2006; Du and Bao, 2023).

According to Jaros (2007) and Jnaneswar and Ranjit (2023), organisational commitment was a feeling of love and responsibility that was built up as an individual's psychological contract with the organisation or company. With this commitment, someone would devote all resources and efforts to the organisation and build responsibility for the organisation. The feeling

of love and responsibility was built by an affective process based on what was felt, not just following normative values. Organisational commitment would increase work engagement and further enhance the self-leadership and creativity of the employee (Jnaneswar and Ranjit, 2023). Further, according to Avery (2004) and Sierdovski et al. (2022), source of commitment or responsibility of a leader was a source of strength possessed by the leader from the position or title, referent strength, expertise, individual vision, charisma, and emotional condition of his followers.

The observations on the character of Organic Female Leadership in this study described that the female leaders in SOEs did not look strong on the dimensions that had low factor loading, namely the ability for decision-making and organizational commitment and responsibility. According to Avery (2005) and Lough (2021), decision making for leaders with organic leadership characteristics was carried out by emphasising consensus or optimal involvement of followers/teams. In this study, the Organic Female Leaders conveyed the problems faced by the organisation and invited the involvement of the followers to provide solutions to these problems, although the final decision remained with the female leader. The consensus process in decision making would increase the team's involvement and concern or increase the sense of belonging to the organisation, which could be realised, among others, through increased contribution and responsibility.

Women's leadership in SOEs with an organic character is also less visible on the dimensions of Source of Commitment and Responsibility, so to increase the character of organic leadership, women leaders in SOEs need to develop capacity, namely through charisma, expertise, and individual vision (Avery, 2005; Pasricha et al. 2018, Pierly et al. 2022).

The result of the current research (Dewi et al. 2023) was referred to, and by this study, the Analytical Hierarchy Process (AHP) was carried out to formulate a recommendation to develop female leadership for companies' sustainability in SOEs. Based on prime data on the views of six experts in HRM and women's leadership, this study used the criteria, namely visionary female leadership and organic female leadership, and used three alternatives for female leadership development, namely Organizational commitment and responsibility, leadership skills and ability for decision-making. The AHP process exercised the focus

of Female Leadership Development for the Company's Sustainability and the criteria of Visionary Female Leadership and Organic Female Leadership. While the alternatives of AHP process were Organizational Commitment and Responsibility, Leadership Skills and Ability for decision-making.

Considering the characteristic of Visionary and Organic Female Leadership as the style of female leaders in SOEs, the study revealed that there were some indicators that had a lower outer loading value. To increase the role of female leaders in SOEs, those indicators should be enhanced, namely Organizational commitment and responsibility, leadership skills and ability for decision-making. According to Saaty (1987), the stages in the AHP method began with the process of defining the problem or focus on objectives, then creating a hierarchical structure, criteria, and alternative options. With the aim of developing strategies for the development of women's leadership, this paper used Female Leadership Development for company's sustainability as a focus in the AHP method. Further criteria were elaborated, such as visionary and organic leadership. The three indicators that had low factor loading were then used as options to determine the priority of skill development for women leaders. The process of AHP was done using software form Expert Choice.

From Figure 2, Visionary Female Leadership had a score of 0.662 higher than Organic Female Leadership's 0.338. It could be said that based on the views of the experts in this study, visionary female leadership had a higher level of importance than Organic Female Leadership for female leaders in SOEs. Visionary Female Leadership was identified as leadership that showed charismatic, transformational, or inspirational characteristics (Suriyankietkaew, 2013; Du and Bao, 2023), namely having a vision and a set of values that guide collaboration between leaders and subordinates to achieve mutually agreed goals (Jing et al. 2020; Du and Bao, 2023). Meanwhile, Organic Female Leadership was a form of leadership that allowed members of the organisation to have the freedom to organise themselves and interact as a form of leadership that is united by a shared vision, values, and culture. Organic Female Leadership has a team or network in nature or refers to an organisation with many leaders, so that the organisation becomes "leaderless" (Jing and Avery, 2016; Jing et al. 2020; Lough, 2021).

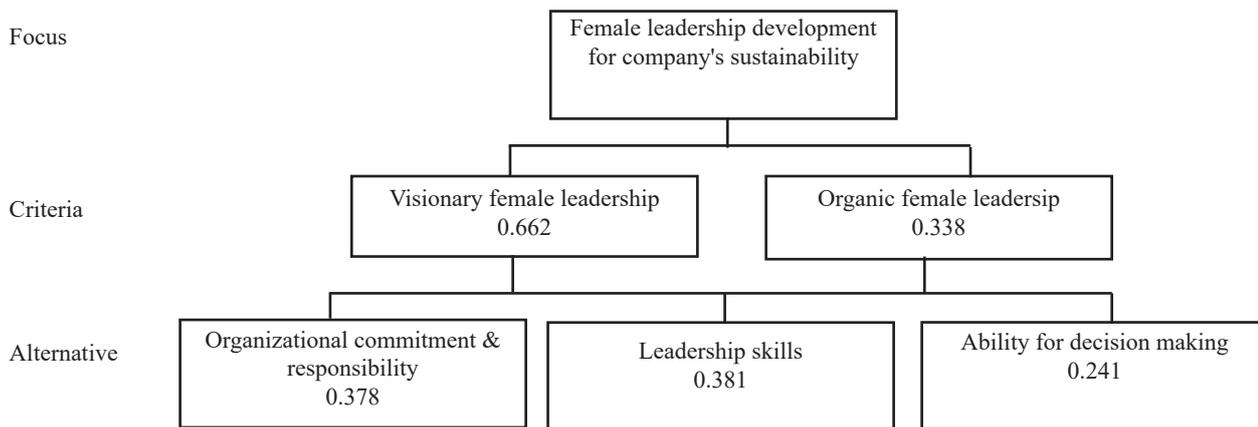


Figure 2. The Result of Analytical Hierarchy Process (AHP) Analysis

The two leadership criteria had three dimensions that had low factor loading, namely: 1) Ability to make decisions; 2) Organisational commitment and responsibility; and 3) Leadership Skills. The study was then carried out by confirming the three dimensions or indicators of leadership to relevant experts and/or practitioners, with the expected priority given to the factors that should be developed for the style of female leadership in SOEs. The results of data processing using the AHP method with an overall consistency of 0.08 (below a score of 1.0) obtained sequential alternative for leadership development, namely improving the Organisational commitment and responsibility as the top priority for female leadership development, followed by improving the leadership skills and increasing the ability for decision-making.

Organisational commitment and responsibility were a leadership characteristic where, through this organisational commitment, leaders could express consistency and responsibility for all duties and functions in the organisation. The source of leaders' commitment and responsibility was the source of power that leaders had from their position or title, referent power, expertise, individual vision, leaders' charisma, and the emotional state of their followers (Avery, 2004; Jing et al. 2020; Sierdovski et al. 2022; Loeis et al. 2023). Then leadership skills were the ability of people to play the role of influencers, motivators, supporters, and leaders in the organization, not just a manager's role, which usually involves managing the daily jobs of their staff in the working units. Emphasising the role of a leader included leading the organisation, motivating, and inspiring others, setting an example to achieve the vision and goals of the organisation (Avery, 2004; Jing et al. 2020; Shahzad et al. 2022).

Meanwhile, decision-making ability was the ability of a leader to carry out a series of decision-making activities, namely analysing various facts, information, data, and theories or opinions which ultimately led to a conclusion that was considered the best and most appropriate for the organisation (Avery, 2004; Jing et al. 2020). Recent research on decision making (Davidaviciene and Manzoub, 2022) conveyed that during the post COVID-era, where there were a lot of virtual teams, the skill of decision making for leaders was also developed. The process of decision making in the virtual tasks with the virtual team is related to the cultural intelligence of the leaders and conflict experiences. The ability to make decisions would enhance the skill of leaders during the transformation era, and it would be good for the current and future organisation (Davidaviciene and Manzoub, 2022).

Managerial Implication

The study provided managerial implications for some stakeholders. For the company or SOE management, the result of the study becomes a reference for the effort to develop the business competence of the female leaders as well as their organisational competence. The development of women leaders could be focused on increasing their skill in the source of organisational commitment and responsibility, the leadership skills, and the ability to decision-making. Practically, this study has implications for policymakers to support female leadership by conducting leadership training, business and organisational competency workshops to increase the skills of female leaders.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

According to the study, there was no impact of visionary female leadership on companies' sustainability in SOEs, but by fully mediating of business competency and partially mediating organisational competency, there was a significant impact of Visionary Female Leadership on companies' sustainability in SOEs (Dewi et al. 2023). The current study used a quantitative method by conducting an online survey of women leaders in SOEs. The data was analysed by SEM-PLS using WarpPLS software and produced a model for the development of female leadership. Based on the indicators of women's leadership ability for decision making, strength of distance between leaders and staff, key players of the organisation, source of organisational commitment and responsibility, and leadership skills, this study revealed that there were some indicators that had lower values of outer loading factors. To increase the role of female leaders in SOEs, those indicators should be enhanced. Based on the AHP analysis, it was discovered that for the development of female leadership in SOEs, visionary female leadership was to be the focus to enhance. The study revealed that to support corporate sustainability, female leaders should increase some indicators in sequential order, namely the source of organisational commitment and responsibility, the leadership skills, and the ability to decision-making.

Recommendations

With the aim of increasing the number of female leaders in SOEs and increasing the company's sustainability, the study recommended that female leaders in SOEs be focused on being developed as Visionary Female leaders, with increasing capability in business and organisational competency. The skills of female leaders to be further acquired in SOEs in rank were namely improving the Organizational commitment and responsibility, enriching the leadership skills, and upgrading the ability for decision-making. The development of the capacity of female leaders in SOEs should be well planned by each SOE. It was also recommended that the program to increase the number and quality of female leaders become part of the human capital strategies for the company, SOE holdings, and Ministry of SOEs. The study had the limitation of not comparing the leadership between female and male in

SOEs. This provided opportunities for further study to analyse the impact of the leadership on corporate sustainability in SOEs, and whose leadership has the most influence.

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