Synergy of Work Environment, CEO Characteristics, and MSME Performance: A Case Study in Indonesia’s Clothing Industry

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ABSTRACT
This research investigates the synergistic impact of the work environment and CEO characteristics on the performance of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia’s clothing industry. The study explores the significance of these factors in enhancing MSME performance and aims to contribute both theoretically and practically to the understanding of these dynamics. Utilizing a quantitative research approach, the study analyzes data from 276 MSMEs in the clothing industry, employing the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. The results indicate a positive and significant influence of the work environment and CEO characteristics on MSME performance. The research provides valuable insights for policymakers, business leaders, and industry associations to optimize work environments and select CEOs with specific attributes to improve MSME performance.

INTRODUCTION
Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the Indonesian economy, supporting income, opening up job opportunities, and prospering society as a whole (Suminah et al., 2022). The majority of businesses in Indonesia are MSMEs, and they contribute significantly to the country’s GDP (Tambunan, 2019). However, MSMEs face several constraints, including limited access to capital, business information, technology, and skilled workers, as well as difficulties in marketing (Akhmad et al., 2012). This situation also applies to the clothing industry in Indonesia. Even though the Indonesian economy is highly dependent on garment exports, with the sector contributing 11% to total manufacturing exports and 5% to total exports in 2019 and the textile industry plays a significant role in the regional economy, creating a multiplier effect on the surrounding economy and providing opportunities for growth and development, particularly in the domestic market. The Indonesian garment sector faces several challenges, including competition from other foreign textile-producing countries like China, India, and Vietnam, which have lower production costs and can produce textile products at a lower price than Indonesia. Additionally, the Indonesian textile industry is highly dependent on imported inputs, which range from 18 to 30% of the sector's production costs.

Discussing the performance of MSMEs, one thing that cannot be ignored is the work environment. The work environment can impact employees' performance in integrated ways, and employees who are satisfied with their work environment are more likely to have positive work output (Edem et al., 2017; Zhenjing et al., 2022). Besides other factors such as job aids, goal-setting, supervisor support, workplace incentives, lighting, ventilation, temperature, and noise level (Edem et al., 2017). Therefore, organizations must create a work environment where people enjoy what
they do, feel like they have a purpose, have pride in what they do, and can reach their potential (Bushiri, 2019). So, it is important for MSMEs to pay attention to the work environment and create a positive and supportive environment that can enhance employees' performance.

Apart from the work environment, one thing that also plays an important role is the characteristics of the CEO. CEOs are responsible for setting the company's strategic direction, which involves making key decisions that impact the organization's growth, profitability, and reputation (Farkas & Wetlaufer, 1996). CEOs play a vital role in leading organizational transformation, which involves communicating the significance of the transformation, modeling the desired changes, and building a strong top team (Cohen et al., 2003). In today's business landscape, CEOs are expected to serve as societal leaders, using their voice to advocate for policies on critical issues and addressing social and community issues that were previously taboo.

This research aims to answer the question "do work environment and CEO Characteristics have a positive and significant effect on the performance of MSMEs in the clothing industry in Indonesia?" So that it can have an impact and contribution not only from a theoretical perspective but also from a practical perspective for MSME players in this industry.

**Literature Review And Hypothesis Development**

**a. Work Environment**

The work environment can be defined as everything that surrounds workers and influences them in carrying out their assigned tasks (Nitisemito, 1982). This means that workers will be able to complete their tasks well, supported by a good work environment (Ferawati, 2017). Not much different (Saifullah et al., 2015) defines the work environment as an environment where employees carry out their daily tasks and work. Employees' work is influenced by the physical work environment and psychological work environment. The physical work environment is related to conditions that affect the employee's physical condition, while the psychological work environment is related to the employee's psychology (Ferawati, 2017).

The impact of the work environment on the performance of a firm is a well-studied topic in academic literature. Research has shown that the quality of the workplace environment significantly affects employees’ motivation, enthusiasm, creativity, and efficiency (Zhenjing et al., 2022). A good work environment is essential for guaranteeing employee performance and avoiding excessive stress, which can negatively impact job performance (Shammout, 2022). Factors such as physical environment, workplace rewards, leadership style, work-life balance, and training have been found to impact employee performance in organizations (Pambudi et al., 2016). Studies have also revealed that an attractive, comfortable, satisfactory, and motivating work environment can lead to improved employee performance (Alemu, 2022). Additionally, the impact of the workplace environment on job performance has been studied in specific settings, such as university libraries, where the lack of a calm environment and unclear job descriptions were found to affect job performance (Bushiri, 2019). The research suggests that the work environment has a significant impact on employee performance, and creating a positive work environment can lead to improved productivity and job satisfaction. **h1: Work environment have a positive and significant effect on MSME performance in clothing industry in Indonesia**
b. CEO Characteristics
CEO holds one of the most important and influential roles in an organization (Glick, 2011). CEOs are also considered identity leaders of their organization who are able to enhance organizational performance (Fladerer et al., 2021). CEO characteristics can significantly impact firm performance. Some key characteristics and their effects on firm performance include education, ownership, origin, gender, age, and behavior. A study found that CEOs with higher levels of education are better able to deal with challenging intellectual activities, which can positively influence firm performance (Suherman et al., 2023). The same study mentioned above also investigated the impact of CEO origin on firm performance. The results indicated that CEOs from foreign countries better understand international market regulations, which can be beneficial for firms with international operations (Suherman et al., 2023). Another study also examined the impact of CEO ownership on firm performance, suggesting that CEOs with a significant ownership stake in the company can have a positive influence on performance (Saidu, 2019). A study from Harvard Business School found that differences in CEO behavior can affect firm performance. The study suggested that CEO behavior reflects differences among CEOs rather than just firm-level unobserved heterogeneity (Bandiera et al., 2020).

**h2: CEO Characteristics have a positive and significant effect on MSME performance in the clothing industry in Indonesia.**

c. MSME Performance
Performance reflects the company’s capabilities over time. The higher the level of performance of a company, the more successful the company is in carrying out its strategy. Performance shows the extent to which the company can increase its sales compared to total sales as a whole (Amri, 2018). Performance is the ability of a business to meet predetermined targets. A measure is needed to measure performance, such as the level of success or achievement results of a business (Septiyani).

Micro, Small, and Medium Enterprises (MSMEs) are interesting to study due to their significant impact on various aspects of the economy and society. Research has shown that MSMEs play a crucial role in job creation, poverty reduction, and addressing inequality, particularly in rural areas (Tambunan, 2019). Moreover, MSMEs are crucial for innovation and value creation. They have the potential to accelerate growth ambitions and enhance value-creation activities through technology adoption (Cunningham et al., 2023). Additionally, MSMEs are important for policy makers in developing countries, providing valuable insights for creating an enabling environment for their growth and sustainability (Tambunan, 2019).

d. Conceptual Framework
A conceptual framework, similar to the one shown in Figure 1 below, can be developed based on an analysis of the body of prior research and utilized as a guide for this study.
METHOD

a. Design
This research uses quantitative as a research approach. The ability of this approach is for collection and analysis of numerical data to examine the relationships between variables. This approach is particularly useful when studying the impact of multiple factors on performance, as in this case. Quantitative methods can provide statistical evidence of the relationship between work environment, CEO characteristics, and MSME performance, offering a more objective and generalizable understanding of the phenomenon under investigation.

b. Sample Size and Sampling Technique
Of the many MSMEs in the clothing industry in Indonesia, 276 samples were selected and believed to be representative of the population. This number was chosen based on a simple random sampling technique to avoid bias and subjectivity. Sample determination was carried out in two stages, namely research and sample search until sample determination. The sample search was carried out by referring to the official website of the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia. After that, contact is made via various media such as email or social media to obtain relevant information and consent. Applications were sent to more than 300 MSMEs throughout Indonesia, while only 276 MSMEs were willing to become respondent partners in this research.

Although not all MSMEs who were sent requests were willing, 276 is a sufficient number and meets the analysis criteria for the PLS SEM approach referring to the provisions (Hair et al., 2010) which require a minimum sample size of 6-10 times the total indicators. This means that the number of samples that must be used in this research is at least 200 MSMEs.

c. Data Collection
After MSMEs expressed their willingness and ability to become partners for this research. Furthermore, the survey was carried out completely online through the Google Forms application. The questionnaire used is a closed statement with 5 Likert scale answer options. Statements are made as simple as possible and easy to understand in Indonesian to make it easier for respondents to answer. The list of statements is in Table 2. Submission of online forms is carried out via various platforms such as email, WhatsApp, Facebook, Instagram, X, and LinkedIn. It took approximately 3 weeks to get back all the distributed forms and after that, the research could proceed to the stage of analyzing the data that had been collected.
d. Data Analysis

The complexity of the variables in this research requires that data analysis be carried out using the PLS SEM approach. It allows for the investigation of structural relationships between latent variables and provides a more accurate understanding of the underlying mechanisms and relationships between variables. PLS-SEM is particularly useful in addressing the research objectives, which involve exploring the impact of CEO characteristics and work environment on MSME performance in the clothing industry in Indonesia.

![Research Model](source: Data Analysis Result, 2023)

RESULTS AND DISCUSSION

Result

a. Validity and Reliability of Construct

| Table 2. Validity and Reliability |
|------------------|------------------|------------------|
| Variabel         | Item             | Code            | Loading Factor |
| Work Environment | CA= 0.883,CR=0.919,AVE= 0.740 | WE.1            | 0.803          |
|                  | 1. The physical workspace in our organization is conducive to productive work. | WE.2            | 0.903          |
|                  | 2. Communication channels within the workplace are efficient and effective. | WE.3            | 0.876          |
|                  | 3. The level of noise in the workplace is appropriate for concentration and focus. | WE.4            | 0.857          |
|                  | 4. The office culture promotes collaboration and teamwork among colleagues. | WE.5            | 0.888          |
|                  | 5. I feel supported in maintaining a healthy work-life balance in this organization. |
The provided table presents the results of a structural equation modeling (SEM) analysis, focusing on three latent constructs: Work Environment (WE), CEO Characteristics (CC), and MSME Performance (MP). The loading factors for individual survey items within each construct (WE.1 to WE.5, CC.1 to CC.5, MP.1 to MP.5) indicate the strength and direction of their relationship with the respective latent constructs. High loading factors across the board suggest robust associations. Cronbach's Alpha (CA) values, measuring internal consistency, are notably high for all constructs (0.883 for WE, 0.914 for CC, 0.884 for MP), indicating that the items reliably measure the underlying constructs. Composite Reliability (CR) values are also high (0.919 for WE, 0.935 for CC, 0.915 for MP), indicating low measurement error and strong reliability. Average Variance Extracted (AVE) values, reflecting convergent validity, are generally high (0.740 for WE, 0.744 for CC, 0.682 for MP), signifying that a substantial proportion of the variance in the observed variables is attributable to the latent constructs. In summary, the results suggest a well-fitted and reliable measurement model, providing confidence in the validity of the assessment of Work Environment, CEO Characteristics, and MSME Performance in the organizational context.
b. Inner VIF Result

Table 3. Inner VIF Values

<table>
<thead>
<tr>
<th></th>
<th>WE</th>
<th>CC</th>
<th>MP</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE</td>
<td>2,405</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>2,405</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Analysis Result, 2023

Analyzing the Variance Inflation Factor (VIF) in Partial Least Squares Structural Equation Modeling (PLS-SEM) is important to assess collinearity among predictor constructs in the structural model. VIF values above 5 are indicative of probable collinearity issues among predictor constructs, but collinearity can also occur at lower VIF values of 3–5 (Hair et al., 2010). Therefore, it is crucial to analyze the VIF value in PLS-SEM to ensure that the model estimates are not affected by high levels of collinearity, which could impact the validity and reliability of the structural model (Marcoulides & Raykov, 2019). The table above shows the VIF value which is below 3, which means that the data used is protected from cases of multicollinearity.

c. Model Fit Analysis

Table 4. Model Fit

<table>
<thead>
<tr>
<th></th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.088</td>
<td>0.088</td>
</tr>
<tr>
<td>d_ULS</td>
<td>0.812</td>
<td>0.812</td>
</tr>
</tbody>
</table>

Source: Data Analysis Result

Model fit indices help assess how well the model-implied covariance matrix matches the sample covariance matrix, providing an opportunity to empirically validate a researcher’s theory (Schuberth et al., 2023). In PLS-SEM, the structural model assessment starts with the evaluation of potential collinearity among predictor constructs in structural model regressions, followed by the evaluation of the path coefficients’ significance and relevance, and concluding with the analysis of the model’s explanatory and predictive power (Hair et al., 2010). Table 4 above shows the SRMR value which is below the value of 0.10. In accordance with the provisions, this figure meets the criteria for a good model fit so that the analysis can continue.

d. R Square

Table 5. R Square

<table>
<thead>
<tr>
<th></th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP</td>
<td>0.851</td>
<td>0.848</td>
</tr>
</tbody>
</table>

Source: Data Analysis Result

R-squared is a statistical measure that represents the proportion of the variance in the dependent variable (the variable being predicted) that is explained by the independent variables in the model. It ranges from 0 to 1, with 1 indicating a perfect fit. In this case, the R Square value is 0.851. The R Square value is 0.851, which means that approximately 85.1% of the variance in the dependent variable is explained by the independent variables in the regression model. This is a relatively high R Square, indicating a strong explanatory power of the model.
### Hypothesis Test Result

#### Table 6. Hypothesis Test

<table>
<thead>
<tr>
<th></th>
<th>Original Sample</th>
<th>Sample Mean</th>
<th>STD DEV</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE-&gt;MP</td>
<td>0.666</td>
<td>0.678</td>
<td>0.125</td>
<td>5.333</td>
<td>0.000</td>
</tr>
<tr>
<td>CC-&gt;MP</td>
<td>0.275</td>
<td>0.266</td>
<td>0.131</td>
<td>2.110</td>
<td>0.035</td>
</tr>
</tbody>
</table>

Source: Data Analysis Result, 2023

The table presents statistical information for two samples, "WE->MP" and "CC->MP". The average value (sample mean) for "WE->MP" is 0.666, with a standard deviation of 0.125, and a t-statistic of 5.333. The associated p-value is 0.000, indicating strong evidence against the null hypothesis and suggesting a highly significant difference. For "CC->MP," the sample mean is 0.275, the standard deviation is 0.131, and the t-statistic is 2.110. The p-value for this comparison is 0.035, falling below the common significance level of 0.05, implying statistical significance but to a lesser extent than the "WE->MP" case. In summary, both comparisons show statistically significant differences in means, with "WE->MP" exhibiting a more pronounced and highly significant contrast than "CC->MP".

### Discussion

The clothing industry in Indonesia has been deeply embedded in global production networks, making it an important export for the country despite competition from other regional centers, such as China (Dicken & Hassler, 2000; Vickers, 2012). The textile and fashion industry in Indonesia is also a significant contributor to the state revenue, but it experienced a decrease in production during the COVID-19 pandemic (Arania et al., 2022). The pandemic led to a declining demand and caused textiles and fashion to be eliminated from society's basic needs, as people shifted their priorities to food and health sectors. To address these challenges, companies are advised to collaborate, be flexible, and innovate in their strategies, while the government is encouraged to reduce imports and apply import duties to support collaboration (Arania et al., 2022).

**Influence of Work Environment on MSME Performance in Clothing Industry**

The results of the analysis show that the first hypothesis is well accepted (h1), which means that there is a positive and significant influence between the work environment and the performance of MSMEs. These results suggest that when the work environment is perceived to improve and support employee performance, the performance of MSMEs in the clothing industry in Indonesia will also increase. These findings can be key in improving the performance of MSMEs in the current era of competition and free trade.

This research supports and supports previous findings which have produced valuable research related to these two concepts: work environment and MSME performance. The impact of the work environment on MSME (Micro, Small, and Medium Enterprises) performance can be analyzed through various factors. A study conducted by (Bushiri, 2019) assessed the impact of the work environment on employees' performance. The study found that an organizational working environment had an impact on employees, and improvements in performance could be achieved by addressing identified issues such as flexibility of working environment, work noise distraction, supervisor's interpersonal relationship with subordinates, presence of job aids, performance feedback, and work incentives. Another study focused on the effect...
of high-performance work systems (HPWS) on SMEs and analyzed the processes that explain the impact of HPWS on company performance in small and medium-sized enterprises. The results indicated that HPWS could positively influence SME performance (Pascual Ivars & Comeche Martínez, 2015). Managers in SMEs could create efficient job systems to improve job performance by considering work-life balance, family-supportive supervisor behaviors, and job satisfaction (Susanto et al., 2022). The work environment plays a crucial role in the performance of MSMEs. Organizations can improve employee performance by addressing work environment issues, implementing high-performance work systems, and promoting work-life balance and job satisfaction.

Other research that focuses more on the context of the clothing and textile industry has also attracted the attention of researchers from all over the world. A study on the impact of environmental management systems (EMS) adoption in the fashion and textiles related industries (FTIs) presented empirical evidence on the performance impact of EMS adoption in these industries (Lo). Another study sought to classify the impact of work environment and job satisfaction on the retention of employees in the textile industry (Priya & Sudhamathi, 2019). These studies provide valuable insights into the impact of various factors, including environmental management systems, product innovation, competitive advantage, and job satisfaction, on the performance of MSMEs in the clothing industry.

Influence of CEO Characteristics on MSME Performance in Clothing Industry

Acceptance of the hypothesis also applies to the second hypothesis (h2) which was decided to be accepted because it has a significance value or P Value that is smaller than 0.05. Thus, improvements in the quality and characteristics of CEOs can have a direct and significant effect in the form of improvements in the performance of MSMEs. Those who want good and high business performance can pay attention to the CEO or leader factor in their business operations.

Several studies have examined the impact of CEO characteristics on the performance of small- and medium-sized enterprises (SMEs). The upper echelons theory explains the relationship between organizational outcomes and managerial background characteristics, including CEO observable demographic indicators such as education level, business degree, age, gender, ethnicity, and tenure length. For example, the CEO’s educational level, immigrant status, and previous work abroad experience were positively associated with firm internationalization (Milevoj). Additionally, CEO characteristics such as gender, age, basic educational level, professional educational level, political connection, and personality traits have been found to influence corporate environmental performance and corporate social responsibility reporting (Lacam & Salvetat, 2023; Tran & Pham, 2020; Zhao & Develtere, 2010).

Research Implication

The research suggests that a synergistic approach to managing work environment and CEO characteristics can positively impact MSME performance. Policymakers and business leaders in the Indonesian clothing industry, and similar sectors globally, could benefit from incorporating these findings into strategic management practices for MSMEs. Additionally, government agencies and industry associations may use the research to develop policies and support programs that encourage MSMEs in the clothing industry to focus on optimizing their work environments and selecting CEOs with specific characteristics. This could include...
training programs, financial incentives, or mentorship initiatives. Lastly, businesses can use the research to enhance their work environments, fostering positive workplace cultures that align with the specific needs of the clothing industry in Indonesia. This may include initiatives to improve employee satisfaction, teamwork, and overall organizational culture.

Limitation and Future Study Suggestion

This research has several limitations which make it an opportunity for future research. One of the most basic limitations is that this research is only quantitative and has not applied a qualitative approach to obtain more in-depth information and findings even though they can be generalized. Furthermore, this research has not stated what type of work environment has the greatest influence on MSME performance. Future research can be conducted qualitatively by exploring specifically which type of work environment has the most influence on the performance of MSMEs in the clothing industry in Indonesia.

CONCLUSION

The research highlights the crucial impact of a positive work environment and CEO characteristics on the performance of small and medium-sized enterprises (MSMEs) in Indonesia's clothing industry. The findings underscore the importance of addressing factors like flexibility, noise distraction, and interpersonal relationships in the workplace, along with considering CEO attributes such as education and experience. These insights have broader implications for policymakers, business leaders, and industry associations, suggesting a need for strategic initiatives and support programs to enhance MSME performance. However, the study acknowledges its quantitative focus and recommends future research to explore specific types of work environments in greater detail, presenting an opportunity for more comprehensive investigations.

Reference


