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# The relationship between corporate social responsibility, business credit for individuals, entrepreneurship, and enhancing the performance of small and medium enterprises

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ABSTRACT

The growth of small and medium-scale industries has significantly influenced regional economies. These industries, spanning from food production, handicrafts, furniture, to textiles and garment manufacturing, play a crucial role in addressing unemployment rates and bolstering regional economic development. To support small and medium enterprises (SMEs), the government has introduced the People's Business Credit Program (KUR). Besides the KUR program, SMEs receive capital aid and guidance from neighboring companies through what is commonly known as Corporate Social Responsibility (CSR). This study aims to explore the relationship between CSR assistance, KUR, and entrepreneurship in enhancing SME performance. Employing the Structural Equation Modeling (SEM) method, the research investigates causal links between independent and dependent variables, assessing the validity and reliability of the research instrument overall. SEM facilitates the examination of intricate variable relationships to provide an overarching view of the model. Upon data collection and analysis, this study concludes that there exists a causal relationship between CSR and KUR in relation to entrepreneurship, with a total effect value of 0.36. Furthermore, there is a correlation between CSR, KUR, and entrepreneurship, contributing to the enhancement of SME performance, with an indirect effect value of 0.25.

## 1. Introduction

In the increasingly globalized world economy marked by the era of free trade, Indonesian small and medium enterprises (SMEs) have the potential to become crucial players. These SMEs are anticipated to act as market creators, both domestically and internationally, and serve as significant contributors to trade and services, thereby balancing the surplus or deficit in the country's balance of payments. To fulfill this role effectively, Indonesian SMEs must enhance their capabilities to attain global competitiveness [1].

The government, through the Ministry of Cooperatives and SMEs, plays an active role in developing SME activities through various policies regarding small and medium industries [2]. One government program that is quite popular in the eyes of the public and small and medium enterprise players is the People's Business Credit Program (KUR) [3].

In addition to the KUR program, SME players receive capital assistance and coaching from companies around them. The term commonly known is corporate social responsibility (CSR) [4]. Entrepreneurship learns about a person's values, abilities, and behavior in creating and innovating [5], [6]. Therefore, the object of study of entrepreneurship is a person's values and abilities, which are manifested in the form of behavior [7].

Measuring the performance of SMEs using sales and profit analysis in several periods. The profit (profit) is the company's revenue minus the costs incurred to produce output. In this study, the performance of SMEs uses financial performance ratios, including sales efficiency ratios, gross profit ratios, operating expense ratios, and net profit ratios [8].

Previous research regarding the relationship between Corporate Social Responsibility and People's Business Credit on Small Industry Performance, did not include entrepreneurial variables. For this reason, this research includes entrepreneurship variables to see the relationship between People's Business Credit, Corporate Social Responsibility, and entrepreneurship on increasing SME performance [9].

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The method used in this study is the Structural Equation Modeling (SEM) method. This study aims to examine and analyze the causal relationship between the independent and dependent variables and examine the validity and reliability of the research instrument as a whole [10]. Therefore, the SEM analysis technique is used. SEM makes examining complex relationships between variables possible to obtain an overall picture of the entire model [11]. This research uses a sample of SME respondents in the manufacturing, food and beverage, textile or garment, souvenir or accessories, and printing business sectors.

Based on the description above, this study will determine the relationship between CSR, KUR, and entrepreneurship assistance (KWU) on increasing performance of SMEs. The authors hope this research can be used as a reference or alternative in developing SME governance in Cilegon City. In addition, this research is likely to provide a strategy proposal for the government to improve the performance of SMEs.

## 2. Material and method

The data utilized in this study comprises primary data collected through questionnaires filled out by small and medium enterprise owners, selected for their representativeness. Subsequently, the collected questionnaires were processed. The questionnaire items pertained to latent variables in the study, namely:

CSR = Corporate Social Responsibility
KUR = People's Business Credit
KWU = Entrepreneurship
SMEs = Performance of SMEs

The first stage in SEM is the first development of a theory-based model [12]. The first step in developing the SEM model is based on causality, where changes in one variable are assumed to impact other variables. In this case, the relationship is generated from the supporting theories. SEM is used not to produce a theoretical model but is used to confirm the theoretical model through empirical data [13].

The second stage involves establishing causal relationships using path diagrams and constructing structural equations. In these path diagrams, relationships between constructs are represented by arrows. Relationships involving endogenous constructs are depicted by a single arrow, while those involving exogenous constructs are represented by double arrows. The constructs presented in this path diagram consist of exogenous constructs, commonly referred to as independent variables, and endogenous constructs, which are variables bound to other variables or dependent variables.

The third stage involves converting path diagrams into structural equations, encompassing two primary tasks: developing a structural model, establishing connections between endogenous and exogenous elements, and constructing a measurement model, linking endogenous or exogenous latent constructs with indicator or manifest variables. Moving to the fourth stage, the assessment of the identification of the structural model is critical and involves addressing various issues. To tackle these issues, additional constraints (such as removing paths from the path diagram) are introduced until the identified problems are resolved. Proceeding to the fifth stage, it entails selecting the type of input matrix and model estimation. It is recommended to utilize the more efficient Maximum Likelihood Estimation (ML) technique for model estimation.

The sixth stage is the Determination of the Goodness of Fit on the Cut-Off Value. A model is declared feasible if each index has a cut-off value such as Chi-Square; df = 0; P-value ≥ 0.05; RMSEA ≤ 0.08; NFI ≥ 0.90; NNFI ≥ 0.90; CFI ≤ 0.90; IFI ≥ 0.90; RMR ≥ 0.05; these values must meet the requirements if they meet the requirements, it can be said to be appropriate or suitable.

The seventh stage is the interpretation and modification of the model. After the model is estimated, the residual value must be small or close to zero, and the frequency distribution of the residual covariance must be symmetrical. The frequency distribution of unsymmetrical residuals is a signal for a poor-fitting model. It shows that the model has estimated several covariance satisfactorily in the estimation process, but the other covariance needs to be better estimated. Model measurement can be done with modification indexes. Modification indices are the same as the occurrence of a decrease in chi-square if the coefficient is estimated. Value ≥ 3.84 indicates that there has been a significant decrease in chi-square [14].

## 3. Results and discussions

The data collection for this study involved distributing questionnaires to 120 SMEs in Cilegon City. The study aimed to explore the relationship between CSR, KUR, Entrepreneurship, and SME performance. The data processing stages entailed model specifications to establish connections between the independent (exogenous) and dependent (endogenous) variables. Identifying the model was crucial, ensuring predictability—a model is considered predictable when its degree of freedom is more than one or equal to zero.

The research revealed favorable results for the degree of freedom model, indicating the appropriateness of the constructed model. Model estimation involved determining factor loading values using the maximum likelihood method in the SEM. The estimated SEM results, presented in cross-processing diagrams via the LISREL 8.70 program, showcased the closeness of relationships between variables within the model. Factor loading values in the measurement model depicted the strength of indicator variables in measuring each endogenous and exogenous latent variable.

Before accepting the estimated model as an accurate representation of the latent variables under examination, it underwent a suitability or goodness-of-fit test. Various fit measures were employed to ensure the overall model adequacy. The cross-chart model in this study demonstrated a good goodness of fit, effectively explaining the data.

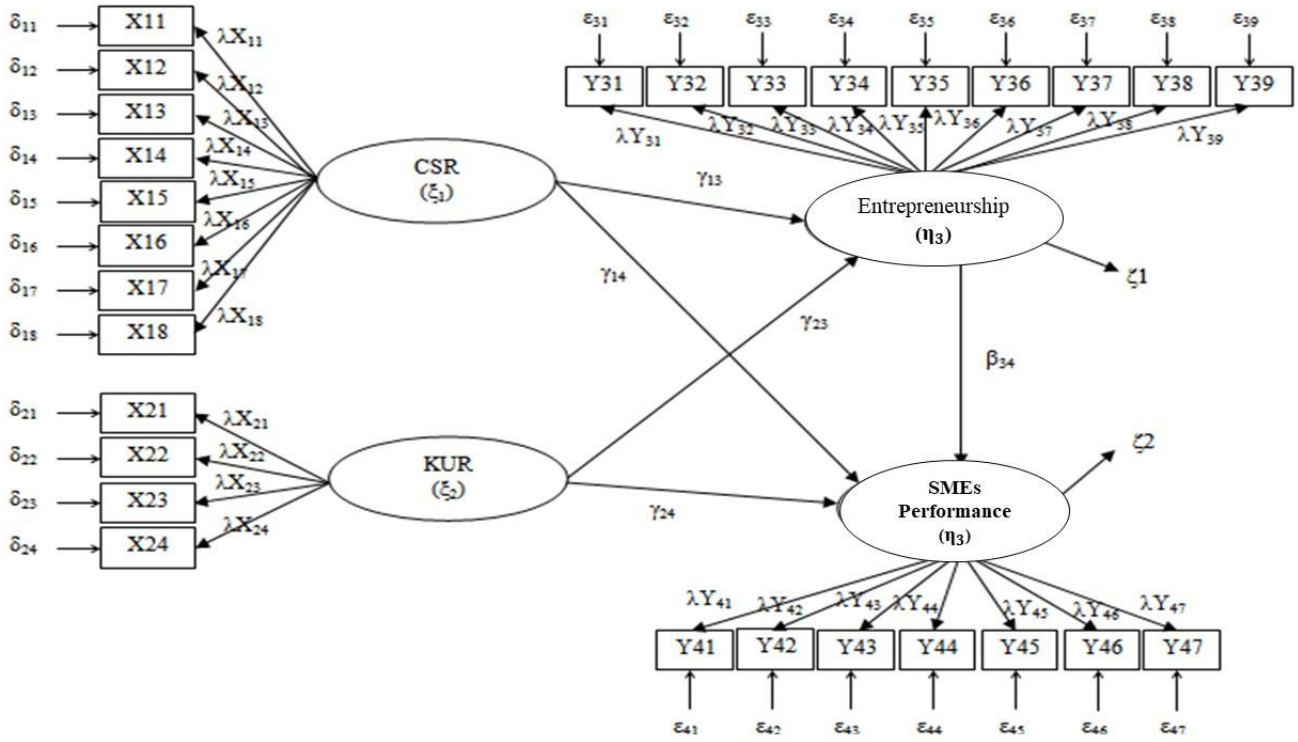


**Figure 1.** Path diagram

**Table 1.**
CSR model fit test

| No. | Criteria | Cut-off value | Result |
|---|---|---|---|
| 1. | Chi-Square | The smaller, the better | 21.73 |
| 2. | *df* | 0 | 20 |
| 3. | *p*-value | ≥ 0.05 | 0,35549 |
| 4. | RMSEA | ≤ 0.08 | 0.027 |

**Table 2.**
KUR model compatibility test

| No. | Criteria | Cut-off value | Result |
|---|---|---|---|
| 1. | Chi-Square | The smaller, the better | 0.36 |
| 2. | df | 0 | 2 |
| 3. | *p*-value | ≥ 0.05 | 0.83524 |
| 4. | RMSEA | ≤ 0.08 | 0.000 |

**Table 3.**
Entrepreneurship model fitment test

| No. | Criteria | Cut-off value | Result |
|---|---|---|---|
| 1. | Chi-Square | The smaller, the better | 33.68 |
| 2. | df | 0 | 27 |
| 3. | *p*-value | ≥ 0.05 | 0.17564 |
| 4. | RMSEA | ≤ 0.08 | 0.046 |

**Table 4.**
SME performance model fit test

| No. | Criteria | Cut-off value | Result |
|---|---|---|---|
| 1. | Chi-Square | The smaller, the better | 30.49 |
| 2. | df | 0 | 14 |
| 3. | *p*-value | ≥ 0.05 | 0.00894 |
| 4. | RMSEA | ≤ 0.08 | 0.096 |

**Table 5.**
Fitment test of the modified SME performance model

| No. | Criteria | Cut-off value | Result |
|---|---|---|---|
| 1. | Chi-Square | The smaller, the better | 14.28 |
| 2. | df | 0 | 12 |
| 3. | *p*-value | ≥ 0.05 | 0.28298 |
| 4. | RMSEA | ≤ 0.08 | 0.040 |

The degree of freedom test results corroborated the fit model, displaying positive degrees of freedom. The creation of flowcharts was based on theory derived from previous studies. Within the SEM model, latent variables serve as either exogenous or endogenous variables. Exogenous variables, depicted by arrows pointing towards endogenous variables, act as independent variables influencing dependent variables. Endogenous variables, influenced by independent (exogenous) variables, are represented by arrows pointing to them.

In Figure 1, CSR and KUR serve as exogenous variables, while entrepreneurship and SME performance are the endogenous variables. The subsequent step involves model identification, determining the sample, and the number of parameters to be estimated.

In general, it is said that using SEM requires a large number of samples so that the results obtained have sufficient credibility (trustworthy results). There has yet to be an agreement on the minimum number of samples required. In general, the number of samples required for an SEM model with up to five latent variables (constructs), and each construct is explained by three or more indicators, a sample size of 100-150 data is considered sufficient.

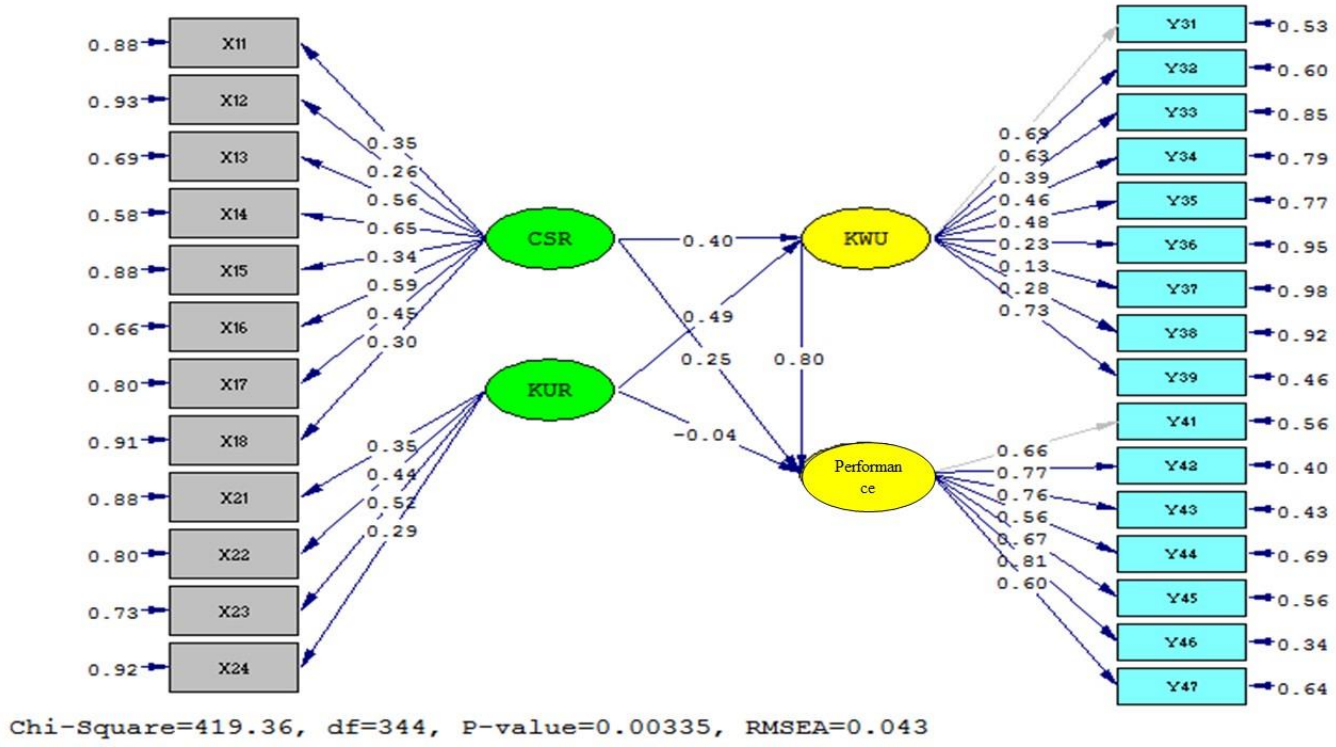


**Figure 2.** CFA full model

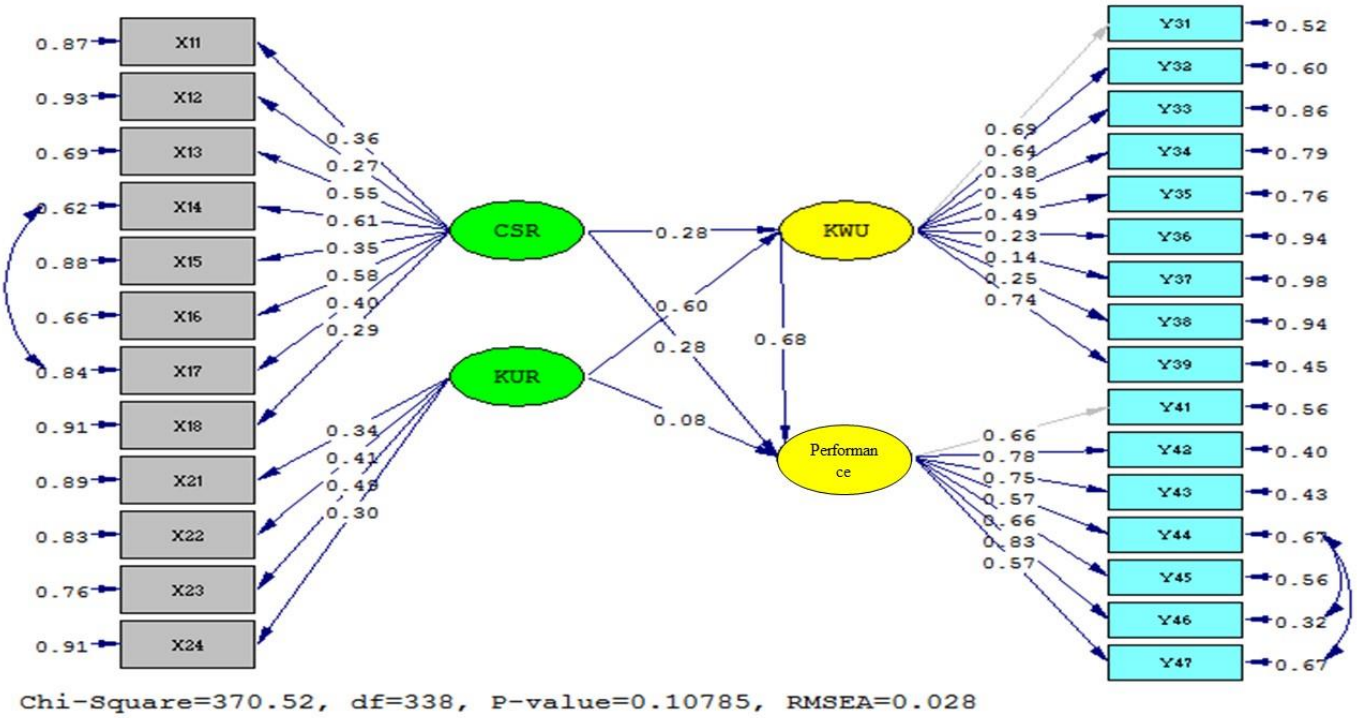


**Figure 3.** CFA full model modification

**Table 6.**
Overall model fit test

| No. | Criteria | Cut-off value | Result | Information |
|---|---|---|---|---|
| 1. | *Chi-Square* | The smaller, the better | 419.36 | Good |
| 2. | *df* | 0 | 344 | Good |
| 3. | *P-value* | ≥ 0.05 | 0.00335 | Not Good |
| 4. | RMSEA | ≤ 0.08 | 0.043 | Good |
| 5. | NFI | ≥ 0.90 | 0.86 | Marginal |
| 6. | NNFI | ≥ 0.90 | 0.96 | Good |
| 7. | CFI | ≥ 0.90 | 0.95 | Good |
| 8. | IFI | ≥ 0.90 | 0.95 | Good |
| 9. | RMR | ≤ 0.05 | 0.028 | Good |

**Table 7.**
Full model modification compatibility test

| No. | Criteria | Cut-off value | Result | Information |
|---|---|---|---|---|
| 1. | *Chi-Square* | The smaller, the better | 370.52 | Good |
| 2. | *df* | 0 | 338 | Good |
| 3. | *P-value* | ≥ 0.05 | 0.10785 | Good |
| 4. | RMSEA | ≤ 0.08 | 0.028 | Good |
| 5. | NFI | ≥ 0.90 | 0.87 | Marginal |
| 6. | NNFI | ≥ 0.90 | 0.97 | Good |
| 7. | CFI | ≥ 0.90 | 0.97 | Good |
| 8. | IFI | ≥ 0.90 | 0.97 | Good |
| 9. | RMR | ≤ 0.05 | 0.027 | Good |

**Table 8.**
Summary of compatibility test results

| No. | Variable | CR | VE | Conclusion |
|---|---|---|---|---|
| 1. | CSR | 0.76 | 0.28 | Reliable |
| 2. | KUR | 0.63 | 0.30 | Not Reliable |
| 3. | Entrepreneurship | 0.80 | 0.32 | Reliable |
| 4. | SMEs Performance | 0.88 | 0.51 | Reliable |

**Table 9.**
Research hypothesis test

| | | | Standardized Loading Factor |
|---|---|---|---|
| CSR | → | KWU | 0.28 |
| KUR | → | KWU | 0.60 |
| KWU | → | SMEs | 0.68 |
| KUR | → | SMEs | 0.08 |
| CSR | → | SMEs | 0.28 |

There are seven matrices containing estimated parameters, namely: B, Γ, Λx, Λy, Θδ, Θε, ψ. From the structural model on the track diagram and the mathematical model, we can obtain the total parameters to be estimated, namely 1 + 4 + 12 + 16 + 12 + 16 + 2 = 63.

The degree of freedom is the amount of known data minus the number of estimated parameters. So, degree of freedom = 406 – 63 = 333 > 0 or positive; this means that the specified model is over-identified.

The next stage is confirmatory factor analysis of latent variables and the entire model. Before forming a full SEM model, it will be tested on the factors that make up each variable. Testing will be carried out using a confirmatory factor analysis model. Model fit (goodness of fit) for confirmatory factor analysis will also be tested. With the LISREL program, the goodness of fit measures will appear in the output. Furthermore, the conclusion on the suitability of the built model can be seen from the results of the goodness of fit measures obtained. The goodness of fit test was first performed on the confirmatory factor analysis model.

Table 1, for the CFA of the CSR variable, shows that the model is good; it can be seen from the p-value ≥ 0.05 and the RMSEA value ≤ 0.08. Based on Table 2, for the CFA of the KUR variable it shows that the model is good; this can be seen from the p-value ≥ 0,05 and the RMSEA value ≤ 0,08. Based on Table 3 for the CFA of the entrepreneurial variable shows that the model is good; this can be seen from the p-value ≥ 0.05 and the RMSEA value ≤ 0.08. Based on Table 4 for the CFA of the SME Performance variable, it shows that the model is not good enough; this can be seen from the p-value ≤ 0.05 and the RMSEA value ≥ 0.08. Therefore, modifications need to be made to get a better model.

Table 5 for the CFA of the SME performance variable shows that the model is good; this can be seen from the p-value ≥ 0.05 and the RMSEA value ≤ 0.08.

Fig. 2 shows the result of data processing in the overall model. The entire model was deemed unfit based on the data processing results, as the *p*-value fell below the standard threshold. Consequently, modifications were made to the model.

The fit test is used to determine whether a model is feasible. Based on Table 7, the overall model that has been modified is fit. The next stage determines the Construct Reliability Test and Variance Extract Test. The reliability test shows the extent to which a measuring instrument can give relatively the same results when repeated measurements are carried out on the same subject. The requirements for this test are CR > 0.7, which means that it meets the requirements. Extract variance measurements show the variance of the indicators extracted by the developed latent constructs/variables. The requirements for this test are VE > 0.5, which means that it meets the requirements.

Based on the results, the Reliability Test and Variance Extract Test fulfilled the requirements, except for the KUR variable. The next stage is hypothesis testing. The research hypothesis testing will be discussed in stages by the hypotheses that have been proposed, and then the discussion will be carried out in the following sections.

- *Hypothesis 1*
  Ho: There is no relationship between corporate social responsibility (CSR) and the performance of small and medium enterprises (SMEs).

H1: There is a relationship between corporate social responsibility (CSR) and the performance of small and medium enterprises (SMEs).

Conclusion: Based on the value of the Standardized Loading Factor, the relationship between the CSR variable and SME performance is 0.28; it is concluded that Ho is rejected and H1 is accepted. Therefore, it is stated that there is a causal relationship between the CSR variable and the performance of SMEs, because only a few of the SMEs in the city of Cilegon have felt the benefits of CSR.

- *Hypothesis 2*

Ho: People's business credit (KUR) and Small medium enterprises' (SMEs) performance are not related.

H1: There is a relationship between people's business credit (KUR) and the performance of small and medium enterprises (SMEs).

Conclusion: Based on the Standardized Loading Factor value, the relationship between the KUR variable and SMEs performance is 0.08; it can be concluded that Ho is rejected and H1 is accepted. Therefore, it is stated that there is a low causal relationship between KUR variables and SMEs performance. The causes of the low relationship between KUR and SME performance are the lack of comprehensive socialization and the introduction of the KUR program. SMEs also need help in obtaining working capital loans.

- *Hypothesis 3*

Ho: There is no relationship between entrepreneurship (KWU) and the performance of small and medium enterprises (SMEs).

H1: There is a relationship between entrepreneurship (KWU) and the performance of small and medium enterprises (SMEs).

Conclusion: Based on the value of the Standardized Loading Factor, the relationship between the entrepreneurial variable and the performance of SMEs is 0.68; it is concluded that Ho is rejected and H1 is accepted. Therefore, it is stated that the entrepreneurial (KWU) variables and the performance of SMEs have a causal relationship. This relationship is characterized by the ability and persistence of SMEs in running their business, even during worsening global economic conditions. In their company, SMEs in Cilegon continue to survive and consistently support the regional economy.

- *Hypothesis 4*

Ho: There is no relationship between corporate social responsibility (CSR) and entrepreneurship (KWU).

H1: There is a relationship between corporate social responsibility (CSR) and entrepreneurship (KWU).

Conclusion: Based on the Standardized Loading Factor value, the relationship between the CSR variable and entrepreneurship is 0.28; it can be concluded that Ho is rejected and H1 is accepted. Therefore, it is stated that there is a causal relationship between CSR and entrepreneurship.

- *Hypothesis 5*

Ho: People's business credit (KUR) and entrepreneurship (KWU) are not related.

H1: There is a relationship between people's business credit (KUR) and entrepreneurship (KWU).

Conclusion: Based on the value of the Standardized Loading Factor, the relationship between the KUR variable and entrepreneurship is 0.60; it is concluded that Ho is rejected and H1 is accepted. Therefore, it is stated that there is a causal relationship between KUR and entrepreneurship. This shows that the bank credit assistance distributed can provide business learning to SMEs to improve entrepreneurial abilities.

## 4. Conclusions

The relationship between CSR and SME performance variables still needs to be closer because only a few of the SMEs in the city of Cilegon have felt the benefits of CSR. The relationship value between the KUR variable and SME performance is 0.08; this shows a low relationship between the two variables. The causes of the low relationship between KUR and SME performance are the lack of comprehensive socialization and the introduction of the KUR program. SMEs also need help in obtaining working capital loans.

The relationship value between the entrepreneurship (KWU) variable and SME performance is 0.68; this shows that the relationship between entrepreneurship and SME performance has the closest connection. This relationship is characterized by the ability and persistence of SMEs in running their business, even during worsening global economic conditions. In their company, SMEs in Cilegon continue to survive and consistently support the regional economy.

The value of the relationship between the CSR variable and entrepreneurship is 0.28, indicating a relationship between the two variables. The value of the relationship between the KUR variable and entrepreneurship is 0.60, indicating a very close relationship between the two variables, this shows that the bank credit assistance distributed can provide business learning to SMEs to improve entrepreneurial abilities. The total effect value is 0.36, indicating a close relationship between CSR and KUR on entrepreneurship. The indirect effect value is 0.25, showing a close relationship between CSR, KUR, and entrepreneurship on increasing the performance of SMEs.

## Declaration statement

Nurul Ummi: **Conceptualization, Methodology, Supervision, Writing – original draft.** Putiri Bhuana Katili: **Resources, Validation, Formal Analysis, Writing - Review & Editing**. Hadi Setiawan: **Data curation, Validation, Writing - Review & Editing**.

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The authors report there are no competing interests to declare.

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**Data availability statement**

The authors confirm that the data supporting the findings of this study are available within the article or its supplementary materials.

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