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RESEARCH ARTICLE

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Effects of environmental corporate social responsibility on environmental well-being perception and the mediation role of community resilience

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Abstract

Environmental corporate social responsibility (ECSR) is corporate business sustainability for the future and a noble ethical that fosters social, economic and environmental well-being (EWB) of the community. Based on environmental protection and management, the Indonesian mining company is obliged to mitigate and conserve the surrounding environmental ecosystem. The mining company invested IDR17.35 billion on ECSR since 2006. This study examines the effects of ECSR on EWB of the community by mediating community resilience. The subjects were family household leaders in 12 villages who were direct and indirect recipients of ECSR. Partial least squares-based structural equation modelling analysis was used to determine the effects of ECSR on the community EWB. In addition, were analysed mediated effects by community resilience (CR). The findings of this study confirmed that ECSR practices had positive and significant effects on CR and EWB. As a mediator, CR significantly contributed to the sustainable EWB of the community.

KEYWORDS

community development, community resilience, environmental corporate social responsibility, environmental policy, environmental well-being, mining, stakeholder engagement, sustainable development

1 | INTRODUCTION

During the colonial period, mining rights in Indonesia were fully controlled by the Dutch (Karim & Mills, 2003) and dominated by the Dutch Indian Company, which operated the coal mines (Saleng, 2002). However, after independence, the authority over land, water and natural resources was transferred to the people (Indonesian Constitution). Meanwhile, all oil and gas and other mineral resources in Indonesia are state-owned and controlled by the country (Article 2). Therefore, the mining of mineral resources may only be carried out by the state (Article 3). The nickel mining area in Southeast Sulawesi, Indonesia is approximately 313,788,33 ha with an estimated portion of 97.4 billion tonnes. Based on the Law on Environmental Protection and Management, a mining company is obligated to mitigate and conserve the surrounding environmental ecosystem. Environmental issues have been the top issue for companies in improving green programs (Kawai, Strange & Zucchella, 2018; Walker & Wan, 2012). Consequently, most companies consider the importance of corporate sustainability in the future (Ambec & Lanoie, 2008). Thus, environmental corporate social responsibility (ECSR) has become a focal point among companies (Chuang & Huang, 2018; Flammer, 2013; Fransen, 2013; Pawaskar, Raut, & Gardas, 2018; Rahman & Post, 2012; Wang & Zhao, 2018). Approximately, IDR 17.35 billion was allocated by the nickel mining company for ECSR activities from 2006 to 2016. Previous studies have focused on how ECSR practices, such as corporate social responsibility (CSR), contribute to the environment (Wei et al.,

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2017), CSR and pro-environmental corporate attitudes (Gkorezis & Petridou, 2017). ECSR facilitates the retrieval of valuable resources (Cheng et al., 2014) and improves stakeholder relationships and reactions (Flammer, 2013). It can be used as a strategy for the proliferation of environmental sustainability and community wellbeing. It can also comprise context-specific managerial actions and policies that consider stakeholder expectations and the triple bottom line of economic, social and environmental well-being (EWB; Aguinis, 2011).

The environmental dimension is a part of community well-being; it is an important resource for human life, as it provides water, air, soil, flora and fauna (Iskandar, Awang, & Ramli, 2019; Walton, McCrea, & Leonard, 2014). In addition, the natural environment is related to food production, safe water and a healthy environment (Estes & Sirgy, 2019). Forjaz et al. (2011) have stated that EWB is a condition of satisfaction to the perceived social and physical environment. Kim and Lee (2015) and Sung and Phillips (2016) have determined that EWB is a multidimensional aspect that is perceived and experienced by the community from the imposed actions that the company has performed. Some mediation is important to enhance the impacts of ECSR on the EWB of the community. These factors include green information technology capital (Chuang & Huang, 2018), external stakeholder relations (Orlitzky et al., 2003), customer satisfaction (Luo & Bhattacharya, 2006), intangible internal resources (Surroca et al., 2010) and consumer confidence (Park et al., 2014), legal incompleteness and legal inefficiency (Wei et al., 2017).

Despite the insights gained from the research flow, the role of ECSR seeks to obtain legitimacy or support from the desired or appropriate community in certain built systems of norms, values, beliefs and definitions (Suchman, 1995). Community support can affect the survival of the company because it ensures the ongoing flow of external resources and the support of various stakeholders (Dacin et al., 2007). In the context of business and community, ECSR practices can improve community development (Fordham, Robinson, & Van Leeuwen, 2018) and increase community capacity as an effort to express the capacity and collective community (Rama, Milano, Salas, & Liu, 2009). A recent study by Adekola and Clelland (2019) has concluded that business resilience can improve individual resilience. This study analyses the effects of ECSR on the EWB of the community by mediating community resilience.

2 | THEORY AND LITERATURE REVIEW

2.1 | Environmental corporate social responsibility

A classical statement from Carroll (1991) has indicated that the most important aspects of a company is economics, ethical values, legal compliance and respect for all the stakeholders. In addition to observing economic and legal aspects, ECSR refers to the activities aimed at environmental protection for community development and sustainability (Turker, 2009). The main idea of ECSR can be interpreted as a strategy to manage the environment (Crane et al., 2008; Ismail, 2009; Rasche et al., 2017) mainly by the mitigation and conservation of environmental health ecosystems. Consistent with this argument, Sarkar (2008) has pointed out that business practices in relation to the environment have evolved and that the current trend is the transition from environmental management to environmental corporate strategy.

2.2 | Environmental well-being

The concepts of environmental and human well-being are complex. EWB includes well-known aspects (e.g., viable and diverse ecosystems), which also include fewer factors under the surface (e.g., the regional effects of technology transfer). Forjaz et al. (2011) have stated that well-being is a condition of satisfaction with the perceived social and physical environment. The latter is a natural environment in which human needs are met and wherein individuals are satisfied with their way of life (Armitage, Béné, Charles, Johnson, & Allison, 2012; Brown & Westaway, 2011). In measuring EWB, Estes and Sirgy (2019) have stated that the positive effects of the environment on well-being can be discussed in terms of food production, water use and sanitation. Conversely, the negative effects of the environment on well-being are stem from water use, land conversion and degradation, nutrient use and levels, fisheries, climate change and species extinction. Similarly, Kashchuk and Timofeeva (2016) have stated that environmental safety determines the genetic and EWB of human consciousness. The hierarchically structured model is characterised by the construction of the various levels of well-being, which is the state of the environment and the condition of human existence (Figure 1).

Hu, Pai, and Pai (2018) have argued that the green residential indicators in the physical environment include (a) ecology (biodiversity, greening quantity and water circulation), (b) energy conservation and waste reduction (acquisition of ISO 14000, energy-saving buildings, green transportation, waste reduction, community energy-saving lighting, innovative energy-saving measures, renewable energy,

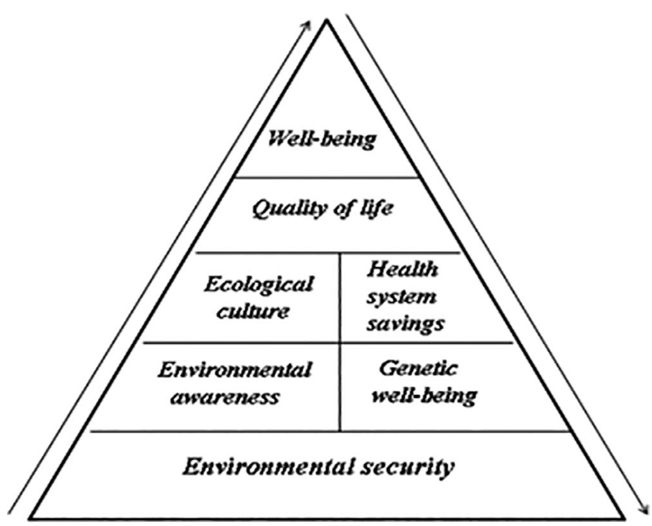

FIGURE 1 Environmental function in generating well-being. *Source*: Irina and Yana (2016)

resource recycling and carbon neutrality makeup measures) and (c) health and comfort (heat island, user-friendly pedestrian walking space and public hazard). Similarly, Walton et al. (2014) have stated that EWB indicators consist of (a) environmental quality (satisfied with the level of dust and noise), (b) environmental management (quality of underground water, nature reserves and sustainability of local farming land) and (c) built environment (cleanliness in the town, greenery and parks).

2.3 | ECSR practice and EWB

ECSR activities are programs that companies use to mitigate their impact on the natural environment, such as using environmentally friendly packaging, recycling, waste reduction, energy saving, water conservation and pollution control (European Commission, 2005). Environmental mitigation performance organised by a company is measured against natural and non-living components of natural systems, such as air, land and water. Environmental mitigation performance information indicators consist of energy used, CO_2 emissions, water and waste recycled and spills and pollution controversies (Clarkson, Li, Richardson, & Vasvari, 2008). Companies should actively minimise environmental risks and expand environmental benefits (Shaukat, Qiu, & Trojanowski, 2016). ECSR activities require periodic and systematic implementation with the integrated collaboration of stakeholders (Walley & Whitehead, 1994). ECSR activities have positive outcomes on waste, carbon, energy and water productivity (Ardito & Dangelico, 2018). The environmental considerations are essential elements in the commitments and sustainable business strategies of companies (Ruokonen & Temmes, 2019). Consequently, ECSR activities have a positive impact on business reputation, thereby affecting the competitiveness (European Commission, 2005) and profitability of a company (Viviers, 2009). Improved environmental quality induces cost savings, thereby improving economic performance (Schaltegger & Synnestvedt, 2002). Additionally, waste management, energy saving and resource management positively affect the sustainable performance of the company and community (Ali, Zailani, Iranmanesh, & Foroughi, 2019). The environmental dimension is one of the major influences on the quality of life. The quality of the local living environment has a direct impact on human health and well-being of the community (Štreimikienė, 2015).

Government regulations require the companies to carry out CSR practices. Kotler and Lee (2005) have explained the six causal categories of CSR practices: (a) cause-related promotions, (b) cause-related marketing, (c) corporate societal marketing, (d) corporate philanthropy, (e) community volunteering and (f) socially responsible business practice. In community volunteering, the company invests to improve community well-being (Sum et al., 2015) and protect the environment. CSR activities can be tools to mitigate risks (Tang, 2018) and sustainable development (Xia, Olanipekun, Chen, Xie, & Liu, 2018). CSR implementation is under the responsibility of a company for sustainable activities and practices in all aspects of economic, social and environment development (Lakin & Scheubel, 2017). Thus, the implementation of CSR programs is expected to bring social, economic and environmental impacts to the surrounding communities. ECSR activities are programs organised by the company to mitigate their impact on the natural environment. The indicators of environmental quality encompass a number of environmental mediums (e.g., soil, water and air). Based on these arguments, we hypothesise the following, as shown in Figure 2:

H1 A positive and significant direct relationship occurs between the ECSR and the EWB of the community.

2.4 | ECSR practice and community resilience

Community engagement in CSR is a mechanism related to community empowerment and capacity building (Fordham et al., 2018). Thus, CSR is a process of capacity building within the community. Capacity building refers to the capability 'to absorb disturbance and re-organise while undergoing change and retain essentially the same function, structure, identity, and feedbacks' (Folke, 2006, p. 259). Therefore, community resilience (CR) is the development and engagement of community resources and adaptive community by community members to evolve in an environment characterised by change (Maguire & Cartwright, 2008). Thus, community capacity building is a strategy that fosters CR with involvement, empowerment and community actions (Cavaye & Ross, 2019). The dimensions of CR include social aspects (Skerratt & Steiner, 2013; Steiner & Markantoni, 2014) and economic characteristics (Leach, 2013; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008; Noya & Clarence, 2009; Steiner & Atterton, 2014). To develop sustainable resilient communities, possessing an adaptive capacity is necessary (Norris et al., 2008). Resilient rural communities embrace aspects of a viable local economy, a strong sense of belonging, social capital and engagement among residents and the quality of the local environment (McManus et al., 2012). CR suggests adaptation and proactivity in relation to stress, changes, risks and challenges. In addition, it relates to processes that enable a community to thrive, despite ongoing changes in the dynamic socioeconomic and natural environment (Milman & Short, 2008). Wilson () has claimed that economic, social and environmental capitals are the keys to the continuous proper functioning of communities. Therefore, the balance among economic, social and environmental processes of specific localities must be recognised (Marsden, 1999; McManus et al., 2012). A survey reported the impact of the mining industry on community capitals (natural, built, financial, human, social, economic and political capital). The types of capital have direct and indirect effects on CR (McCrea, Walton, & Leonard, 2014). In cooperation with relevant stakeholders, ECSR should also become a core business strategy to strengthen CR (Aguinis & Glavas, 2012; Rasche et al., 2017). Therefore, as shown in Figure 2, we hypothesise the following:

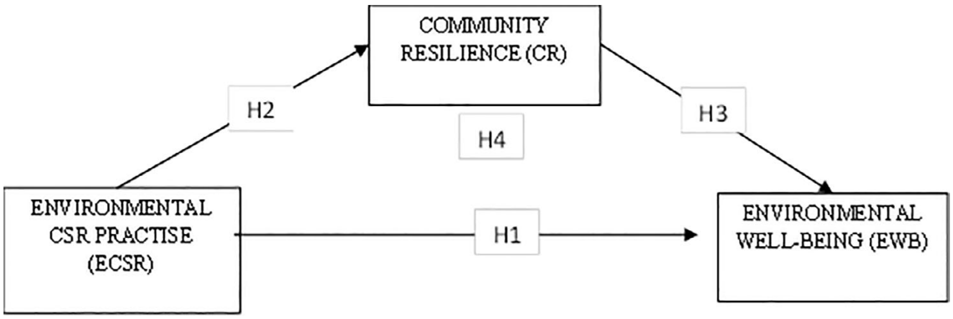

FIGURE 2 Linkages of ECSR, CR and EWB. CR, community resilience; ECSR, environmental corporate social responsibility; EWB, environmental well-being

H2 A positive and significant direct relationship occurs between ECSR and community resilience.

2.5 | Mediating effects of CR

Access to clean water and air is fundamental to human well-being (Štreimikienė, 2015). Natural ecosystems provide services to humans that make life possible. Life, as well as the economy, is dependent on the goods and services of the ecosystem. The services provided by the ecosystem also contribute to a 'good' or 'quality' life by influencing the well-being of individuals and communities (Summers, Smith, Fulford, & de Jesus Crespo, 2018). Rama et al. (2009) have stated that CSR has a direct and indirect impact on CR and organisational capacity. The mining industry run by the private sector is one industry that aims to exploit natural resources for local economic and social development (Hilson, 2002). By contrast, such activities can disrupt the economic, social and environmental pollution conditions (Wilson, Richard, Joseph, & Williams, 2010). Social, economic, political and physical aspects are important factors in maintaining the sustainability of the community (Tobin, 1999). Magis (2010) has emphasised that community well-being can be achieved through CR by utilising natural resources and enhancing community capacity, community action, community effectiveness and community adaptation (Norris et al., 2008; Walton, McCrea, Leonard, & Williams, 2013). On the basis of this view, we consider that a disturbance in community endurance will affect community EWB. Figure 2 shows the CSR environmental mitigation relationship with CR towards EWB. Given the relevance of the previous concepts and studies, this study presents a number of hypotheses:

H3 A positive and significant direct relationship exists between CR and EWB.

H4 CR mediates a positive and significant relationship between ECSR and community EWB.

3 | RESEARCH METHOD

3.1 | Population, sample size and data collection

The study area was based on 12 villages that directly or indirectly acquired benefits from the ECSR program managed by a nickel mining company. The total population of family leaders across 12 surrounding villages was 6,236. A large size is required for reliable analysis in the structural equation model (SEM; Iacobucci, 2010), and the applicable sample size for the research is 30–500 family leaders (Roscoe, 1975). Based on the sample size calculation formula (Israel, 1992), a good sample size is between 200 and 500 respondents if using multiple regression, covariance analysis and multivariate analysis. The total sample size was 500 family leaders and selected by stratified random sampling for each village. The data were gathered by field surveys that started in October 2017 at Oko-Oko Village and ended in January 2018 at Huko-Huko Village in southeast Sulawesi, Indonesia. The family leaders were interviewed face-to-face by researchers and assisted by trained native enumerators to complete the survey questionnaire. We screened the completed questionnaires, and only 98.0% (490 samples) were appropriate for analysis.

3.2 | Instrument design

The survey questionnaire was developed covering the perceived benefits that the community gained from the ECSR practice. The respondents of this study were the community members living near nickel mining industries and the recipients of the ECSR program. A 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) was used to measure ECSR, CR and EWB dimensions. The ECSR scale was mainly adopted from Carroll (1991), Crespo and del Bosque (2005) and other researchers (Alvarado-Herrera, Bigne, Aldas-Manzano, & Curras-Perez, 2017; Ismail, Alias, & Mohd Rasdi, 2015; Maignan, 2001; Pérez & Del Bosque, 2013). To establish the CR scale, we tracked the measurement guidelines by Walton et al. (2014) and blended them with those of Magis (2010), Berkes and Ross (2013) and Kulig, Edge, Townshend, Lightfoot, and Reimer (2013). For the EWB measurement, we relied on previous researchers (Cristakopoulou et al., 2001; Cuthill, 2002; Forjaz et al., 2011; McCrea et al., 2014; Durand, 2015; Kim, Kee, & Lee, 2015). Data from 500 target family leaders were gathered by field surveys using a tested questionnaire (Lyberg et al., 1998).

3.3 | Instrument reliability and model verification

We used SMART PLS to analyse the measurement model. Then, we tested and confirmed the SEM. The SEM technique is used to analyse research hypotheses in structural research models, which are reliable and validated models of instruments (Hair, Matthews, Matthews, & Sarstedt, 2017). Figure 1 shows the conceptual research framework. Smart PLS software was used (Hair et al., 2017) to perform the statistical analysis of reflective constructs. The measurement model in PLS was assessed in terms of inter-construct correlations, item-to-construct correlations, Cronbach's alpha, composite reliabilities and the AVE of each construct (Amin, 2015; Hair et al., 2017). Table 1 shows the reflective measurements. The findings indicated that each factor loading (16 items) of the reflective indicators was from 0.646 to 0.817. A factor loading, which was greater than 0.5, was used as a criterion to select a statement into a factor (Hairs, Anderson, Tatham, & Black, 1998). Chin (2010) pointed out that loads of at least 0.5 was acceptable if other questions that measure the same construct had greater levels of reliability. These results provided strong support for the reliability of the reflective measurements.

With regard to internal consistency, two measurements were evaluated: Cronbach's alpha and compound reliability. Nunnally (1978) has suggested 0.70 as a level for 'modest' reliability in the early stages of research and a stricter 0.80 for basic research. The results showed that the Cronbach's alpha values were over 0.70 for CSR practice (0.75), CR (0.72) and EWB (0.86). The composite reliability values obtained for CSR practice (0.84), CR (0.82) and EWB (0.89), exceeded the minimum acceptable values and proved good internal consistency for each latent construct (Burton, Lichtenstein, Netemeyer, & Garretson, 1998).

Two methods can be used to determine discriminant validity (Anderson & Gerbing, 1988; Hairs et al., 1998; Yang & Jolly, 2009). In the first method, the AVE is examined. The AVE value must be greater than 0.50 (Fornell & Larcker, 1981). In this study, AVE was calculated to assess the discriminant validity of the three constructs, which ranged from 0.62 to 0.80. These data showed that all values of AVE were above 0.50. Second, the square root of the AVE between each pair of factors was higher than the correlation projected between factors, thereby ratifying its discriminate validity. Alternatively, the square roots of AVE (on the diagonal of Table 2) were compared with

TABLE 1 Construct validity

Construct	Item	Outer loading	Composite reliability	AVE
Environmental CSR (ECSR) practice	The company is committed to complying with various laws related to environmental standards and policy (CSR-em01).	0.690	0.842	0.571
	The company is committed to biodiversity conservation (CSR-em02).	0.726		
	The company is committed to energy and water management (CSR-em03).	0.793		
	The company is committed to protecting air quality and sound and vibration protection (CSR-em04).	0.770		
Community resilience (CR)	The community assists in managing natural resources responsibly (CR-01).	0.701	0.825	0.544
	These village communities can access relevant information to address changes effectively (CR-02).	0.773		
	All community groups comprising governments, communities and companies can work together to solve problems in this village (CR-03).	0.817		
	The community can adapt all TSK programs (CR-04).	0.646		
Environmental well-being (EWB)	Groundwater quality has been improved for the future of this village (EWB-1).	0.769	0.891	0.505
	River water quality is good for the future of this village (EWB-2).	0.701		
	Quality of the ocean ecosystems is ideal for the future (EWB-3).	0.763		
	Noise due to mining operations and nickel mills have decreased in this village (EWB-4).	0.640		
	Dust and gas due to mining operations and nickel mills have decreased in this village (EWB-5).	0.701		
	The environment of my home is getting comfortable (EWB-6).	0.735		
	We feel calm and no longer stressed (EWB-7).	0.696		
	We have managed to overcome health problems (EWB-8).	0.672		

those of the other constructs below the diagonal in Table 2). These statistics suggest that each construct is stronger in its own measurement than in the measurement of another construct (Hair, Ringle, & Sarstedt, 2013). In addition, the statistics recommend that the elements of our measurements are reliable, internally consistent and have discriminant validity.

Table 3 shows the discriminant validity of the construct. The comparison of cross-loadings in Table 3 shows that the loadings of an indicator are higher than the other loadings for its construct in the same column and row. Furthermore, the results indicate that discriminant validity exists among all the constructs based on the loadings depicted in Table 2.

We used the variance inflation factor (VIF) to measure multicollinearity (Hair et al., 2017). The findings showed the VIF of CSR (1.000) and CR (1.286). Critical multicollinearity problems exist when the VIF is greater than five (5.0), and a VIF less than five indicates no multicollinearity (Hair et al., 2013; Hair et al., 2017). Moreover, the *t* values for all the items were significant, a result that empirically supported EWB as a reflective construct. Thus, multicollinearity was not an issue (Coltman, Devinney, Midgley, & Venaik, 2008; Hair et al., 2017).

4 | RESULTS

4.1 | Family leader profiles and ECSR practice

This study indicated that family leaders were relatively gender-neutral from 57.5% male-headed and 42.4% female-headed households. Most of the leaders were between the ages of 36 and 45, and they were considered members of the community productive group. The distribution age of less than 25 years was 11.8%, 25–35 was 31.4%, 36–45 was 33.5% and over 45 years was 23.3%. The distribution of academic qualifications showed that the highest proportion were high school graduates (39.8%), followed by junior high school students (24.5%), diploma holders (7.1%) and undergraduates (9.4%). Only one family leader had PhD. Family leaders who worked in mining companies only comprised 2.4%. Most of them were self-employed and engaged in informal business (41.4%) and farming/fishing (15.9%). The rest (22.4%) did not have permanent employment. The majority of the family leaders (36.1%) earned IDR 1,000,000 (USD 70.65) to IDR 2,000,000 (USD 141.13). Approximately, 34.5% had a monthly income of less than IDR 1,000,000 (USD 70.65) per month, and 29.4% earned more than IDR 2,000,000 (USD 141.13) a month.

The environmental preservation on sewage treatment, air quality monitoring and control was implemented in their village as mentioned by 62.0% of family leaders. Coral reef mitigation and conservation were also a part of the ESCR program. Only 64.0% of family leaders revealed that this program was implemented in their village. To nurture environmental awareness and participation among the communities, 72.3% of the family leaders stated that the environmental awareness program was applied in their village. The family leaders perceived that the company was committed to complying with various laws related to environmental standards and policy ($M = 3.79$, $SD = 0.737$). The company was also perceived to be committed to biodiversity conservation ($M = 3.73$, $SD = 0.821$). However, the company was moderately committed to energy and mining water treatment management ($M = 3.64$, $SD = .819$). The company was slightly less committed to protecting air quality and sound and vibration protection ($M = 3.34$, $SD = 0.940$) in the nickel mining neighbourhood community.

4.2 | Effects of ECSR

Smart PLS 3.0 was used to examine the structural model and hypothesis (Hair et al., 2017). The path estimates and *t* statistics were calculated for the hypothesis relationships using a bootstrapping technique with a resampling of 5,000. The results showed that CSR environmental practice ($\beta = .472$, $p < .01$) was also positively related to CR. CSR environmental practice ($\beta = .376$, $p < .01$) was also positively related to community EWB. Indirectly, CSR environmental practice ($\beta = .176$, $p < .01$) was also positively related to community EWB. Furthermore, nurturing CR through CSR was significantly related to community EWB ($\beta = .372$, $p < .01$). This finding implied that all the paths in the model had a strong effect on community EWB. Table 4 presents the path correlation.

The structural model (Figure 3) contained the relation between one variable and another variable with beta (β) and R square (R^2) values. The strength relationships between the variables were expressed through β values. The results showed that the R^2 for CR was .22, and the R^2 for EW was .412. The R^2 EW value could be explained or influenced by independent variables of 41.0%, and the rest (59%) was influenced by other factors outside this model. According to Chin (1998), R^2 values more than .67 are strong, $R^2 > .33$ are moderate, and $R^2 > .19$ are weak. This result shows the value of R^2 at a moderate level.

TABLE 2 Discriminant validity

	CSR environmental practice	Community resilience (capacity)	Environmental well-being
CSR environmental practice	*0.756*		
Community resilience (capacity)	0.472	*0.737*	
Environmental well-being	0.551	0.550	*0.711*

Note: *Diagonals (italicised values) represent the AVE and the other entries represent the squared correlations.
Abbreviation: CSR, corporate social responsibility.

TABLE 3 Comparison of cross-loadings

	Environmental CSR	Community resilience (capacity)	Environmental well-being
CSR-em01	*0.692*	0.359	0.351
CSR-em02	*0.746*	0.342	0.369
CSR-em03	*0.792*	0.299	0.441
CSR-em04	*0.789*	0.417	0.489
CR-01	0.418	*0.701*	0.482
CR-02	0.300	*0.773*	0.416
CR-03	0.386	*0.817*	0.390
CR-04	0.244	*0.646*	0.290
EWB-1	0.355	0.407	*0.769*
EWB-2	0.357	0.380	*0.701*
EWB-3	0.433	0.393	*0.763*
EWB-4	0.386	0.316	*0.640*
EWB-5	0.394	0.435	*0.701*
EWB-6	0.366	0.355	*0.735*
EWB-7	0.386	0.390	*0.696*
EWB-8	0.440	0.429	*0.672*

Note: Italicised values are loadings for items that are above the recommended value of 0.5.
Abbreviation: CSR, corporate social responsibility.

TABLE 4 Summary of the hypothesis test

Path correlation	Hypothesis	Coefficients	t statistics	*p* Values	Decision
Direct effect					
CSR environmental practice → environmental well-being	H1	0.376	9.562	.000	Supported
CSR environmental practice → community resilience	H2	0.472	12.147	.000	Supported
Community resilience (capacity) → environmental well-being	H3	0.372	8.566	.000	Supported
Indirect effect (mediation)					
CSR environmental practice → environmental well-being	H2	0.176	6.810	.000	Supported

Note: Summary of the hypothesis test (***$p < .001$).
Abbreviation: CSR, corporate social responsibility.

5 | DISCUSSION AND CONCLUSIONS

The nickel mining company has been investing in ECSR since 2006 through mitigating and conservation programs for the surrounding communities. This study analyses the effects of ECSR on societal EWB by mediating CR. Based on the feedback of 12 community villages living close to the nickel mining sites, we have found that the practice of ECSR has had direct and indirect impacts on the development of community EWB. The findings of this study parallel with those of Walton et al. (2014), which have stated that community action and community adaptation are positively related to the EWB. The practice of ECSR has a strong effective impact on the EWB. Hence, increasing CR is necessary. According to previous studies on CSR practices across the world, corporations are found to be interested in exercising those CSR activities that help in maximising profit (Bhardwaj, Chatterjee, Demir, & Turut, 2018; Dutta & Durgamohan, 2008; Kaul & Luo, 2018; Lee, Kim, & Kim, 2018; Siegel & Vitaliano, 2007). CSR should be constructed as a fundamental responsibility to ensure that businesses have beneficial impacts on social well-being, environment and sustainability (Hoque, Rahman, Molla, Noman, & Bhuiyan, 2018; Ismail et al., 2015; Muhamad & Adham, 2013).

The results of the PLS-SEM analysis show that ECSR practice has affected CR. The form of community action of every activity begins with planning, implementing and evaluating, which affect community capacities, such as the process of learning transfer and in-process skills, organisational efficiency, trusts and responsibilities of the community and the creation of leadership and cooperation among stakeholders. This capacity building can encourage the enhancement of individual and CR. Walton et al. (2014) have measured CR by using three dimensions, namely, community action, collective effectiveness and community adaptation. Community actions can enhance personal and collective capacities to respond to and influence changes (Colussi et al., 2003). The finding of this study reinforces Steiner and

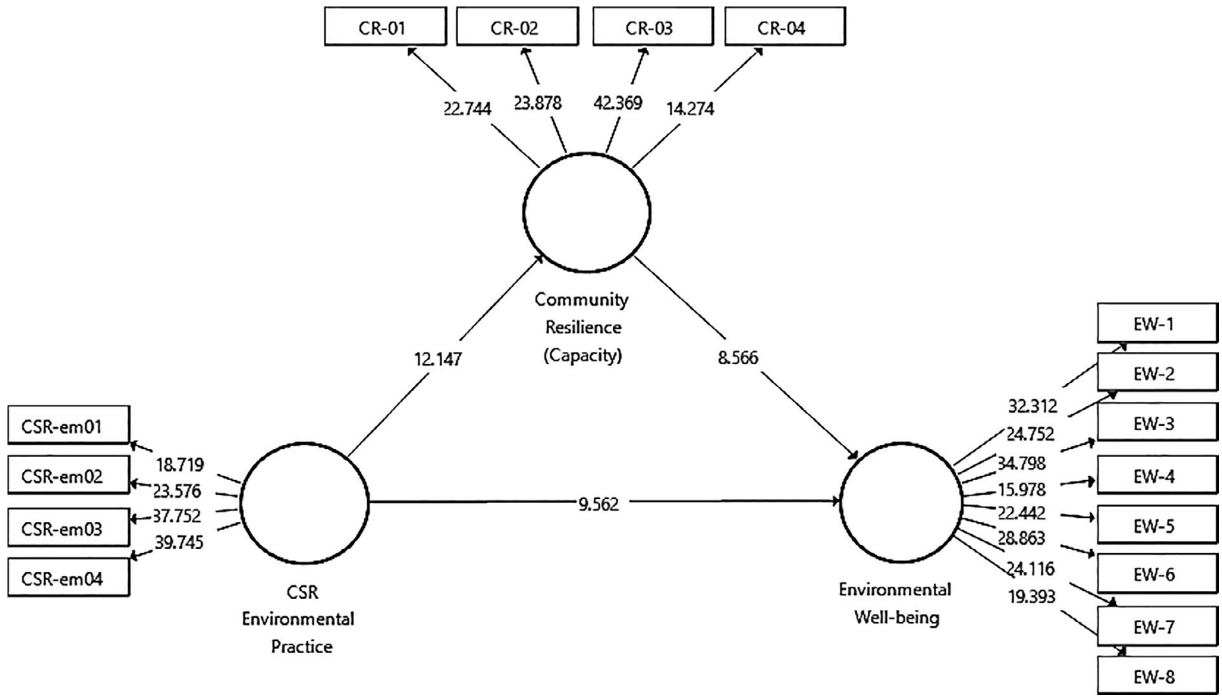

FIGURE 3 Measurement model

Markantoni's (2014) results that claim that CR can be enhanced by capacity building. Parallel with the studies from the Scottish Government (2010), Scottish Government (2012), strategies that promote CR can be implemented through corporate community engagement, empowerment, asset ownership and capacity building (Abdullah, Bakar, Sulehan, Puay, & Awang, 2011). Community building comprises strengthening social welfare provisions (Black, Arnell, Adger, Thomas, & Geddes, 2013). It can anticipate risks, limit impact and enable quick recovery by survival, adaptability, evolution and growth in the face of turbulent changes (Plodinec, 2013).

The communities also demonstrate adaptation and proactive behaviours concerning pressures, changes, risks and challenges. These qualities are linked to ongoing change processes within a dynamic social and economic environment (Milman & Short, 2008). Figure 2 shows the positive and significant direct and indirect effects of ECSR on CR and well-being. Thus, improving CR programs that include the enhancement of community capacity is necessary, with the primary focus placed on community involvement. This process is enabled by considering the three dimensions of CR, namely, community strategy action, community effectiveness and community adaptation. These dimensions can support community sustainability and EWB. This study is in line with that of Magis (2010). It empirically demonstrates statements from Tracey, Phillips, and Haugh (2005) and Kusago and Hirata (2017), who believe that CR is one of the supporting factors needed to improve the well-being of communities and sustainable development (Tobin, 1999).

This empirical examination of CR variables as a mediator variable that reflects ECSR practice will significantly affect EWB. Kusago and Hirata (2017) have argued that CR is one of the supporting factors in improving the well-being of a community. In terms of policy implications, this study also demonstrates that ECSR is a complementary strategy for the government in developing the EWB of a community by fostering CR. Ultimately, CSR practice should be incorporated in managerial business management strategy as the key driver to sustain long-term business, especially for social welfare and participation in sustainability for global development goals. ECSR practice is no longer limited to philanthropy. Now, corporations are part of the community and are responsible for community development and for mitigating and preserving the natural environment.

5.1 | Limitations and future research directions

Corporate environmental responsibility is an obligation of environmental standards and policy. It involves efforts to safeguard environment commitment in the handling of solid, liquid waste and effluents, conservation of biodiversity, treatment of waste material and water and energy saving. This responsibility is expected to minimise negative impacts of companies through programs such as the ecological extraction and processing of mineral resources using environmentally friendly approaches. Such methods include green technology, recycling, waste reduction, energy and water conservation and pollution control. The study is limited to nickel mines. However, it can be extended to the surrounding communities of coal, oil and gas mines in Indonesia. Impact studies may also be conducted on fishing and coastal communities that may be affected by mining and processing activities. This model can be scientifically tested in other developing countries, particularly among African countries, for transforming CSR initiatives to reduce global warming and climate change effectively in line with community sustainability.

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