Stakeholder’s perceptions of mining industry in Peru: Community involvement in decision-making and their causal conditions

This paper studies the community involvement in decision-making on corporate social responsibility (CSR) investments of mining firms in Peru and its causal conditions through stakeholder’s perceptions. To this end, community members, NGOs and consultants were interviewed. The focus was on various causal conditions in which stakeholders: a) explain the community needs, b) recognize the investments made by the companies, c) believe that mining benefits are not what they expected, d) declare the costs generated by these activities and e) point out that dialogue is the solution. Collected data were processed via a content analysis, followed by a Qualitative Comparative Analysis (QCA). The conditions which appeared in the QCA solutions were different depending on whether the community participated or not in decision-making, with the second situation prevailing. The results offer further understanding to all parties and may help companies to improve their performance.

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Este artículo estudia la participación de la comunidad en la toma de decisiones sobre las inversiones en responsabilidad social corporativa (RSE) de empresas mineras en Perú y sus condiciones causales a través de las percepciones de los interesados. Con este fin, se entrevistó a miembros de la comunidad, ONGs y consultores. La atención se centró en varias condiciones causales en las que los interesados: a) explican las necesidades de la comunidad, b) reconocen los inversiones realizadas por las empresas, c) creen que los beneficios de la minería no son lo que esperaban, d) declaran los costos generados por estas actividades y e) señalan que el diálogo es la solución. Los datos recopilados se procesaron mediante una análisis de contenido, seguido de un Análisis Cualitativo Comparativo (QCA). Las condiciones que aparecieron en las soluciones QCA fueron diferentes dependiendo de si la comunidad participaba o no en la toma de decisiones, prevaleciendo la segunda situación. Los resultados ofrecen mayor comprensión a todas las partes y pueden ayudar a las empresas a mejorar su desempeño.

Este artigo estuda o envolvimento da comunidade na tomada de decisões sobre as inversões em responsabilidade social corporativa (RSE) de empresas de mineração no Peru e suas condições causais por meio das percepções das partes interessadas. Para esse fim, foram entrevistados membros da comunidade, ONGs e consultores. O foco estava em várias condições causais nas quais as partes interessadas: a) explicam as necessidades da comunidade, b) reconhecem os inversiones feitos pelas empresas, c) acreditam que os beneficios da minerção não são o que eles esperavam, d) declaram os custos gerados por essas atividades e e) salientar que o diálogo é a solução. Os dados coletados foram processados por meio de uma análise de conteúdo, seguida de uma Análise Comparativa Qualitativa (QCA). As condições que apareceram nas soluções QCA foram diferentes, dependendo de se a comunidade participava ou não na tomada de decisão, prevalecendo a segunda situação. Os resultados oferecem maior entendimento a todas as partes e podem ajudar as empresas a melhorar seu desempenho.
1. Introduction

Mining activity is often a source of conflicts between companies and stakeholders. Increasing attention is being paid to stakeholders (Yakovleva and Vázquez-Brust, 2012; Dong et al, 2014; Dobele et al., 2014; Van der Plank et al., 2016; Viveros, 2016; Lopez-Navarro et al., 2016; Babi et al., 2016), due to the growing influence they have in opposing mining (Mzembe and Meaton, 2014; Basu et al., 2015). Dobele et al. (2014) and Van der Plank et al. (2016) in Australia or Dong et al. (2014) in China showed the lack of participation of communities in decision-making whereas other studies showed the opposite, i.e. Yakovleva &Vázquez-Brust (2012) in Argentina.

Community involvement in decision-making appears in the literature as a key aspect on the CSR outcome of mining companies, while different conclusions about its implementation are obtained depending on the context. Stakeholder's perception research has shown its potential to bring evidence to this subject. However, the causal conditions of community involvement in decision-making have not been the main focus of these works. To fill this gap, we study the case of Peru, a developing country with a strong mining sector, well known by their conflicts, with a good number of local communities in mining areas, with the aim to offer a more comprehensive knowledge of the views and motivations of these groups, a better understanding of the causes of rejection and conflicts, and thus some clues for firms to improve their acceptance, and governments to adapt their policies. To this end, 21 interviews with open-ended questions were conducted with three stakeholders: local communities, NGOs and consultants. The information obtained was subject to a content analysis and then a Qualitative Comparative Analysis (QCA) was used to test the defined hypotheses.

This paper will deepen in the literature review, including the theoretical support for the hypotheses defined. Then, the methodology and results are presented. Conclusions can be found in the last section.

2. Literature Review

2.1. The relationship between local communities and mining companies

Extractive industries are included in the so-called controversial industries (Grougiou et al., 2016) because of their environmental, social and ethical implications (Cai et al., 2012). The negative impacts of mining have generated major social conflicts and strong opposition to mining activities (Hilson, 2002; Bebbington, 2011; O’Faircheallaigh, 2015; Damonte, 2016; Haslarm and Tanimoune, 2016; Conde, 2017).

Companies have significantly increased the resources allocated to CSR, as well as their reporting (Kilian and Hennigs, 2015). Mining sector leads the development of new CSR practices (Hilson,
Companies seek to improve their image in order to obtain a social license to operate (SLO) (Campero and Barton, 2015; Costanza, 2016; Holley and Mitcham, 2016), or to reduce the risk of losing their SLO when they generate a negative impact (Godfrey, 2005). Companies operating in developing countries face difficulties in legitimizing their presence, despite significant investments (Gifford et al., 2010). The reason may be the difficulty in implementing CSR activities (Akiwumi, 2014).

The stakeholders’ relevance has increased over the years (Parmar et al., 2010); their criticism greatly influences the companies’ actions (Barnett, 2007), as they seek to legitimize their operations and this requires connecting with these groups and meeting their needs (Chen and Roberts, 2010). Moreover, according to Mzembe & Meaton (2014), CSR in the context of mining requires both a company and stakeholder perspective. A proactive approach, involving, reporting and consulting local communities at all stages of the process, generates greater trust, transparency and coherence (Basu et al., 2015; López-Navarro et al., 2018). The community knows its own needs best (Gifford and Kestler, 2008), so it should be able to build bridges and work together with firms. This bridge can be articulated through the ‘community development agreement’ (O’Faircheallaigh, 2015). The company should adapt its CSR and negotiate it with stakeholders in each context, as the values, perceptions and needs of communities vary according to their location as well as to their cultural variety (Lindgreen and Córdoba, 2010; Yakovleva and Vázquez-Brust, 2012), either for developing or developed countries (Visser and Tolhurst, 2010).

Stakeholder perceptions focus in the mining sector is gaining weight. Studies such as Kasimba & Lujala (2019), Viveros (2016), Van der Plank et al. (2016), Babi et al. (2016) or Martínez & Franks (2014) analyze the views and perspectives of different stakeholders in relation to CSR and the impacts of mining activity. However, we find of particular interest investigating the causal conditions of community involvement in decision-making, not yet addressed from this approach.

3. Mining context in Peru

Peru is a developing country rich in mineral resources. Extractive projects in Peru are led by multinational companies, located in lands with farmer and indigenous communities. Peru mining sector, favored by the government privatization policies, has vertiginously grown in the last decades with great economic success, having a strong influence on the economic growth of the country. Government in Peru is strongly dependent on the foreign investment, and has implemented a neoliberal extractive model, in which the lack of intervention, leaving the environmental and social issues to the private initiative, has led to asymmetrical negotiations between companies and communities, with a growing number of social and environmental conflicts. Against these conflicts, government has given priority to the projects, with low impact regulatory measures, while the protestors are not able to establish a consistent institutional space that articulates their demands (Damonte, 2016, Arellano-Yanguas, 2011, Malamud, 2018). Thus, mining scenario in Peru is of particular interest to investigate the causal conditions explaining how the communities do/may participate/influence on CSR investment decisions of mining companies.
3.1. Hypotheses

Mining companies need their projects to be accepted by the communities, to get a SLO (Prno and Slocombe, 2012, de-Miguel_Molina et al., 2019). We focus on different causal conditions that may explain the participation of local communities on decision-making of CSR investments of mining companies in Peru. These conditions are that: (a) communities know what their needs are and communicate them; (b) mining companies make investments in communities; (c) there is a perception that the benefits generated by mining companies are not what communities expect; (d) there is a perception that mining generates negative costs for communities; and (e) communities propose dialogue between companies and communities as a solution to conflicts.

The first causal condition is that it is the local communities themselves who should indicate what their needs are to the mining companies. As Gifford & Kestler (2008) noted, the communities know their needs best. However, it is often the companies and not the communities who decide on investments (Wilson, 2015; Saenz, 2019). Idemudia (2009) found that some mining companies focus on pleasing community elites, thus relegating the needs of the community. Among these elites, Cisneros & Christel (2014) include governments and some NGOs closer to companies. This situation has generated important local conflicts in Latin American countries. However, there are also governments that are more willing to protect the interests of local communities (Arellano-Yanguas, 2011).

**Hypothesis 1.** When communities (and other stakeholders, such as NGOs and consultants) formulate the specific needs of mining communities, they are more likely to influence corporate investment decisions.

The second causal condition is that mining companies make investments in their communities. These investments, aimed at generating a positive impact on the community, are important to obtain SLO (Cheshire, 2010). Companies, especially those deemed to be controversial, use them to achieve legitimacy (Jijelava et al., 2017). Mining companies invest in communities in different areas, i.e. infrastructure (roads, electricity, sanitation), support for education, health, or philanthropic donations (Fuisz-Kehrbach, 2015). Through these investments, companies seek to improve their relationships with communities by building trust in them (Tuusjärvi et al., 2014).

**Hypothesis 2.** When communities (and other stakeholders, such as NGOs and consultants) recognize the importance of community investments made by mining companies, they are more likely to influence decision-making about such investments.

The third causal condition considers that communities and other stakeholders may find that the benefits of mining are not what they expected. Some of them are the creation of jobs and company investments in the communities (Tuusjärvi et al., 2014). If communities consider that those ‘benefits’ do not meet their demands, companies face the risk of losing SLO (Prno and Slocombe, 2012). But when companies are aware that obtaining a SLO requires considering not only their own interests but also those of the communities in which they operate, achieving higher levels of SLO and trust is possible (Richert et al., 2015).

**Hypothesis 3.** When communities (and other stakeholders, such as NGOs and consultants) claim that the benefits of mining activities are not what they expected, they are more likely to influence decision-making regarding these activities.
The fourth causal condition refers to the negative costs of mining, that being a controversial industry generates multiple environmental, social and ethical damages (Cai et al., 2012; Grougiou et al., 2016). There is growing criticism on the negative effects of mining, and stakeholders’ pressure is increasing. Thus, mining companies may lose its SLO (Cheshire, 2010; Owen, 2016). Coumans (2011) indicated that when a firm wants to carry out a new mining project, two opposing groups generally emerge in the community, pro and anti-mining (Gustafsson and Scurrah, 2019). Sometimes, these conflicts in a community transcend and they obtain support from external stakeholders, and thus it is hard to get and keep SLO, especially when environmental impacts are contested (Holley and Mitcham, 2016).

**Hypothesis 4.** When communities (and other stakeholders, such as NGOs and consultants) are concerned about the negative costs of mining activities, they are more likely to influence decision-making about these activities.

The fifth causal condition, the value of dialogue in resolving conflicts, is a relevant issue in the literature on SLO; Owen (2016) suggests that companies should treat communities more like a partner than an enemy. Dialogue is seen as an effective way to gain community trust and thus not only achieve but also keep SLO (Costanza, 2016; Holley and Mitcham, 2016). Through dialogue, companies give communities the chance to be heard (Prno and Slocombe, 2014; Coumans, 2017; Dunlap, 2019). The Free, Prior and Informed Consent model goes even further than SLO and gives communities the chance to decide whether to consent to mining activity in their region (Prno and Slocombe, 2012).

**Hypothesis 5.** When communities, NGOs and consultants suggest that the solution to conflicts related to mining activities is dialogue with companies, they are more likely to influence decision-making about these activities.

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### 4. Methodology

#### 4.1. Data and variables

The data used comes from interviews with 21 representatives of local communities (6), NGOs (12) and consultants (3) working in the field of mining industry in Peru.

**Tabla 1- Interviewees and position**

<table>
<thead>
<tr>
<th>Group</th>
<th>Position</th>
<th>Group</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local community</td>
<td>Communications Manager</td>
<td>NGO</td>
<td>Coordinator</td>
</tr>
<tr>
<td>Local community</td>
<td>Teacher</td>
<td>NGO</td>
<td>Coordinator</td>
</tr>
<tr>
<td>Local community</td>
<td>Justice of the Peace</td>
<td>NGO</td>
<td>Responsible</td>
</tr>
<tr>
<td>Local community</td>
<td>Governor</td>
<td>NGO</td>
<td>Activist</td>
</tr>
<tr>
<td>Local community</td>
<td>School Principal</td>
<td>NGO</td>
<td>Executive Director</td>
</tr>
</tbody>
</table>
The data collection process took place from May 2016 to September 2017. The interview script included the following six open-ended questions:

1. What is your view on the CSR role of mining companies in their local communities?
2. How is the relation between companies and NGOs, government and communities?
3. Do mining companies generate benefits for the local communities in which they operate, and how could these benefits be increased?
4. What negative effects do mining companies have on the communities in which they operate, and how could these impacts be reduced?
5. What are the main needs of local mining communities and how are they identified?
6. Who decides on the CSR actions to be carried out?

The interviews were transcribed and imported into the content analysis software QDA Miner 4 (Research Provalis). Through this software, line-by-line reading was performed and codes and groupings were defined. Each code was related to a sentence in the responses given by the interviewees. In the first definition, there were 132 codes, which were grouped into 11 categories. The codes were then revised to reduce their number, grouping together those for which answers were similar. Finally, 24 codes and six categories were selected for the analyses carried out as follows:

• Positive impact of mining companies on their communities → The codes indicate the investments in the communities made by companies according to the interviewees (variable name: InvY):
  - E1. Infrastructure
  - E2. Education, culture and health
  - E3. Local development
  - E4. Charity

• The benefits are not perceived as such (barriers to achieving SLO) → The codes reflect that the interviewees referred to the fact that the benefits were not what they expected (variable name: BenNPY)
  - F1. The benefits are few and far between and for a limited time
  - F2. The community is divided between those who support and those who reject mining, which has led to social conflicts
  - F3. They only benefit certain power groups
  - F6. The damage caused exceeds the alleged benefits
  - F10. The promises of improvement did not come; there is still a lack of support for education, health and jobs for women

• How could these benefits be increased and relationships improved? → Only the reference to dialogue as a solution was taken as a variable for the analysis (Variable name: SolDialogY)
  - G1. Dialogue
  - G2. Role of the State
  - G3. Respect
Negative impact of mining companies on their communities → These codes refer to the costs cited by the stakeholders (Variable name: CostY)
- **I1. Environment**
- **I2. Social impact**
- **I3. Leadership**
- **I4. Health damage**
- **I5. Destruction**
- **I6. Water consumption**
- **I7. Migration**

Main needs of local mining communities → The codes reflect the stakeholders citing specific needs of the communities (Variable name: NeedsY)
- **K1. Infrastructure**
- **K2. Development**
- **K3. Education/Culture/Health**

Who decides on investments in the community? → These codes were used for the outputs (Variables: ‘community_participatesY’ and ‘community_participatesN’)
- **L1. Firms and governments only**
- **L2. Community participates in decisions**

Once the codes and variables defined, the QCA was carried out. For this purpose, the outputs, causal conditions and analysis method (crisp-sets or fuzzy-sets) were chosen (Ragin and Fiss, 2008; Schneider and Wagemann, 2012). The following section explains the steps conducted for this analysis.

### 4.2. Data analysis

QCA is a qualitative data analysis technique that enables the necessary and sufficient conditions which explain a result to be established (Schneider and Wagemann, 2012). It works with both small and large samples, via different types of software. The QCA has two main variants, crisp-sets (csQCA) and fuzzy-sets (fsQCA). In the first type, cases only operate as members or non-members of a set, so the values are only 1 and 0. In fuzzy-sets, on the other hand, cases may adopt more values than just the total membership or lack of membership of a given group. In our analysis, we used the csQCA variant, meaning that the values of each output and condition were 1 and 0. Table 2 shows the outputs used in each defined model, the causal conditions and their calibration. The two models defined for the analysis were as follows:

**Model 1:** community_participatesY = f(NeedsY, InvY, BenNPY, CostY)
**Model 2:** community_participatesN = f(NeedsY, BenNPY, SolDialogY, CostY)

<table>
<thead>
<tr>
<th>Outputs and causal conditions</th>
<th>Definition</th>
<th>Calibration</th>
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</thead>
<tbody>
<tr>
<td><strong>Outputs</strong></td>
<td></td>
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</tbody>
</table>
| Model 1: community_participates – Yes | Stakeholder stated that the community participated in decision-making (code L2) | - Code L2 present: value 1  
- Code L2 absent: value 0 |
| Model 2: community_participates – No | Stakeholder stated that the community did not participate in decision-making (code L1) | - Code L1 present: value 1  
- Code L1 absent: value 0 |
| **Causal conditions**        |            |             |
| InvY                         | The company made investments in the community in one of the codes E1 to E4. | - It does make investments: value 1  
- No investment: value 0 |
| BenNPY                        | Stakeholder stated that the benefits were not those perceived, with some F codes | - Some codes F present: value 1  
- Some codes F absent: value 0 |
5. Results

5.1. Results for model 1

Only one condition is necessary, NeedsY (consistency value ≥ 0.9). Table 3 shows the solution obtained for the sufficiency analysis (combination of NeedsY present and BenNPY absent). When this combination occurs, then the community participates in the decision-making process. Therefore, the results of this model prove H1 but not H3.

5.2. Results for model 2

None of the conditions are necessary. Table 3 shows two solutions for model 2. The first solution states non-participation when the needs of the community are not cited (H1), while solution 2 says that non-participation appears when benefits are not as expected (H3), mining generates costs for the community (H4), solution to conflicts is dialogue (H5). Thus, when communities do not express their needs, they do not participate in decisions affecting them. However, hypotheses H3, H4 and H5 are not found in the results as they were stated.

5.3. Discussion of results

It is important to remark that in 11 of the cases shown in Table 3 the community did not participate, as opposed to 5 cases in which it did. Hence, the perceptions showed a prevalence of no community involvement in the decisions that affected them, which could explain the results presented below.

H1 related the community involvement in decision-making to their ability to express their needs. Results confirm this hypothesis, but also reveal that when communities did not express their needs, they did not participate. Results coincide with Wilson (2015) when he pointed out that in many cases communities do not decide on investments. In our work, the company and governments mostly decide without consulting the communities. This can lead to conflicts with communities (Cisneros and Christel, 2014).
### Tabla 3 - Analysis of the sufficient conditions (Models 1 and 2)

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Model 1 Output: community participation Y</th>
<th>Model 2 Output: community participation N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solution S1</td>
<td>Solution 1</td>
</tr>
<tr>
<td>NeedsY</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>InvY</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>BenNPy</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>CostY</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>SolDialogY</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

| Cases         | ID6 (1,1), ID14 (1,1), ID15 (1,1), ID16 (1,1), ID17 (1,1) | ID3 (1,1), ID5 (1,1) ID9 (1,1), ID10 (1,1) ID11 (1,1), ID15 (1,1) ID19 (1,1) | ID2 (1,1), ID3 (1,1), ID4 (1,1), ID5 (1,1), ID13 (1,1) |
| Stakeholders in each solution | Community: 3 cases NGO: 2 Consultant: 0 | Community: 1 case NGO: 3 Consultant: 3 | Community: 1 case NGO: 4 Consultant: 0 |
| Consistency   | 1           | 1           | 1           |
| Raw coverage  | 0.714286    | 0.5         | 0.357143    |
| Unique coverage | 0.714286   | 0.357143    | 0.214286    |
| Frequency cut-off | 1           | 1           | 1           |
| Consistency cut-off | 1           | 1           | 1           |
| Solution consistency | 1           | 1           | 1           |
| Solution coverage | 0.714286   | 0.714286    | 1           |

- ☐ = Core causal condition present
- ☒ = Complementary causal condition present
- ☐ = Core causal condition absent
- ☒ = Complementary causal condition absent

Source: use of fsqca software (Ragin and Davey, 2017) from content analysis results.

H2 related the participation of communities in decision-making to the recognition of the importance of investments made by companies. This condition does not appear in the results, not even as an absent condition. This result may indicate that communities did not perceive that the companies’ investments had a positive impact, thus making it difficult for the company to achieve SLO (Cheshire, 2010).

H3 related the participation of communities in decision-making to the fact that they considered that the benefits of mining activity were not what they expected. The results show that the opposite is true, meaning that when communities expressed disagreement with the benefits they had hoped to achieve, it was because they had not participated in decision-making. This perception makes it difficult for companies to obtain and maintain their SLO (Prno and Slocombe, 2012).

H4 linked the participation of communities in decision-making to the negative costs of mining. The result also shows the opposite: when communities did not participate they were most critical of the...
costs of mining to their community. Stakeholders reported that conflicts arise in communities when two groups disagree, those who support mining and those who oppose it (Courmans, 2011). The risk of these perceptions is the increased pressure from critical stakeholders, which can cause the company to lose or fail to achieve their SLO (Cheshire, 2010; Holley and Mitcham, 2016; Owen, 2016).

H5 linked the participation of communities in decision-making to the fact that they considered that the solution to conflicts involved dialogue between communities and companies. The result also shows the opposite result, that when they expressed the need for dialogue, they did not participate in decision-making. Therefore, dialogue, which is one of the most effective ways to gain the trust of communities and to achieve SLO (Prno and Slocombe, 2014; Costanza, 2016; Holley and Mitcham, 2016; Owen, 2016; Courmans, 2017), is being ignored.

6. Conclusions

This article has analyzed the perceptions of various stakeholders in terms of the community involvement in decision-making on CSR investments and their causal conditions in the mining industry in Peru, by interviewing three groups of actors (communities, various NGOs and consultants). Through collected data, the hypotheses formulated were tested. These hypotheses raised the relationship between community perceptions of their participation in decision-making, the investments made by companies, the benefits and costs associated with mining activities, and the use of dialogue to resolve conflicts between the parties.

The results showcase three important conclusions. Firstly, there are differences in terms of perceptions depending on the stakeholder group. In general, consultants and NGOs were more critical than the local communities were. The predominant perception was that communities did not participate. Secondly, the lack of dialogue between companies and local communities, necessary to identify their real needs (Yakovleva and Vázquez-Brust, 2012; Basu et al., 2015; Courmans, 2017). Finally, all groups agreed that dialogue is the solution to conflicts, leading to increased credibility and trust in firms (Dobele et al., 2014; Kilian and Hennigs, 2015). In terms of governmental roles, communities expect them to defend their interests (Roy Grégoire and Monzón, 2017), while companies expect them to avoid conflict and rejection of their activities (Babi et al., 2016).

The results of this research provide companies with a more complete overview of the perceptions that stakeholders have about CSR and community involvement in decision-making, and how these perceptions could be improved. They can also be useful for governments and other stakeholders. One of the limitations of this study is the absence of government representatives at local and state levels. However, the study may serve as a stepping-stone for other countries or geographical areas, and to verify similarities and differences.
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Referências


