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Community engagement through social media: A comparative case study between two large infrastructure projects in Finland and India

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1. Research Problem Statement

Large infrastructure projects create environmental, social, and political disruptions in their local environment, and the project community bear a majority of the project's negative impacts (Söderlund et al., 2017). The project community acts as evaluators and continuously observe, perceive and make judgments on whether the project organization is eligible for their support and resources and whether they have the capability to perform project activities in their proximity (Derakhshan et al., 2019). The community members often seek an avenue to express their concerns about the compulsory acquisition of land, houses and parks, the disruption caused by the construction phase of the project (e.g., emissions, changing traffic arrangements) and its ongoing impacts on lifestyle, health, and wellbeing, e.g., due to interruptions in water and energy distribution (Ninan et al., 2020). Unless the community members are offered an avenue to express their concerns, they may engage in harmful influencing activities that can have detrimental impacts on the performance of large infrastructure projects (Lehtinen et al., 2019). Indeed, several studies have offered evidence of local communities demands for improved sustainability and social responsibility and increased use of harmful influencing activities (e.g., protests, appeals) that generate delays and even legal disputes, negatively affecting the performance of large infrastructure projects (Di Maddaloni and Davis, 2017; Gil, 2010; Unterhitzberger et al., 2020).

Traditionally, local communities have expressed their concerns in workshops, seminars, community meetings, site visits and other events organized by the project organization (Lehtinen & Aaltonen, 2020). But increasingly, project organizations opt-in social media where local community members have the opportunity to express their concerns in an equal and accessible manner. The previous implies that those stakeholders, including particularly marginalized and underrepresented stakeholders, who may not be in the physical

proximity of the project, can become part of the “local” community. For example, the project organizations of High-Speed Rail 2 and London Crossrail in the UK use their official social media accounts for information dissemination about important decisions and changes, upcoming interruptions and plans that invite a myriad of contributions from the community members. Despite many infrastructure project organizations employing social media for community engagement, this phenomenon has not attracted much scrutiny from project management scholars. There are a few studies that touch on the issue of social media and community engagement in the context of infrastructure projects (see, e.g., Ninan et al., 2019; Williams et al., 2015; Turkulainen et al., 2015), but these studies have mainly focused on conceptualizing the use of social media for community engagement, instead of addressing the content of communication from and to local community in detail. Against this backdrop, the purpose of this study is to investigate how community members express their concerns through social media and how does the project organization respond to these concerns. The specific research questions are 1) What kinds of concerns does the (local) community of an infrastructure project raise through social media? 2) How are these concerns addressed by the project organization?

2. Brief Research Methodology and Approach

We use a multiple-case study design to address the research questions because they are appropriate to study a phenomenon in depth embedded in its context to retain the holistic and meaningful characteristics of real-life events (Yin, 2014). That is, case study design is appropriate for studying the social media communication between a project organization and its community in detail with careful consideration of contextual idiosyncrasies. Following the theoretical replication logic (Yin, 2015, pp. 57-58), we selected two cases that likely yield different or even contradicting findings, a tunnel project in Finland and a metro rail project in India. The two cases are embedded in very different socio-cultural settings where communication norms, rules and policies are divergent in general, implying that the patterns, content, organization, and impact of social media communication are likely different between the two cases. The two cases function like two, polar experiments, where emerging findings are compared for determining the differences but also potential similarities (Eisenhardt, 1989).

Based on Ketokivi and Choi’s (2014) theory generation approach to case research, our logic of reasoning was primarily inductive with a view to generate new understanding of local community engagement in the contexts of social media and infrastructure projects. While there are likely applicable theories to our research phenomenon and context, our purpose was to

avoid being theoretically conservative, which would otherwise mean that our empirical observations are couched in the pre-selected theory, creating undue bias (Martin & Eisenhardt, 2010; Ketokivi & Choi, 2014).

We employed three data collection methods, semi-structured interviews, documents and social media data that are appropriate and typical for qualitative case studies focusing on stakeholder engagement and communication. The social media data from the two projects was the primary data and the semi-structured interviews and documents supplementary, secondary data, being necessary to form a sufficient background understanding of the case contexts. We collected raw messages (text, links, pictures, videos, other links) from both projects' official social media pages in chronological order. In total, our dataset comprises of 762 exchanges from tunnel project in Finland and 510 exchanges from the metro rail project in India on Facebook. The data in both cases captured interaction between the project organization and community (i.e., messages from both parties) during the project implementation period.

Our secondary data included semi-structured interviews and documents. We conducted 11 semi-structured interviews and gathered 39 documents from the tunnel project in Finland. Similarly, we conducted 17 semi-structured interviews and gathered 12 documents from the metro rail project in India. The interviewees were key project personnel (e.g., project manager, project coordinator, project planner, chief engineer, procurement manager) that were responsible of organizing the project and were knowledgeable also about community engagement in the project. The interview questions were typical qualitative interviews, including open-ended questions focusing on the interviewee's own narrative and interpretation of project's key activities, events, arrangements, and practices, also related to community engagement and social media. The documents included project plans, reports and relevant news articles from which information about community engagement and social media could be extracted.

Following our inductive case research, we employed a qualitative grounded theory method (Strauss & Corbin, 1998) to generate new understanding of community engagement through social media. The grounded theory approach follows a typical qualitative three-stage coding procedure that starts from raw data and proceeds to theoretical abstraction. Our approach included three stages, open, axial, and selective coding. In the open coding phase, we extracted descriptive phrases from the data and generated empirical-level codes describing the community members concerns and the project organizations' reactions and means of addressing these concerns. In the axial coding, we categorized the open codes into meaningful categories and finally, in selective coding, we analysed the connections among the axial codes

and sought to understand the patterns in the two cases. Finally, we compared the two cases for key differences and similarities and sought to understand the differences in detail, by using the secondary data (interviews and documents). Through the cross-case analysis, we developed a theory of community engagement through social media in infrastructure projects.

3. Key Findings

The data analysis is still on-going, but we have already found some interesting differences. The two cases are similar in that both projects responded to the social media queries from the project community. However, the metro rail project organization in India used a standard reply to postpone reply to query indefinitely and thus did not seek to engage the community genuinely or on an extended level. That is, rather than promoting open interaction and dialogue as a means of facilitating community engagement, the organization functioned more as an expert and monologist, which is how organizations traditionally operate. Conversely, the tunnel project in Finland answered all queries promptly but with a tailored reply in most of the cases that offered proper answers to questions and help/support for the community. The tunnel project organization exercised its role as a facilitator – inviting contributions from the community to relevant issues (i.e., opportunities for community to promote their own visions, ideas, values, and social need), replying comprehensively to the social media community members' messages, and overall governing the communication and engagement in a critical manner. It seems that the metro rail project organization was more of an informer that provided mainly information and ostensible opportunities for contributing to the project, while the tunnel project organization was more a communicator if not even enfranchiser, providing even actual decision-making authority for the community, as defined by Lehtinen and Aaltonen (2022).

Additionally, in both projects there was a public relations officer operating the social media pages, however, in the tunnel project the officer was well integrated into the day-to-day construction activities of the project. This may be one key factor for the tailored messages – the PR officer was more knowledgeable of the construction activities and possessed thus the knowledge to provide actual answers and engage the community authentically. In addition, community engagement was one of the key results areas in the tunnel project, which likely contributed to the active role of the project organization in social media.

Lastly, the project community in both cases was active through trolling, tagging friends, and having fun in the social media page of the project. There was also a lot of cultural grounding in the queries and replies that are still subject to a deeper analysis.

4. Implications

The research will offer new insights into how social media can be used to engage the project community in the context of infrastructure projects. It enables project organizations to evaluate the kind of communication which is effective in engaging stakeholders qualitatively. Community engagement through social media can have a social change, i.e., an impact on the heart and minds of the project community, and also a physical change, i.e., it provides a medium to listen and adjust the project according to the concerns of the project community. The study also has an instrumental value, that is, if the interests of community are integrated into the project through effective social media communication, there are likely less opposition and fewer influencing activities that would otherwise hamper project performance. The current community engagement practices are focused regionally and may not be adequate considering the wide reach of infrastructure projects. People who may not be in the physical proximity of the project might also have an interest in the project and hence can be considered as stakeholders. Social media provides a medium to engage with these stakeholders as well as other marginalized and underrepresented stakeholders who can become part of the “local” community.

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