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Strategies to Gain a Social License to Operate in the Mining Industry

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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by

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MS, Walden University, 2015

BS, Antenor Orrego University, 1997

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Failure to gain a social license to operate (SLTO) in the mining industry often leads to mine closures and increased risk exposure that negatively impacts profitability. Mining project managers who do not obtain an SLTO risk project, which can affect profitability. Grounded in general systems theory, the purpose of this qualitative multiple case study was to explore strategies used by mining project managers to gain an SLTO to improve profitability effectively. Data were collected from semistructured interviews and document reviews. Participants comprised eight project managers at five mining companies in the Republic of Peru who implemented successful strategies to obtain an SLTO to improve profitability. Using Yin's data analysis process, three themes emerged: linking shared value to socioeconomic development, effective stakeholder management practices, and effective project leadership. A key recommendation for the mining project managers to gain an SLTO is to communicate the companies' values and the benefits of partnering with the mining companies to leaders and community members where the mining companies operate. The implications for positive social change include improving the relationship between local community stakeholders and mining project members by promoting benefits associated with social wellness, environmental protection, and improving the local economy by increasing employment.

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Dedication

I dedicate this study to my wife, Isabel, and my daughters, Fatima and Cristina, for your support and patience in my academic journey. Ceferino and Vilma, my mentors and parents, thank you for guiding my career. Thank you to my brothers and sister, Cesar, Juan, and Patricia, who have always believed in my potential.

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Table of Contents

List of Tables iv

Section 1: Foundation of the Study 1

Background of the Problem 1

Problem Statement 2

Purpose Statement 3

Nature of the Study 3

Research Question 5

Interview Questions 5

Conceptual Framework 6

Operational Definitions 6

Assumptions, Limitations, and Delimitations 7

Assumptions 7

Limitations 7

Delimitations 8

Significance of the Study 8

Contribution to Business Practice 8

Implications for Social Change 9

A Review of the Professional and Academic Literature 10

Organization of the Review 10

Strategy for Searching the Literature and Peer-Reviewed Sources 11

General Systems Theory 11

General Systems Theory and Profitability 16
Social License to Operate in the Mining Business 27
Project Management Practices to Increase the Likelihood of Gaining a Social License to Operate 39
Project Manager Competencies for Gaining a Social License to Operate 56
Transition 60
Section 2: The Project 62
Purpose Statement 62
Role of the Researcher 62
Participants 65
Research Method and Design 67
Research Method 68
Research Design 69
Population and Sampling 71
Ethical Research 74
Data Collection Instruments 76
Data Collection Technique 77
Data Organization Technique 79
Data Analysis 80
Compiling 81
Disassembling Data 81
Reassembling Data 82

Interpreting 83
Concluding 83
Reliability and Validity 84
Reliability 84
Validity 85
Transition and Summary 87
Section 3: Application to Professional Practice and Implications for Change 89
Introduction 89
Presentation of the Findings 90
Theme 1: Linking Shared Value to Socioeconomic Development 91
Theme 2: Effective Stakeholder Management Practices 99
Theme 3: Effective Project Leadership 106
Applications to Professional Practice 112
Implications for Social Change 115
Recommendations for Action 116
Recommendations for Further Research 118
Reflections 119
Conclusion 120
References 123
Appendix: Interview Protocol and Questions 142

List of Tables

Table 1 Details of Literature Review by Year of Publication 11

Table 2 Emergent Themes 90

Section 1: Foundation of the Study

Conflicts with local stakeholders motivated by environmental and social concerns promotes mining project closure or suspension, affecting the profitability of mining companies (Ernst & Young, 2018; Prno & Slocombe, 2014). In the mining industry, operating with community acceptance contributes to increased profitability (Prno & Slocombe, 2014). In Peru, disputes concerning the distribution of benefits, environmental remediation, paid compensations for land, and the human rights of indigenous people reduce the likelihood of mining companies successfully gaining social acceptance, slowing or stopping operations, increasing business risk exposure, and negatively impacting mining business profitability (Saenz, 2019). In this study, I explored the strategies that project managers of mining companies in Peru use to gain the social license to operate (SLTO) to improve profitability.

Background of the Problem

In the mining industry, costly conflicts and exposure to business risk are the consequences of operating without a social license. The concept of SLTO is a term coined to draw the attention of mining companies to mitigating negative stakeholder issues (Cooney, 2017). An SLTO is an intangible asset that mining companies acquire through positively affecting communities located around their mining projects (Cooney, 2017; Melé & Armengou, 2016). Operating without local community support, lack of an SLTO can lead to lower profitability and mine closures. Project managers of mining companies allocate funds to cover costs generated during conflicts with local communities (Gehman et al., 2017; Nyembo & Lees, 2020).

The lack of strategies among mining project managers to work without the social support of the local community by gaining an SLTO is often the cause of lower profitability in many mining industries (Nyembo & Lees, 2020). Project managers of mining companies with capital projects between $3 and $5 billion USD reported around $20 million USD per week of delayed production in net present value (NPV) due to conflicts with local communities (Franks et al., 2014; Gupta & Kumar, 2018).

Project managers of mining companies face potential risks that affect the profitability of their companies when they lose community support, leading to an inability of the company to gain or sustain an SLTO. The population of local communities and critical stakeholders around mining projects have the power and influence either alone or in coalitions to stop projects or operations, thus imposing severe costs on mining companies (Jijelava & Vanclay, 2017).

Problem Statement

Unfulfilled promises of mining companies' executives involved in projects in the Republic of Peru to local communities eroded the likelihood of these mining companies successfully gaining an SLTO and thereby slowing or stopping operations, increasing business risk exposure, and negatively impacting mining business profitability (Gupta & Kumar, 2018; Saenz, 2018). In 2017, the investment of projects suspended or canceled in Peruvian mining companies because of their failure to gain an SLTO was estimated at $54 billion USD, significantly reducing their profitability (Schwarz, 2018; Ventura & Jauregui, 2017). The general business problem was that some mining companies lack strategies to effectively gain SLTOs, leading to mine closures and lower profitability. The

specific business problem was that some mining project managers lack strategies to effectively gain an SLTO to improve profitability.

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies used by mining project managers to effectively gain an SLTO to improve profitability. The target population consisted of eight mining project managers from five mining companies in Peru who have successfully acquired SLTOs to improve profitability. This population was appropriate for this study as project managers provided strategies to effectively gain the support of local communities to operate with the social license to improve profitability. These managers have a demonstrated ability to gain an SLTO with their communities. The implications for positive social change include improving community relations, engaging more effectively with local community members, and improving living standards for the local populations by increasing employment. Community residents and public organizations may also receive mining benefits from mineral taxes and royalties earmarked for local investment funds, joint ventures, local procurement, employment quotas, and training.

Nature of the Study

I used the qualitative method for this study. A researcher uses the qualitative method to understand social life issues and generate words, rather than numbers, as data for analysis (McCusker & Gunaydin, 2015). The researcher who performs a qualitative study focuses on research questions and associated subquestions to analyze a central issue, rather than developing hypotheses used in quantitative or mixed methods research

(Yin, 2014). Qualitative researchers explore documents, observe behavior, and interview participants; in contrast, quantitative researchers examine quantifiable relationships between variables using deductive logic, attempting to draw statistical inferences from a sample that they can generalize to a larger population (McCusker & Gunaydin, 2015; Zohrabi, 2013). A researcher adopts mixed methods to consider qualitative data using an inductive process and quantitative data using a deductive process (Yin, 2014). The reason for excluding the quantitative method was that I did not use variables to predict relationships from which I made inferences that were then generalizable to a larger population. The mixed methods approach was also not an appropriate option for examining the phenomenon, considering that a mixed methods approach relies on the quantitative method, which I did not use in this study.

I evaluated three designs for qualitative research included phenomenological, ethnography, and case study. The case study design was the most appropriate for my study. A researcher uses the case study to explore complex social and technical real-life phenomena through detailed, in-depth data collection involving multiple sources of information (Hyett et al., 2014; Yin, 2014).

I did not choose the phenomenological design, as participants' lived experiences would not have addressed my research question. The emphasis of phenomenological studies is interpretive analyses to capture the singularity of events within their historical, political, and sociocultural contexts (Yin, 2014). The focus of this study was not an intact culture rendering the ethnographic process inapplicable. A researcher conducts an ethnographic study to explore the cultural patterns of a group of individuals who share

behaviors, beliefs, and a common language of people who are part of an ethnic or culture-sharing group (Grossoehme, 2014).

Research Question

RQ: What strategies do project managers in the mining industry use to effectively gain an SLTO to improve profitability?

Interview Questions

1. What strategies have you used to gain local community support to earn an SLTO effectively to improve profitability?
2. What methods did you find worked best to gain community support to earn an SLTO to improve profitability?
3. What strategies has your organization used to improve the likelihood of obtaining an SLTO to improve profitability?
4. What, if any, strategies have you learned from other projects or companies that have improved your capability to acquire and keep community support to earn an SLTO to improve profitability?
5. How has your project team supported your strategies to gain community support to earn SLTO to improve profitability?
6. What else can you tell me about strategies to gain community support to earn an SLTO that would be beneficial to this research study to improve profitability?

Conceptual Framework

The conceptual framework for this study was the general systems theory (GST). The GST was formulated by von Bertalanffy orally in the 1930s and in various publications after World War II (von Bertalanffy, 1972). The GST is a field for the derivation and formulation of general principles applicable to systems in general (von Bertalanffy, 1972). Kast and Rosenzweig (1972) identified seven tenets related to GST as open to the environment, teleology or purpose, interrelated systems, input-transformation-output process, feedback, homeostasis, and equifinality. I expected GST to be an appropriate conceptual framework and lens to explore strategies for effectively gaining and maintaining community support and trust to earn an SLTO to increase profitability in the mining industry.

Operational Definitions

Environmental impact assessments (EIA): Mechanisms to ensure the inclusion of sustainable considerations in the development process of a mine (Prno & Slocombe, 2014; Tolvanen et al., 2019).

Mine exploration: The earliest stage in a mining venture that entails initial mine evaluation and reconnaissance work before actual drilling occurs and utilizes geophysical delineation to improve the mineral estimation (Franks et al., 2014).

Nonrenewable resources: Finite natural resources for which regeneration is not possible or exhaustive (Prno & Slocombe, 2014; Sagi & Pataki, 2008).

Social license to operate: The ongoing acceptance of a company or industry's standard business practices and operating procedures by its employees, stakeholders, and the public (Prno & Slocombe, 2014).

Surface mining: A mining method to recover disseminated ore from the surface removing large-scale waste rock with sophisticated equipment (Kennedy, 1990).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are factors expected to be accurate, real, or absolute, in place, or to be in evidence without proof or demonstration (Project Management Institute [PMI], 2017). I assumed the interviewed mining project managers would participate and provide strategies for gaining social support from community members to operate to increase profitability. I also assumed the interview participants would be honest and without intentional bias when answering interview questions and that the participants provided detailed information. Another assumption was that a qualitative multiple case study was the best design when exploring mining project managers' perceptions and experiences of strategies to improve profits by gaining the social support from the community needed to operate.

Limitations

Limitations are potential study weaknesses that are out of the control of the researcher (Kirkwood & Price, 2013). Inherent weaknesses of this study included participant bias and difficulty in recalling essential events during the interview process. An additional limitation was that participants might have been uncomfortable with

questions related to disclosing information necessary to identify strategies associated with gaining community support to operate with the social license to increase profitability. Another limitation was the reduced experience and knowledge of the participants related to only one mining company.

Delimitations

Delimitations are boundaries or entitlements established by the researcher (Huang & Liao, 2014). The first delimitation of my research was the location of mining companies. I conducted this study in Peru, and the results may not be transferable to all mining companies in developed countries. Söderholm and Svahn (2015) commented that strategies for gaining community members' support and operating with a social license do not apply to developed countries such as Australia, Canada, Chile, and the United States that may experience a mining boom. The second delimitation applied to the role of interviewees, which focused on project management rather than mining operations. Finally, my research population included only project managers who have gained the community support to operate with social license and have demonstrated success at increasing profitability in the mining industry.

Significance of the Study

Contribution to Business Practice

This study's findings may provide strategies for project managers in the mining industry to use to gain community support to operate with a social license to increase firm longevity and profitability. Project managers in the mining industry face new challenges to improve stakeholder engagement and improve the risk reduction initiatives

necessary to obtain the community support to work with the social license for completing the project without conflicts with local communities (Lutas et al., 2020; Takey & de Carvalho, 2015). Public reputation is also essential for mining companies, and project managers must focus on avoiding conflicts with local communities (Small, 2017). Profitability is necessary for mining companies, and project managers assuming the responsibilities with the projected financial benefits are realistic regarding completing the project without significant impacts on the budget or schedule generated by the absence of the social license (Silvius & Schipper, 2020). For the industry, this study's results might provide strategies to earn support from the community to operate with the social license to improve the public reputation and profitability of mining companies.

Implications for Social Change

Individuals and organizations might use this study's results to promote positive social change through an improved relationship between local communities and mining companies using initiatives and ideas related to operating with a social license. A positive social change is that while mining companies increase profitability, local communities and society have benefits associated with social wellness, environmental protection, and the health of the local economy. Melé and Armengou (2016) commented that the contributions from increased social well-being, economic sharing mechanism, and environmental conservation are motivational factors for local communities to facilitate that a company operates with a social license. A mining operation is an opportunity for local communities due to new technologies, high value-added jobs, and integration to the mining supply chain with domestic production and services (Jamali & Karam, 2018).

A Review of the Professional and Academic Literature

The information in this section consists of a detailed review of the literature that I explored related to mining project managers' strategies to effectively gain the community support to operate with the social license to improve profitability. Articles included in this review relate to the research question: What strategies do project managers in the mining industry use to effectively gain an SLTO to improve profitability? Peer-reviewed journal articles, books, and government publications were the sources of information in this literature review.

Organization of the Review

The organization of this literature review was by theme and chronology and was designed to demonstrate the connections among ideas, concepts, and theories related to the SLTO and its impact on profitability. The review began with an analysis of the GST tenets to organize the literature related to exploring strategies to effectively gain the community support to operate with the social license to increase profitability in the mining industry. I continued with an analysis of SLTO origins, evolution, and the application to social and business science. Finally, a review of project management strategies to increase the likelihood of gaining the community support to operate with social license completed the literature review. As recommended by Roberts (2010), I performed a systematic process using GST as the guide for identifying relationships among studies related to financial performance gains from the community support to operate with the social license and compared these with previous works commenting on the effect on the loss of profitability in the mining industry.

Strategy for Searching the Literature and Peer-Reviewed Sources

As noted in Table 1, the literature I reviewed consisted of 77 documents that included peer-reviewed articles, professional publications, books, government documents, and other sources. Eighty-six percent of the referenced sources were peer-reviewed articles published between 2016 and 2019. I also used the ProQuest, ScienceDirect®, EBSCOhost, Academic Search Complete, and Business Source Complete databases and Google Scholar to identify relevant articles. Key terms used in searches were *social license to operate, sustainability, project management, stakeholder management, mining industry,* and *profitability.*

Table 1

Details of Literature Review by Year of Publication

	Older than 5 years	2017	2018	2019	2020	Total
Books	1	2				3
Government documents	1	1	1			3
Other sources	1	2				3
Peer-reviewed articles	8	27	13	12	8	68
Total	11	32	14	12	8	77

General Systems Theory

The first topic covered in this literature review was the GST. The GST was the conceptual framework for this study. GST is a general model valid for systems in general with principles and laws governing the relationship between elemental systems and other systems (Rousseau, 2015; von Bertalanffy, 1972). Academics and researchers recognize

that GST serves as a universal conceptual paradigm of living systems, including diverse biological, social, and behavioral phenomena (Peery, 1972).

Introduction to General System Theory

Von Bertalanffy (1972) formulated in the 1930s the first notion of GST in several publications after World War II as the modeling framework that accommodates the interrelationship between separate disciplines. The International Society for the Systems Sciences originated in 1954 as the Society for General Systems Research and was incorporated in 1956 focused on developing the GST to build a better world (Rousseau, 2015). The founders of the GST believed the unity of knowledge would advance science as a whole to help make scientific research more effective and more efficient (Rousseau, 2015).

The origins of GST are the long-standing philosophical arguments between mechanistic and organismic models of the 19th and early 20th centuries (Kast & Rosenzweig, 1972). Von Bertalanffy (1972) first introduced the idea of GST before cybernetics, systems engineering, and the emergence of related fields. Despite a long history of holistic and organismic thinking, the utilization of the systems approach in organization and management was incipient until the relationship between GST and organization theory was identified in 1960s (Kast & Rosenzweig, 1972). Basic GST formulations such as growth, consensus, and hierarchy found acceptance in administrative or organization theory (Peery, 1972).

The expansion of systems thinking and studies motivated GST promoters to review the meaning and scope of GST from a mathematical perspective to a new

paradigm (von Bertalanffy, 1972). The new paradigm was the focus of GST as systems science, that is, scientific exploration and theory of systems in the various sciences such as physics, biology, psychology, social sciences, and others, motivating psychology and social scientists to promote the GST as the doctrine of principles applying to all systems (von Bertalanffy, 1972). The evolution of GST in organization theory happened when management thinkers embraced the GST transferring the open system model to their study of organizations (Jackson, 2003). The use of GST in systems technology and philosophy evince the adaptation of GST to dynamic and social contexts (von Bertalanffy, 1972).

Organizations are living systems operating in permanent interchange with their environment, with complex interactions and interrelationships within their boundaries to achieve a dynamic equilibrium (Peery, 1972). Researchers of organizational phenomena use GST to analyze the business as a system (Kast & Rosenzweig, 1972).

Tenets of General System Theory

Open to Environment. There are open and closed systems. A characteristic of closed systems is the high degree of certainty caused by no ability to import energy from the environment to increase entropy (von Bertalanffy, 1972). Contrary to closed systems, open systems exchange energy, information, or material with their environments, such as biological and social systems (Kast & Rosenzweig, 1972). The concept of open systems applies to nonphysical sciences such as ecology, psychology, and sociology (von Bertalanffy, 1972). Peery (1972) commented that organizations and other social

structures are open systems regulated by value systems, authority structures, and reward mechanisms.

Teleology or Purpose. Behavior in systems is teleological or purposeful, such as maximizing profit in firms or wellness in society (Peery, 1972). GST and functionalist theories of social systems are purposeful or teleological that apply to the organization as a system in quest of a goal (Peery, 1972). Static teleology or fitness is the concept to describe an arrangement useful for a particular purpose, and progressive teleology is the approach where the behavior and human interaction can modify the purpose (von Bertalanffy, 1972).

Interrelated Subsystems. A system is a composition of at least two interrelated elements or parts interconnected, such as mechanical, biological, and social systems (Kast & Rosenzweig, 1972). Organizations are systems with interrelated parts functioning in such a way as to ensure the survival of the organization resulting from the interaction of subsystems (Jackson, 2003; von Bertalanffy, 1972). Organizations and societies are systems with interrelated parts, where the GST paradigm is applicable (Peery, 1972). The interrelation between parts and linkages is a characteristic of a system that defines the holistic nature where the whole is greater than the sum of its parts (Kast & Rosenzweig, 1972).

Input-Transformation-Output Process. A system is a constant process of taking inputs from the environment and transforming them into outputs in a constant exchange (Kast & Rosenzweig, 1972). All living systems have inputs, throughput processes, and outputs where the system uses a controller during transformation to adjust the input to

achieve the desired output (Jackson, 2003; Peery, 1972). The study of organizations was an application of GST when experience gained in management practices is an input to transform raw materials and labor into goods and services (Kast & Rosenzweig, 1972).

Feedback. To maintain a steady state, systems use feedback from outputs to generate inputs into the system to implement changes required in the process for future outputs (Kast & Rosenzweig, 1972). Feedback is the regulatory process of a system that governs the output monitored as information to regulate the input to stabilize the action of the system (von Bertalanffy, 1972). There are negative and positive feedback; cybernetics and other control theories found within GST use negative feedback concepts to modify the deviation and to ensure the desired system performance (Kast & Rosenzweig, 1972; Peery, 1972). Managers in organizations use feedback to regulate the internal process from output information that serves as the source to regulate the process or inputs (Jackson, 2003).

Homeostasis. Homeostasis is the concept of a steady state or dynamic equilibrium of a system. Negative entropy or constant state is a characteristic of closed systems, but open systems remain in dynamic balance through the continuous inflow of materials, information, and energy (Kast & Rosenzweig, 1972). The feedback is the regulator of systems to achieve goals and to maintain homeostasis (Peery, 1972). Von Bertalanffy (1972) commented that the principle of homeostasis taken as a golden rule of behavior adjusts the system to maintain the optimal social, biological, and psychological homeostasis. Kast and Rosenzweig (1972) described the homeostasis achieved in an

organization as when the process returns to a state that maximizes chances of survival and growth.

Equifinality of Open Systems. Equifinality is the concept where systems can attain the same result from many different initial conditions (Peery, 1972). Social organizations can accomplish goals with diverse inputs and with several internal activities through a conversion process (Kast & Rosenzweig, 1972). There is a relationship between equifinality and open systems characterized by the purposiveness, finality, or goal-seeking (von Bertalanffy, 1972).

General Systems Theory and Profitability

Business enterprises are formal organizational structures framed in the organizational theory, which accepts the postulate of the GST that the only way to study an organization is to consider it as a system (von Bertalanffy, 1968). Von Bertalanffy (1968) also commented that business depends on personal initiatives of the entrepreneur; the same is right in the study of business organizations. Classical economics researchers present a theory of the firm by attributing purposeful behavior that is a tenet of the GST, where the companies maximize profit and individuals maximize utility (Kast & Rosenzweig, 1972).

According to von Bertalanffy (1968), three aspects of the GST tenets are applicable to the concept of an organization that is necessary to explain the relationship between GST and profitability. One point is equifinality, which is the final state achieved from different initial states and in different ways; the second, feedback, is the homeostatic maintenance state or the seeking of a goal based upon cyclical mechanisms

monitoring back information to reach the desired goal. The third element is the adaptive behavior that is an aspect of a living organism characterized by adaptability, purposiveness, growth, and goal-seeking.

Kast and Rosenzweig (1972) associated the concept of equifinality to an organization of composed elements that can apply their wills such as the social organization. The idea of organizations within the context of GST is that the organization is a total system focused on a goal, and subsystems are contributors to overall system goals (Peery, 1972). Intent seeking aspects in organizations designed with GST concepts are purposive, such as to be profitable (von Bertalanffy, 1968).

Similar to organisms, the social organization in GST responds to environmentally generated inputs that are the concept of feedback when the organizational mechanism returns to the steady-state on internal adaptations of environmental forces (Kast & Rosenzweig, 1972; von Bertalanffy, 1968). Reorganizations constitute "growth," as those reorganizations experienced by businesses are to achieve profitability (Boulding, 1956). Managers in organizations receive feedback from process control systems to regulate operations, but overrun costs, reduced quality, and time pressures are the unintended consequences of delayed feedback (Jackson, 2003).

The adaptive behavior or purposiveness characteristic of a system is the principle described as part of the GST associated to organizational systems where the dynamic purpose is the maximization of profits (Kast & Rosenzweig, 1972; Peery, 1972). The concept of fitness or static purpose is an arrangement necessary for a specific purpose, and dynamic purpose is the notion where the behavior and human interaction can adjust

the purpose (von Bertalanffy, 1972). The constructed model of the GST is that by ascribing business firms maximizing profit, the economy will reach the macroeconomic equilibrium (Kast & Rosenzweig, 1972).

Critical Analysis of General Systems Theory

To evaluate supporting and contrasting theories or models to GST, it was necessary to examine the systems approach historical prelude. The idea of systems is descendant from the Aristotelian precept of holistic and teleological notions where "the whole is more than the sum of its parts," which is a basic definition of the system problem that is still valid (von Bertalanffy, 1968, p. 55). Von Bertalanffy (1972) formulated the notion of GST orally in the 1930s; the Society for General Systems Research in 1956 promoted the incorporation of GST to support interdisciplinary communication and cooperation, such as a unity of knowledge to create a bridge between the object-oriented and the subject-oriented disciplines (Rousseau, 2015). From 1956, the GST grew in popularity based on its ability to serve as a universal conceptual paradigm of living systems such as behavioral, social, and biological phenomena (Peery, 1972). GST was the proposition for the unification of science (Kast & Rosenzweig, 1972).

From GST origins, the ambition of GST promoters to build a systems discipline that would be a science to help scientific research be more efficient and effective found considerations from other systems thinkers (Rousseau, 2015). Researchers of the systems approach developed investigations that contributed notions to the systems theory that increased the concern under the term system (von Bertalanffy, 1972). Von Bertalanffy (1968) commented that scientists identified problems in the GST applicability related to

biology, psychology, and sociology, such as the psychological wholes and physical theories that are not resolvable from the perspective of GST. Different scientific disciplines often use diverse approaches and concepts for the same aspects of reality, such as thermodynamics, chaos, the science of life, and quantum mechanics (Malecic, 2017). A positive point of the GST is the encouraging conceptual framework for organizing data related to living systems and social organization, and a negative facet is the absence of empirical verification (Peery, 1972).

Since the 1950s, systems researchers developed several theories aligned to systemic behavior and structures and methods informed by the systems paradigm fragmenting the systems community into the diversification of specialized domains (Rousseau, 2015). The expansion of studies and systems thinking motivated systems researchers to review the definition of GST incorporating the broad nature of this theory that is similar to the theory of evolution and behavior theory (von Bertalanffy, 1968). Peery (1972) commented that GST concepts serve the purposes of social philosophy sciences such as sociology. The basic tenets of GST, such as consensus, growth, and hierarchy applied to conventional approaches, are part of the administrative theory but with limited applicability to inquiry into organizations (Peery, 1972). Rousseau (2015) noted the fragmentation of the systems community also motivated a renewed interest in the development of the GST in different academic inquiries promoting discussions about the nature, scope, and potential of GST. Cybernetics and systems science are evolutions from the systems approach, where the GST is likely to happen within systems science (Malecic, 2017).

In conclusion, GST is a valid paradigm that may be useful to provide different aspects and may be complementary to other models and theories from the principle of unification (Malecic, 2017). GST is a model applicable to certain general aspects of reality but similar to different scientific methods. The GST focus is to answer philosophical problems (von Bertalanffy, 1968). There are limitations of the GST, such as the discoveries of Peery (1972) where the premises of consensus, growth, and hierarchy limit the applicability of GST to organizational inquiry specifically by the perspective of the pathological problem of conflicts rather than a source of change, the perception of limited growth, and the experiential dimensions of hierarchy in some organizations. Rousseau (2015) suggested the development of GST is a realistic prospect to support interdisciplinary communication and cooperation to facilitate scientific discoveries in disciplines that lack theories, have the need for knowledge unity, and request to integrate object-oriented and subject-oriented approaches. Malecic (2017) commented GST is the approach necessary to unify scientific disciplines but under the principle of naturalistic closure, the primacy of physics constraint, and the principle of the identity of individual entities.

Systems Characteristics of the Mining Business

In this subsection, I provided information about literature related to the aspects of the system of the mining business. Open systems, purposeful, interrelated subsystems, feedback, process, homeostasis, and equifinality are parameters used to assess the characteristics of the mining business. The impact over the profitability in the mining business when local communities denied the SLTO is part of the review in this section.

Prno and Slocombe (2014) commented to obtain the social license from the community is not an exact system configuration and other parameters such as multiscale and local variables should be part of the evaluation to define strategies of engagement with local communities.

Mining is a long-term business that includes discovering, extracting, and processing nonrenewable resources to produce minerals necessary for human welfare (Mikesell & Whitney, 2017; Tolvanen et al., 2019). Some systems are unique in a context such as each mineral development. Saenz (2018) studied mining projects with a complex-unstable background confirming the statement proposed by Prno and Slocombe (2014) that there is no one size fits all approach to earning the community support to operate with a social license, and exact system configurations will rarely, if ever, be replicated elsewhere. The background of each mineral development is unique, and strategies to gain the community support to operate with a social license are particular in each case (Prno & Slocombe, 2014).

Mining Business Open to Environment. The mining business is not a steady state; permanent changes and uncertainty epitomize the mining business (Prno & Slocombe, 2014). The nature of the mining industry entails with the concept of open systems described as part of the GST framework. Von Bertalanffy (1972) described open systems as entities that can import energy from their environment, motivating growth, and permanent change. The relationship between local communities and mining companies is configured as an open system characterized by external energies influencing the arrangement of the SLTO (Prno & Slocombe, 2014).

The Teleology or Purpose of the Mining Business. The concept of teleology or purpose in GST applies to the mining business. Kast and Rosenzweig (1972) commented that the purpose of business organizations is to maximize profit. Intense economic and political shocks affected the profitability of the mining industry; however, this situation has not made the industry less interesting for investors (Ahmadi et al., 2017; Mikesell & Whitney, 2017).

Profitability was the priority in the mining industry in earlier decades, with strategies for cash optimization and effective capital management taking precedence over concern for the environment or communities in which the mining companies operated (Ernst & Young, 2018). Additional issues affect the profitability of the mining business, such as improving productivity (cost-efficiency) and being competitive in the market while also gaining an SLTO from local communities and stakeholders. Increased capital funding is another critical issue, as is access to cheap and reliable energy (Ernst & Young, 2018).

Obtaining community support to operate with social license contributes to increased profitability in the mining industry (Prno & Slocombe, 2014; Small, 2017). The implementation of strategies for gaining support from the community to operate with the social license to increase profitability in the mining industry is not an easy undertaking. Some mining companies have embedded the SLTO concept into business sustainability practices, recognizing it is a vital component to operate successfully and to improve profitability (Gupta & Kumar, 2018).

Regulatory requirements and formal licenses to operate obtained from governments are no longer sufficient for mining companies because local communities are the ones that grant an SLTO as part of an ongoing acceptance and approval for a mining business (Nyembo & Lees, 2020; Prno & Slocombe, 2014). Gaining the social license from the community is highly correlated with profitability in the mining industry (Prno & Slocombe, 2014; Small, 2017).

Mining Business as an Interrelated System. Kast and Rosenzweig (1972) commented that a system is the interrelation of at least two elements or parts. The mining business is complex and changeable by nature because of the interconnection among mining companies, local communities, authorities, and other stakeholders around mining developments (Söderholm & Svahn, 2015). The complexity of the mining business set up a particular environment where to obtain the social license from the community is not easy, assuming that the social license is more than its parts (Prno & Slocombe, 2014).

Input-Transformation-Output Process in the Mining Business. Mining companies implement complex mineral business in remote locations interacting with local communities and under often volatile economic and market conditions (Mikesell & Whitney, 2017; Tolvanen et al., 2019). For mining companies, discovering minerals is the initial exploratory phase because, when geologists find deposits of metal, the next stage is to validate the quantity and quality of the mineral using drilling activities (Jamali & Karam, 2018). The mining feasibility plan begins once the team determines the amount and quality of ore. The mining company team conducts NPV analysis, cost-benefit

analysis, and break-even analysis, and if found to be positive, drilling begins (Focacci, 2017; Franks et al., 2014).

Mining is an essential catalyst for economic development, particularly in developing countries where the mining industry contributes to the local economy as a vehicle for improving the living conditions of affected communities (Melé & Armengou, 2016). The gold mining industry contributed $171.6 billion USD to the global economy and directly employed over one million people in 2013, with over three million more people indirectly hired as the result of supply goods and support services (World Gold Council, 2015). Despite the benefits generated by this industry, many mining companies have experienced the suspension or cancellation of projects due to the absence of the community support, thus directly affecting profitability (Nyembo & Lees, 2020).

Peru is a traditional mining country where the mining industry is essential for the country's development and increasing GDP. Peru is a leading country in the production of minerals in Latin America. It is world-ranked second among silver producers and is third in the world in producing copper and zinc (U.S. Geological Service, 2016). The mining industry in Peru has numerous detractors, as do other countries, because of its existence and operations leading to and promoting socioeconomic conflict affecting the profitability of the mining business (Instituto Peruano de Economía, 2017).

Since 2000, the global mining industry has experienced a boom due to higher copper and gold prices brought about by higher growth in consumption rates of raw materials in Asian economies (Söderholm & Svahn, 2015). This situation generated rising profit levels for mining companies, in turn, promoting new explorations and new

mining ventures (Söderholm & Svahn, 2015). The number of new mines has increased in high-income countries such as Australia, Canada, the United States, Russia, and Chile; in upper-middle-income nations like Kazakhstan, Mexico, China, South Africa, and Brazil; and low-income countries including India, Ghana, and Congo (Söderholm & Svahn, 2015). Some market-specific and conditional risks have affected mining companies and the economies in which they operate because of the volatility of mineral prices, currencies, and numerous conflicts. These effects have motivated mining companies to focus on securing funding and credit terms to ensure adequate cash flow, maintain healthy balance sheets, balance the long-term mining portfolio, and avoid conflicts with local communities to increase profitability (Conde, 2017).

Feedback and Homeostasis in the Mining Business. The sheer size of mining operations for many companies transforms the environment, the lifestyle of the local community members, and the economies of neighborhoods, towns, and whole countries. When mining companies are not capable of demonstrating that positive effects from mining operations are higher than negative impacts, conflicts with local communities begin reducing the probability of gaining social support to operate and thereby decreasing profitability (Franks et al., 2014; Prno & Slocombe, 2014).

The negative impact of mining industry activities on the local environment, society, and the economy is the primary reason local communities and stakeholders deny companies the support to operate with a social license (Gupta & Kumar, 2018). Leaders in the mining business implement regulations to the organization to improve processes, including the capability to obtain support from the community to operate with a social

license. Mining activities focused on enhancing social wellness, environmental protection, and the local economy benefits are factors to motivate local communities to grant social support to operate (Melé & Armengou, 2016). CSR and the ISO 14001 certification are examples of management and institutional arrangements. Silvius and Schipper (2020) noted that the presence of CSR practices and ISO 14001 certifications is essential to obtain social support from local communities to operate.

Mining activities often take place in remote regions where the intervention is more significant for society, the economy, and the environment (Söderholm & Svahn, 2015). The positive effects for the local economy are higher than the environmental remediation (Franks et al., 2014). However, the distribution of benefits is usually not socially or economically equitable, with this inequality often leading to conflict between mining companies and local communities or stakeholders who grant an SLTO (Ahmadi et al., 2017; Söderholm & Svahn, 2015).

Change and uncertainty are inherent characteristics in the mining business promoted by unfulfilled promises to the community generating discontent and conflict (Voyer & van Leeuwen, 2019). System effects are significant for community support when community expectations and perceptions of mining activities influence past companies or other mining developments in different geographic locations (Prno & Slocombe, 2014). The SLTO is the outcome of a system granted by local community members under a complex social context (Prno & Slocombe, 2014).

Systems aspects, especially crucial to the evaluation of SLTO determinants and outcomes, are context, change and uncertainty, system effects, and feedback (Prno &

Slocombe, 2014). Feedback is essential for all systems in positive or negative autoregulation of the system (Jackson, 2003; von Bertalanffy, 1972). In the mining industry, the feedback provided by communities generates dynamic mechanisms to amplify or stabilize effects in the support to operate with a social license (Prno & Slocombe, 2014).

Social License to Operate in the Mining Business

In this subsection, there is information from literature about the origin of the term SLTO. Additionally, there is an analysis of the impact in the mining business profitability when the local community grants or denies the support to operate with a social license. Finally, included is a description of strategies for gaining community support to operate in a socially accepted manner. I used the GST approach to contextualize the information presented.

Introduction to Social License to Operate

Cooney, a Canadian mining executive in the late 1990s, coined the term SLTO to emphasize that the social acceptance from local communities of mining activities is an integral part of its legal licensing (Gupta & Kumar, 2018). Despite the long history of this term, the efficient use of social license strategies in the mining industry has only recently attracted scholarly attention (Gupta & Kumar, 2018; Jijelava & Vanclay, 2017; Prno & Slocombe, 2014). For mining companies, operating with the social license provided by the community is vital to improving profitability when implementing new projects and retaining existing operations, motivating a tremendous interest on the part of mining companies in gaining the community support to operate with a social license.

Social License to Operate Analysis with General Systems Theory

The mining business is an open system with multiple variables affecting the positive and negative impact to obtain the community support to proceed with the social license to increase profitability. Open systems exchange material, energy, and information with their environment (Kast & Rosenzweig, 1972). Prno and Slocombe (2014) commented that regional, national, and international scale can affect mining variables at the local dimension and the success to earn the SLTO. Multiscale variables are the socioeconomic conditions, government and institutional arrangements, and biophysical conditions (Prno & Slocombe, 2014).

Peru is a country with an approved mining project portfolio of $47 billion USD, but many projects have experienced delays because of their inability to gain community support to operate with a social license. In Peru, the Minas Conga and Quellaveco projects are two examples of mining projects suspended because of the detrimental water usage impact, despite having had environmental impact studies approved (Franks et al., 2014). The Tambogrande mine in Peru is another example of a canceled mining project, although it had an EIA approval issued by the government that included public participation (Prno & Slocombe, 2014).

The population can be in opposition to the plan in a referendum when the company was not able to satisfy the needs of local stakeholders by using ineffective stakeholder engagement and relationship-building (Prno & Slocombe, 2014). Feedback is necessary for any system to maintain equilibrium to obtain the desired goal (Jackson, 2003). Governments and institutional arrangements to gain social acceptance are

including public participation before issuing a mining permit (Gupta & Kumar, 2018). There is also a growing worldwide awareness of environmental protection and sustainable development that is a constant focus of individuals, policy development, NGOs, organizations, and companies (Onat et al., 2017). The mining business influence the environment, and the environment affects this industry motivated by nature as an open system. An open system is in permanent interaction with the environment (Peery, 1972).

Prno and Slocombe (2014) named biophysical conditions to the environmental and sustainable aspects around the mining business. Gaining the social license from local communities and stakeholders requires the implementation of sustainable strategies by mining companies incorporating economic, social, and environmental aspects as part of CSR. To gain the community support to operate with social license, the approach relating to society, the economy, and the environment must be confident and tangible and be part of a company's mission (Komnitsas, 2020; Saenz, 2018). For transnational mining companies (TNMCSs), the alignment of strategies included in CSR with the procedure defined in remote projects is essential for gaining the social license and for increasing profitability.

For public companies, the incorporation of sustainability as part of the mission, vision, and values contributes to increasing market share, improving public image, and brand recognition, all of which increase profitability (Gehman et al., 2017; Prno & Slocombe, 2014). Von Bertalanffy (1972) commented that the behavior in systems and organizations depends of the teleology or purpose. The number of companies that have

incorporated sustainability reporting into their financial statements has risen dramatically since 2012, with S&P 500 companies with board-level sustainability committees rising from 5% to 24%, and companies releasing an annual sustainability report growing from 20% to 80% (Ioannou & Serafeim, 2017). Some mining companies recognize the importance of improving their public image by being part of the S&P 500 because this branding strategy enhances market share and consequently increases profitability.

The incorporation of sustainable practices has become increasingly evident with companies including sustainability in their financial reporting to complement their operations and financial statements, which serves as a strategic maneuver to increase competitiveness (Walker & Lloyd-Walker, 2019). For the mining business, market feedback is an input to improve the business. Feedback is a control to regulate the process (Peery, 1972). Some companies with mandatory corporate sustainability reporting incorporated into their internal business operations find that doing so often requires exerting more efforts and increases costs, but with definite positive effects (Ioannou & Serafeim, 2017). Gaining community support to operate with social license improves the public image of companies, which stimulates shareholders to acquire bonds that are the source of financing new mining ventures. Being part of the S&P 500 and "green" index increases investor confidence and acceptance by shareholders of the firms' debt and equity in the present and future offerings (Giannarakis et al., 2017).

The mining business is a long-term effort. Long-term plans should be explicitly normative and participatory, holistic rather than specific, structured, and evaluated according to sustainable principles, focused on people, and should be problem-based and

solutions-oriented (Giannarakis et al., 2017). Managers need to be stewards of corporate culture, ensuring alignment between people and long-term vision to avoid internal and external conflicts (Jackson, 2003).

Stakeholders and shareholders provide continual feedback to the mining business. The participation of stakeholders is strategically crucial for companies seeking a long-term relationship with them, but this strategy requires equity, dynamic adaptation to continuous changes, integration of sustainable development into the company goals, and governance for decisions and choices (Aarseth et al., 2017). Long-term strategies are necessary not only in avoiding environmental crises, but they must also consider reducing social inequities at global and local levels (Armenia et al., 2019; Pope et al., 2017). Social and ecological strategies should be part of the company strategy for improving the odds of gaining social support to operate and increasing profitability.

The implementation of sustainable strategies in day-to-day activities is not necessarily valid because workers still do not recognize the connection among community support to operate, the public image, and profitability (Kivilä et al., 2017). Leadership, branding, and marketing play a pivotal role in transforming sustainable strategies into operational activities (Armenia et al., 2019). In summary, for some companies in the mining industry, the approach of incorporating viable statements into the mission of being part of the S&P 500 is not necessarily useful because the negative public perception does not change (Virgone et al., 2018). This situation is particularly for an open-closed system. The concept of open and closed systems is challenging to defend

in the absolute; therefore, an open-closed idea is better because systems are relatively open or relatively closed (Kast & Rosenzweig, 1972).

The feedback to regulate the input-transformation-output process and to keep the homeostasis desired is necessary for the mining business. Communicating the importance of gaining community support to operate with the social license to improve the public image and, consequently, increasing profitability is the responsibility of project managers in mining companies. Prno and Slocombe (2014) commented that strategies to implement internal changes in the mining company are part of the configuration required to obtain the community support to operate with social license and increase profitability.

Relationship Between Social License to Operate and Profitability in the Mining Business

There is a positive relationship between gaining the community support to proceed with a permit and profitability; similarly, there is also an adverse financial effect on the company when local communities deny an SLTO (Vanclay & Hanna, 2019). The concept of SLTO presumes that stakeholders and local communities have the power and influence either alone or in coalitions to stop projects or operations, thus, imposing severe costs on projects (Gupta & Kumar, 2018; Jenkins, 2018; Jijelava & Vanclay, 2017). The popularity of the term SLTO has increased over time because the benefits of operating with social support motivate the incorporation of sustainable strategies into corporate operations and because companies can quantify and report this commitment to the local communities in which they serve. Being able to demonstrate this commitment successfully increases corporate profitability (Gehman et al., 2017; Jijelava & Vanclay,

2017). This notion also has motivated the use of an SLTO in other sectors, although the concept has its origins in the mining industry.

Profitability in mining companies decreases when the local community denies social support to operate. Nyembo and Lees (2020) pointed out this situation when they explained that a director of an oil company commented that the company spent $7 million USD per year on community programs, but they still faced work interruptions from the communities they helped. The oil industry reported some companies experienced a $6.5 billion USD value erosion caused by stakeholder-related risks (Walker & Lloyd-Walker, 2019). They were not creating shareholder value; instead, they were destroying it. Organizations lack homeostasis when the feedback process does not have a control system to regulate inputs to obtain the output desired (von Bertalanffy, 1972). A mining company incurs an increase in losses when, rather than working with local communities, the mining company chooses to ignore or confront local communities.

The mining company requires setting aside loss reserves to pay for conflicts that are likely to occur because of the lack of local community support for mining companies to operate with a social license. Some companies have adopted practices for incorporating additional money in the budget of projects to cover delays generated by conflicts with local communities (Nyembo & Lees, 2020). The absence of community support also affects the operational activities of mining companies facing ever-increasing and more constant cost challenges. Lost productivity due to delays generated by conflicts with stakeholders, labor unions, and local communities may disrupt production and increase costs (Debia et al., 2017; Franks et al., 2014; Tolvanen et al., 2019).

Mining projects around the world, with capital between $3 and $5 billion USD, suffered $20 million USD per week of lost production due to conflicts with local communities (Franks et al., 2014). In the Republic of Peru, the Tambogrande mining project realized an asset write-down of $59.3 million USD following the abandonment of the project due to conflicts with the local communities (Franks et al., 2014). The Conga mining project suspended construction motivated by a community conflict with a capital expenditure of $1.455 billion USD (Franks et al., 2014). Anglo American mining company reported the Quellaveco project was suspended when costs increased from $3.3 billion to $5 billion USD (Franks et al., 2014). Mining companies face potential risks that affect their profitability because stakeholders and local communities can and often do withdraw the SLTO because companies do not operate in a socially responsible manner.

The impact of not having the social license from local communities and critical stakeholders goes beyond the costs of closing a project or operation when the company is public. Voyer and van Leeuwen (2019) noted that the impact is tangible, not only affecting firm value but also intangibly influencing the firm's image and the brand. Market share decreases when shareholders lack faith that their company would be able to address conflicts with other stakeholders (Tolvanen et al., 2019; Voyer & van Leeuwen, 2019).

BHP Billiton is the largest mining company in the world, but this company generated environmental damages in Australia early in 1994 (Saenz, 2018). Because of a court mandate, BHP Billiton has since committed to implementing innovative tailing systems and to the payment of compensation to the people negatively affected by its

operations. Up to 72% of the discount that markets place on the NPV of the gold in the ground controlled by gold mining companies has links to conflicts with stakeholders (Jamali & Karam, 2018). Despite the growing recognition of the importance of the community support to operate with social license, some companies still regard stakeholder-related risk as an external phenomenon that cannot be managed (Vanclay & Hanna, 2019).

The often fractious and costly encounters with disgruntled workers and stakeholders have motivated researchers and companies to recognize the importance of identifying alternatives to engage with stakeholders and local communities to avoid conflicts. In the mining industry, several companies and governments have embraced the need for mineral ventures to gain the community support to operate socially licensed because there has been an increasing number of conflicts and disagreements since 2005 motivated by new mining ventures due to the mining boom experienced (Söderholm & Svahn, 2015). SLTO approval is not a permanent agreement. The local communities in which companies conduct their operations can retract the support and the social license if the company fails to meet its stated and contractual commitments. Maintaining community support requires an ongoing commitment and investments from companies in the communities in which they operate.

In summary, the mining industry complexity context and the performance of mining companies contribute to improving or reducing the public perception of projects and operations within the local communities where they operate. Long-term strategies serve to enhance strategic positioning to gain community support to proceed with the

social license for increasing profitability. Essential stakeholder satisfaction is paramount in increasing the likelihood of obtaining the community support to operate while improving profitability and positively influencing the company's reputation in the public eye (Small, 2017). The environmental and social investments agreed upon with communities and stakeholders are lower than the cost of resolving conflicts or losses in those communities. This strategy contributes to increasing the ability to handle the risk inherent in projects with a rejection of the social support to operate from local community members (Voyer & van Leeuwen, 2019).

Project Management in Mining

Successful mining companies have highlighted the value of operating under a positive relationship with local communities, thus, promoting mutual value creation by offering local ownership and sourcing labor and procurement opportunities to increase the level of community engagement (Ernst & Young, 2018). Companies that have been successful in securing social support to operate use strategies such as ongoing communication, transparent disclosure of information, and strengthening community development agreements (Nyembo & Lees, 2020). A balance between the commercial needs of the company and its shareholders and the broader expectations about company contributions to community development must be part of the agenda for mining companies (Gupta & Kumar, 2018). Despite companies recognizing the importance of gaining the community support to operate with the social license for increasing profitability, they still do not use it as a strategy for superior competitive positioning and profitability (Pope et al., 2017).

Stakeholders and the local communities in which they operate more readily accept companies that recognize the importance of balancing economic benefits with social and environmental impacts. Approaches to developing the positive long-term effects necessary for obtaining the SLTO from the community and for increasing profitability are now requirements for financial success (Small, 2017). There is a direct relationship between long-term efforts and profitability because profits depend on avoiding environmental remediation and social reconciliations (Wilhelm et al., 2016). The implementation of strategies for engaging with stakeholders and local communities in the long-term is essential for companies that require an SLTO from the community to increase profitability.

Improved public perception of mining projects increases the likelihood of gaining an SLTO as a strategy for increasing profitability in mining companies. A wrong behavior or acting without ethics are causes originated by mining leaders that affect the image of the project and the company because they are in direct contact with stakeholders (Ma et al., 2017; Silvius & Schipper, 2020). Modern project management models promote positive engagement with communities and stakeholders, which is the way to gain an SLTO (Keeys & Huemann, 2017; Melé & Armengou, 2016). Some competencies required for mining leaders are the use of stakeholder and risk management at the project level and improving the leadership style to move from transactional to transformational (Kivilä et al., 2017; Maqbool et al., 2017).

Some actions generated by mining companies impact the sector's image, which reduces the ability to retain the community support to operate licensed, including mine

accidents, procedural fairness in dealing with stakeholders and local community members, mining-related diseases, unattended local community requirements, and neglecting mine rehabilitation obligations (Ernst & Young, 2018; Jijelava & Vanclay, 2017). For the mining industry, the implementation of strategies that motivate engagement with local communities is essential for gaining community support (Nyembo & Lees, 2020; Prno & Slocombe, 2014). There is an inextricable link between an SLTO and the mining industry's survival because social license is necessary to operate and for avoiding potentially costly conflicts and exposure to social risks, but the implementation of strategies for gaining community support is not necessarily part of company strategy or CSR (Buchanan & Marques, 2018). Prno and Slocombe (2014) commented that strategies applied by mining companies to improve the probability of obtaining the community support to operate with the social license are part of the local variables.

Some strategies for engaging with stakeholders to avoid conflicts and gain community support are sustainability actions, stakeholder management practices, and CSR compromises (Melé & Armengou, 2016; J. Schwarz & Mathijs, 2017). Linking financial and community benefits with stakeholder expectations increases the rate of acceptance needed to renew social support (Keeys & Huemann, 2017). Prno and Slocombe (2014) analyzed case studies from Canada, Papua New Guinea, Peru, and the United States to identify elements that may help companies looking to gain a social license from a community. Tolvanen et al. (2019) complemented the study developed by Prno and Slocombe, corroborating the notion that a sustainable relationship with stakeholders, the provision of local benefits, public information, participation, and justice

are essential for gaining an SLTO. Melé and Armengou (2016) added that the involvement of community members in decision-making contributes to improving the relationship between the company and the community.

Conflicts in the mining industry might be resolved more effectively by including sustainable development goals for transforming conflicts through peacebuilding methods focused on enhancing triple bottom line outcomes: social, economic, and environmental protocols to avoid costly disputes that negatively impact the profitability of the company (Rhee et al., 2018; Söderholm & Svahn, 2015). Long-term compromises with stakeholders, social peace, and positive environmental actions are pillars of sustainable development that address potentially problematic vulnerabilities, such as receiving and keeping social support to operate from local communities and stakeholders (Rhee et al., 2018).

Project Management Practices to Increase the Likelihood of Gaining a Social License to Operate

In the mining industry, the absence of community support to operate with a social license can affect the performance of mining projects and, consequently, the profitability of the mining company due to penalties, decommissioning, and royalties. The success of projects is essential for companies because there is a connection between the project results and profitability. The investment in improving the level of project management is an alternative for increasing the odds of gaining community support and investment returns with improved profitability (Melyoki & Kessy, 2020). Project management accounts for a high percentage of the variation in project success when supported by best

practices and project management skills for ensuring high success rates (Armenia et al., 2019).

Leaders in organizations implement projects for growing, improving, or expanding the business, and project managers are the people responsible for the project's success or failure (Ma et al., 2017). Successful projects are essential for mining companies, and the role of the project manager is crucial for completing projects on time and under budget. Responsibilities of project managers include contributing to the profitability of the company by completing the project within budget and managing issues during project implementation, such as gaining social support from local communities (Silvius & Schipper, 2020). On this topic, the literature reviewed focuses on some strategies that project managers have used to improve public perception among local communities for gaining community support to operate with a social license.

There is a relationship between project performance and firm profitability (Focacci, 2017). Mining generates a large portion of the global gross domestic product (Lutas et al., 2020). The growing interest in completing projects on time and within the prescribed budget has motivated the attention of academics and professionals in project management in recent years (Villamil & Hallstedt, 2018). The evolution and recognition of project management as a discipline have gained worldwide acceptability. However, despite this progress, there are still instances of delayed or canceled projects due to the absence of community support (Sanchez et al., 2019; Silvius & Schipper, 2020). Gaining the social license from local communities and critical stakeholders to operate is a new topic of interest for project managers and the project management discipline in general.

One reason for not obtaining community support in projects has origins in the primary focus of project management as a discipline. Critical measures of project success are cost performance, schedule progress, and the efficient utilization of resources, also known in project management as the iron triangle. Maqbool et al. (2017) explained that in addition to focusing on cost, time, and resource performance, project managers should consider metrics related to stakeholders and risks in evaluating project performance and profitability because the use of stakeholder and risk management increases the odds of achieving project goals.

Traditional Project Management

Conventional project management, which concentrates on costs, time, and project scope, is changing to a new orientation, one where the vision of a project places emphasis on the long-term benefits to the community and stakeholders, instead of having a strictly profit-oriented short-term focus (Keeys & Huemann, 2017). The incorporation of long-term strategies in mining projects and operations is an alternative when engaging with stakeholders and local communities because they are the ones who give the support to operate with the social license (Nyembo & Lees, 2020). Project managers who gained an SLTO have received recognition because this action contributed to completing the project without issues establishing a good relationship with communities, with both results motivating benefits and profitability for mining companies (Melé & Armengou, 2016; Silvius & Schipper, 2020).

The classical project management drivers and financial metrics are no longer sufficient in the current business environment for gaining community support (Papke-

Shields & Boyer-Wright, 2017). Creativity and transparency from the early stages of a project are necessary to implement mining projects with a long-term approach where the principal target is the engagement with stakeholders for gaining social support to operate from communities to increase profitability. Sustainable activities such as the positive relationship with stakeholders must begin from the early stages of a project oriented toward improving the likelihood of gaining social support to operate profitably, but recognizing that these drivers have effects in the long-term (Vanclay & Hanna, 2019).

The focus on completing projects on time and under budget should be self-evident for project managers, but they should also recognize that engaging with stakeholders and promoting long-term solutions that contribute toward gaining the community support to operate with a social license has a long-term beneficial impact for all parties. There is a definite symbiotic relationship between project managers and stakeholders that is important for project success or failure, which goes beyond the typical schedule and budget performance metrics (Komnitsas, 2020). The natural orientation of project managers is to control cost and time deviations, but the control of other project variables such as risks and stakeholders helps to avoid external conflicts (Melyoki & Kessy, 2020). Project management performance and project success have a positive relationship with the value proposition that supports the organizational strategy measured with real variables such as profitability but also with intangible variables such as the company image (Sanchez et al., 2019).

Positive engagement with stakeholders and local communities required for gaining an SLTO and increasing profitability is critical for multiyear projects because

improved public perception increases the likelihood of acquiring community support and, consequently, a social license. Voyer and van Leeuwen (2019) explained that the relationship with stakeholders is a crucial component to consider for some industries, such as mining, oil and gas, and construction, where the projects require long-term efforts. A long-term perspective is a new approach to project management, but strategies for gaining community support are still absent for the three primary project management organizations: Project Management Institute (PMI), International Project Management Association (IPMA), and Global Alliance for Project Performance Standards (Bredillet et al., 2015).

Long-term strategies in project management include incorporating economic, social, and environmental solutions that are not necessarily part of the project scope. The new challenge for project managers is the incorporation of long-term strategies for engaging with local communities and stakeholders who are the ones that ultimately provide the support to companies for operating with social license, without affecting profitability (Gupta & Kumar, 2018). The project manager plays an essential role in developing business practices associated with the positive change in benefits for stakeholders and in operating with transparency, fairness, and ethics as a strategy for improving public perception of projects to increase the likelihood of gaining community support (Gustafson, 2018; Sabini et al., 2019). The modern project management approach represents an alternative that incorporates long-term strategies in projects for obtaining the license required to operate with community support.

Modern Project Management

The leading mining organizations such as BHP Billiton that develop project management practices and standards have considered adjustments to the traditional project management approach by incorporating strategies with long-term socioeconomic benefits (Aarseth et al., 2017; Prno & Slocombe, 2014). The contemporary project management perspective promotes rethinking project management (RPM), a term coined in the 1980s that includes additional elements within the project management practice, such as complexity, ethics, and uncertainty under a context of risk and stakeholder management (Williams, 2017).

The new order of project management encourages project managers to think about relationships with stakeholders based on lessons learned from failed projects, but also to use trust as a leadership style in promoting communication, resolving conflicts and human follies, and fixing imperfections to improve public perception of the project (Parsons et al., 2019). Stakeholder management, risk management, and active leadership are three themes emerging in project management for gaining community support and for improving a project's probability of success focused on company profitability. Alternative project management approaches have a perspective that emphasizes risks and stakeholder management to have a positive impact on profitability. Companies and senior executives are looking to deliver long-term benefits developing projects on good relationships with stakeholders reducing risks, and increasing profitability. Leadership and communications are strategies for engaging with stakeholders because project

management soft skills play a significant role in the execution of a project that requires social support from stakeholders (Sabini et al., 2019).

The relationship with stakeholders improves when project managers act ethically and use a transparent communication style. Project managers must understand the importance of working ethically and engaging with stakeholders because this strategy increases the probability of gaining support from the community to operate with the social license for improving profitability. Project managers must balance the benefits of obtaining local community members' support to increase profitability and the project's performance to avoid unethical organizational influencers (Saenz, 2018; Silvius & Schipper, 2020). Acting unethically and communicating without trust are often the causes of disputes and conflicts, and are obstacles when seeking to gain community support. Transparent behavior and proactive communication styles help to build a healthy relationship with local communities and stakeholders in projects. Project managers require communication competencies for dealing with differences with stakeholders and should capitalize on this opportunity to create an environment of mutual trust under a "win-win" atmosphere (Silvius & Schipper, 2020).

Bredillet et al. (2015) used the Aristotelian perspective to explain the behavior desired in project managers. Bredillet et al. concluded that the most important ethical considerations are the balance between moral and intellectual virtues, and between theory and practice. A good project manager is one who acts rightly or does the right actions in the context of achieving the project goals. There is a relationship among the culture, trustworthiness, and knowledge-sharing behaviors, as motivating collaboration and

cooperation with stakeholders is a strategy for generating a non-competitive atmosphere and improving trustworthy practices (Voyer & van Leeuwen, 2019).

Knowledge about project management standards is essential for project managers, but the ethical implementation of projects and the leadership style are crucial for improving the relationship with stakeholders as a strategy for gaining the license to operate with community support and for increasing profitability. For obtaining the community license and increasing profitability, the project manager leading mining projects must have a set of competencies that influence the project performance in the short-term and the long-term. In conclusion, modern project management practices are necessary to gain social support.

Stakeholder Management

Engaging with stakeholders and local communities requires a systematic process because there is a direct relationship among stakeholder management, gaining community support, and profitability. Ika and Donnelly (2017) used the multi-stakeholder involvement management (MSIM) framework for engaging with stakeholders and local communities. The MSIM is a framework with six recommended points included participation of stakeholders in decisions, effective communication with stakeholders, implementing formal and informal policies for encouraging positive stakeholder engagement, recognizing the need for stakeholder adaptation to changes, and (f) continuous commitment. For mining projects, internal stakeholders are the project sponsor, the project owner, and functional leaders; external stakeholders are clients, contractors, shareholders, authorities, and local communities (Walker & Lloyd-Walker,

2019). The group of internal stakeholders most interested in the project includes the project sponsor and functional leaders, but external stakeholders such as shareholders and local communities are essential, although they have another perception and interest in the project (Walker & Lloyd-Walker, 2019).

Stakeholder management is vital for mining projects to build a good relationship with stakeholders and local communities because they are the ones who provide the support to operate licensed. The project manager and the project team must identify stakeholders before defining strategies for engaging with them. There are four steps for improving the relationship with stakeholders and local communities in mining projects: covering stakeholders' concerns by utilizing stakeholders' analysis, defining a strategy map of stakeholders, conducting a detailed investigation, and performing strategies for engaging with stakeholders (McGrath & Whitty, 2017). A source for identifying stakeholders and for defining procedures of engagement is the review of lessons learned from past failed projects (Paver & Duffield, 2019).

Identifying stakeholders and defining strategies for engaging with them is not useful without the compromise of the project manager, the project team, and functional leaders for accepting cultural differences, avoiding psychological stress, and reaching successful communication and the establishment of interpersonal relationships (Zidane & Olsson, 2017). For long-term projects, like those initiatives implemented in the mining industry, stakeholder management must be a continuous effort involving identifying new stakeholders, updating strategies, and engaging permanently with stakeholders through effective communication (Parsons et al., 2019).

To gain support from the community to operate with social license, the involvement with stakeholders must be from the early stages of mining projects considering that attending to stakeholders' demands is critical when the project is in the definition stage (McGrath & Whitty, 2017; Voyer & van Leeuwen, 2019). In the mining industry, alternatives for engaging with stakeholders are transferring a particular share of mining rights fees or taxes to the local communities, involving stakeholders in supply needs, and implementing agreed-upon development projects (Söderholm & Svahn, 2015). Stakeholder's management should be part of the mine structure to improve the probability of gaining community support (Prno & Slocombe, 2014).

Project Management Governance

The implementation of strategies oriented toward gaining community support is more straightforward in a project-based organization because project governance is better than that found in an organization with low levels of project management, thus, facilitating the implementation of strategies in the long-term (Hadjinicolaou & Dumrak, 2017). The project management office (PMO) and the use of project portfolio management provide evidence that the level of experience in a company related to the implementation of projects is crucial for successful project implementation (Hadjinicolaou & Dumrak, 2017). The functions and practices of the PMO differ according to the industry and the experience level of CEOs and management in moving from a rigid and reactive organizational structure to one that is more flexible and proactive (Saenz, 2019).

The PMO is a repository of tools, methodologies, and knowledge for nonoperational work, thus, providing for greater transparency and for becoming an independent organization that assumes the responsibility to guide projects and project managers (Sergeeva & Ali, 2020). Inexperienced PMOs often have a focus on processes and methodologies, but people working in experienced PMOs decide on projects, programs, and organizational strategies (Focacci, 2017; Sergeeva & Ali, 2020). The implementation of strategies for gaining support from the community to operate with the social license to increase profitability is better in organizations with high levels of experience in project management because there is a direct alignment of project outcomes with the company mission.

Project managers working for organizations experienced in project management promote the active participation of stakeholders from the early stages. Early engagement with stakeholders improves project efficiency because they are the first source of feedback, and they provide the social support to operate (Hadjinicolaou & Dumrak, 2017). For organizations with low levels of project management, the target is the implementation of the project within the budget and the timeframe planned. For an experienced organization in project management, the goals for project managers are associated with profitability, risk reduction, and stakeholder engagement (Papke-Shields & Boyer-Wright, 2017). Experienced organizations in project management focus on improving the level of project management through the incorporation of project management models such as the performance evaluation and review technique (PERT),

critical path method (CPM), and six sigma, which promote a continuous process and project improvement (Hobbs & Petit, 2017; Lermen et al., 2016).

Project portfolio management is an option used for selecting the most profitable project with the lowest risk aligned with the company's strategy from an extensive list of projects expecting approval. Project portfolio management also supports the process of controlling the progress of projects and programs (Hadjinicolaou & Dumrak, 2017). The use of portfolio management is an alternative that incorporates in the project evaluation aspects such as stakeholder acceptance, risk level, and the likelihood of gaining community support, in addition to the return of the investment. There are differences between project management and portfolio management. The project management disciple has an orientation toward project performance where key aspects are scope, budget, quality, and schedule.

An overarching goal for mining companies and leaders is to find ways to promote sustainable development with local communities and gaining their support to operate with the social license (Rhee et al., 2018). An alternative for developing sustainable development in the mining industry is the implementation of mutual agreements between the mining companies and local communities oriented toward environmental protection, social welfare, and economic participation (Ahmadi et al., 2017; Tolvanen et al., 2019). Several mining companies and governments have embraced the need for mineral ventures to gain community support before promoting a mining activity (Prno & Slocombe, 2014). One requirement for the South African mining industry is to address some legacy issues that support a rearview mirror approach in the industry and fan discontent, which could

lead to potential policy changes for the mining industry that are more constructive and proactive with remediation and engagement with external stakeholders (Armenia et al., 2019).

In the mining industry, the implementation of sustainable development activities is a strategy to gain community support and, consequently, to increase profitability (Gupta & Kumar, 2018). The relation between company and community improves with long-term agreements and compromises as agents for transforming conflicts in mutual support; otherwise, mining project could fail to impact company profitability (Melyoki & Kessy, 2020; Rhee et al., 2018).

The use of project management practices, the recognition of the importance of some skill on the part of project managers, and the project governance in the organization are all strategies for improving the odds of gaining community support to operate socially licensed (Darling & Whitty, 2016; McGrath & Whitty, 2017). At the project level, the use of stakeholder and risk management is necessary for defining long-term strategies focused on gaining support from the community (Prno & Slocombe, 2014). For project managers, the leadership style that fits with the skills needed to obtain community support is the transformational style (Nguyen et al., 2017). Mining companies have more success in gaining a social license when incorporating portfolio management to improve the selection of projects where the social license is a strategy connected with the company's approach to operating (Nguyen et al., 2017; Rhee et al., 2018; Tolvanen et al., 2019). Some strategies used in the mining industry had shown that local communities and stakeholders provide social support when the mining companies built mutual trust

between the company and local communities, increased the capacity for engaging with stakeholders, and responded rapidly to changes (Gupta & Kumar, 2018). Sharing benefits with local communities is another strategy used by mining companies in Australia, Canada, Chile, and the United States to gain an SLTO and increase profitability. However, sharing mining benefits is not common in Peru, as implementation is a challenge for mining leaders in developing countries (Söderholm & Svahn, 2015).

Portfolio Management

Mining projects are complex by nature due to the escalating scope, long-term schedule, and funding of millions of dollars, and thus, the development of this type of project commonly entails high levels of uncertainty. Mining companies use portfolio management for evaluating the feasibility of projects by stages, thus, reducing the possibility of project risk by managing the project in smaller pieces (Aarseth et al., 2017). Globalization and the evolution of technology are two factors that increase the complexity and uncertainty of projects (Aarseth et al., 2017; Williams, 2017). Complexity in project management means engaging with multiple stakeholders, managing multiyear schedules, and controlling budgets produced by different sources (Williams, 2017). Uncertainty in project management means operating in an unstable environment with high levels of risk in projects (Daniel & Daniel, 2018).

The complexity, uncertainty, and exposure to risks in mining projects are evident by the significant scope, large-scale investment, long-term schedule, and high safety risks involved (Daniel & Daniel, 2018). Managing complexity, uncertainty, and threats is a necessary skill for project managers in the mining industry, but the use of portfolio

management is an alternative to dealing with complex and risky projects (Martinsuo & Hoverfält, 2018). Project managers in complex projects must focus on managing changes and be aware of challenges; the use of portfolio management provides a set of tools for maintaining integrity in this context (Aarseth et al., 2017).

NPV and internal rate of return analyses are methods for evaluating the profitability of a project as two parameters used for deciding project approval or rejection. Choosing the wrong initiative leads to wasted resources and lost benefits (Ma et al., 2020). Modern portfolio management theory considers the relationship between the dollar amount invested and the risk associated with the investment (Hadjinicolaou & Dumrak, 2017). Project portfolio management is a holistic approach with a defined process and governance for maximizing the return on investment, aligning projects and operations with the organization's strategy, and evaluating the internal and external impact of the organizational factor (Focacci, 2017; Kaiser et al., 2015).

Project benefits can be intangible and tangible. While financial benefits are a measure estimated early in a project through NPV analysis, nonfinancial benefits may either be measurable or nonmeasurable (Walker & Lloyd-Walker, 2019). The incorporation of intangible parameters such as the improved company image, the relationship with stakeholders, and the probability of gaining an SLTO as part of the project portfolio evaluation promotes a balance between monetary and nonmonetary benefits (Aarseth et al., 2017). In conclusion, a portfolio is a tool conceived to turn intangibles into long-term assets (Villamil & Hallstedt, 2018).

The amount of investment, the schedule, and the level of risk are other parameters considered when deciding about the development of a project. There are also other parameters excluded generally from the project evaluation, but necessary for gaining community support, such as the level of engagement with stakeholders or local communities, the environmental impact, social changes, and the level of uncertainty and complexity (Kupiainen et al., 2015). Portfolio management is an alternative for including qualitative parameters such as complexity, uncertainty, engagement with stakeholders, social and environmental impacts, and the success level of gaining the social license from the community (Rolstadas & Schiefloe, 2017; Vaagaasar et al., 2020). For long-term projects such as mining projects, portfolio management facilitates the evaluation of the project in stages to decide whether to move the project ahead according to the level of exposure to failure (Armenia et al., 2019; Sanchez et al., 2019). The project value to portfolio value is an alternative method to the NPV for project evaluation that incorporates sustainable parameters into a portfolio for evaluating the long-term results on the profitability (Ma et al., 2020).

A common practice in project management is the transference of the total or partial project scope to a specific third party to transfer the risk to an organization with better skills for managing the projects. Although shifting the responsibility to a third party can generate positive effects in the project, this strategy does not necessarily positively influence the probability of gaining community support because the responsibility of the contracted company is not the same as that of the company owner. Leaders of mining projects must ensure that the contracting model used to transfer the

implementation of part of the initiative includes incentives or clauses for integrating intangible parameters such as environmental and social impacts, engagement with stakeholders, and uncertainty and complexity management that are necessary to gain an SLTO (Kivilä et al., 2017).

The use of portfolio management also facilitates the implementation of supply chain practices for procurement and contracting with local communities, which are strategies to promote the social license from the community and, consequently, increase profitability (Aarseth et al., 2017; Gupta & Kumar, 2018). The participation of local stakeholders in mining activities providing goods or services contributes to mitigating conflicts with local communities because the investment in mining projects is significant for local economies (Conde, 2017). When the strategies for acquiring local products or services are not appropriate, there are adverse effects for mining companies, thereby reducing the probability of gaining social support from the community and affecting profitability.

The use of project portfolio management contributes to dealing with legitimacy, which is the result of a positive relationship with stakeholders and the way to gain an SLTO (Aarseth et al., 2017). Portfolio management also contributes to addressing complexity and uncertainty, which are two characteristics of mining projects because the evaluation and approval of the project can take place in stages (Chen et al., 2017). Active portfolios include monetary and nonmonetary parameters for the assessment of projects, including the budget, the time of the investment, profitability, level of engagement with stakeholders, the legitimacy for gaining an SLTO, and other parameters (Aarseth et al.,

2017). The use of portfolio management is an alternative for increasing the odds of earning community support and improving profitability in the mining industry to operate socially licensed.

Project Manager Competencies for Gaining a Social License to Operate

Project managers are the most critical agents in projects. They should recognize the responsibility for implementing plans within the parameters of success as defined by the organization, and one key performance indicator should be to gain social support from local communities and stakeholders. McGrath and Whitty (2017) commented that the relationship with stakeholders is essential for project success, but project managers must understand the principles of management for applying this strategy in the project. A good relationship with stakeholders improves the project governance for executing and controlling the project.

Project managers must develop some competencies required to improve public perception among local communities and stakeholders about the project when focused on winning an SLTO and increasing profitability. Takey and de Carvalho (2015) studied the critical performance competencies required for project managers according to the project manager competency development and the knowledge, skills, and abilities (KSA) models. There are 15 desired KSAs sorted by importance: leadership, effective communication, project technical expertise, team building and management, planning skills, flexibility, organizational skills, decision-making skills, management skills, delegation, analytical abilities, problem-solving, coping with solutions, interpersonal skills, and stakeholder management. There are other skills necessary for completing the

project without conflicts with local communities, such as stakeholder and risk management (Takey & de Carvalho, 2015). Project managers require a set of hard and soft skills for managing a project successfully. Lutas et al. (2020) affirmed that vision and leadership are elements necessary for promoting the project team spirit and for implementing actions to improve public perception among local communities and stakeholders about the project, which is the way to gain social support to operate.

Soft skills are also essential for developing and promoting ethical behavior in project managers and constitute a necessary element that project managers need to improve public perception of the projects they manage and the companies for which they work. One source of ethical dilemmas in project management is the tendency of project managers to obtain short-term results instead of thinking in long-term orientation, and about potential long-term negative consequences from their projects. From the traditional project management perspective, project performance is the most crucial metric, including costs, scope, and time results (Silvius & Schipper, 2020). Project managers must recognize the adverse effects of their actions on stakeholder perceptions about the project and the impact generated by this behavior on the profitability of the organization and society in general (Maqbool et al., 2017). Common ethical issues are transparency versus optimization, power versus political behavior, and illegal versus legal actions (Gustafson, 2018). Unethical practices motivate conflicts because the public perception of stakeholders about a project or the company is lacking negatively.

Management of complex and uncertain financial outcomes for multiyear projects is another challenge for project managers in the mining industry because multiple

stakeholders influence the project. The traditional project management model fits only for monthly plans with a small group of stakeholders. Modern project management incorporates uncertainty and complexity as the standard environment characterized a typical project that is continuously affected by changes in technology and markets (Buganová & Šimíčková, 2019; Papke-Shields & Boyer-Wright, 2017).

Complexity management is essential for project managers, as is agility. Both of these management traits are core competencies and necessary for creating a sustainable competitive advantage (Papke-Shields & Boyer-Wright, 2017). Agile project management is a discipline that is a crucial element of modern project management because this model identifies and includes a combination of project performance and project success, as critical factors in motivating a rapid response to changes and active stakeholder involvement (Hobbs & Petit, 2017). Agile project management is about being proactive, flexible, and adaptive.

The use of stakeholder and risk management, combined with soft competencies such as transparency, ethics, and clear communications concentrated in a transformational leadership style, is necessary for promoting a positive public perception of projects as the starting point for gaining community support to operate with the social license to increase profitability. Leadership is also crucial for transmitting the positive change to the project team and the stakeholders around the project to improve performance outcomes (Sabini et al., 2019).

Transformational Leadership

Transformational leadership is another competency required for promoting positive engagement with stakeholders. Project managers using transformational leadership have the opportunity to influence the project team positively to ensure the inclusion of other stakeholders in the project, and to build a stable relationship with all key stakeholders focused on obtaining the mutual benefits of positive project outcomes. High levels of trust are in stakeholder-oriented governance, which can reduce transaction costs and increase profitability, and they are most often under transformational leaders (Vaagaasar et al., 2020).

The project manager focuses on completing a project by combining project management knowledge with soft skills associated with stakeholder management, negotiation, conflict resolution, risk management, etc. (Walker & Lloyd-Walker, 2019). The project manager has a transactional leadership style, while a portfolio manager has a profile similar to the transformational or inspirational leadership style (Nguyen et al., 2017). Transformational leadership is another strategy to promote successful project management because gaining community support to operate with social license depends on a successful relationship with key stakeholders. Leadership is essential for obtaining community support because personality and behavior are sources of conflict with stakeholders (Nguyen et al., 2017).

For long-term projects, the project manager should incorporate within the project's goals strategies for engaging with stakeholders and enhancing public perception. Some long-term plans are ethical behaviors, eco-friendliness processes, and

economic efficiency during the project's lifecycle because these strategies contribute to improving public opinion of the project to gain social support to operate (Kivilä et al., 2017). In practice, project managers have an orientation toward short-term strategies focused on time, cost, and quality performance, rather than long-term impacts such as the positive public perception of the project (Sabini et al., 2019). The cause of conflicts in projects is the lack of strategies for maximizing the effectiveness of project management for achieving long-term results.

Transition

The purpose of this qualitative multiple case study was to explore strategies used by some mining project managers to effectively gain an SLTO to improve profitability. The problem I addressed in this study was to underline issues involved when project managers in some mining companies lacking strategies to advance community support to operate with the social license to improve profitability effectively. In Section 1, there was information about the nature of the study, the research question, the significance of the study, the conceptual model, and literature reviewed that supports the research.

The information in Section 2 consisted of my role as the researcher and the ethical implications related to developing this study. This section also included detailed information about the participants, the research methodology, population, and sampling, as well as the instruments for data collection, data organization, and data analysis. Section 2 concluded with a description of how to achieve reliability and validity in this study, as well as the transition to Section 3.

Section 3 included information about the results of the study. This section presents details about findings and their application to professional practice. There was also information about the implications for social change, recommendations for action and further research, and final reflections and conclusions.

Section 2: The Project

Purpose Statement

The purpose of this qualitative multiple case study was to explore strategies used by mining project managers to effectively gain an SLTO to improve profitability. The target population consisted of eight mining project managers from five mining companies in Peru who have successfully acquired SLTOs to improve profitability. This population was appropriate for this study, as project managers may provide strategies to effectively gain the support of local communities to operate with the social license to improve profitability. These managers have a demonstrated ability to earn social permission to proceed with the communities in which they serve. The implications for positive social change include the potential to improve community relations, engage more effectively with local communities, and improve the standard of living for the local populations by increasing employment. Individuals and public organizations may also receive mining benefits from mineral taxes and royalties earmarked for local investment funds, joint ventures, local procurement, employment quotas, and training.

Role of the Researcher

In qualitative studies, the researcher is the primary research instrument with the responsibility of collecting, organizing, and interpreting data. The personal involvement of researchers in qualitative studies requires a strong understanding and point of view of the situation under investigation, thus, posing challenges that need certain qualities for mitigating biases and avoiding analyzing data from a personal perspective (Yilmaz, 2013; Yin, 2014).

My role in this study was to identify and select the research methodology and conceptual framework that fit with the study purpose. Assuming the role of a qualitative researcher, I chose research participants, collected data, and organized and analyzed data. McCusker and Gunaydin (2015) commented that for qualitative studies, the researcher could perform multiple activities. For gathering data, I used semistructured interviews with open-ended questions using WebEx video conference technology, and I used NVivo for data organization and analysis.

My relationship with the research area is that I have worked in projects for over 20 years in industries such as forestry, information technology, construction, and mining, in which a positive relationship with key stakeholders and local communities played an important factor in implementing projects without conflicts and delays. I was involved in the mining industry for over 12 years, during which time I experienced the suspension or cancellation of mining projects by local communities and critical stakeholders who negated the social licenses or situations that affected the profitability of the mining companies. The selection of participants for this study derived from the need to acquire insights from mining project managers in Peru with positive experiences in gaining an SLTO for improving profitability.

In this study, the collection of data was through semistructured interviews with open-ended questions administered to eight project managers of mining companies in Peru using WebEx video conference technology. WebEx is an online application developed by Cisco to provide a collaborative space for users through images, video, and sound from anywhere combining communication by telephone with a display on a screen

computer (Tis'ah & Taher, 2020). The semistructured interview is a qualitative research technique in which researchers cover themes and topics in a randomized manner (Diefenbach, 2009). The interview is an essential technique for data collection designed to extract targeted responses from participants (Robinson, 2014). The strategy of using interviews for gathering information allows researchers to create engagement with participants, compile evidence, and mitigate ethical issues and biases.

For reducing biases during the collection of data, I used a protocol as a guide for each interview (see Appendix). A standardized protocol facilitates the data collection process when the process is identical for all the interviews and participants, thus contributing to the study's validity (Berger, 2015). The protocol I used included a consent form used before commencing the interview to promote confidentiality. I also recorded the interviews using the audio memo feature of an iPhone Xs for electronic data evidence while taking into consideration the required level of privacy.

Privacy, voluntary participation, and human rights were essential for this study. Respect for persons, beneficence, and justice are the three principles promoted in The Belmont Report (U.S. Department of Health and Human Services, 1979). I conducted the interviews while adhering to the first principle requirement of the *Belmont Report* on ethical principles to respect persons. One way of being moral was to report factual findings and not harm any participant involved in the research. A challenge for conducting qualitative studies is the use of unbiased data collection techniques because, as mentioned by Berger (2015), researchers performing qualitative studies can collect data themselves by examining documents, observing behavior, and interviewing

participants. This process can invite unwanted, unconscious bias. I avoided bias by mitigating the conditions of self-collected data while incorporating an essential list of desired attributes for interviewees including the criteria that they were project managers assuming a position of executive, manager, or superintendent in a mining company that was involved in more than one mining project that had gained an SLTO.

As the interviewer, I referred to a list of attributes for avoiding biases, such as asking aligned questions, being a good listener, staying adaptive, having a firm grasp of the issues under study, and abstaining from having a personal or professional relationship with participants. Yin (2014) recommended being aware of potential biases and quirks. Considering that, the role of the researcher is to mitigate biases by avoiding the analysis of data from a personal perspective (Yilmaz, 2013).

Participants

The target population for this multiple case study consisted of eight project managers from mining companies in Peru who have successfully implemented strategies for gaining an SLTO to increase profitability. The eligibility criteria for study participants were project managers working in Peru for at least 5 years in medium or large publicly traded mining companies under Peruvian mining laws that successfully gained an SLTO and were willing to participate by responding via email to the consent form sent with "I consent." I used a purposeful sampling method for identifying interview participants who represented mining projects. The use of purposeful sampling in qualitative studies contributes to identifying information-rich cases and experiences related to the phenomenon under study (Robinson, 2014).

The strategy I used for gaining access to participants focused on identifying mining companies in Peru that have had projects suspended or canceled by experiencing issues when seeking to increase an SLTO or have successfully achieved an SLTO. I obtained the list of mining companies in Peru from the webpage of the Ministry of Energy and Mining of the Peruvian government (Ministry of Energy and Mines, n.d.). With the list of mining companies, I found companies most representative of the industry, and through companies' webpages, I identified the public organizational charts and phone books of people and organizations that complied with the eligibility requirements and the profiles required for my study. After identifying mining project managers as potential participants, I sent a letter of invitation via email to participate in the study.

I promoted a working relationship with the potential interview participants through the formalization of the process by sending letters of invitation to 10 project managers of mining companies in Peru. For case studies, Yin (2014) recommended formalizing a working relationship between the researcher and the participants. The letter of invitation provided introductory information about the purpose of the interview, an overview of the study, the criteria used for selecting participants, and instructions for interested participants on how to participate. I followed up with the involved participants via email or telephone to schedule a formal appointment for the interview.

Each interview lasted 45 minutes to 1 hour, after verifying that participants had signed the informed consent form. I recruited participants who are fluent in English; therefore, a consent document in Spanish was not necessary. To engage with participants, I shared my experience as a project manager in the mining industry, Walden University's

contributions to positive social change, and the significance of this study for project management practices, profitability, and an SLTO.

After the interview, I sent a thank you letter to each interviewee with my contact information, as well as the summary of interpretations of the participants responses for member checking where I asked participants to give comments regarding the accuracy of my interpretations of their responses to the interview questions within a week after their interview. Member checking is a data verification method where participants receive a summary of the discussion interpreted by the interviewer to evaluate the accuracy of the true meaning of participant responses (Berger, 2015). Member checking contributes to enhancing the maximum benefit for reliability and validity of the data (Grossoehme, 2014; Yin, 2014). Member checking allowed participants to critically analyze the study findings and comment on them, and with the feedback received I improved the accuracy and completeness of responses decreasing the incidence of incorrect data and increasing study credibility.

Research Method and Design

After reviewing several research methods and designs, I decided to use the qualitative multiple case study design. The multiple case study is a design used by researchers to explore a research paradigm of real-life issues through an inductive process, rather than creating a hypothesis following a deductive process (Yin, 2014). Hypothesis testing is necessary for quantitative and mixed methods studies (McCusker & Gunaydin, 2015; Yin, 2014).

Research Method

The three types of research methods are quantitative, qualitative, and mixed methods where researchers identify and select the method that best fits with the study they intend to perform (McCusker & Gunaydin, 2015; Yilmaz, 2013). I needed to gain insights and understand lessons learned about the experiences and viewpoints of project managers in the mining industry related to strategies for obtaining an SLTO to improve the profitability of the mining company, which was why I decided on the qualitative method.

The first justification for the selection of the qualitative method involves the term qualitative, which refers to addressing questions about how, what, and why concerning a research paradigm designed with a focus on meaning, interpretation, and socially structured realities (Lewis, 2015). Gaining an SLTO is a current issue in the mining industry (Gupta & Kumar, 2018). The use of personal interviews was to respond to real-life problems related to strategies to gain the SLTO to improve profitability, rather than test hypotheses. Researchers use qualitative methods for inductive reasoning purposes through interviews and survey instruments to generate words rather than numbers that they use to look for emergent themes and patterns as their data for analysis (McCusker & Gunaydin, 2015). Researchers apply qualitative research if the objective is to understand how a community or individuals perceive a particular issue (McCusker & Gunaydin, 2015). A qualitative study is different from a quantitative or mixed methods study. In qualitative methods, the researcher's focus is on an interpretative perspective of the

research issue using the experience and the information obtained from informed research participants through observations and semistructured interviews (Palinkas et al., 2015).

I did not use the quantitative method. The purpose of a quantitative method is to test hypotheses that use variables to measure relationships among quantitative variables (McCusker & Gunaydin, 2015; Yilmaz, 2013). A researcher using the quantitative method relies on numerical datasets to test and confirm hypotheses (Palinkas et al., 2015). Finally, the quantitative method does not consider the experience of participants, feelings about the phenomenon under study, and relevant documentation, which were necessary parameters for this study. For these reasons, I did not use the quantitative method.

Mixed methods research combines the qualitative method and the quantitative method in the same study (Frels & Onwuegbuzie, 2013). Mixed methods research provides a diversity of data for inquiring, collecting, and processing, and then presenting results to test hypotheses (McCusker & Gunaydin, 2015; Zohrabi, 2013). My intention for conducting this research was not to perform statistical analysis or to measure variables for supporting or refuting a hypothesis. Therefore, using a mixed methods approach was not appropriate for my study.

Research Design

To select the research design that best fits my study, I evaluated three designs for qualitative studies included phenomenological, ethnographic, and case study. After evaluating the pros and cons of each, I opted to use a multiple case study design. In a case study, the researcher explores real-life issues in a detailed manner, gathering data from

various sources of information such as observations, interviews, audiovisual material, and documents and reports (Yin, 2014). Researchers using a case study design analyze data collected to create a story that describes the issues aligned with answering the research question and how following best practices can contribute to resolving it with a level of flexibility (Hyett et al., 2014; Yilmaz, 2013).

The use of a multiple case study provides an in-depth, multilayered understanding of complex social and technical real-life phenomena associated with the improvement of business practices (Yin, 2014). I selected a multiple-case study instead of a single-case approach because exploring strategies to gain an SLTO for improving profitability among several mining companies and various interviewed project managers align with a multiple rather than a single-case design. I used the multiple case study design to obtain the knowledge necessary to understand the strategies used for gaining an SLTO to improve profitability in mining companies in Peru. The reason to exclude the phenomenological design was that I did not analyze events using an interpretative perspective to capture the uniqueness of the phenomenon from the lived experiences of individuals. I also rejected the ethnographic approach because the focus in my study was not to explore the cultural patterns of a group of individuals who share behaviors, beliefs, and a common language.

In qualitative studies, the selection of individuals is essential to achieve data saturation because the target population must provide as much detail as possible to ensure all aspects of the issue are part of the exploration (Palinkas et al., 2015). I used interviews to capture information from participants, and I stopped interviews when no new themes or patterns were emerging, as noted by Fusch and Ness (2015).

In qualitative studies, data saturation occurs when little or no new data comes from the participants or when information becomes repetitive (O'Reilly & Parker, 2013). Data saturation is significant for qualitative studies, and reaching saturation means there are no more findings (Zohrabi, 2013). Data saturation helps to ensure reliability and validity, similar to a statistically valid sample in a quantitative or mixed methods study (Palinkas et al., 2015).

To ensure data saturation in my study, I continued interviewing participants until no new themes, categories, insights, or perspectives for coding appeared from responses. Yin (2014) stated that in a qualitative study there is no formula for defining the desired number of participants, in general, larger numbers can be better than smaller numbers because a larger number can create greater confidence in a study's findings. For this study, I initially interviewed five project managers of mining companies, and then I added an interviewee from one company at a time in a second-round until the responses reflected no new themes or findings.

Population and Sampling

Participants are selected according to predetermined criteria relevant to a particular research objective and purposeful sampling can be a way to obtain a representative example of a larger population (Guest et al., 2006). Purposeful sampling is a typology widely used in qualitative research to select a small number of information rich cases related to the phenomenon of study (Palinkas et al., 2015). I used the purposeful sampling method to identify project managers who represented the mining

industry in Peru. According to Yin (2014), leaders such as project managers can provide valuable insights into the phenomenon of interest.

Qualitative studies do not have a commonly accepted sample size and the focus is more oriented to the purpose and the heterogeneity of the study (Guest et al., 2006). For a qualitative multiple case study there is not a typical sample size, the researcher studies one or a few cases of a phenomenon in depth (Yin, 2014). Guest et al. (2006) commented that six to eight interviews are enough for a homogeneous sample and 12 to 20 are necessary when there is disconfirming evidence or maximum variation. Panda and Sangle (2019) explored perspectives from eight individuals selected by a purposeful sampling exploring the relationship between SLTO and sustainable development strategies. Koivurova et al. (2015) used eight case studies to evaluate the framework that defines the SLTO dimensions from the mining company perspective and the community standpoint.

Sample size should be determined by the researcher to be large enough to provide data to answer the research question until to achieve data saturation that is the is the point when the researcher fails to identify any new themes, categories, insights, or perspectives for coding based on the participants' responses (Saunders et al., 2018). I used purposeful sampling to select the population of this qualitative case study consisted of eight project managers of mining companies in Peru who had successfully gained an SLTO for improving profitability. Project managers in this study represented a source of rich-information cases about strategies for achieving the SLTO. I added participants to reach data saturation, data saturation in this study was reached in eight participants.

The identification of the target population is significant for reaching data saturation (Grossoehme, 2014). A researcher achieves data saturation prematurely when the sampling frame is too narrow, the analytical perspective is limited, the method employed does not yield in-depth information, or the researcher is unable to collect data from the target population (Robinson, 2014). The eligibility requirements for selecting participants in this study were project managers working in Peru for at least 5 years in medium or large publicly traded mining companies under Peruvian mining laws, that successfully gained an SLTO, and were willingness to participate by responding via email to the consent form sent with "I consent."

I conducted interviews at the most appropriate time for the interviewees enabling participants to feel comfortable and to respond openly and freely from interruptions and arranging a scheduled meeting with details of the WebEx video conference sent to their email calendars. Participants had the opportunity to select the time that minimized disruption for interviews for 45 minutes. I prepared the interview guide beforehand to avoid frequent referral to the guide during the interview to mitigate the distraction of participants who may affect the interview.

I considered semistructured interviews with open-ended questions to be the most appropriate technique for data collection using WebEx video conference technology. Diefenbach (2009) and Yilmaz (2013) commented that semistructured interviews facilitate the elicitation of in-depth information and promotes voluntary participation as a way to mitigate biases from analyzing data from a personal perspective. The COVID-19 pandemic conditions motivated the use of video conferencing to avoid close contact with

participants. I used interviews for extracting targeted responses from participants without prejudices. WebEx is an online application that makes it easier for users to collaborate through images, video, and sound from anywhere wherever users can discuss online and face to face with reduced costs (Tis'ah & Taher, 2020).

Ethical Research

Ethical behaviors and integrity are necessary during the entire research process while trying to adhere to the moral guidance for gathering data and reporting findings honestly (Yin, 2014; Zohrabi, 2013). The consent form is the option selected to mitigate biases and ethical concerns with participants. Interviews in qualitative studies must be ethical (Palinkas et al., 2015; Robinson, 2014). Ethical skill and sensitivity are necessary when the researcher reports to potential participants about the study's objectives, how the project managers' participation in the study is voluntary, and the confidentiality of participants' identities and any information concerning the interview process is assured (Grossoehme, 2014; Robinson, 2014).

Before performing interviews, I provided each interviewee with a consent form describing the purpose of the study, the interview procedure, the use of the information, and confidentiality terms. I required the response via email to the consent form with "I consent" before conducting the interview. Interviewed project managers were not under obligation to complete interviews, and they could have stopped the meeting at any time, but no participant withdrew from the interview. Monetary incentives were not part of this study to encourage participation. I will provide a summary of the research findings after my study is published.

Participants were able to withdraw from this study at any time; however, no participant withdrew from my study. A researcher needs to be as transparent as possible throughout the study. A withdrawal procedure is an option to improve the credibility of the research (Grossoehme, 2014; Zohrabi, 2013).

Maintaining the confidentiality of the data and other documents gathered is a strategy for protecting participants' privacy before writing up the study for publication (Grossoehme, 2014). I will retain all the information regarding participant confidentiality for 5 years. Additionally, I did not include study participants' names or the names of their companies in my findings, coding their names with I1 to I8, with no direct reference made to the interviewee. An option for achieving research integrity is the use of stated ethical standards or codes of ethics (Yin, 2014). I aligned my research to Walden's Institutional Review Board (IRB) to ensure compliance with the university's ethical standards according to the U.S. federal regulations completing the procedures required and obtaining Walden University's IRB-granted permission before performing the research.

Electronic information gathered in this study was stored on an external hard drive and locked in a file cabinet when not in use. I will save all sensitive material and personal information for 5 years following the completion of the study; then, I will proceed to destroy the data by shredding the paper documents using a paper shredding machine and using the software Eraser to permanently delete electronic data. The protection of the research information includes maintaining the privacy of participants' identities (Grossoehme, 2014). The IRB approval number for this study was 05-15-20-0510885.

Data Collection Instruments

For this study, I served as the primary data collection instrument. The researcher is a research instrument performing fieldwork for gathering data on a real-life issue (Yin, 2014). I conducted semistructured interviews with open-ended questions with eight project managers in five mining companies to gather information from participants about strategies to gain the SLTO to increase profitability using WebEx video conference technology. Interviews are a significant source of case study data, where the researcher uses open-ended questions for enhancing engagement with participants (Sandy & Dumay, 2011; Yin, 2014). I used an interview protocol (see Appendix) to gather data from participants through semistructured interviews. The use of a consent form and the possibility to withdraw from the study promoted the voluntary participation of interviewees as a strategy for increasing the reliability of the study.

I enhanced the reliability and validity of the data collection instrument using voluntary participation, triangulation of multiple data collection methods, and member checking to allow participants to modify wrong interpretations. Yin (2014) commented on the importance of using multiple sources of data for qualitative studies. For voluntary participation, I used a consent form and the possibility to withdraw from the study as the strategy to increase the reliability of the research.

I enhanced the reliability and validity of the data collection process through methodological triangulation. Methodological triangulation is the use of different measurement methods for combining information from multiple sources to arrive at a ”true” or at least more accurate value (Boslaugh, 2012). I triangulated the data collected

through interviews with yearly publicly available performance reports and social responsibility reports provided by participants related to gain an SLTO. To gather this information, I asked to project managers interviewed about publicly available performance and social responsibility reports with strategies to gain the SLTO. Participants told me to refer to the company webpage.

I used member checking to confirm the accuracy of my interpretations of the participants' interview responses, thus, increasing the accuracy and validity of the study. Use of member checking allowed participants to validate the correspondence between their responses and my transcribed interpretation. A researcher uses member checking to improve the data interpretation through the accurate capture of participant responses (Grossoehme, 2014; Yin, 2014). Each participant received a summary of my data interpretation for member checking to ensure the my interpretations aligned with the participants' responses. Using the process of member checking, I encouraged participants to give feedback on the accuracy of my interpretations of their responses to the interview questions. Within one week of sending my interpretations of participant responses, all participants provided feedback.

Data Collection Technique

I used videoconference semistructured interviews with open-ended questions for collecting data in this qualitative case study. The interview is a technique for gathering data from interviewees in qualitative studies to understand a real-life phenomenon (Robinson, 2014). The targeted population of the case under study consisted of eight

project managers from five mining companies in Peru who have successfully acquired SLTOs to improve profitability.

The advantages of using videoconference semistructured interviews were that I could collect relevant data dealing directly with a primary source of data, encouraging two-way communication, and potential follow-up questions. An advantage of videoconference interviews is to collect data directly from participants who are not able to participate face-to-face (Archibald et al., 2019). The advantage of using WebEx videoconferencing technology for collecting data in my study was to avoid traveling to meet participants to interview, transportation, and accommodation costs because I was not able to safely meet in person because of health concerns related to the COVID-19 pandemic. Participants can be geographically dispersed, and online video and audio call services can be used to conduct the interviews without encountering major logistical challenges or costs (Robinson, 2014).

Disadvantages of using a videoconference for interviews include technical issues involving establishing call connections, visual and audio resolution, connection speed, and interruptions to voice transmission because of low internet bandwidth, outdated hardware, or limited webcam or microphone functionality (Archibald et al., 2019; Sedgwick & Spiers, 2009). Another disadvantage of using a videoconference for interviews can be lack of familiarity of participants with using videoconferencing technology (Haig-Ferguson et al., 2019). I had difficulty establishing videoconferences in three interviews because the use of WebEx was new for those participants, which delayed the interview.

I used member checking to improve accuracy and validity of my study to capture the consistency of participant responses and reduce potential bias. A researcher uses member checking to enhance the validity of the study by checking and evaluating the researcher's interpretations of the interview responses to determine if the researcher's interpretations accurately reflect the viewpoint of participants (Yilmaz, 2013). Through member checking the researcher presents interpretations to the participants in order to be confirmed and validated (Zohrabi, 2013).

Data Organization Technique

In qualitative case studies, researchers compile field notes and evidentiary materials before formal analysis starts (Yin, 2014). Researchers with organized data can analyze the information while making real-time judgments about whether further data collection is necessary (Robinson, 2014). With a strategy for the collection and organization of the data, the researcher can ensure the reliability of the research data addressing possible concerns related to information security, privacy, and retention of the data. To maintain confidentiality, I used a coding technique (e.g., I1, I2, . . .) to ensure that the information was confidential and helped to mitigate biases. For data retention, I archived the consent form and other documents generated during the research in digital files in a password-protected folder on an external hard drive stored safely in conditions suggested by the manufacturer.

To record and organize data from interviews, I used Notepad for taking notes during interviews. I stored the interview data, including audio files and Notepad notes, in separate files with a code (I1, I2, . . .) for each participant. Each file had a unique

identifier code, such as I1, that was the field used in the database to identify a specific register. The composition of the data fields was coded identifier number, file title, type of file or document, author, file date, such as I1 Title doc Author YYMMDD.

The strategy defined for organizing data includes transcribing the interview immediately after completion to add to other records into a single file folder. To ensure information security, I stored digital files in a password-protected folder on an external hard drive. I will meet Walden University requirements storing the collected data for 5 years; then, I will delete digital files using the Eraser software and shred all papers and physical evidence related to the research using a paper shredding machine.

Data Analysis

For data analysis, I used Yin's five-step process and methodological triangulation to enhance the quality of data and the robustness of the findings. Hyett et al. (2014) recommended multiple data sources and analytical methods to understand the case under study. Methodological triangulation consists of combining information from various sources to arrive at least a more accurate value than a single source (Boslaugh, 2012). To triangulate data for this study, I analyzed data from video conference semistructured interviews and publicly available yearly performance reports and social responsibility reports from each mining company provided by project managers interviewed or downloaded from the organization's webpage.

Data analysis is a sequential process of compiling, disassembling, reassembling, interpreting, and concluding (Yin, 2014). Data analysis is a process that demands time on the part of the researcher, which could be equal to the time spent in the field collecting

data (Yin, 2014). Data analysis began during data collection as I recorded notes and made initial interpretations during interviews. In qualitative studies, once data are gathered, the researcher focuses on organizing data for analysis, but the process of data analysis can be interactive while data collection continues through the evaluation of transcribed interviews and notes amassed from interviews (Grossoehme, 2014; Yin, 2014). After completing the data collection process, the researcher is ready to analyze the data, beginning with the evaluation of the transcribed interviews and other forms of information (Grossoehme, 2014; Yin, 2014).

Compiling

Following my initial analysis, I compiled information gathered from interviews and secondary information in a database consisted of electronic files. Each record was named with I1 to I8 with a data dictionary that contains the definition of each field and precisely defines its possible entries. I combined interview transcripts, results of member checking and notes in MS Word then I uploaded data to NVivo to help organize data and discover nodes. Analyzing qualitative data is not always straightforward. Yin (2014) commented that NVivo is useful when the researcher performing a qualitative study needs to organize and code large volumes of data during data analysis. The use of NVivo helps the researcher code information gathered during the data collection process and analyze the information to present results (Sinkovics & Alfoldi, 2012; Yin, 2014).

Disassembling Data

Researchers disassemble data by breaking down the compiled data into smaller pieces where the researcher assigns new labels or codes to the fragmented data to assess

the meaning and identify common themes, phrases, or similarities (Yin, 2014). I coded collected data using label names to facilitate data analysis, interpretation, and make conclusions about findings while I discovered emerging themes, patterns, and similarities between participant responses. I used codes to organize data by the participants and divided the codes into levels to facilitate the alignment with the conceptual framework and the theoretical concepts that emerged with the research question. After disassembling data, I used emergent themes to reorganize the data fragments. Researchers reorganize the disassembled fragments into different groupings and sequences than they might have been in the original interview notes (Yin, 2014).

Reassembling Data

Reassembling is the process of rearranging data where the researcher becomes aware of potentially broader patterns or themes in the data by grouping codes (Yin, 2014). I reassembled data in the form of merging the data by clustering similar codes to categorize the data into higher-order themes using thematic hierarchies. I used NVivo for reassembling data grouping Level 1 and Level 2 codes onto conceptual patterns and Level 3 and Level 4 codes onto theoretical patterns to categorize the data in themes through the lens of the study framework and those that answer the research question. Coding data in qualitative research is the strategy used by researchers to organize the original information expressed by field interviewees on a conceptual level to sort the items from different records in different ways to gain insight about grouped themes (Yin, 2014).

Interpreting

Interpreting is the craft of giving the own meaning of the reassembled data (Yin, 2014). After reassembling the data into patterns and themes, I continued interpreting the codes and developed themes in an analytical narrative of the significance of the findings concerning answering the research question. In this step of data analysis, I reviewed all the identified codes and themes and discussed the relationships between the themes by ensuing the interpretation aligns with the research question Grant and Osanloo (2014) explained that the results of a study are limited when there is no alignment with a conceptual framework and the research question. I continued collecting and analyzing data following the steps described above to reach data saturation to ensure the validity and reliability of my study.

Concluding

Concluding is the fifth analytic phase where conclusions are the final summation of the findings in response to the research question (Yin, 2014). Finally, with the interpreted data, I drew conclusions from the study findings to provide readers with text and tables from the interpretations and examples from data supporting the arguments. To build strong conclusions, I summarized the interpretation of the findings with the correlation of the three key themes emerged in this study with the literature and the conceptual framework using new studies published since writing the proposal. Compelling conclusions bring unity to the rest of a study moving back to the researcher interpretations to build more strongly toward anticipated conclusions (Yin, 2014).

Reliability and Validity

A challenge for researchers is to demonstrate the reliability and validity of the study (Yin, 2014). Validity improves the accuracy of the findings as best described by the researcher and the participants toward the interpretive lens of a qualitative researcher (Berger, 2015). Reliability entails the researcher obtaining detailed field information by employing a good quality recording system and by transcribing the information gathered according to themes focused on the authenticity of responses (Yin, 2014).

Reliability and validity are essential research concepts, especially from a qualitative point of view to reflect the multiple forms of building truth (Yin, 2014). In qualitative studies, consistency or dependability, credibility, applicability or transferability, and neutrality or confirmability are necessary criteria for quality (Yilmaz, 2013). Dependability is the qualitative equivalent of reliability, and validity increases the credibility, transferability, and confirmability of a qualitative study (Zohrabi, 2013).

Reliability

In qualitative studies, a researcher demonstrates reliability when there is dependability that refers to the stability or consistency of the data (Zohrabi, 2013). A researcher focused on reliability increases the consistency of the qualitative research, meaning that another researcher who uses the same methodology should come to similar conclusions, and an interviewee can answer the same questions or close approximations the same way each time (Grossoehme, 2014). Some techniques for producing reliable data are member checking, external audits, transcript review, and an expert validation of the interview questions, interview protocol, direct observation protocol, and other

techniques (Yilmaz, 2013; Zohrabi, 2013). I used member checking techniques to improve the consistency of the data. A challenge for researchers is to mitigate biases by avoiding analyzing data from a personal perspective affecting the data interpretation (Yin, 2014).

Validity

Validity is the strategy used by qualitative researchers to enhance credibility, transferability, and confirmability of findings which means that the study findings are accurate not only from the standpoint of the researcher but also from that of the participants and the readers (Yilmaz, 2013). Member checking, transcript review, triangulation, interview protocol, and participant observation are some techniques to demonstrate the credibility of a study (Berger, 2015). To help ensure validity, mitigate bias, and demonstrate trustworthiness, I used member checking and methodological triangulation of the information I collected until I reached data saturation.

Credibility

I used member checking and methodological triangulation to ensure the credibility of this study. The use of member checking improves the accuracy of the collected data. A researcher uses member checking to ensure the accuracy of the study by reviewing the responses with the respondent that provided the information for verification, comments, and clarification (Yin, 2014).

The use of methodological triangulation leads to enhanced validity of the data collected. Yilmaz (2013) noted that triangulation enhances the credibility of a qualitative study by capturing multiple perspectives for improving trustworthy data. A researcher

using triangulation is influenced in the way to complete data analysis because results will be triangulated with additional information to improve the accuracy of results (Boslaugh, 2012).

Transferability

The researcher achieves transferability of the study when findings are applicable to other contexts (Yilmaz, 2013). Thick descriptions of the setting, events, people, context, and actions studied are needed to enhance transferability (Yilmaz, 2013). I enhanced transferability of this study for future readers and qualitative researchers through thick explanations derived from data collection using purposeful sampling to help ensure data saturation.

Confirmability

Confirmability can be achieved when the researcher can maintain an audit trail of how data were collected and what interpretations were made so the research process can be repeated by other researchers (Nowell et al., 2017). Confirmability is used by the researcher to demonstrate that findings emerge from the data and not their own predispositions detailing the research processes and enabling readers to determine whether the data analysis procedures were carried out appropriately (Kalu & Bwalya, 2017). Nowell et al. (2017) noted that confirmability is established when credibility, transferability, and dependability are achieved. I enhanced the confirmability of the study by recording the audit trail of processes and decisions from probing during the initial interviews, member checking, review of secondary information, and data analysis followed to lead to the research conclusions.

Data Saturation

In qualitative studies, data saturation is essential to demonstrate that the participants provided as much detail as possible to ensure that no further themes emerge, no new data retrieved, and there is adequate data to replicate the study (Palinkas et al., 2015). I used videoconference semistructured interviews with open-ended questions to capture information from participants, and I stopped interviews when no new themes or patterns emerged. Data saturation occurs when little or no new data comes from the participants or when information is repetitive (O'Reilly & Parker, 2013). For this study, I interviewed eight project managers of mining companies to the point where responses reflected no new themes or findings.

Transition and Summary

Section 2 consisted of a brief description of the purpose of the study, as well as my role as the researcher, and the description of the participants. There was also a description of the research method and design, the population considered in the study, and a discussion of the ethical concerns. The information in this section referred to data collection, data organization, data analysis, and strategies on how reliability and validity were achieved.

The purpose of this qualitative multiple case study was to explore strategies used by mining project managers for efficiently gaining an SLTO to improve profitability. The geographical area was Peru, where the target population consisted of eight mining project managers from five companies that have successfully acquired SLTOs. Data for this study came from semistructured interviews using video conference technology with

project managers and secondary information related to publicly available yearly performance reports and social responsibility provided by project manages interviewed or obtained from institutional webpage. These project managers had a direct relationship with the business decision-making process about the acquisition of SLTO licensing. The secondary information such as publicly available yearly public performance reports and social responsibility reports provided by mining companies illustrated relevant information on gaining an SLTO for improving profitability.

The organization of the data included saving the interview audios in separate files, with a codification defined for each participant grouped by the company. I will protect the data for 5 years in a storage device. For data analysis, NVivo was the tool used to organize and code the data before the analysis process to understand the issue related to gaining the SLTO.

Section 3 includes information about the results of the study. This section has details about the findings and applications to professional practice. There is also information about the implications for social change, recommendations for action and further research, and ends with reflections and conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore strategies used by mining project managers to effectively gain an SLTO to improve profitability. The research question that guided this study was: What strategies do project managers in the mining industry use to effectively gain an SLTO to improve profitability? The eligibility requirements for selecting participants in this study were project managers working in Peru for at least 5 years in medium or large publicly traded mining companies under Peruvian mining laws that successfully gained an SLTO and were willing to participate by responding via email to the consent form with "I consent."

The data collection consisted of semistructured, videoconference interviews with eight participants and secondary information gathered from performance reports and social responsibility documents of five mining companies with relevant information about how to obtain an SLTO successfully and how gaining an SLTO impacts profitability. Member checking and methodological triangulation enhanced the validity of data collected and improved the finding's rigor and robustness. I followed Yin's five-steps to analyze data supported by the NVivo software. The themes that emerged during the interviews and through the collection and analysis of company documents were linking shared value to socioeconomic development, effective stakeholder management practices, and effective project leadership. In the following subsection, I describe themes in more detail with participant citations and triangulate those transcripts with peer-

reviewed literature and publicly available performance and social responsibility reports from each organization aligned with the conceptual framework.

Table 2

Emergent Themes

Nodes/themes	Number of respondents	Number of times the theme was addressed
Linking shared value to socioeconomic development	8	136
Effective stakeholder management practices	8	50
Portfolio management	2	12
Effective project leadership	7	30

Presentation of the Findings

The research question for the study was: What strategies do project managers in the mining industry use to effectively gain an SLTO to improve profitability? I used participant codes (e.g., I1, I2, . . . I8) and mining company codes (e.g., C1, C2, . . . C5) to ensure confidentiality during data collection and analysis. Through purposeful sampling, I identified eight experienced project managers in the mining industry with experience and strategies to effectively gain SLTO to improve profitability. Each interviewee participated voluntarily in the videoconference interview that was between 45 minutes and 1 hour in length.

An interview protocol, member checking process, and methodological triangulation of multiple data collection methods (e.g., publicly available performance and social responsibility reports of mining companies that included information about gaining SLTO) helped mitigate bias. During the interview with the eighth project

manager, I achieved data saturation when no new information or themes emerged, and the data became repetitive. The themes emerged from an analysis of the interviews and the mining company's publicly available performance and social responsibility reports provided by project managers interviewed or gathered from the organizational webpage with relevant information about strategies to gain SLTO. Each theme aligned with the literature and the conceptual framework, GST. GST established a baseline for specific patterns based on significant words, phrases, and sentences that developed this research's emergent themes. I used Yin's five-step data analysis and the NVivo software program to identify patterns and subsequently identified the themes in the study. The organization of findings was by theme and correlated with the GST tenets and the pertinency to current literature.

Theme 1: Linking Shared Value to Socioeconomic Development

The first theme was linking shared values to socioeconomic development to gain an SLTO to improve profitability. Seven participants commented that offering opportunities and providing social and economic investment capital to local communities from projects was necessary to gain social acceptance. There were references in two performance and social responsibility reports provided by participants that related to the impact of mining companies in the community and socioeconomic development. A further review of participating company performance and social responsibility reports revealed that a positive engagement with stakeholders was necessary to promote socioeconomic development; otherwise, the reputation and profitability were impacted.

The impact on profitability in the mining business was part of this theme. Five participants commented that when local communities deny mining companies an SLTO, the usual reason was that little to none of the mining company's financial gains were used to promote local development. Promoting the idea of potential shared values of mining benefits linked to socioeconomic development was the best strategy to gain SLTO listed by participants. There are many ways to attain shared value, but some participant comments were to encourage local capabilities, employment, the transference of knowledge, and infrastructure, particularly between the mining company, government, community, and social organizations.

Relevancy to the Conceptual Framework

The conceptual framework used for this study was the GST. Caws (2015) stated that one of the advantages of GST is synergy. Corning (2014) stated that the term synergy refers to cooperation or work that arises from the relationships and interactions among various individuals, elements, parts, forces, particles, or genomes in a given context. Sharing mining profits with communities to improve local infrastructure and promote community and educational development is a strategic synergy necessary to gain an SLTO.

The GST tenet used as a lens to explore the synergic link between shared values and socioeconomic development necessary to gain SLTO was homeostasis. Kast and Rosenzweig (1972) noted that homeostasis is the ability of a system to achieve a state of dynamic equilibrium that applies to business when an organization returns to a state that maximizes survival and growth. Von Bertalanffy (1972) commented that the principle

taken as a golden rule of behavior adjusts the system to maintain the optimal social, biological, and psychological homeostasis.

The collected data highlighted that sharing mining profits with local communities to promote socioeconomic development was necessary to achieve the equilibrium required in the mining business to operate with social license and increase profitability. Gaining the SLTO is essential to improve profitability in the mining industry, and project managers of mining companies could use the shared value as a sustainable strategy to promote synergetic equilibrium with local communities.

Data Collected

The symbiotic linkage of shared values between mining companies and the communities in which they operate to promote socioeconomic development was a common theme among participants' responses. Seven out of eight participants commented that promoting strategies that accelerated the transfer of mining company benefits for socioeconomic development in the areas of employment, services provisioning, and infrastructure could facilitate the SLTO. Four participants further suggested that in the process of formulating socioeconomic development and strategic interventions, evaluating biophysical conditions and encouraging management to engage with local and external stakeholders proactively was necessary to gain social acceptance. Seven participants responded with various answers about the importance of maintaining a long-term relationship with local community members as the formula to gain the SLTO. I found supporting information in two performance and social responsibility reports related

to a positive engagement with stakeholders to transfer mining benefits for local development to gain SLTO and improve reputation and profitability.

I8 elaborated the term "shared value" as the formula to support the strategy to transfer a portion of mining profits to the local community for socioeconomic development. I8 noted, "Working together with local communities to promote a sustainable mining business was the formula for creating shared values, based on a new business model where the company uses local labor, services, goods, and machinery for projects and operations." I5 added, "Promoting clusters with local community enterprises can motivate local communities' participation in the mining business with social acceptance. The challenge for project managers was to support the improvement of the quality of goods provisioned and training for the workforce." I3 and I6 added ideas to promote socioeconomic development by sharing a portion of mining profits through investment in the communities in which the companies operate. I3 stated,

> Focus on improving local social services, economic development, construction and maintenance of rural roads, generating electricity, and building facilities related to drinking water, education, health, and local production are necessary to improve a long-term relationship between the mining company and local stakeholders.

I6 replied, "The construction of social and productive infrastructure for local communities using tax compensations promoted by the government of Peru is an alternative to encourage the mining companies' profitability and have the necessary infrastructure for local communities."

I2 and I3 added insights about how to transfer mining benefits effectively to promote local development to gain an SLTO. I3 stated, “Instruct community people to collect environmental samples and build water dams to collect rainwater for the dry season, was the strategy to promote local development and a positive connection with local communities.” I2 stated, “Implementing programs to improve local people’s capabilities and promoting infrastructure to effectively connect with local communities is critical.” I3 stated, “Knowledge sharing was another strategy used for gaining community acceptance, such as agricultural practices and local production.” I3 concluded, “Sharing mining benefits and practices such as safety and water management with local community members was a strategy to gain acceptance because they can use those practices on local development activities.”

To promote effective strategies to transfer mining benefits it is first necessary to consider the biophysical conditions. I3 stated, “Mining biophysical context can also improve the relationship with local communities when the participation in water monitoring, innovation, and mining closure committees was evolving.” I7 also stated, “Zoning of the mining influence’s areas but agreed with the government and critical stakeholders are essential to gain social acceptance.”

To promote socioeconomic development, the participation of the government and other external stakeholders is necessary to support and facilitate the transference of mining benefits in the form of sharing a portion of profits with the community (Melyoki & Kessy, 2020). I3 stated, “Government and institutional arrangements are necessary to enhance the connection with local community members. An example of this being the

environmental impact assessments done by the government with company support which provides an opportunity to connect with local people and government." I6 also stated, "Government participation was essential to improve the relationship between the mining company and local communities because the social license is an intangible provided by local stakeholders, and the government must support this process." There was a reference about the engagement with stakeholders to promote socioeconomic development in the CSR appendix of a report provided by a participant of C3 stating that "we seek to obtain and maintain broad social acceptance during all stages of the mine lifecycle, building relationships with communities, governments, NGOs and other local, national and global stakeholders."

I5 and I8 noted the adverse impact on profitability by the absence of an SLTO because the mining company was not investing a percentage of their profits into local communities for socioeconomic development. For instance, I8 stated, "In 2011, conflicts with local communities around our main mining project affected the profitability, team motivation, and external reputation. In 2015, the strategy was adjusted to improve the engagement strategies with local community stakeholders to continue operating." I5 stated, "Shared value strategy was useful in the early stages of a mining project, enhancing mining companies' profitability because investments are low instead of investments to remediate conflicts during the project execution."

I3 and I4 elaborated on the potential impact of not having an SLTO on the company's reputation, which consequently affects the profitability of the company because of the negative perception of shareholders. In the performance and social

responsibility report provided by a participant of C1, there is an appendix that highlighted the impact on reputation, “social recognition and reputation are necessary to maintain social acceptance to operate.” I4 added, “Strategies for gaining reputation are honoring commitments and demonstrating a new way to do the mining business when the communicative approach aligns with the need to gain social acceptance and local participation in the mining entrepreneur.” I3 stated, “Being responsible for water management was necessary for gaining recognition and reputation. Focus on water and environmental management practices, collecting, and understanding together with community members the critical environmental parameters such as water, land, and air quality was necessary to gain the SLTO.”

Pertinency to Current Literature

A review of findings from the existing literature tied the results of this study regarding the strategy of linking shared value to socioeconomic development. The strategy was the use of shared values to gain an SLTO to improve profitability. Shared value is a new way to achieve economic success in a way that also creates value for society by addressing community needs and challenges, where businesses reconnect company success, measured in terms of profitability, with social progress (Porter & Kramer, 2019). The mining industry is an essential catalyst for developing local economies in many countries (Antoci et al., 2019). The objective of shared value in the mining industry is to identify opportunities to improve socioeconomic outcomes and related core business performance as the intersection between the needs of business and

society to build collaborative partnerships to address complex social problems (Fraser, 2019).

Shared value is not an isolated or static strategy between the mining company and local community members. The participation of government and other stakeholders combined with an understanding of the biophysical conditions is necessary to gain an SLTO. The mining industry is an interrelated system where the mining companies interact with government and community stakeholders to operate with social acceptance (Sícoli & Sallan, 2019). Prno and Slocombe (2014) commented that local socioeconomic conditions, government and institutional arrangements, and biophysical conditions could affect the success of earning the SLTO in the mining industry.

Operating without an SLTO impacts the profitability of mining companies. Protests, claims, attacks on mining facilities, and roadblocks are often the result of conflicts with local communities affecting the production, reputation, and profitability of mining companies (Saenz, 2019). Mining companies are increasingly aware of the need to improve their relationship with local communities and of the crucial role of sustainability for gaining trust, acceptability, and public consent for obtaining an SLTO that is essential to avoid potentially costly conflicts and risks (Antoci et al., 2019). Changing market conditions and increasing environmental demands and conflicts created by the absence of an SLTO impact the production, reputation, and profitability of mining operations (Vanclay & Hanna, 2019; Voyer & van Leeuwen, 2019). The absence of the ongoing acceptance and approval of mining projects by local community members can affect its profitability (Rouch, 2020).

Reputation and legitimacy, and consequently the shareholders' perception, is also impacted by the absence of an SLTO. A mining project is perceived to have economic legitimacy when it can offer social and economic benefits to the community, such as employment, training, development opportunities for youths, and infrastructure projects (Melyoki & Kessy, 2020). A success factor for earning the SLTO is to maintain a positive corporate reputation and avoid the negative publicity surrounding conflict, which can be harmful to the company's reputation and threaten their SLTO (Melyoki & Kessy, 2020; Vanclay & Hanna, 2019). Gaining an SLTO requires the project to gain the trust and credibility of local community members (Sabini et al., 2019; Vanclay & Hanna, 2019).

The concept of SLTO was developed as a result of the criticism of mining projects and as a mechanism and methodology to ensure sustainable mining practices, environmental protection, cooperation with the local communities, preservation of the quality of life, and the viability of the mining industry (Komnitsas, 2020). The efforts to gain the SLTO allow companies and communities to align their respective interests to avoid clashes during mining operations through sustainable strategies in which mining companies use strategies focused on environmental protection and social and economic development (Melyoki & Kessy, 2020).

Theme 2: Effective Stakeholder Management Practices

The second theme was using stakeholder management practices to gain an SLTO. Seven participants commented that stakeholder management practices were necessary to gain social acceptance. There were references in three performance and social

responsibility reports provided by participants which related to the positive impact of a continuous stakeholder engagement with a sustainable perspective to gain an SLTO, and where communication is the way to engage positively with stakeholders. Stakeholder management practices are essential to gain an SLTO (Vanclay & Hanna, 2019). Project managers need to apply stakeholder management practices to face the challenges to gain social acceptance (Lutas et al., 2020). Stakeholders support mining projects when there is a strong and substantial connection between the community and the company (Sícoli & Sallan, 2019).

Relevancy to the Conceptual Framework

A stakeholder is any group interested in what the organizational system is doing (Jackson, 2003). Jackson (2003) also commented that iterative planning seeks to gain stakeholder approval with the system involved. Iterative planning helps to ensure that the maximum creativity is brought to the process of dispute resolution between the mining companies and the communities where they operate, in turn providing a desired future for stakeholders (Jackson, 2003). Von Bertalanffy (1968) introduced the term circular causality as part of the iterative planning general systems structure; that is, the model should introduce feedback of output into input so making the system self-regulating with respect to maintenance of the desired state. Feedback was the GST tenet used as the lens to explore the theme of effective stakeholder management practices.

Iterative planning facilitates the participation and feedback of stakeholders under a continuous engagement process (Jackson, 2003). Feedback mechanisms are the regulatory process of a system to continuously readjust the inputs by comparing actual

results with projected results to stabilize the action of the system (von Bertalanffy, 1972). I used the data provided by participants and obtained from secondary information to note that the information generated as part of the stakeholder management practices is the input to regulate the intervention of mining projects to promote a positive engagement with stakeholders and to ensure continuous process improvement in all operating areas of the business.

Data Collected

The use of effective stakeholder management practices was the strategy commented on by six participants. Participants commented that the most effective project management strategy with sustainable effects was stakeholder management supported by project management practices such as communication management, risk management, and lessons learned. Portfolio management was a subtheme identified to integrate strategies to engage with stakeholders with mining business priorities.

I1, I4, I5, and I7 elaborated on the positive impact of stakeholder management to gain an SLTO. I1 stated, “Stakeholder management’s starting point was collecting information about their needs, requirements, and ideas about performing the mining project.” I4 added, “The first point for stakeholder management was to deliver stakeholder mapping to register interests, claims, concerns, and in some cases, political views.” I7 provided further strategies to gain an SLTO using stakeholder management,

> Stakeholder management identifies those critical people in local communities to understand mining company objectives and to communicate the mining project’s preferences and objectives to the community to help design strategies to engage

community members positively. The importance of clear communication that was continuously updated by company management and always updating the stakeholder register was necessary, along with the development of clear communication protocols was vital because stakeholder's influence and power frequently change in communities.

I4 stated, “The project manager needs to understand local community members or critical stakeholders to identify concerns, demands, and expectations.” I5 also stated, “Work closely with local stakeholders to demonstrate that they are part of the mining project, is the promoting bridge to build a sustainable relationship between the community families and the mining project.”

I5 and the information obtained from the C1 report highlighted the importance of a sustainable perspective for stakeholder management. I5 stated, “A sustainable stakeholder engagement in the mining project should be a continuous effort beyond the project timeline because the relationship will continue during operations and mining closure.” A participant provided the performance and social responsibility report of C1 wherein an appendix there was information about stakeholder management, “We transform mineral resources into shared value for our stakeholders and lead the industry in shareholder returns, safety, social responsibility, and environmental stewardship.” I5 added, “Unethical practices to engage with stakeholders could have positive results in the short-term, but the long-term consequences could be negative. Improved public perception of mining projects and stakeholder engagement increases the likelihood of gaining an SLTO.”

I1, I4, I5, and I6 commented that communication management was the way to achieve a positive engagement with stakeholders and confirmed with the information identified in reports provided by participants of C2 and C4. Information from the performance and social responsibility report of C4 provided by a participant stated, "Positive long-term relationships with employees, shareholders, communities, and local governments through open and honest communication and ethical and sustainable business practices are necessary to gain social acceptance." I1 noted, "Sharing information with local community stakeholders to explain how the project will facilitate social acceptance; therefore, creating a communication plan was necessary to have a guide to ensure the distribution of information efficiently to gain social acceptance." The performance and social responsibility report of C2 stated, "On complete transparency, providing information and clear explanations of the mining project, thus, resolving any doubts that the community may have was necessary to gain social acceptance." I6 added, "The communication between the project and the community must be overwhelming to avoid negative opinions developing in the community."

I4 also stated, "For promoting opportunities to improve communication with stakeholders, coordination tables are useful to restart the relationship with stakeholders because there was a place to establish communication." I5 concluded,

> The establishment of communicational points between the local population and the mining team was needed to break barriers and work together to achieve project development with local stakeholders. Face-to-face meetings are essential to identify communicational styles and to improve mutual trust. Transparent

behavior and proactive communication styles help to build a healthy relationship with local communities and stakeholders in projects.

C1, I1, and I3 stated that risk management and lessons learned are project management practices necessary to improve stakeholder engagement. I3 stated, “Risk management was needed to understand and the negative impacts of a mining project intervention to create action plans to improve engagement with local communities.” I1 highlighted, “The use of lesson learned templates was necessary to avoid errors with stakeholders, and those lessons learned must be shared with other areas to be applied in future projects.” In the performance and social responsibility report, C1 stated, “Lessons learned from conflicts with local community stakeholders are used to implement a proactive strategy focused on engagement, communication, security, and the enforcement.”

Subtheme: Portfolio Management. Five participants and a performance and social responsibility report stated that certain strategies to engage with stakeholders in projects which they manage embodied sustainable elements in portfolio management. The performance and social responsibility report of C1 stated, “A sustaining portfolio is important to ensure the investment and operation of profitable mines, but the incorporation of stakeholders support was necessary to evaluate the feasibility to gain social acceptance.” I2 stated, “The inclusion of social acceptance in investment portfolios during stage gates is required to consolidate the relationship with local communities before moving the project to the next stage, reducing social acceptance risks.”

I8 stated, “A portfolio management team can help long-term planning for the company to align company objectives with a stakeholders engagement strategy that defines local community needs, and how mining priorities can be integrated and incorporated into the long-term plan.” As an example, I8 highlighted, “Replacing the large fleet with small fleet operated by local companies was a strategy to motivate social acceptance; however, the mining team’s focus was the efficiency through large fleet when the community claims are for opportunities.” I8 concluded, “The need for a long-term engagement with stakeholders was necessary to gain social acceptance.”

Pertinency to Current Literature

Participants shared the strategy of effective stakeholder management practices to gain an SLTO to improve profitability. Effective stakeholder management practices are necessary to obtain an SLTO, and project managers need to manage the stakeholders actively (Vanclay & Hanna, 2019). Stakeholder management is a competency required for project managers to face the challenges to gain social acceptance (Lutas et al., 2020).

Communication management, risk management, and lessons learned are project management practices that support effective stakeholder management practices. Transparent communication is essential to improve the relationship with stakeholders and ensure smooth project performance within the context of extraction activities of mining companies (Sícoli & Sallan, 2019). In the mining industry, risk management practices are necessary to gain stakeholders' support to achieve the license to operate and achieve corporate performance goals (Rouch, 2020; Saenz, 2019). Lessons learned from past failed projects used by project managers contribute to improving the definition of

stakeholder engagement strategies (PMI, 2017). A significant project challenge is to ensure that lessons are learned and that the past mistakes are not repeated in the relationship with stakeholders (Paver & Duffield, 2019).

The incorporation of strategies to engage with stakeholders is necessary to align company objectives with social, economic, and environmental community needs as factors that are included as part of the evaluation in the portfolio management process. Project equilibrium is when stakeholders' needs are incorporated to meet time, budget, and quality constraints (Sabini et al., 2019). Project portfolio management is necessary to emphasize stakeholders' needs in the project design and implementation (Sabini et al., 2019). Stakeholders support a mining project when there is a secured connection and a mutual interest between the community and the mining company (Sícoli & Sallan, 2019). The participant responses and literature reviewed in this study have confirmed that effective stakeholder management practices improve the likelihood of a mining company gaining social acceptance and, consequently, improve the profitability of mining companies.

Theme 3: Effective Project Leadership

The last theme was based on an effective project leadership strategy to gain the SLTO. Seven participants commented that effective project leadership was necessary to gain social acceptance. There was a reference in one performance and social responsibility report provided by participants related to leadership.

Relevancy to the Conceptual Framework

Effective project leadership's role in creating a positive work environment with the project team to gain an SLTO is also relevant to the GST. GST is not an approach to leadership in terms of a manner of leader's work, but rather about how the leader can operationalize their vision for the company and integrate this vision successfully with the external environment and stakeholders (Ramosaj & Berisha, 2014). Leadership is an open system interacting with the organizational technology, structure, or other variables (Kast & Rosenzweig, 1972). Being open to the environment was the GST tenet used as the lens to explore the strategy of effective project leadership.

In the collected data, I highlighted that effective leadership is necessary to exchange energy and information with the project team with values, authority arrangements, and reward instruments in open environments necessary to operate with social acceptance. A leader without followers is unable to apply leadership and to ensure their conviction to the whole system (Ramosaj & Berisha, 2014). The autonomy of the parts is the basis for spreading leadership and control throughout the whole system that is essential to the establishment and success of a learning and adaptation support system with a multidimensional organizational structure (Jackson, 2003).

Data Collected

Participants commented on the importance of effective project leadership to gain social acceptance. I1 stated, "Leadership was significant because people follow the project manager's actions, paying attention to what the leader is doing, not only what the leader is saying." I4 stated, "Lead the community's concerns was necessary to engage

positively with community members." I7 also stated, "Leader with enough decision power to resolve issues and decide about requirements was necessary to gain social acceptance." The performance and social responsibility report of C1 stated, "The primary responsibility for managing sustainability matters rests with leadership."

I1 and I6 commented about the importance of effective communication as part of the leadership characteristic desired for project managers. I1 added, "Active listening and straightforward communication are critical leadership skills to building a stable relationship with project team members understanding requirements and needs." I6 stated, "Permanent and transparent communication with the team was necessary to align strategies for gaining social acceptance."

I1, I3, I4, and I6 noted that honesty, transparency, and humility are leadership skills necessary to gain social acceptance. I3 stated, "Talking with local people, dressing appropriately, aligning with local customs, and being transparent with information was essential to gain acceptance." I1 stated, "Honesty, transparency, being open to community member opinions, respect other points of view are necessary to improve the relationship with stakeholders." I1 also stated, "Humility was also a leadership skill required; be humble to listen to stakeholders and incorporate different points of view to the project strategy because we also need to learn from them. Being genuine was very important; hypocrisy is a negative behavior for leaders." I4 stated "Respect for and transparency with local people are necessary to improve engagement with them to gain community support; otherwise, the community will be confused and anxious." I6 stated,

"The five leadership skills used to improve the relationship with local community members include honesty, coherency, and firmness." I6 added,

> Honesty was essential because people know when they hear the truth. Coherency is to do what we say. Firmness was necessary because people will always want to profit from the mining company; therefore, acting with determination was a strategy to deal with local community members because hardness increases respect.

I3, I4, I5, I7, and I8 highlighted that promoting a shared vision was a necessary leadership skill to gain social acceptance. I4 stated, "The project team will support the project manager when there was an alignment between the strategy and results." I3 stated, "A shared vision between the project manager and the project team was necessary to gain social acceptance because the project team needs to understand why local community members grant or deny the social license." I5 stated, "A mining project's social relationship strategy should include aligning the project and social responsibility teams to transforms isolated strategies into collaborative work within the mining project." I7 stated, "The alignment of roles and responsibilities for the project team and standardized protocols to engage with stakeholders are essential to gain community support." I8 also stated, "Alignment and support to the project team and the implementation of project management best practices are key elements that a project leader need to consider building a mining project with social acceptance."

I4 and I7 stated that the composition of an efficient project team was the leadership responsibility of the mining project manager. I4 stated, "When the mining

team can engage effectively with community members, the relationship was kept in the long-term, positively affecting mine projects and operations and the mining company's profitability." I4 added, "The social responsibility team must provide support to achieve results and a multifunctional or multidisciplinary approach with operational and administrative groups' participation." I7 added, "The social responsibility team should include local people to understand local customs; otherwise, the community members feel that the project team are external people. This strategy increases the sensitivity of the mining team with the local community members."

Pertinency to Current Literature

The participant responses and literature have confirmed an effective project leadership strategy improves the likelihood to gain social acceptance and, consequently, increases the profitability of mining companies. One leadership characteristic identified by participants was effective communication. Project managers need leadership skills such as effective communication to engage positively with the project team and other stakeholders to achieve the project results (Vaagaasar et al., 2020). A successful project manager uses effective communications to influence the project team with essential behaviors positively and to promote teamwork, workgroup effectiveness, and managing conflicts (Lutas et al., 2020).

Honesty, transparency, and humility were necessary leadership settings commented on by participants to gain social acceptance. Acting with transparency and accountability is essential for encouraging and supporting community-led activities (Vanclay & Hanna, 2019). Consideration of the environmental, economic, and social

aspects aimed at realizing benefits for stakeholders performed in a transparent, fair, and ethical way should include proactive stakeholder participation (Silvius & Schipper, 2020).

Vision is a leadership skill described by participants necessary to gain an SLTO. A motivated and multidisciplinary project team aligned to the leader's vision can help identify and understand the societal needs that the mining company needs to address to gain the SLTO (Fraser, 2019; Parsons et al., 2019). The project team can help host communities to plan a vision and demonstrate how the project is consistent with their vision (Vanclay & Hanna, 2019). A symbiotic relationship between the project manager, the team, and stakeholders is more likely to achieve an SLTO, thereby reducing costs associated with judicial litigations, the blockade of operations, reputational damage, or delays in licensing processes (Vanclay & Hanna, 2019).

Team composition was an important element commented by participants required to gain SLTO. Leadership is necessary to guide the team to the desired vision, but to gain the social license, the composition of the team is necessary to promote feeling empathy and valuing the other's welfare (Rouch, 2020). The leadership of the project team is the responsibility of project managers to successfully achieve the desired project outcomes (Lutas et al., 2020)

Ineffective leadership over the project team promotes negative effects on the project considering that the project team has the potential to create social conflicts, imposing risk to the project's schedule and budget, impeding existing operations, creating legal challenges, and damaging reputational capital (Saenz, 2019). Therefore, the

participant responses, company documents, and literature reviewed in this study have confirmed that effective project leadership strategy improves social acceptance and, consequently, the profitability of mining companies.

Applications to Professional Practice

This study's findings may be valuable to mining project managers because my research identified strategies project managers in the mining industry can use to gain community support to operate with a social license to increase firm profitability. Project managers will be required to take on new challenges to conduct projects in a socially responsible manner, supporting stakeholders about sustainability-related improvement opportunities of projects influencing the project team to gain the SLTO (Silvius & Schipper, 2020). This study's results could provide strategies mining project managers might use to gain a social license and improve profitability. Peru is one of the world's leading producers of minerals with export reserves (Saenz, 2019). There is a robust widespread opposition with more than 60% of mining projects involved in social conflicts because local communities do not perceive the benefits derived from contracting and employment opportunities with mining companies. The community conflicts between mining companies and the communities in which they operate negatively impact profitability (Saenz, 2019; Sícoli & Sallan, 2019).

The first theme, linking shared value to socioeconomic development, is how project managers in mining companies use strategies to avoid the impact of threats to mining operations which reduce profitability when local stakeholders deny the SLTO. Project managers of mining organizations can use strategies identified in this study to

reduce conflicts with local community members regarding mining projects that affect their profitability. The most relevant business practice identified was shared value. Creating shared value could help mining companies establish a framework for identifying opportunities to improve socio-economic outcomes and related core business performance, promoting local employment, and the opportunity for businesses to provide local goods and services to the mine operators (Fraser, 2019). Shared opportunities and profits with the local community increase sustainability to operate with social acceptance (Tolvanen et al., 2019; Vanclay & Hanna, 2019).

Participants recommended additional business practices associated with improving the reputation, promote the government's participation, motivate sustainability, and incorporate CSR to promote a sustainable relationship with local community members to gain the SLTO. Business practices to improve reputation are developed and promoted by mining management to avoid repressive actions on communities and improve the engagement with local community members that are necessary to gain an SLTO (Vanclay & Hanna, 2019). For a business operating license, the government's participation improves when business practices accomplish excellence in environmental performance (Silvius & Schipper, 2020). The incorporation of environmental sustainability in business processes and practices is necessary to achieve an SLTO, including positive relationships between and with stakeholders, the distribution of social and economic costs and benefits, and reduce environmental concerns (Voyer & van Leeuwen, 2019). CSR is necessary to gain an SLTO when business practices such as the attention to government needs, stakeholder engagement to build trust with

stakeholders and pay adequate attention to socioeconomic concerns of the local communities (Melyoki & Kessy, 2020).

The second theme, effective stakeholder management practices, addressed project management requirements to manage mining projects with social acceptance, as stated in this study´s research question. Sustainable project management is the new way to manage mining projects. Incorporating environmental, economic, and social aspects of the mining life cycle to realize benefits for stakeholders in a transparent, fair, and ethical way, including proactive stakeholder participation, is a key strategy to gain the SLTO (Silvius & Schipper, 2020). Project managers can use sustainable project management practices to improve the project performance and the engagement with local stakeholders in a manner that helps avoid conflicts and gain an SLTO. Sustainable project management is the practice of implementing a project but considering the environmental, economic, and social aspects in the project life cycle, aimed at realizing benefits for stakeholders performed in a transparent, fair, and ethical way (Armenia et al., 2019).

The third theme, effective project leadership, is how the leadership skills of project managers can contribute to gaining the SLTO to improve the mining organization's profitability. Project managers can use leadership skills identified in this study (e.g., effective, honest, and transparent communication, humility, shared vision, positive team behavior, and team composition) to increase team morale and to motivate good behavior with stakeholders as a way to improve the relationship with local communities to obtain an SLTO. A success factor for earning the SLTO is ensuring open, honest, and transparent communication among the project team and other stakeholders

(Melyoki & Kessy, 2020). The relationship between the project manager and stakeholders, including the project team, should have integrity and be based on humility, respect, reciprocity, community empowerment, sharing, mutual learning, and sustained and long-term engagement (Vanclay & Hanna, 2019). The composition of a multidisciplinary motivated project team and a shared vision of the project are leadership responsibilities needed to gain an SLTO (Fraser, 2019; Parsons et al., 2019).

Implications for Social Change

This study's findings could contribute to positive social change by guiding project managers to improve the relationship between local communities and mining companies to operate the mining business in an environmentally sustainable manner, with profitability and a social license from the local community. A positive social change is that while mining companies achieve the profitability desired, local stakeholders benefit from social wellness, environmental protection, and growth of jobs and tax revenues in the local economies. Sustainable project management is the new approach for any leading project considering the environmental, economic, and social aspects of the project's life cycle to realize benefits for stakeholders in a transparent, fair, and ethical way (Silvius & Schipper, 2020). Incorporating environmentally sustainable practices in the mining industry, such as environmental protection and social and economic development, is necessary to earn social acceptance. A sustainable relationship with local communities around extractive mining operations aligned with the government's social development programs to promote local community members is necessary to gain social acceptance (Saenz, 2019; Tolvanen et al., 2019).

The philosophy of shared value is another positive social change focused on creating a mining business that is also good for local communities. Mining companies with strategies to create employment or development opportunities for local people are more likely to achieve community development agreements such as the SLTO (Vanclay & Hanna, 2019). By promoting relationships with local community businesses, local communities become socially accepting while participating in the mining business. When mining project managers support the local community members to improve the quality of goods, services, and the workforce, both the company and the local community benefit.

Recommendations for Action

Project managers of mining companies can employ this study's findings to gain the SLTO to improve profitability by linking shared value to socioeconomic development, effective stakeholder management practices, and effective project leadership strategies. Sustainable project management is the new way of leading projects with positive effects on the environment, economy, and society around mining developments (Silvius & Schipper, 2020). However, the gap between the theory related to sustainable project management and its effective implementation of mining projects is an opportunity for improvement.

Project managers who apply the findings from this study may avoid unnecessary conflicts with stakeholders to gain the social acceptance necessary to improve mining businesses' profitability. Insights and effectiveness within a specific project can become the foundation for future generations of project managers with a sustainable perspective beyond the project's immediate results, with management more focused on positive

societal outcomes. The findings underscored essential recommendations for action in project management practices and leadership. The strategies indicated guiding steps for useful work by project managers, such as configuration with an integrated vision, setting up the project to identify opportunities for local community members, and positive engagement with stakeholders through effective and transparent communication behavior.

The findings of this study may assist business managers in adapting strategic approaches used by the participants. Improving public reputation through the communication of sustainability efforts has become a new trend for public companies to deliver on their goals and objectives to gain social licenses to operate and for positive engagement with local stakeholders. The absence of the ongoing acceptance and approval of a mining operation or project by local community members can affect profitability (Tolvanen et al., 2019; Voyer & van Leeuwen, 2019). For business managers from other industries, this study's results might provide strategies to earn support from the community to operate with the social license and improve the public reputation and profitability. Project managers who use repressive actions on communities and individuals run the risk of violating the rights, leading to reputational harm and potential legal action against the company well into the future (Vanclay & Hanna, 2019).

This study's findings may help project teams achieve alignment with the companies' strategies to gain social acceptance and profitability improvements. In this study, I explored specific strategies for how project teams achieved social acceptance. When a motivated multidisciplinary team composes a project, the probability of gaining

continuous social acceptance is higher (Fraser, 2019; Parsons et al., 2019). Participants highlighted leadership strategies to motivate positive behaviors and compose project teams with multifunctional individuals. Leadership is necessary to improve the collaborative environment in a project that is the motivational formula for the project team (Lutas et al., 2020).

I will provide a summary of the study findings to the participants and plan to disseminate the findings to project managers and business leaders through the Project Management Journal of the PMI and the Extractive Industries and Society Journal. The goal is to expose successful project management strategies to other industry leaders who could elevate mining companies' business practices worldwide. Finally, incorporating a peer review process in further research will help ensure its validity, reliability, quality, and originality.

Recommendations for Further Research

The first limitation was participant bias and the difficulty in recalling essential events during the interview process. A recommendation for further research is to include project managers from other mining companies to provide data from additional sources and further mitigate participant bias and leverage different perspectives. The geographic focus of this study was on the mining industry in Peru. Other researchers could expand this scope to other countries, such as Argentina or Chile. These countries have a different context and culture that could lead to differing viewpoints or strategies.

The second limitation was that participants might be uncomfortable disclosing information necessary to identify strategies associated with gaining community support to

operate with the social license to increase profitability. A recommendation for further research includes studies that address the impacts in a quantifiable manner, such as the profitability impact and cost-benefit studies showing the different strategies. An option to review the financial implications could be an exploratory review of the quantitative data within the publicly available performance reports of mining projects and the numerical findings based on the financial impact of mining projects closed or suspended, where metrics can show profitability impacts.

The third limitation was the reduced experience and knowledge of the participants related to only one company or mining project. A recommendation for further research is to include project managers with broader experience in more than one mining company or mining project by including expertise as part of the participant criteria.

Reflections

The Doctor of Business Administration program at Walden University was a challenging yet gratifying experience. The research in this qualitative study required a high level of commitment and discipline. There were moments of uncertainty that served as an obstacle; however, the study continued with outstanding support and encouragement from my committee, peers, and mentors who provided support along the way.

My mining industry experiences facilitated learning about SLTO, contacts with project managers, and where I had a preconceived notion of the project management strategies used to gain an SLTO. The review of scholarly literature and interviews with project managers broadened my point of view about the SLTO and the effect on

profitability. I have a better understanding of strategies that facilitate social acceptance to improve the mining industry's profitability.

The project managers were willing to share their knowledge and experience to gain the SLTO in mining companies to improve profitability. Interacting with the participants involved in the study was an honor. Completing the study provided me significant insights into the mining business in which I am employed and expanded my perspective on implementing strategies in the mining industry. Learning how to overcome challenges to gain social acceptance with positive engagement with stakeholders and promote changes with mutual benefits for mining companies and local community members is an important element of mining project management. After completing the study, my thinking was changed. I now have a keen sense of respect for the courage, determination, thoughtfulness, and hard work required to gain an SLTO. As I progress in my career and move forward in life, I will take the lessons learned from this study and my experiences at Walden University with me.

Conclusion

In the mining industry, costly conflicts, lower profitability, exposure to business risk, and mine closures are the consequences of operating without a social license. The concept of an SLTO is a term coined to draw mining companies' attention to mitigating negative stakeholder issues. An SLTO is an intangible asset that mining companies acquire through positively affecting communities located around their mining projects (Cooney, 2017; Melé & Armengou, 2016). Unfulfilled promises of mining companies' executives involved in projects in the Republic of Peru to local communities eroded the

likelihood of these mining companies to gain an SLTO successfully, slowing or stopping operations, increasing business risk exposure, and negatively impacting mining business profitability (Gupta & Kumar, 2018; Saenz, 2018). By 2017, the investment of projects suspended or canceled in Peruvian mining companies because they failed to gain an SLTO is estimated at $54 billion, significantly reducing their profitability (Schwarz, 2018; Ventura & Jauregui, 2017).

As identified in this study, mining project managers' implementation of effective project management strategies might gain an SLTO to improve profitability. Linking shared value to socioeconomic development through the sharing of profits with the communities in which they operate and promoting social and economic development for local communities with a sustainable perspective are strategies identified in this study for mining companies to gain social acceptance. Social support is also achieved using effective stakeholder management practices supported by communication management, risk management associated with lessons learned, and the use of a project portfolio with a perspective in social, economic, and environmental benefits. Effective project leadership, with skills associated with effective, honest, and transparent communications, respect, humility, ethical behavior, and a shared vision, are necessary for project managers to gain an SLTO.

The effort to gain the SLTO is not a stand-alone endeavor for project managers, as they need to work together with the project team and other functional members. Therefore, an aligned vision and multifunctional teams are necessary for obtaining social

acceptance. Project managers of mining companies may apply this study's findings to gain an SLTO to improve profitability successfully.

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Appendix: Interview Protocol and Questions

Participant code: _____

Interview date: _____

What you will do	What you will say—script
• Introduce the interview and set the stage (5 minutes) • Informed consent (5 minutes) • Interview Rules (5 minutes)	1. Good morning/afternoon Mr./Mrs./Ms. ____ my name is Luis Llaque, a doctoral student at the Walden University conducting a study for exploring successful strategies to gain the social license to operate (SLTO) in the mining industry for improving profitability. 2. Thank you for taking part in this research study. 3. Here is a copy of your signed consent form for your records. (If the consent form is not signed) • *Review consent form with the participant.* • *Answer any questions the participant may have regarding the consent form.* • *Ask for a signed copy of the consent form.* 4. Review the following with the participant • The participant may withdraw the interview or defer to answer any question at any time. • Candid answers are essential in defining the participant's business experiences. • The participant's responses are prominent and respected. • Information will remain confidential. • Ask the participant for permission to record the session. • Ask the participant if there are any last questions when satisfied start the recording and proceed.
• Watch for non-verbal queues	1. What strategies have you used to gain local community support to earn an SLTO effectively to improve profitability?

• Paraphrase as needed • Ask follow-up probing questions to get more in-depth	2. What methods did you find worked best to gain community support to earn an SLTO to improve profitability?
	3. What strategies has your organization used to improve the likelihood of obtaining an SLTO to improve profitability?
	4. What, if any, strategies have you learned from other projects or companies that have improved your capability to acquire and keep community support to earn an SLTO to improve profitability?
	5. How has your project team supported your strategies to gain community support to earn SLTO to improve profitability?
	6. What else can you tell me about strategies to gain community support to earn an SLTO that would be beneficial to this research study to improve profitability?
Wrap up interview thanking participant	Thank you for taking out time to respond questions and for sharing your experience with me, I will transcribe the interview and return to you for a transcript for your review within one week.
Schedule follow-up member checking the interview	I want to arrange an appointment with you for reviewing the results of my analysis and interpretation of the findings of the discussion for about 30 minutes or less.
	Follow-up Member Checking Interview
Introduce a follow-up interview and set the stage	Good morning/afternoon Mr. ____ thank you again for your time dedicated to this study. This is a follow-up to our previous interview on exploring successful strategies to gain the social license to operate (SLTO) in the mining industry for improving profitability. I want your permission for recording this follow-up interview.
Share a copy of the concise synthesis for each question Bring in probing questions related to other information that you may have found—note the data must be linked so that you are probing and adhering to the IRB approval. Walk through each question, read the	I want to share with you a copy of the concise synthesis of each question.
	1. What strategies have you used to gain local community support to earn an SLTO effectively to improve profitability?
	2. What methods did you find worked best to gain community support to earn an SLTO to improve profitability?
	3. What strategies has your organization used to improve the likelihood of obtaining an SLTO to improve profitability?
	4. What, if any, strategies have you learned from other projects or companies that have improved your capability to acquire and keep community support to earn an SLTO to

interpretation, and ask: Did I miss anything? Or, What would you like to add?	improve profitability?
	5. How has your project team supported your strategies to gain community support to earn SLTO to improve profitability?
	6. What else can you tell me about strategies to gain community support to earn an SLTO that would be beneficial to this research study to improve profitability?