



Examining the Effect of Stakeholder Pressures on Safety Risk Adoption: Evidence from Chinese Manufacturing Enterprises

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Abstract: This study investigates the connection between stakeholders and organizational dedication in promoting safety risk practices within large-scale manufacturing enterprises of Chinese origin operating in Ethiopia. Given the complex relationship among evaluation tools, metrics, and stakeholder influence in assessing safety risk practices, a deeper exploration of this relationship becomes vital. The research aims to determine the impact of stakeholder pressure on safety risk practices in the Ethiopian-Chinese manufacturing sector, emphasizing the mediating role of organizational commitment. Provide work for a quantitative research approach, the study focuses on five prominent industrial manufacturing enterprises and employs purposive sampling to select 259 participants. The data analysis employs statistical techniques such as structural equation modeling, growth paths, and correlation matrix using the Smart PLS v. four software suite. The study successfully establishes a causal link between stakeholder pressure and safety risk practices, underscoring the significant influence of stakeholder pressures on managing safety risks. Moreover, organizational commitment emerges as a crucial mediator in this relationship. The findings emphasize the need for policymakers and practitioners in Chinese large-scale manufacturing enterprises in Ethiopia to prioritize enhancing safety practices, leading to improved safety performance and overall safety. This research contributes by addressing the limited understanding of the mediating role of organizational commitment in the framework of stakeholder pressure, safety risk practices, and it supports stakeholder theory. Additionally, it fills the gap in research on safety practices and decision-making in developing nations, specifically focusing on the Ethiopian-Chinese manufacturing sector.

Keywords: Stakeholder Pressures, Safety Risk practices, Chinese Manufacturing Enterprises, Organizational Commitment, Driver Factors

1. Introduction

In today's dynamic and ever-evolving business landscape, the criticality of safety risk management cannot be excessive, as it stands as an unquestionable imperative for achieving matchless success (Yuan and Tian, 2017). As companies venture into global markets, they face many risks accompanying their abundant competitive advantages. Booming enterprises, in their pursuit of excellence, must skillfully cross the complexities of discerning and prioritizing these risks distinctly while, like a dream, executing robust risk management practices. In manufacturing enterprises, potential hazards and inadequate safety measures pose significant challenges to employee well-being and organizational performance; it is crucial to understand the factors influencing safety risk and effective risk management strategies. By doing so, Companies have the potential to shape a future where safety becomes deeply embedded in the organizational culture, fostering excellence and safeguarding the well-being of all individuals involved (Kath et al., 2010; Mearns et al., 2003). In the current business landscape, the management of safety risks has emerged as a critical concern, driven by evolving expectations and global pressures. Organizations across the globe are confronted with these challenges, including those operating in Ethiopia. Within manufacturing enterprises, the concept of safety risk transcends individual considerations and encompasses companies' broader responsibilities towards society, stakeholders, and individuals affected by their policies and operations.

It entails a holistic approach involving identifying, evaluating, and mitigating risks to guarantee the welfare and protection of all relevant parties. It holds true globally and within the context of Ethiopian manufacturing enterprises (ISO, 2018).

Stakeholder pressure aims simultaneously to decrease adverse safety risk effects, foster social progress, and drive economic growth (Yang, 2018; Contrafatto and Svensson, 2019). Recent cutting-edge research has shed light on the significant influence of safety risk management on foreign direct investment (FDI) in manufacturing enterprises. These studies highlight that investment-based relationships hold more way over safety risk practices than trade-based connections. The intricate interplay between investment decisions and safety measures underscores the importance of cultivating a robust safety culture to attract and retain foreign investments. Scholars have contributed valuable insights into the complexities that shape the relationship between safety risk management and the influx of foreign investments. Their findings emphasize manufacturing enterprises' need to prioritize and strengthen their safety protocols, recognizing them as fundamental for moral responsibility, economic growth, and international collaborations (Sokang, 2018; Ma et al., 2019).

Research reveals inconsistencies in the correlation between stakeholder pressures and different aspects of safety risk initiatives across various theoretical lenses and empirical findings (Badubi, R.M., 2017). These inconsistencies can be attributed to contextual variations, divergent methodologies, and differences in the variables explored. It suggests that distinct stakeholder groups inherently possess unique resources and expectations that influence a company's commitment to mitigating safety hazards through business activities (Harrison and Wicks, 2013).

Ethiopia has emerged as a prominent manufacturing hub, attracting foreign direct investment (FDI) due to its strategic position and developmental needs. Chinese investors, in particular, have been actively involved in Ethiopia's manufacturing sector. However, concerns have arisen regarding the safety aspects of FDI in Ethiopian manufacturing due to the need for comprehensive regulatory standards. Chinese companies increasingly recognize the importance of integrating safety guidelines into their business strategies. Nonetheless, challenges persist due to limited research on safety performance and the nature of mega projects in East Africa. Further efforts are required to address these challenges (Admassie, 2012; UNCTAD, 2021; World Bank, 2019; Samuel et al., 2020; Regissahui, 2019).

The manufacturing industry plays a pivotal role in Ethiopia's progress and prosperity. Nevertheless, there needs to be more research on the impact of stakeholder pressures on safety risk management practices by foreign firms, particularly in developing nations like Ethiopia. This study aims to bridge these gaps, uncover insights, and illuminate unexplored areas. Through meticulous research, it seeks to enhance safety practices and decision-making, fostering sustainable growth in Ethiopia and beyond. The study delves into the intricate relationship between stakeholder pressure factors, as depicted in Figure 1 of the conceptual research model.

This study uncovers the answers to fundamental research questions at the core of this intriguing investigation. Firstly, it aims to unravel the driving forces behind stakeholder pressures that shape adopting safety risk practices in large-scale Chinese manufacturing enterprises operating within Ethiopia's vibrant landscape. Secondly, it seeks to dissect the intricate impacts of these driving factors on initiating safety risk initiatives, untangling the complex web of cause and effect. Thirdly, it explores the mediating role of organizational commitment, illuminating how it intertwines with stakeholder pressure to shape the adoption of safety risk practices. Finally, it ventures into uncharted territory, examining the relationship between stakeholder pressure factors, safety risk-oriented organizational commitment, and adopting safety risk practices. By persistently addressing these pivotal research questions, this ground-breaking study serves as an essential guide for policymakers, investors, and practitioners in navigating the complexities of the developing world. Set against Ethiopia's dynamic backdrop, it validates stakeholder theory and underscores the significance of safety risk practices in foreign direct investment (FDI), particularly for Chinese investors in Africa's manufacturing industry. Its impact extends beyond academia, resonating in the pursuit of progress and shaping a brighter future for Ethiopia and other nations.

2. Literature Review

2.1 The Effect of Safety Risk Practices

Chinese manufacturing companies operating in Ethiopia are increasingly realizing the significance of implementing safety risk management practices to safeguard their workforce's safety and ensure their operations' long-term viability (Li et al., 2021). These practices encompass a wide range of activities, including evaluating risks (Xu et al., 2020), identifying potential hazards (Li and Guldenmund, 2018), providing safety training (Martínez-Córcoles et al., 2020), establishing safety protocols (Zhang et al., 2021), and reporting and investigating incidents (Fang et al., 2006). The practical implementation of these safety risk management practices can yield positive outcomes such as improved safety records, reduced accidents and injuries (Probst et al., 2020), enhanced employee morale, increased productivity, cost savings from fewer disruptions, and improved reputation among stakeholders (Xu et al., 2021).

There is an ongoing scholarly debate regarding allocating resources for safety risk management practices. Some argue that companies should invest in robust safety systems, training programs, and safety equipment to ensure a secure work environment. However, concerns have been raised about the potential financial burden and the need to balance safety investments and other business priorities (Zahoor et al., 2019). An argument exists regarding whether companies should solely focus on meeting minimum legal and regulatory requirements or go beyond compliance to achieve higher safety standards (Elsler and Baram, 2020).

Worker safety and well-being are universally recognized as top priorities in manufacturing enterprises (Probst et al., 2020). Adopting practical safety risk management practices is crucial for accident prevention and promoting employee welfare (Zohar, 2010). These practices also contribute to operational efficiency, productivity, stakeholder satisfaction, and the reputation of Chinese manufacturing companies in Ethiopia (Hamid and Yahya, 2018; Xu et al., 2021). Demonstrating a commitment to safety fosters trust among stakeholders and enhances the overall performance of an organization. The adoption of safety risk management practices is strongly influenced by stakeholder pressures, both internal and external, within Ethiopian manufacturing enterprises. Understanding these dynamics is crucial for developing effective strategies that prioritize employee well-being and ensure the long-term sustainability of the business (Li and Guldenmund, 2018). The influence of stakeholder pressures underscores the importance of cultivating a positive safety culture deeply ingrained in an organization's core values. Leadership commitment and employee attitudes are crucial in nurturing such a culture. While there are areas of consensus, specific viewpoints and debates exist. Further research is warranted to explore the dynamics of stakeholders and safety risk management in Chinese manufacturing enterprises in Ethiopia.

2.2 Stakeholder Pressure

Stakeholders play an indispensable role in implementing safety risk management practices, and meeting their demands becomes crucial for achieving long-lasting value (Hartmann and Moeller, 2014). As a result, stakeholders are increasingly interested in enterprises' ethical and socially responsible conduct (Freeman et al., 2010). In the context of Chinese manufacturing enterprises in Ethiopia, the fluctuating pressures exerted by different stakeholders, including the government, customers, communities, and employees, are examined to understand their influence and expectations regarding safety risk management practices. This exploration delves into the requirements, regulations, social responsibilities, and expectations imposed on these enterprises about safety risk management. Ongoing scholarly discussions highlight a significant debate surrounding the effectiveness of government regulations and enforcement in ensuring the implementation of safety risk management practices in manufacturing enterprises (Yang, 2020). In addition, some scholars discuss that stringent regulations and robust enforcement are necessary to protect workers and promote a safety culture (Bahn, 2013).

However, there are opposing views that excessive regulations could burden businesses and hinder their competitiveness, leading to a call for a balanced approach that ensures both workers' safety and businesses' viability (Elsler and Baram, 2020). Nevertheless, some question whether customers prioritize safety when sourcing decisions, as cost and efficiency considerations often precede safety concerns (Li and Guldenmund, 2018). There is a consensus that manufacturing enterprises in Ethiopia, including Chinese companies, should adhere to relevant laws, regulations, and standards about safety risk management practices (Huang et al., 2006). Stakeholders agree on the importance of continuous improvement in safety risk management, which involves

adopting best practices, training and education, and implementing robust safety management systems. Collaboration and transparency are valuable in addressing safety risks, encompassing activities such as information sharing, stakeholder engagement, and establishing partnerships to foster safer working environments (Probst et al., 2020).

Safety risk management should be an integral part of the overall business objectives of Chinese manufacturing enterprises operating in Ethiopia. Striking a balance between safety and business sustainability is crucial for long-term success. Stakeholders acknowledge the influence of stakeholder pressures in shaping safety risk management practices and agree on critical factors such as compliance, continuous improvement, collaboration, transparency, and integrating safety with business objectives. The present study aims to deepen the understanding of how safety risk management can be seamlessly integrated into the inclusive business objectives of Chinese manufacturing enterprises, leading to the development of more effective strategies and practices that ensure workplace safety and long-term business success.

2.3 The Relation Between Factors of Stakeholders Pressure and Safety Risk

2.3.1 Customer Impact Related to Safety Risk Practices

In emerging markets, customers exert significant pressure on manufacturing enterprises to prioritize safety (Reimann et al., 2017). Meeting customer expectations for safe products and ethical sourcing is vital for trust, reputation, and long-term relationships (Khalid et al., 2020). Safety can be a competitive advantage, attracting safety-conscious customers and differentiating the company (Reimann et al., 2017; Khalid et al., 2020). Transparency and communication about safety practices build trust, but careful communication is needed to avoid overpromising and creating unrealistic expectations. Liability risks should also be considered (Hall and André, 2019).

An extra point of debate is the role of customer education and awareness in promoting safety risk management. Nearly argue that companies should invest in educating their customers about safety considerations, usage instructions, and potential risks associated with their products. Others question the extent to which customers are receptive to and actively seek such information. While debates exist, there are some areas of general agreement regarding customer-related stakeholder pressures on safety risk management adoption (Hajmohammad and Vachon, 2014; Tam and Tummalala, 2001).

There is consensus on the importance of meeting customer expectations regarding safety. Companies should strive to understand and accomplish customer requirements, ensuring that products and services are safe and comply with relevant safety standards; stakeholders generally agree on the need for continuous improvement in safety risk management practices.

Companies should energetically solicit customer feedback, closely monitor industry best practices, and make necessary adjustments to improve safety performance. There is a consensus on the value of collaboration between companies and customers in promoting safety. Engaging in open dialogue, addressing customer concerns, and involving customers in safety-related initiatives can foster a mutually beneficial relationship (Schnietz and Epstein, 2005; Hoang et al., 2006).

Further investigation is warranted to gain a deeper understanding of meeting customer expectations regarding safety and enhancing safety risk management practices, particularly in emerging economies like Ethiopia. While the existing literature offers valuable insights, there are still unexplored areas that can expand knowledge in this field. Through continued research in these areas, scholars can contribute to developing more effective strategies and practices for meeting customer expectations regarding safety and enhancing safety risk management in Chinese manufacturing enterprises operating in emerging markets, such as Ethiopia.

Hypothesis 1 (H1). Customers stakeholders positively and significantly affect safety risk practice.

2.3.2 Community Impact in Related to Safety Risk Practices

In emerging markets, the local community's role in shaping safety practices within manufacturing enterprises is crucial (Li et al., 2021). Community pressures arise from concerns about environmental impact, worker safety,

and community care (Liu et al., 2021). These pressures influence companies to adopt safety risk management practices aligned with community expectations (Doh and Guay, 2006). Stakeholder pressures, particularly regarding community impact, are critical considerations in safety risk management (Doh and Guay, 2006). Fleming et al. (2012) stress integrating safety into risk management initiatives, and Gao (2018) highlights active engagement with the local community to address safety concerns. The extent of community involvement and consultation in safety risk management remains a topic of discussion. Walker argues that companies should actively involve the local community in safety-related decision-making processes, seek their input, and address concerns (Walker et al., 2010).

In contrast, Linyan expresses concerns about the practicality and effectiveness of community engagement, particularly in contexts where communication channels and community structures may be limited to the final but not the end (Liyanage, 2006); an extra point of discussion is the responsibility of manufacturing enterprises in mitigating environmental and health impacts on the local community. According to Caniglia, companies should adopt safety measures that protect workers and minimize pollution, reduce hazardous waste, and ensure the safety of nearby communities (Caniglia et al., 2017). While there are ongoing debates, there are areas of consensus regarding the impact of community-related stakeholder pressures on adopting safety risk management. However, further investigation is necessary. Continued research in these areas can offer up-to-date insights into the influence of community-related stakeholder pressures on safety risk management adoption. This research can contribute to developing effective strategies tailored explicitly for Chinese large-scale manufacturing enterprises operating in emerging markets like Ethiopia.

Hypothesis 2 (H2). Community stakeholders positively and significantly affects safety risk practices

2.3.3 Government Role Impact in Related to Safety Risk Practices

The government is critical in establishing safety regulations, standards, and enforcement mechanisms (Elsler and Baram, 2020). Government entities oversee compliance with safety requirements through inspections and penalties for non-compliance (Huang et al., 2006). However, there is an ongoing debate regarding the delicate balance between stringent regulations and business competitiveness. Proponents of strict regulations argue they are necessary to ensure worker safety and minimize risks. Conversely, others contend that excessive regulations could burden businesses and impede their competitiveness (Das and Baruah, 2013). Striking a balance that promotes safety without unduly hindering business operations presents a significant challenge (Xu et al., 2021). Furthermore, the effectiveness of government enforcement in ensuring the adoption of safety risk management is a topic of discussion (Montgomery and Ramus, 2011). Some argue that robust enforcement mechanisms, such as inspections, penalties, and audits, foster compliance and improve safety practices (Berglund, H., 2007). Conversely, concerns arise regarding the capacity and resources of government agencies to effectively enforce regulations, leading to calls for enhanced enforcement efforts and improved coordination among relevant stakeholders (Hamid and Yahya, 2018).

Moreover, there is a divergent perspective on the level of engagement and collaboration between manufacturing enterprises and the government in promoting safety risk management (Madsen et al., 2019). Advocates argue for proactive engagement, including seeking guidance, participating in regulatory discussions, and collaborating on safety initiatives (Cox and Cheyne, 2000). On the other hand, skeptics question the government's responsiveness and effectiveness, sparking debates about the value and impact of such collaboration.

In conclusion, stakeholders generally agree on the significance of effective government enforcement, regulatory compliance, and establishing clear safety regulations and standards. Compliance with these regulations is deemed crucial for safeguarding workers' well-being. Stakeholders also recognize the need for government support, including capacity-building initiatives, training programs, and awareness campaigns, to assist manufacturing enterprises in effectively implementing safety risk management practices. Further research exploring the challenges, experiences, and perspectives of the government's role in ensuring safety in emerging countries, specifically Chinese large-scale manufacturing enterprises in Ethiopia, would provide valuable insights.

Hypothesis 3 (H3). Government role positively and significantly affects safety risk practices.

2.3.4 Employees Impact in Related to Safety Risk Practices

Investigating the impact of stakeholder pressures, particularly with employment, on the adoption of safety risk management in manufacturing enterprises is a critical area of study (Wang et al., 2020). This research explores how employee pressures and expectations influence adopting and implementing safety risk management practices within manufacturing enterprises (Zhang and Budd, 2019). In the context of Chinese manufacturing enterprises in Ethiopia, employees play a fundamental role in shaping safety risk management practices (Kath et al., 2010). They exert pressure and expect employers to prioritize their safety and well-being in the workplace (Li and Robertson, 2017). Employee pressures can arise from concerns regarding physical safety, occupational health, working conditions, and the overall safety culture within the organization (Smith, 2006). Within the scope of employee influence on safety, ongoing scholarly debates revolve around the degree of employee empowerment and participation in safety risk management (Mesfin and Luo, 2023).

Additionally, there are points of contention regarding the role of organizational culture and leadership in responding to employee pressures for safety risk management (Zohar, 2010). Some argue that cultivating a solid safety culture, prioritizing and integrating safety into the organization's values, can address employee concerns and enhance safety practices (Cox and Cheyne, 2000). Others emphasize the significance of leadership commitment and visible support in creating a safe and healthy work environment (Karahanna et al., 2018).

Furthermore, it is argued that providing channels for employees to report safety concerns without fear of retaliation can facilitate identifying and resolving safety risks (Park and Jung, 2019). Others express concerns about potential conflicts between employee interests and business priorities, raising questions about balancing accountability and employee protection (Sun 2018). Stakeholders generally agree on the value of providing employees with adequate training and education on safety risk management practices. Investing in employee knowledge and skills enhances their ability to contribute to a safe workplace; there is agreement on the need for effective reporting mechanisms that encourage employees to voice safety concerns and report hazards without fear of reprisal. Fostering a culture of open communication and trust supports the early identification and resolution of safety risks. So that the ongoing debts on it, further investigation is desired. They also explored valuable insights for enhancing safety practices within Chinese manufacturing enterprises in emerging countries like Ethiopia.

Hypothesis 4 (H4). Employee stakeholders positively and significantly affect the adoption of safety risk practices.

2.4 The Mediating Effects of Organizational Commitment on Stakeholders and Safety Risk

Organizational Commitment refers to an individual's psychological attachment and loyalty to their organization. It encompasses factors such as the individual's belief in and acceptance of the organization's goals, values, and mission (Meyer and Allen, 1991). Scholars explore the significance of organizational Commitment as a mediating factor between stakeholders and safety risk (Guldenmund, 2000). Scholars argue that organizational Commitment is crucial in addressing stakeholders' concerns and managing safety risks (Probst and Brubaker, 2001).

There is a suggestion that when employees are dedicated to their organization, they are more inclined to prioritize stakeholder interests and actively participate in safety risk management practices. However, alternative perspectives may question the direct impact of organizational Commitment and propose alternative mediating variables that could explain the relationship between stakeholders and safety risk management.

The ongoing debate revolves around the influence of stakeholder engagement on organizational Commitment and safety risk management. Some studies argue that active stakeholder involvement and effective communication channels foster a sense of Commitment among employees (Froome, 1999). They contend that when stakeholders are engaged and their concerns are addressed, employees develop a more substantial commitment to the organization and are more likely to embrace safety risk management practices (Donaldson and Preston, 1995). However, other scholars argue that stakeholder engagement alone may not directly influence organizational Commitment and safety risk management outcomes, emphasizing the need to consider additional factors or variables (Mitchell et al., 1997). The impact of contextual factors, particularly cultural differences between countries and organizations, is a crucial point of debate (McWilliams and Siegel, 2000). Researchers

explore how cultural variations affect the interpretation and implementation of organizational Commitment, stakeholder expectations, and safety risk management practices (House et al., 2004). They may examine how cultural norms, values, and practices shape the relationship between stakeholders, organizational Commitment, and safety risk management. Despite the debates, there is a consensus that organizational Commitment can mediate between stakeholders and safety risk management. Researchers claim that when employees are highly committed to their organization, it enhances their ability to address stakeholder concerns and actively engage in safety risk management practices. This consensus suggests that strong organizational Commitment can bridge the gap between stakeholders and safety risk management outcomes (Aguinis and Glavas, 2012).

Furthermore, conducting empirical research focused explicitly on Chinese manufacturing enterprises in Ethiopia would provide more accurate insights into the dynamics between organizational Commitment, stakeholders, and safety risk management in this particular context. The findings of such a study could inform Chinese manufacturing enterprises in Ethiopia about the significance of stakeholder pressures, organizational Commitment, and the adoption of safety risk management. It could also provide recommendations and strategies for effectively managing stakeholder pressures and fostering organizational Commitment to enhance safety practices.

The debates and agreements mentioned above are based on these debates; the issues do not have a consensus. Conducting empirical research in this domain would provide valuable insights and contribute to the existing literature on stakeholder pressures, organizational Commitment, and safety risk management adoption in the Chinese manufacturing sector operating in Ethiopia.

Hypothesis 5 (H5). Safety risk-oriented organizational Commitment mediates factors of stakeholder pressures and safety risk practices.

2.5 Conceptual Research Model

This study presents a conceptual research model that explores the relationships between stakeholder pressures and the adoption of safety risk practices. The model includes independent variables representing stakeholder pressure from employees, customers, communities, and government roles. The dependent variable is the adoption of safety risk practices. The conceptual framework aims to validate and estimate the proposed relationships, considering the direct and indirect effects of the mediation variable, safety risk-oriented Organizational Commitment; the study utilizes structural equation modeling, path modeling, and growth path modeling analysis. The results and outcomes of the study are summarized in Figure 1.

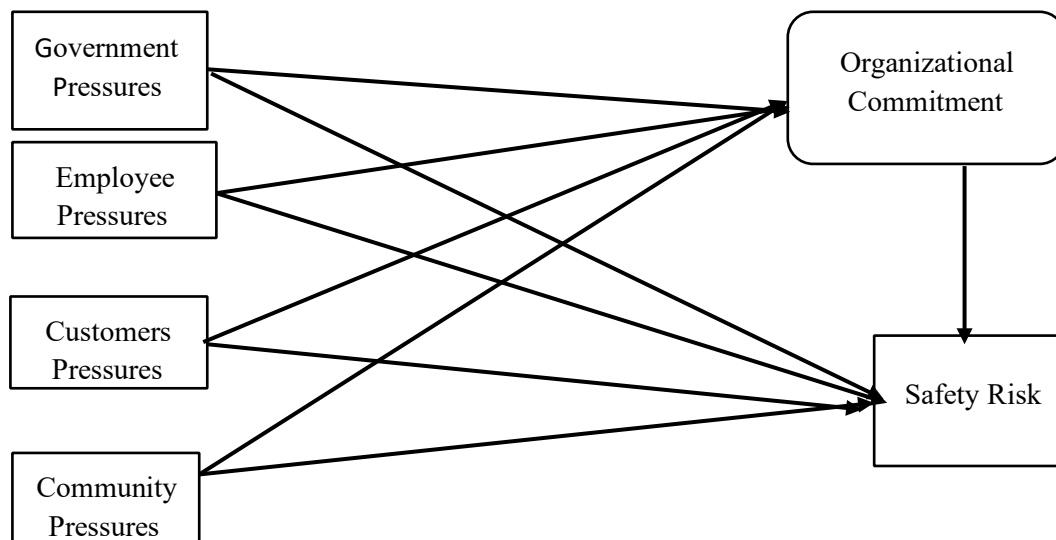


Figure 1: The proposed conceptual model of this study

3. Research Methodology - Materials and Methods

3.1. The Study Design

A research design aims to attain research objectives and address research questions. The researchers adopted a quantitative study approach. The study analysed the effect of stakeholder pressures on Safety risk management in Chinese manufacturing enterprises in Ethiopia and how organizational Commitment mediates this relationship. While previous research has focused on the impact of stakeholder pressure on safety risk, this research examined the mediating role of organizational Commitment. Although previous studies were limited to specific domestic industries, this research explored these relationships with FDI in Ethiopian Chinese large-scale manufacturing firms (Abbas et al., 2020; Taherdoost, 2016). Here, they disregarded the effects of other factors, such as the organizational commitment mediation role. In one study, they also should have considered every specified variable. Therefore, this study examines how stakeholder pressure affects safety risk management practices by mediating the impact of organizational Commitment in Ethiopia's large-scale manufacturing enterprises.

3.2 Participants and Procedures

A questionnaire survey was conducted to collect data from large-scale manufacturing enterprises in the Amhara Region of Ethiopia, focusing on Chinese-oriented companies. Seven hundred-five survey forms were collected from frontline workers and their supervisors in five companies. Out of the 705 participants, 259 were employees and managers. The survey questionnaire assessed the extent of transformational leadership and its impact on counterproductive work behavior. The study sample consisted of 53.7% (139) males and 43.33% (120) females. Regarding age distribution, 44.3% of the respondents fell in the 18-29 age range, followed by 33.5% in the 30-39 age range. Regarding educational qualifications, most respondents (71.2%) held a bachelor's degree, while 13.9% had a master's degree. Regarding tenure, 45.6% of the participants had 1 to 5 years of experience.

3.3. Sampling Techniques and Data Collection

The investigators employed purposive sampling to select the proportion of participants from the entire population (Zhang and Yele, 2022; Taherdoost, 2016). As a result, the chosen manufacturing Firms in Ethiopia's Debrebrhan and Combolcha areas served as the anticipated sample size of large-scale manufacturing enterprises. As a result, the authors used the purposefully chosen 259 LSME employees' respondents, together with primary and secondary data from the selected manufacturing enterprises. Two hundred fifty-nine questionnaires were given out to participants by the researcher. Eventually, 259 questionnaires were gathered and subjected to statistical analysis using Smart PLS v. four software.

3.4 Measurement Items

The questionnaires used in this study were altered versions of the prior one's five-point Likers scale used to measure. Each dependent variable, independent variable, and mediating variable in the study had 29 statement evaluation questions about the variables selected for it, along with four construct variables. Safety risk practices are the dependent variable in this analysis (Chen et al., 2021; Burke et al., 2002). Based on already established findings, the measuring methods for this variable were changed. Five contextualized items were also evaluated utilizing inquiries with preestablished five-point Likers scales. The stakeholder pressure in the workplace was investigated. The last mediator variable has been determined to be organizational Commitment.

3.5 Data Analysis

The data analysis process consisted of three phases: data screening, validation of the measurement model, and analysis of the structural model, following the guidelines of Hair Jr. et al. (2016). Data screening involves organizing, categorizing, tabulating, and checking the raw data to ensure their accuracy and suitability for hypothesis testing and decision-making (Estifo et al., 2019). The empirical foundation for this study was a survey questionnaire. Once the data had been collected through the questionnaire, SmartPLS 3 version 4, a software tool for structural equation modeling (SEM) with PLS path modeling, was utilized to analyze the primary data using SEM. The study's primary objective was to explore the constructs and hypotheses being examined. This research aimed to investigate and analyze the specific factors and relationships in the context of Ethiopia. Its purpose was to understand the variables at play better and test the proposed hypotheses. By conducting this study, the researchers sought to shed light on the dynamics and interactions within the Ethiopian context and contribute to

the existing body of knowledge. Alternative perspectives and viewpoints may arise concerning the constructs and hypotheses under scrutiny, allowing for a more comprehensive analysis of the subject matter.

4. Results

4.1. Measurement Model

When assessing reflective measurement models, factors such as composite reliability, individual indicator reliability, and average variance extracted (AVE) are crucial to ensure validity and reliability (Hair Jr. et al., 2017). Discriminant validity is also important, and the Heterotrait-Monotrait (HTMT) ratio of correlations, as well as considering additional measures like factor loadings and Cronbach's alpha, can provide a comprehensive evaluation. In the context of Ethiopia, these assessment techniques and cultural considerations contribute to a nuanced evaluation of reflective measurement models (Hair Jr. et al., 2017).

4.1.1 Internal Consistency Reliability

Cronbach's alpha is commonly used to assess internal consistency by estimating the reliability of a measurement model based on intercorrelations among observed indicators (Hair Jr. et al., 2017). The recommended range for Cronbach's alpha values, 0.754 to 0.961, serves as a benchmark for assessing internal consistency.

However, due to certain limitations associated with Cronbach's alpha, it is recommended to use another measure of internal consistency reliability known as composite reliability (Hair Jr. et al., 2017). Acceptable composite reliability values range from 0.841 to 0.97. Based on both assessments, all constructs exhibited very good internal consistency reliability. **Table 1** presents the internal consistency reliability measures, including Cronbach's alpha, composite reliability, and rho_A.

4.1.2 Convergent Validity

To ascertain convergent validity, we examined the external loadings of the indicators in addition to the average variance extracted (Hair Jr et al., 2017). A common rule is that the (standardized) outer loadings should be 0. 708 or higher. About AVE, value of 0. 50 or higher is acceptable (Hair Jr et al., 2017). The estimated (AVE) values ranged from 0.675 to 0.875 for the entire derived construct. Besides, the AVE value shows the substantial influence of the latent variable between the predictive and outcome variables. Overall, the results suggest that the measurement items used for each construct have good reliability and validity. The factor loadings indicate the strength of the relationship between each item and its respective construct., as shown in Table 1, may more accurately reflect the characteristics of each research variable, as presented in Table 1. The correlation matrix and discriminate validity The constructs and the end variable, safety risk, Customers, Employees, Governments, Communities, and Organizational Commitments, have significant effects based on covariance values. There are strong and significant correlations between the independent and dependent variables, the (AVE) from the observable variables, at p-value 0.05, demonstrates. The covariance values, therefore, showed that all constructs are interconnected. Moreover, the outcome variable is safety risk (S.R), the customers (CR), Employees (EM), Governments (G.O.), and Communities (C.O.). The mediation variable is shown in Table 2. Also supporting the correlations between the variables is Organizational Commitments (SRO The AVE values of the latent variables used in this study are higher than the specified threshold standard of 0.5 (Hair Jr et al., 2017). Table 1 shows the convergent validity values (outer loadings and AVE).

Table 1: Analysis of the reliability and validity tests.

Constructs	Items	Factor Loading	Composite Average variance		
			Cronbach's Alpha	Reliability	extracted (AVE)
	SR1	0.912			
	SR2	0.915			
Safety Risk	SR3	0.962	0.934	0.951	0.797
	SR4	0.785			
	SR5	0.962			

	GO1	0.901			
	GO2	0.888			
Government	G.O. 3	0.784	0.882	0.914	0.685
	GO 4	0.849			
	GO 5	0.874			
	EM1	0.902			
Employee	EM 2	0.925	0.939	0.957	0.846
	EM 3	0.945			
	EM 4	0.907			
	CU1	0.701			
	CU 2	0.922			
Customers	CU 3	0.953	0.901	0.931	0.737
	CU 4	0.936			
	CU 5	0.878			
Community	CO1	0.873	0.754	0.841	0.675
	CO2	0.604			
	CO3	0.706			
	CO4	0.821			
	CO5	0.873			
Organizational Commitment	SRO1	0.929	0.961	0.97	0.865
	SRO2	0.969			
	SRO3	0.935			
	SRO4	0.866			
	SRO5	0.946			

¹Note: SR= Safety Risk; GO= Government; EM = Employee; CU = Customer's= Community; SRO= Safety risk related organizational Commitment

Table 2: Correlations Matrix and Discriminate Validity Results Analysis

	SR	CU	EM	GO	OC	CO
SR	0.758					
CU	0.784	0.859				
EM	0.697	0.751	0.910			
GO	0.666	0.682	0.843	0.828		
OC	0.576	0.666	0.751	0.711	0.930	
CO	0.453	0.590	0.690	0.665	0.856	0.893

Note: SR= Safety Risk; GO= Government; EM = Employee; CU = Customer's= Community; SRO= Safety risk related organizational Commitment

Table 3: HTMT (heterotraits–monotrait ratio).

	SR	CU	EM	GO	OC
SR	0.905				
CU	0.847	0.904			
EM	0.758	0.854	0.893		

GO	0.669	0.744	0.782	0.95	
OC	0.547	0.673	0.618	0.82	0.788

¹Note: SR= Safety Risk; GO= Government; EM = Employee; CU = Customer's= Community; SRO= Safety risk related organizational Commitment OC

Table 4: Saturated model result

Construct	R2	Adj. R2	VIF	SRMR
OC	0.979	0.978	3.082	0.083
SR	0.716	0.711	1.735	

¹Note: SR= Safety Risk; OC= organizational Commitment

4.3. Analysis of Multiple Regressions

The measurement section provides information in Table 3 about the sample mean, standard deviation, and t-values for each observed variable (indicator). Statistical Results: The t-values represent the ratio of the estimated path coefficient to its standard error. They indicate the statistical significance of each relationship. The relationship is considered statistically significant if the t-value exceeds the critical threshold (typically 1.96 for a significance level of 0.05).

Based on the analysis results, safety risk appears to have a significant positive relationship with the Community, employees, and the Government. However, the relationship between safety risk and customers is not statistically significant. Furthermore, a significant negative relationship exists between safety and risk-oriented Organizational Commitment. Organizations need to recognize the significance of this negative relationship and take appropriate actions to address it. Strategies to enhance safety-oriented organizational commitment By addressing the negative relationship between safety risk and risk-oriented Organizational Commitment, organizations can create a safer work environment, enhance employee well-being, and improve overall safety performance. These findings align with Fisscher et al., providing empirical support for interpreting the current study results (Fisscher et al.,2020).

Table 5: The regression weights indicate the level of significance and critical ratio.

Latent Variable	Path	Measurement	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
SR	->	Customers	0.099	0.096	0.074	1.339	0.181
SR	->	Community	1.439	1.456	0.269	5.343	0
SR	->	Employees	0.291	0.291	0.083	3.488	0
SR	->	Government	0.292	0.297	0.118	2.479	0.013
SROC	->	Organizational Commitment	-1.249	-1.268	0.296	4.219	0
SROC	->	Customers	0.108	0.106	0.022	5	0
SROC	->	Community	0.834	0.835	0.023	36.01	0
SROC	->	Employees	0.044	0.039	0.02	1.998	0.046
SROC	->	Government	0.226	0.226	0.027	8.277	0

¹Note: SR= Safety Risk; GO= Government; EM = Employee; CU = Customer's Community; SRO= Safety risk related organizational Commitment

Table 6: Results of the specific indirect mediation effects

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
CU -> OC -> SR	-1.042	-1.058	0.248	4.203	0
GR -> OC -> SR	-0.283	-0.287	0.076	3.706	0
CO -> OC -> SR	-0.05	-0.049	0.029	1.75	0.08
EM -> OC -> SR	0.134	0.135	0.041	3.301	0.001

¹CU = Customers; OC = SR-oriented organizational commitment; SR = Safety Risk practice; GR = Government; CO = Communitive= Employee

4.4 Structural Equation Model Estimate

In this impactful research, Structural Equation Modeling (SEM) was utilized to investigate the impact of response variables on dependent variables. The path diagram visually portrayed the complex connections between these variables, revealing both direct and indirect effects. By estimating the structural equation model, the researchers evaluated the goodness-of-fit indices to ensure they surpassed predetermined thresholds. Notably, the findings underscored the significant roles of community, customers, employees, government, and organizational commitment in shaping safety risk practices in the context of large-scale manufacturing enterprises in Ethiopia. Hypothesis testing further solidified these relationships, providing valuable insights into our understanding of this critical domain. Firstly, the hypothesis testing indicated that customers positively and significantly influence safety risk practices, supporting H1 ($\beta=0.099^{***}$, $p=0.181$). It suggests that customers play a substantial role in promoting safety within the organization, aligning with the findings of Fisscher et al. (2022). Similarly, the study revealed that the community positively and significantly impacts safety risk practices, supporting H2 ($\beta=1.433^{***}$, $p=0.000$). It highlights the importance of fostering a sense of community to enhance safety practices, consistent with the findings of Cheyne et al. (1998).

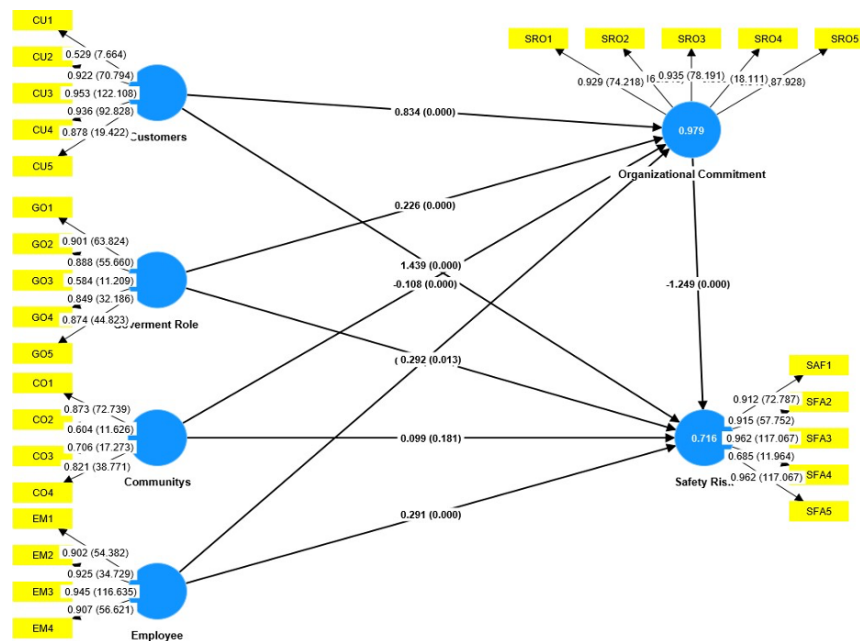


Figure 2: The structural equation model and standardized path coefficient, significance

Moreover, employees were found to have a positive and significant influence on safety risk practices, supporting H3 ($\beta=0.291^{***}$, $p=0.000$). It underscores the significance of employee engagement and involvement in promoting a safe work environment. The results align with Probst and Brubaker (2001). Additionally, the study found that the government's role positively and significantly impacts safety risk practices, supporting H4

($\beta=0.292^{***}$, $p=0.016$). It indicates that government regulations and involvement contribute to safety practices within the organization.

Furthermore, organizational commitment was found to positively and negatively impact various factors. It positively and significantly influenced customers ($\beta=0.108$, $p=0.000$), suggesting that higher levels of organizational commitment may lead to increased customer satisfaction. Additionally, it had positive and significant influences on the community ($\beta=0.834$, $p=0.000$), employees ($\beta=0.044$, $p=0.046$), and the government's role ($\beta=0.226$, $p=0.000$). It indicates that organizational commitment is crucial in fostering positive relationships with these stakeholders and promoting a safety-conscious culture. These findings align with Fisscher et al. (2022).

Moreover, the mediator variable, organizational commitment, was found to have a direct and constructive negative impact on safety risk practices, supporting H5 ($\beta=-1.274^{***}$, $p=0.000$). It implies that higher levels of organizational commitment contribute to lower safety risks and incidents, consistent with Clarke (2013). In conclusion, this study highlights the positive influence of the community, customers, employees, and the government on safety risk practices in large-scale manufacturing enterprises in Ethiopia. It emphasizes the importance of nurturing these relationships and prioritizing organizational commitment to foster a safety-oriented culture.

5. Discussion

Promoting a safe working environment is crucial for manufacturing enterprises operating in high-risk industries, particularly in Ethiopia. This study delves into the vital role of various stakeholders, including the local community, customers, employees, and government, in fostering safety risk practices. Additionally, it explores the influence of organizational commitment on safety performance within these organizations. Companies can develop strategies to bolster their safety culture and effectively manage risks by comprehending the interplay between stakeholders and organizational commitment.

The research findings confirm that customers play a significant part in promoting safety within manufacturing enterprises. Organizations should prioritize customer satisfaction while strongly focusing on safety standards, aligning with previous studies (Li and Robertson, 2017). Cultivating a sense of community within the organization especially impacts safety risk practices. It underscores the importance of creating a supportive and collaborative work environment. The study emphasizes the pivotal role of employee engagement in fostering a safe workplace. Companies should encourage active employee involvement and provide comprehensive training to enhance safety practices. Furthermore, government regulations and oversight are critical in shaping safety risk practices. Organizations must comply with relevant rules and closely collaborate with regulatory bodies to ensure a safe operational environment.

Organizational commitment exhibits both positive and negative effects on various stakeholders. While higher levels of commitment positively influence the community, employees, government role, and safety climate, it may harm customer satisfaction. Organizations need to balance loyalty to safety and meeting customer expectations. The study reveals that heightened organizational commitment reduces safety risks and incidents. Thus, organizations should prioritize fostering a solid commitment to safety throughout their workforce to enhance safety performance and risk management.

To summarize, this study underscores the crucial role of stakeholders and organizational commitment in enhancing safety risk practices within manufacturing enterprises in Ethiopia. Organizations can cultivate a safety-oriented culture by actively engaging with local communities, valuing customer feedback, involving employees, and adhering to government regulations. Moreover, fostering a robust organizational commitment to safety further strengthens risk management efforts. These findings offer valuable insights for organizations seeking to optimize safety performance and effectively mitigate risks in the manufacturing sector.

6. Conclusion

To conclude, this impactful research, employing Structural Equation Modeling (SEM), offers valuable insights into how various stakeholders and organizational commitment influence safety risk practices in large-scale manufacturing enterprises in Ethiopia. The study underscores the importance of community involvement, customer satisfaction, employee engagement, government regulations, and organizational commitment in shaping

a safety-conscious culture and promoting effective risk management within organizations. By empirically validating these relationships, the study expands the existing literature and provides practical recommendations for enhancing safety performance in the Ethiopian manufacturing sector.

In summary, this study significantly contributes to our understanding of the intricate dynamics between stakeholders, organizational commitment, and safety risk practices in the context of Ethiopian manufacturing. The findings yield actionable insights for organizations operating in similar environments, emphasizing the need to prioritize customer satisfaction, foster a sense of community, actively engage employees, ensure compliance with government regulations, and foster a strong commitment to safety within the organization. Implementing these recommendations can enable manufacturing enterprises to establish a secure work environment, bolster their risk management strategies, and ultimately enhance their overall safety performance. These findings not only have theoretical implications by refining stakeholder theory but also provide practical guidance for organizations aiming to optimize safety outcomes, mitigate risks, and safeguard the well-being of employees while ensuring the sustainability of the manufacturing sector in Ethiopia.

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