

Motivation to ESG Investment

ABSTRACT

The impact of workplace injury is not limited to the committed organization. Departing from the organization impression management theory, we argue that workplace injuries at institutional equivalents make the focal organizations' investment in workplace safety. More specifically, we purport that fear among incumbent employees after rehearsing the possibility of experiencing similar workplace injuries shortly drives the risks of losing the reputation of the focal organizations. Even though the focal organizations are targeted by outsiders, to address this challenge, they invest in workplace safety as a way of organizational impression management. We add internal communication, external exposure, and foreign ownership boundary conditions based on our main logic. Using South Korea's biannual panel data, we support our hypotheses. In this study, we contribute to workplace safety and impression management literature.

Keywords: workplace safety, institutional equivalents, impression management

INTRODUCTION

According to the U.S. Department of Labor, there were 2.7 million nonfatal workplace injuries in 2020, even in the United States alone¹. This statistic informs us that workplace injuries are not rare events. Workplace injuries decrease productivity (Pransky, Benjamin, Savageau, Currivan, and Fletcher, 2005), provoke turnover intention (Barling, Kelloway, & Iverson, 2003), and increase insurance costs (Cohn & Wardlaw, 2016). And, in the worst case, employees could lose their lives. Because of these adverse outcomes of workplace injuries, researchers and organizations have long sought to improve workplace safety (Hofmann, Burkner, & Zohar, 2017). Previous studies focused on personal traits, leadership styles, group environments, and climates that led to a safer working environment.

However, there is a dearth of research that demonstrates the role of organizations in workplace safety. Organizations' investments especially play a central role in socially good behaviors. According to previous studies about workplace safety, scholars argue that wearing protective equipment and taking safety training courses are closely related to safety performance and reduced workplace injuries. However, those actions are not accomplished without the organization's investment. For example, organizations must buy protective equipment for employees and develop and offer safety training courses. In other words, investment in workplace safety by the organizations is base. Thus, insufficient research on an organization's investment in workplace safety draws an incomplete picture of workplace safety literature. For a better understanding of workplace safety, knowing when organizations invest in workplace safety is essential.

¹ Employer-Reported Workplace Injuries and Illnesses – 2020 <https://www.bls.gov/news.release/pdf/osh.pdf>.

To fill this gap, we ask, "When do the focal organizations invest in workplace safety?" To answer this question, we leverage the characteristic of workplace injury – employees are involved and critical stakeholders (Clarkson, 1995). Also, we bring the theoretical lens from organizational impression management (Elsbach, Sutton, & Principe, 1998) to examine what drives the focal organizations' investment in workplace safety. Specifically, we argue that workplace injuries at similar peers provoke concerns among incumbent employees at the focal organizations by inviting them to rehearse the possibility of experiencing the same workplace injuries shortly. Here, we define similar peers as organizations in the same industry and community, called "institutional equivalents." (Marquis & Tilcsik, 2016). As the focal organizations and peers are institutional equivalents (Kim & Tsai, 2012), incumbent employees at the focal organizations infer they will be the next victims of workplace injuries. Through this generalization among employees, the focal organization's reputation is threatened. Reputational threats are the main driver of the organization's launch of impression management practices, such as pro-social claims (McDonnell & King, 2013). We insist that the focal organizations will practice organizational impression management in the face of threatening their reputations when there are workplace injuries at the institutional equivalents. In other words, workplace injuries at institutional equivalents make the focal organizations invest in workplace safety.

We support our main argument by using the biennial data about workplace injury data from the Workplace Panel Survey (WPS) from 2013 to 2019. Building on the influence of workplace injuries at institutional equivalents on the focal organization's investments in workplace safety, we also add boundary conditions that amplify or diminish the relationship. First, we focus on internal communication. We argue that the more internal communication enables the focal organizations to listen to the employee's opinions, the stronger the impact of

the peers' workplace injuries on the focal organization's action. In addition, it is also essential to have external exposure to learn how others perceive and react to the negative reputation spillover. Furthermore, we examine how foreign ownership prioritizes humans and reduces peers' influence on focal organizations. In empirical analyses with workplace-level workplace injury data, we found that more outstanding care of workers and connections to external organizations strengthen the peers' influence on the focal organizations. At the same time, foreign ownership saps the effect of the peers on the focal organization.

This study has two theoretical and one managerial contribution. First, we shed light on the role of institutional equivalents in workplace safety research. Linking the research of similar others' effects in management research to workplace safety studies, we introduce workplace injuries at institutional equivalents as a cause of the focal organizations' investments in workplace safety. Through the generalization among institutional equivalents, employees at the focal organizations get fear of having injuries. Accordingly, we argue that the focal organizations allocate budgets for safety. Furthermore, we highlight the critical role of organizations in workplace safety as their investments in safety are based on all the safety actions, such as buying protective equipment and providing safe training courses.

Second, our research enriches our understanding of impression management. Advancing the current theoretical assumptions that organizations practice impression management when they face reputational threats through being targeted, we introduce organizations that risk losing their reputations even though they are not targeted. Utilizing the influence of institutional equivalents and the perceived risks of having similar injuries in their workplaces shortly among incumbent employees at the focal organizations, we received support that organizations participate in organizational impression management to address their threatened reputations.

LITERATURE REVIEW

Workplace injuries

When employees are injured at the workplace, it brings physical harms, traumatizes mental health (Dembe, 2001; McCaughey, DelliFraine, McGhan, & Bruning, 2013; Huang, Lee, McFadden, Murphy, Robertson, Cheung, & Zohar, 2016) and reduced work motivation (Neal & Griffin, 2006). Therefore, workplace injury is directly related to the well-being of employees (Anttonen & Vainio, 2010; McLellan, 2017), and to secure the well-being of employees, researchers have examined the causes and provided diverse reasons for workplace injuries. Some of the researchers attribute it to individual features such as an employee's general health (Oliver, Cheyne, Tomans, & Cox, 2002), personality (Clarke & Robertson, 2005), or safety behaviors (Oliver et al., 2002). Some of the job-related characteristics are named – job satisfaction (Ayim Gyekey, 2005), job demands (Nahrgang, Morgeson, & Hofmann, 20011), and job resources (Nahrgang et al., 2011). Beyond highlighting individualistic characteristics, past studies also broadened to organizational factors. As leaders take a critical role in the organization, leader-member exchange (LMX) (Hofmann & Morgeson, 1999), supervisory discretion (Zohar & Luria, 2005), and safety-specific transformational leadership (Barling, Loughlin, & Kelloway, 2002; Zohar & Tenne-Gazit, 2008) are found to be negatively influencing on workplace injuries. Furthermore, abundant studies insist on the influence of safety climate, which is “a manifestation of safety culture in the behavior and expressed attitude of employees” (Mearns, Whitaker, & Flin, 2003, 642). For example, a low safety climate is associated with high workplace injuries (Clarke, 2006; Neal, Griffin, & Hart, 2000).

Even though studying workplace injuries has been of keen interest to management scholars, workplace injury research has tended to focus on the causes and outcomes of injury in

the organization. Therefore, we hardly know two things in workplace injury research. First, we don't know the impact of workplace injuries beyond the organization's boundaries. Second, there is a dearth of research about what drives organizations to invest in workplace safety, a critical action to reduce workplace injuries. Borrowing the theoretical lens from organizational impression management while highlighting the unique features of workplace injury – employees are involved, we argue that reputational threat due to workplace injuries at peers drives the focal organizations to invest in workplace safety as a way of organizational impression management.

Organizational Impression Management and Employees

Originating from impression management by individuals, management scholars have adopted impression management theory to explain organizations' actions (Bolinio, Long, & Turnley, 2016; Gardner & Martinko, 1988). In organizational settings, impression management refers to “any action purposefully designed and carried out to influence an audience's perceptions of an organization.” (Elsbach et al., 1998, 68) in facing a reputational threat (McDonnell & King, 2013). The threat of a tarnished reputation makes organizations use impression management to avoid a negative image (Mohamed, Gardner, & Paolillo, 1999).

Research on organizational impression management has revealed that organizations engage in impression management either they did wrongdoing or being targeted by others. First, wrongdoing increases the possibility of receiving negative responses, forcing organizations to do impression management (Elsbach et al., 1998) to avoid a negative image (Cole and Chandler, 2019). Organizations desire to mitigate the negative image (Elsbach, 1994) and save their organizations from reputational threats (McDonnell & King, 2013). For example, organizations boost their socially sound behaviors (Tallbot & Boiral, 2015) after they did wrong in climate

change (Tallbot & Boiral, 2015), or oil leaks in the sea (Perks, Farache, Shukla, & Berry, 2013). They introduced the organization's positive actions in the associated field as a way of impression management.

Another main reason for the organization's engagement in organizational impression management is that they are being targeted. Organizations are in hard situations when they become the targets of orchestrated outsiders. Well-formed outsiders such as social activists (McDonnell & King, 2013), competitors (Cole & Chandler, 2019), or media (Westphal, Park, McDonald, & Hayward, 2012) strategically put organizations in challenging positions and threaten the established reputation. To counter this, organizations implement organizational impression management to defend themselves. McDonnell and King (2013) find that when organizations are boycotted, they increase their prosocial claims as a way of organizational impression management.

Another unique characteristic of organizational impression management is the involvement of audiences. Organizational impression management aims to manipulate the audience's perception. Prior studies have shown diverse audiences such as patients (Elsbach et al., 1998), analysts (Busenbark, Lange, & Certo, 2017), shareholders (Bansal & Clelland, 2004), customers (Mookerjee, Cornil, & Hoegg, 2021), public (Hooghiemstra, 2000), or employees (Avery & McKay, 2006). Among these audience arrays, specific audiences are more critical for the organizations. When audiences have saliency (Mitchell, Agle, & Wood, 1997), power (Schlenker, 1980), and familiarity (Gardner & Martinko, 1988), organizations regard them as critical. In this sense, employees are the primary audiences for the organizations; thus, organizations actively launch impression management for employees, such as reduction of the gender pay gap (Leslie, Manchester, & Dahm, 2017) or expansion of diversity through the

recruitment of minorities (Avery & McKay, 2006). The deployment of impression management accounts for the critical role in managing employees inside the organizations (Bowen & Ostroff, 2004; Becker & Gerhart, 1996; Bolinio et al., 2016).

HYPOTHESES DEVELOPMENT

Workplace in peers and the focal organizations' impression management.

The influence of workplace injuries is not limited to the committed organization. The negative impact of workplace injuries spillover to other organizations, which share similarities with organizations (Jonsson, Greve, & Fujiwara-Greve, 2009; Barnett & King, 2008) that experienced workplace injuries. Once this spillover occurs, organizations may experience the reputational threat that working for this organization may expect of experiencing the same workplace injuries that similar organizations had as in the adverse event (e.g., workplace injuries) occurrence, an organization's injury in the same group gives the inference that other organizations may be the same (Jonsson et al., 2009). This reputational threat formed from the organizations' incumbent employees. They increase their fear as they work for organizations similar to organizations with workplace injuries.

Regarding sharing similarities among organizations in workplace injury research, different from the other research (e.g., Barnett & King, 2008), consideration of the industry and community is needed. Belonging to the same industry refers to sharing similar operation processes and resources. Therefore, it is natural to assume that organizations in the same industry share the dangers of experiencing similar types of workplace injuries. The influence of the industry effect on the perception of the possibility of experiencing similar workplace injuries is dominant, but we must consider the community effect (Speare, Kobrin, & Kingkade, 1982) simultaneously. The importance of community effect on workplace injury arises as employees

are engaged in workplace injuries. Unlike other stakeholders, employees cannot diversify their risks (Lane, Cannella, & Lubatkin, 1998) as they can't work for multiple organizations simultaneously. Once employees are embedded in one community, moving to another becomes unattractive (Choudhury, 2022; David, Janiak, & Wasmer, 2010) as they are emotionally embedded or attracted to the community's charm. Relocating costs financially and emotionally. Therefore, most employees prefer to find another workplace in their communities.

Moreover, as employees tailor their industry-specific skills, they are inclined to find a job in the same industry. In turn, it is highly likely to observe employees find another job in the same industry and community without relocating or switching their industries. While simultaneously reflecting the employees' consideration of the industry, they are sensitive to workplace injuries at organizations in the same industry and community. According to Marquis and Tilcsik (2016), organizations in the same industry and community are called "institutional equivalents." In an interview with an employee at the manufacturing workplace², he shared what he felt once he noticed workplace injuries in institutional equivalents.

"We(employees) become alert when we hear that injuries' from the same factories in the near vicinity because those injuries always can happen anytime in our facility."

As he confirmed during the interview, employees at the focal organizations create the fear of having similar workplace injuries. Fear negatively affects people's mental and physical health and deteriorates their quality of life (Stafford, Chandola, & Marmot, 2007); thus, people choose risk-averse options (Lerner & Keltner, 2000) to escape from it. When nothing is done to tackle

² This interview was held in January 2023 in South Korea.

this fear imbued among employees, in the worst case, feeling unsafe, employees may even decide to leave the focal organizations (e.g., Neal & Griffin, 2006). Without the support of employees, organizations cannot gain resources and survive (Becker & Gerhart, 1996).

The focal organizations launch organizational impression management to defeat this reputational threat (McDonnell & King, 2013) and show clear differences from its institutional equivalents (King & Whetten, 2008). Specifically, focal organizations target their employees as they cause a reputational threat. The threat resides in the thought that incumbent employees cannot guarantee workplace safety. They are concerned that similar workplace injuries will reiterate, and they will be the next victims. To relieve their concerns, the best impression management practice for the focal organization is investment in preventing workplace injuries. Organizations invest in workplace safety that aims to ensure a safe working environment and reduce workplace injuries (Whetten & Mackey, 2002). Through investment in workplace safety, focal organizations want to manipulate their employees' perception that they value employees' workplace safety and do their best not to have workplace injuries (Phillips & Zuckerman, 2001; King & Whetten, 2008). As an outcome of the investment in workplace safety, employees relieve their fear and feel safe. This strategic move is confirmed with the interview with the senior manager³ of a manufacturing facility. He said that.

“When workplace injuries have taken place in other similar organizations nearby, naturally this information spreads among employees. If peer organizations and the focal organization are in the same industry and community, fear comes real to their heart. Of course, managers try to ensure that employees have peace of mind by revisiting workplace safety practices and making sure our employees feel safe.”

³ This interview was held in January 2023 in South Korea.

The degree of investments in workplace safety is related to the level of reputational threat. In other words, when institutional equivalents experience more workplace injuries, employees at the focal organizations have more concerns and fear about the possibility of having the same workplace injuries in the future. In light of this, it creates a bigger reputational threat for the focal organizations. In turn, the focal organizations engage more actively in workplace safety to counter the increased reputational threat. Thus, we argue that when there are more workplace injuries in institutional incumbents, the more investment in workplace safety from the focal organizations are made.

***Hypothesis 1:** The more workplace injuries occur in the peers, the more investment in workplace safety in the focal organization.*

Organizational Communication with Employees

Organizations communicate about their image with diverse stakeholders (Argenti, 1996). Employees are their primary stakeholders, and organizations contact their employees through internal communications (Van Riel, 1997). According to Cheney and Christensen (2001), internal communication encompasses "employee relations" (p.231). Internal communication is one facet of organizational communication (e.g., public relations, investor relations) (Welch & Jackson, 2007), and through this, organizations could build favorable relationships with their employees (Van Riel, 1997).

Through internal communication between top management and employees, organizations and employees understand each other (Grunig, 1992). Internal communication is especially open to listening to problems (De Ridder, 2004). Thus, having internal communication enables employees to bring their problems to management. In the process, organizations can listen to their employees' problems and concerns. Furthermore, as the goal of internal communication is

to sense external changes and modify the organization (Welch & Jackson, 2007), organizations actively communicate with their employees to know what is happening outside. When workplace injuries occur outside the organization, internal communication enables employees to express their fears (Bouquet & Birkinshaw, 2008). For example, focal organizations could be aware of injuries by peers and counter the spread of fear among their own employees. This awareness makes the focal organizations more proactive in engaging in impression management to detach themselves from peers. In addition, internal communication is possible only when organizations have a communication-friendly climate (Anderson & West, 1998). Therefore, having internal communication indicates the organization's commitment to communicating with its employees.

Based on those assumptions, the organizations reflect and modify their behaviors by responding to their employees' concerns. When the focal organizations notice workplace injuries at peers, they may respond differently depending on the nature of their internal communication. The more internal communications take place, the more employee-friendly policies the organization adopts. Thus, focal organizations would increase their investment in workplace safety. In contrast, organizations without proper internal communications struggle to know what their employees are thinking. Therefore, less is done to protect employees' well-being. In conclusion, having more internal communication enables employees at the focal organization to express their fear and concern regarding the likelihood of experiencing identical workplace injuries, compared to organizations that lack internal communication channels. Then, the focal organizations treat injuries at peers more seriously and allocate more resources to workplace safety. As a result, we hypothesize that:

Hypothesis 2: More internal communication will strengthen the positive influence of the peers' workplace injuries on their investment in preventive actions.

Exposure to the External Organizations

Connecting to external organizations (e.g., peers, business associations) increases attention to the injuries at peers and increases spending on workplace safety. External ties give focal organizations access to diverse types of information (Geletkanycz & Hambrick, 1997). Those links become “information conduits” (Ahuja, 2000: 430) through which organizations get to know the results of practices and approaches becoming guinea pigs (Geletkanycz & Hambrick, 1997). Furthermore, as ties function as the information conduits between the focal organizations and many other organizations (Mizruchi, 1989), linking provides abundant information cues regarding peers’ actions. For this reason, various critical organizational practices are shared in this kind of network (Gulati, 1995; Haunschild, 1993), and thus new and unfamiliar insights can be gained by each organization (Granovetter, 1973; Kraatz, 1998). Since knowledge is widely and heterogeneously distributed (Hayek, 1945), for organizations to combine this heterogeneous knowledge, they must have opportunities to exchange ideas, and such external networks can be significant conduits (Phelps, 2010).

Relatedly, external ties provide more profound information regarding peers. When we were interviewing the senior manager⁴ at the manufacturing facility, the manager cited advantages of connection with external organizations.

"Through the conversation, we get to know what happened in their organizations, and we can sense that similar workplace injuries can happen in our sites too. This concern guides us to pay more attention to workplace safety."

⁴ This interview was held in January 2023 in South Korea

As injuries occurred outside of the focal organizations' boundary, the focal organizations have limitations in gathering information. However, through the ties, the focal organizations can access information about why something happened and possible reasons. This kind of valuable information sharing occurs through ties to different organizations. In harvesting insights about the workplace injuries at peers, they can know what had gone wrong and compare their current safety procedures with those of their peers. When they find room to improve workplace safety, they will allocate more to workplace safety. Compared to organizations that do not have connections to diverse external organizations, having connections to external organizations provides more information about workplace injuries among peers. In turn, the focal organizations can recognize what should be added to prevent workplace injuries and invest more in safety measures. However, if the focal organizations do not have external ties, they find it difficult to gather valuable information and to find the assigning additional funds for safety measures despite workplace injuries. Thus, we hypothesize that:

***Hypothesis 3:** More external exposure will strengthen the positive influence of the peers' workplace injuries on their investment in preventive actions.*

Foreign Ownership

When investing abroad, investors incur the liability of foreignness (Hymer, 1960; Zaheer, 1995). Zaheer (1995) defines the liability of foreignness as all the “additional costs a firm operating in a market overseas incurs that a local firm would not incur” (p.343). This is because foreign investors cannot be as savvy as locals about the subtle delicacy of local institutions even when foreign investors are familiar with the countries they invest (O’Grady & Lane, 1996). Consequently, foreign investors tend to make suboptimal decisions, especially after unusual crises such as severe injury or death of employees (Williamson, 1999).

At the time of workplace injuries, specific and specialized knowledge is urgently needed. For example, communicating with families of injured employees and negotiating with insurance companies can be nearly impossible for foreign investors since these are something that foreign investors do not have to deal with daily. Thus, unlike domestic organizations, firms with a high proportion of foreign investors lack the knowledge to handle crises. At the same time, as out-group members in the host country, they receive strong internal attributions when adverse events occur; however, local organizations that are in-group members get light internal attributions (Hewstone, 1990). For this reason, even if the level of harm is the same, foreign organizations are blamed more than domestically owned organizations.

In 2013, the Rana Plaza in Bangladesh collapsed, and it is one of the most historical workplace injuries in the world. In this single collapse, it injured more than 1,000 employees.⁵ The plaza was home to several garment factories owned by global retailers such as H&M, Inditex (Zara), J.C. Penney, and Walmart. Employees and other stakeholders (e.g., media, customers, and international non-profit organizations) blamed foreign retailers since these organizations are easy targets. For these reasons, being blamed for injuries or deaths is the last thing foreign investors want.

It is costly to ensure that a work environment is completely safe (Barnett & Salomon, 2006). For foreign organizations, however, it is essential to make a heavy upfront investment in injury prevention, no matter whether there are workplace injuries at peers or not. With superior protection from potential harm, even when injuries occur in a similar or equivalent organization, employees of foreign organizations feel less fear of similar accidents in their organization.

⁵ Manik, J. A. & Yardley, J. 2013. Building Collapse in Bangladesh Leaves Scores Dead, *The New York Times*, Retrieved 12 August 2022 <https://www.nytimes.com/2013/05/04/world/asia/death-toll-in-bangladesh-building-collapse-tops-500.html?searchResultPosition=1>

Because they already judge their working conditions as superior to peers. It means the negative reputation spillover is low, and the created fear among employees is deterred. In addition, as foreign organizations will ensure a safer work environment, applicants will self-select in joining them, and employees are more cautious. In a way, foreignness can work to outsiders' advantage (Siegel, Pyun, & Cheon, 2019).

Based on this logic, we argue that the negative impact of the peers' workplace injuries on the focal organization could be marginal as foreign organizations are already prepared with enhanced workplace safety. In other words, there is a small room for peers' influence on the focal organization's investment in workplace safety. Furthermore, as foreign-invested organizations are already safe places to work, their employees are more confident that they will not be injured. The focal organizations are already distinguished from their peers. Thus, there is little reason for the foreign-invested focal organizations to participate in impression management and to divert more resources in workplace safety around peers' workplace injuries. As a result, if there are similar numbers of workplace injuries among peers, unlike purely domestic organizations, the organizations with more foreign ownership put fewer resources on injury prevention at the time of negative reputation spillover.

Hypothesis 4: *More foreign ownership will weaken the positive influence of the peers' workplace injuries on their investment in preventive actions.*

METHOD

Data and Sample

We used the Workplace Panel Survey (WPS) of the Korea Labor Institute (KLI) to test the hypotheses. KLI is a government-funded research institute, and it provides WPS. WPS is a longitudinal, biannual survey of workplaces in South Korea. WPS randomly selects workplaces with more than 30 employees, and biannually, workplaces have been invited to participate in the

survey since 2005. Due to the comprehensiveness and reliability of WPS, prior studies have used WPS to answer their research questions (Han, Kang, Oh, Kehoe, & Lepak, 2019; Joo, Lee, Kong, & Jolly, 2022). WPS is particularly suited to our inquiry because it provides information associated with workplace injuries and the prevention investment to reduce accidents at the workplace level. Furthermore, it has information regarding the workplace's characteristics, including our research's context. We used the data from the 2013 to 2019 surveys and excluded the workplaces with missing information. In addition, we merged additional data to complete our samples. First, we merged industrial accident statistics offered by the Ministry of Employment and Labor. Then, we combined community income data given by the Korean National Statistics Office. The final sample consisted of an unbalanced panel with 435 establishments and 791 workplace-year observations.

Measures

Dependent variable We operationalized *the focal organization's prevention investment in workplace safety* as the amount of money invested in preventing workplace injuries. Each workplace reported the amount it invested in reducing workplace injuries. To reduce skewness, we logged the variable. To capture the effect of the independent variable, we used DV's $t+1$ value.

Independent variable *Peers' workplace injuries* We followed Haunchild and Sullivan's (2002) suggestion to capture peers' workplace injuries. First, we created categories based on combining the community and industry categories. We used *province* as the category of the community as most of the data published by the Korean government use the province as the main standard of the community. In this process, we excluded Sejong, which is a new community with little data.

Merging with industry and community standards, we created a category to represent the same community and industry. Second, we counted the total number of workplaces with workplace injuries that year. Then, we divided the number of workplaces with workplace injuries in the same community and industry by the number of workplaces in the same community and industry. In this process, we summed the previous three-wave's ratio of the total number of workplaces with workplace injuries in the same community and industry divided by the total number of workplaces in the same community and industry. When calculating the ratios for the three waves, we followed Haundchild and Sullivan (2002)'s recommendations about the treatment of workplace injury information. Specifically, we treated the information for the oldest and second-oldest injuries differently from the information for the latest. We divided the former by three and two, using the full information for the latter.

Moderating variables *Internal communication* WPS asks seven yes-or-no questions regarding internal communication: (1) sharing management information regularly; (2) operating a hotline to directly contact the top management team; (3) doing a regular survey of employee opinions; (4) releasing a newsletter of management information; (5) creating an in-house bulletin board to share internal/external information; (6) sending regular emails to share information; and (7) sharing information for employees on the intranet. We checked Cronbach's alpha scores before we merged items to find internal consistency. Their Cronbach's alpha was .71, which indicates the validity of combining items. We ran confirmatory factor analysis (CFA) on these seven items as a single factor to validate this internal communication ties measure. The CFA of the single-factor internal communication ties use measurement model demonstrated a good fit with the data: $\chi^2 (14) = 254.964$, CFI=.97, RMSEA = .048. Lastly, we asked other subject matter experts

to check the construct and confirmed that seven items were well aligned. We created the internal communication ties variable by calculating an average of those seven items.

External exposure We created this variable by making it an index. WPS offers four survey items that show the organization's external ties. Those items are framed as yes-or-no questions. The four questions are phrased as follows: (1) Did the human resource department met regularly with the human resource department managers of other organizations? (2) Did the organization get advice on human resource issues from a business association? (3) Did the organization set a benchmark to implement good practices of high-performing organizations? (4) Does the organization subscribe to at least one journal on human resource management? All items are under a single factor. To validate the internal consistency, we checked Cronbach's alpha scores. It was .71, which means we can merge those items. We ran CFA on these four items as a single factor to further validate this external ties measure. The CFA of the single-factor external ties use measurement model demonstrated a good fit with the data: $\chi^2 (14) = 79.991$, CFI=.99, RMSEA = .057. Lastly, we asked other subject matter experts to check the construct and confirmed that four items were well-aligned. Thus, we used the average scores of those items.

Foreign ownership We captured foreign ownership by using the ratio. In the survey, one item asks what portion is owned by foreigners.

Control variables We included several controls to eliminate the possibility of influencing other factors on the focal organization's budget for workplace safety. First, we controlled for several workplace injury-related controls. *Injured employees (the focal organization)*. The focal organizations have incentives to invest more resources in workplace safety if they have more workplace safety issues. To control this influence, we controlled the focal organization's injuries. Applying the same operationalization to the independent variable, we summed three waves' total

number of injured employees by weighing them differently to make recent accidents more salient. *The number of no-accident peers.* As the most recent information lingers longer in the mind of the decision-maker, we controlled the number of no-accident peers in the most recent wave to remove the influence of no-accident peers' on the focal organization. To reduce the skewness, we logged.

We also controlled *the fatality rate by industry*. If there are more workplace injuries industry-wide, workplaces in those industries are more motivated to budget for workplace safety. To eliminate the possibility of confounding effects, we implemented to control for fatality rates by industry. This was achieved by computing the ratio of the number of deaths per 10,000 employees in each industry. Different levels of community wealth may influence investment in workplace safety. By adding *private consumption by the community*, we controlled the heterogeneity between communities.

We also controlled several variables to capture the effects of organizational effectiveness. *Workplace performance.* Workplace performance highly influences the organization's spending on workplace safety. We controlled this by measuring by return on assets. *Workplace size.* The more employees the focal organization has, the larger its investment in workplace safety. We captured the effect on the employees. We measured and logged the total number of employees. *Workplace age.* The longer the organization is located in the community, the more likely the community is to influence the organization. Thus, to control this effect, we controlled the firm age. We logged it to reduce the skewness. *Product price competitiveness* The organization's market strategy is correlated with the organization's allocation of resources within the organization. We used the organization's product price strategy to capture the organization's market strategy. We used the survey item 'The relative price of your flagship product compared

to the competitors.’ A higher score indicates that the product is more expensive than those of its competitors.

Further, we controlled for workplace safety-related workplace information. *Union.* Whether the workplace has a union, the probability of investing resources in workplace safety increases. To capture this effect, we included the union variable as the binary variable indicating the workplace has a union is coded as 1. *Disabled employees.* Investment in workplace safety is associated with employees' characteristics, including any physical disabilities they may have. To account for this association, we included disabled employees in our analysis by calculating the ratio of disabled employees to total employees. *Offer safety training.* If the workplaces offer safety training, those places may allocate more budgets to workplace safety. Thus, we included a safety training variable to capture whether the workplaces provide workplace safety training. Using the survey item “Offer the safety training,” we coded it as 1 if the workplaces answered yes; we coded it as 0 if workplaces said no. Further, we coded as missing workplaces that were not required to offer safety training. *Most complaints (Safety).* If employees raise issues about workplace safety, the workplace may invest more in safety measures. We utilized the survey item asking “The most complain to the workplace.” It has eight options: compensation, promotion, sexual harassment, conflicts with co-workers, and leaders, workplace safety, or the way of doing tasks. Among those options, we regarded workplace safety and the way of doing tasks related to workplace safety. We coded it as 1 if workplaces answered those two issues are the most salient complaint they received. Otherwise, we coded it as 0. *Welfare benefits (Health).* When workplaces offer health-related welfare benefits to employees, we categorize those workplaces as taking care of their employees’ health. Then, they have a high potential to invest resources in workplace safety. To remove this possibility, we used the survey item that asked,

“Offering benefits regarding health.” If workplaces answered yes, we coded it as 1. Otherwise, we coded it as 0.

Estimation Strategy

We applied panel fixed effects to estimate the relationship between workplace injuries in peers and the focal organization's investment in workplace safety ($t+1$). We also controlled the possibility of heteroskedasticity or within-panel serial correlation in the idiosyncratic errors into account; we used command `vce (cluster establishment id)` to capture it.

RESULTS

Table 1 contains the correlation scores of the variables and general descriptive statistics. None of the variables' correlation scores exceed 0.50. Table 2 shows the ordinary least square analysis with the fixed effect. We conducted panel data analysis. Model (1) contains the controls. From Model (2) to Model (6), we tested the statistical significance of the hypotheses. In Model (2), we examined the effect of the peers' workplace injuries on the focal organization's spending on workplace safety. It shows a statistically significant result ($\beta = 5.861$; $p = .004$). Thus, hypothesis 1 is supported. Further, the significance of the independent variable remains constant throughout the model. In Model (3), we tested the positive interaction effect of internal communication. In both Model (3) and Model (6), it succeeded in reaching the statistical significance ($\beta = 10.216$; $p = .048$). Thus, hypothesis 2 is supported. In Model (4), we explored the positive interaction effect of external exposure. As it shows significance both in Model (4) and Model (6) ($\beta = 4.767$; $p = .062$), hypothesis 3 is supported. In Model (5) and Model (6), we examined the third moderator – foreign ownership. The interaction term remains significant in Model (6) ($\beta = -.153$; $p = .040$); it confirmed a negative interaction effect of foreign ownership. Hypothesis 4 is supported.

--- Insert Table 1 here ---

--- Insert Table 2 here ---

ROBUSTNESS CHECK

We did several additional analyses to show the robustness of the empirical analyses. First, we added the dependent variable's (t) time. Due to the limited availability of the data, we conducted additional analysis with two-wave. Applying the same empirical method (panel OLS with fixed effect), we found the result remains statistically significant ($\beta = 4.700$; $p = .080$) in Table 3.

Except for the fixed-effect model, we also performed generalized estimating equations to show the rigor of the analyses. The results of GEE are in Table 4. In the GEE model, we showed the positive effect of the peers' workplace injuries on the focal organization's allocation of resources on workplace safety ($\beta = 1.343$; $p = .091$).

In Table 5, we measured the independent variable in different ways. Following Haunschild and Sullivan's (2002) suggestion, we weighted peers' workplace injuries with varying values across three waves while also considering the need to check the rigor of our empirical results through diverse measurement approaches. To this end, we calculated the independent variable assuming slow (Model (9)), fast (Model (10)), or time-constant decay of the influence (Model (12)) but obtained the same results with all of these measurements. Additionally, we experimented with measuring the independent variable using only one year of peers' workplace injuries and found no difference in results (Model (11)).

Furthermore, we adopted a new approach to measuring the independent variable, using the number of injured employees instead of the number of workplaces (Model (13)). We divided the total number of injured employees at peers by the total number of workplaces at the peers

and still observed a positive impact of peers' workplace injuries on focal organizations' investment in workplace safety. Our results remain consistent across various measurements and approaches to measuring the independent variable.

--- Insert Table 3, 4, 5 here ---

In addition, we checked the organization ages in different categories to show there are no differences. To display the organization ages by the community, we attach the mean and standard deviation of organization age and the number of organizations by community in Appendix A. This table provides that there are no differences in mean and standard deviation between communities.⁶

With a narrower grouping, we performed t-tests to examine the tendency of opening a new organization in a different community. To attract plenty of resources (e.g., employees), organizations may tend to open their organization in a metropolitan area. If true, this strategic decision may also structurally influence the following decisions. Table 6 shows the descriptive statistics of the organization ages between organizations in metropolitan and non-metropolitan areas. Based on these statistics, we conducted a t-test, and the p-value was higher than 0.05. We failed to reject the null hypothesis at the 0.05 significance level. Thus, we concluded that there is no difference in organization ages between those in metropolitan and non-metropolitan areas.

--- Insert Table 6 here ---

Additionally, we tested workplace injuries between foreign-invested and domestically owned organizations. Using propensity score matching with matching criteria of return on asset and logging a total number of employees, we compared foreign-invested and domestically owned organizations. Table 7 shows that foreign-owned organizations had fewer workplace

⁶ Jeju is an exception. Different from other communities, Jeju is an island and due to its geographical limitation, it has less organizations compared to other communities.

injuries. It aligns with our logic that foreign investors seek workplace safety-secured organizations to avoid workplace injuries.

--- Insert Table 7 here ---

DISCUSSION

Organizations engage in organizational impression management even though they are targeted. Here, based on the distinctive feature of workplace injuries – employees are engaged, we argue that gained fear among incumbent employees at the focal organizations after noticing workplace injuries at institutional equivalents provoke the reputational threat of the focal organizations. It leads organizations to engage in socially good behaviors, such as increasing investment in workplace safety to address its unintended reputational threat. Throughout the evolution of this process, we contribute to the literature on organizational impression management and workplace injury.

Theoretical Contributions

Two contributions emerge from these findings. First, in the research on workplace injuries, we found the impact of the external environment – institutional equivalents. Even though there is much research on workplace injuries, most of it concentrates on the causes and outcomes of the committed organization. However, in the strategic management literature, examining the effect of external peers on the focal is an eternal question about an organization's corporate social responsibility (Marquis & Tilcisk, 2016), CEO dismissal (Connelly, Li, Shi, & Lee, 2020), acquisition (Shi, Hoskisson, & Zhang, 2017), and new product development (McCann & Bahl, 2017). Anchoring the dot on this conversation by bringing workplace injury context, we enrich the discussion by showing that institutional equivalents' workplace injuries make the focal

organizations engage in workplace safety. Furthermore, by echoing what makes workplace safety, we emphasize the role of organizations in achieving workplace safety.

Second, we deepened our understanding of organizational impression management by highlighting the formed reputational threats even though outsiders do not target them.

Leveraging the increased attention to the influence of similar others in impression management in recent years (e.g., Shi, Connelly, Hoskisson, & Ketchen, 2020), we go one step further by adding the formed motivation from fear among incumbent employees. Applying the distinctive feature of workplace injuries, which provoke fear among employees, we argued that focal organizations face the risk of reputational threats due to the possibility of having injuries in the future. In the unpleasant situation of getting tarred with the same brush as institutional equivalents, the focal organization is motivated to practice organizational impression management to burnish its image. Once the focal organization takes action to ensure workplace safety, employees at the focal organization can reduce their fear by reassurance from their organizations. Investigating the effect of institutional equivalents, which spur unintended reputational threats to the focal organizations, contributes to organizational impression management.

Limitations and Future Research

Our study has the following limitations. First, we did not directly measure employees' fear in the focal organizations caused by observing workplace injuries in institutional equivalents. Even though we noted that workplace injuries have a rich and established history of increasing turnover intention, work-family conflict, job stress, and decreasing job satisfaction, suggesting there is a reason for concern (Lawrence, Halbesleben, & Paustian-Underdahl, 2013; McCaughey et al., 2013), owing to the limited nature of the archival data, we could not capture employees'

fear. As an alternative way to address the fear among employees at the focal organizations after noticing workplace injuries at institutional equivalents, we interviewed in South Korea. To fully reflect on our arguments about the fear among employees and the focal organizations' reaction, we interviewed an employee and the manager at the organization. The employee shared this formed fear, and the manager said that workplace injuries spur fear among employees. The organization then takes workplace safety-related organizational impression management to reassure its employees' workplace safety. With the qualitative interview, we confirmed that our arguments were aligned with the process of making employees fearful and the focal organizations' reaction to it. However, future research with primary data methods that explore the creation of fear more in-depth may generate fruitful findings.

Second, we could not gauge the severity of workplace injuries. Even though we used official numbers of employees who had been hurt on the job, we did not have the information for the seriousness. Compared to minor accidents, employees might feel greater fear if their peers have several fatal workplace injuries, which could generate greater organizational reputational threats for the focal organizations. If this is the case, the focal organizations will engage in more organizational impression management to counter the reputational threat they get. To supplement the missing information on each workplace's seriousness of workplace injuries, we added the percentage of deaths per 10,000 employees per industry in our model to capture the seriousness of workplace injuries at the industry level. If this number is high, it indicates that workplace injuries in this industry are severe. The accident rate statistics were calculated by adding each organization's workplace injury seriousness, including the accident rate by industry provides indirect and abstract information on the seriousness of each organization's workplace injuries. Despite that, future research with more accurate and comprehensive data on each organization's

workplace injury will produce a more precise account of the impact of institutional equivalents'
workplace injuries on focal organizations.

Table 1. Descriptive Statistics and Correlation Matrix

Variables	Mean	S.D.	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Prevention costs	2.024	1.748	0	8.882	1.000						
(2) The peers' workplace injuries	.056	.061	0	.379	-0.031	1.000					
(3) External ties	.294	.314	0	1	0.105*	-0.020	1.000				
(4) Internal communication ties	.22	.22	0	1	0.079*	0.041	0.357*	1.000			
(5) Foreign ownership	2.358	13.627	0	100	0.018	0.020	0.147*	0.136*	1.000		
(6) Injured employees (the focal organization)	.559	1.919	0	36.333	0.087*	-0.051	-0.011	-0.037	-0.034	1.000	
(7) Firm performance	.022	.193	-3.114	2.304	0.079*	0.040	-0.010	-0.016	0.038	0.062	1.000
(8) Firm size	4.661	1.098	.693	9.421	0.207*	-0.056	0.280*	0.204*	0.080*	0.270*	0.111*
(9) Offer safety training	.956	.206	0	1	0.028	-0.022	0.020	0.039	0.037	0.054	0.031
(10) Percentage of ~10	1.007	.484	.13	2.21	0.004	-0.129*	-0.083*	-0.183*	-0.022	0.030	0.047
(11) No workplace injury peers	4.387	1.166	.693	5.958	0.001	0.226*	-0.044	-0.020	0.106*	-0.020	-0.043
(12) Private consumption in Community	16.052	1.878	13.119	20.197	-0.105*	0.276*	0.051	0.056	0.071*	-0.010	0.003
(13) Disabled employees	.02	.04	0	.7	0.046	-0.046	0.024	-0.065	-0.047	0.034	0.033
(14) Union	.301	.459	0	1	0.093*	-0.076*	0.238*	0.193*	0.101*	0.121*	0.003
(15) Price competitiveness	2.915	.515	1	4	0.058	0.077*	-0.002	-0.010	0.024	0.070*	-0.057
(16) Firm age	3.28	.466	1.792	4.745	0.075*	0.065	0.064	0.014	0.014	0.073*	0.020
(17) Most complain (Safety)	.206	.405	0	1	0.082*	0.050	0.200*	0.127*	0.151*	-0.011	0.007
(18) Welfare benefits(Health)	.568	.496	0	1	0.049	-0.083*	0.179*	0.217*	0.042	-0.051	-0.033
Variables	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) Prevention costs											
(2) The peers' workplace injuries											
(3) External ties											
(4) Internal communication ties											
(5) Foreign ownership											
(6) Injured employees (the focal organization)											
(7) Firm performance											
(8) Firm size	1.000										
(9) Offer safety training	0.072*	1.000									
(10) Percentage of ~10	-0.193*	0.046	1.000								
(11) No workplace injury peers	0.015	-0.038	-0.290*	1.000							
(12) Private consumption in Community	0.179*	-0.042	-0.198*	0.423*	1.000						
(13) Disabled employees	0.015	0.070*	0.065	-0.001	-0.071*	1.000					
(14) Union	0.420*	0.034	0.013	-0.210*	-0.048	0.086*	1.000				
(15) Price competitiveness	0.044	0.024	-0.014	0.029	-0.005	0.060	-0.053	1.000			
(16) Firm age	0.183*	0.036	0.146*	-0.001	0.043	-0.032	0.300*	0.042	1.000		
(17) Most complain (Safety)	0.130*	0.079*	-0.075*	-0.004	0.042	-0.020	0.061	-0.038	0.006	1.000	
(18) Welfare benefits (Health)	0.068	0.011	-0.095*	-0.005	-0.110*	-0.015	0.111*	0.010	-0.010	0.041	1.000

* shows significance at the .05 level

Table 2. Regression analysis (OLS with Fixed-effect)

	Model(1)	Model(2)	Model(3)	Model(4)	Model(5)	Model(6)
The focal organization's injured employees	0.208* (0.076)	0.217* (0.070)	0.222* (0.057)	0.208* (0.088)	0.213* (0.087)	0.213* (0.078)
Firm performance	0.760*** (0.000)	0.738*** (0.000)	0.747*** (0.000)	0.744*** (0.001)	0.744*** (0.000)	0.778*** (0.000)
Firm size	0.224 (0.492)	0.213 (0.517)	0.216 (0.518)	0.216 (0.513)	0.180 (0.581)	0.161 (0.629)
Offer safety training	-0.349 (0.196)	-0.412 (0.146)	-0.385 (0.177)	-0.425 (0.119)	-0.407 (0.143)	-0.388 (0.159)
Percentage of deaths per 10,000 employees	0.356 (0.427)	0.536 (0.251)	0.529 (0.266)	0.484 (0.309)	0.530 (0.263)	0.485 (0.312)
No workplace injury at peers	0.509 (0.313)	0.626 (0.218)	0.619 (0.226)	0.701 (0.170)	0.615 (0.225)	0.641 (0.214)
Private consumption in Community	-0.598** (0.013)	-0.574** (0.018)	-0.624*** (0.010)	-0.564** (0.022)	-0.548** (0.024)	-0.568** (0.018)
Disabled employees	-0.845 (0.741)	-1.183 (0.650)	-0.658 (0.809)	-1.230 (0.647)	-1.355 (0.599)	-0.664 (0.809)
Union	0.018 (0.972)	0.083 (0.875)	0.099 (0.849)	-0.005 (0.993)	0.094 (0.856)	0.038 (0.941)
Price competitiveness	0.065 (0.686)	0.052 (0.747)	0.061 (0.699)	0.081 (0.614)	0.043 (0.788)	0.079 (0.620)
Firm age	-1.543 (0.520)	-1.716 (0.467)	-1.599 (0.494)	-1.563 (0.499)	-1.900 (0.422)	-1.652 (0.475)
Most complain (Safety)	0.079 (0.669)	0.041 (0.817)	0.073 (0.675)	0.097 (0.580)	0.091 (0.605)	0.101 (0.566)
Welfare benefits (Health)	0.240 (0.143)	0.214 (0.198)	0.218 (0.196)	0.239 (0.155)	0.233 (0.170)	0.235 (0.160)
The peers' workplace injuries		5.861*** (0.004)	6.457*** (0.002)	5.839*** (0.003)	5.429*** (0.009)	6.036*** (0.003)
Internal communication			0.100 (0.810)	0.125 (0.771)	0.024 (0.955)	0.145 (0.733)
External exposure			-0.068 (0.800)	-0.135 (0.618)	-0.130 (0.630)	-0.139 (0.607)
Foreign ownership			-0.010* (0.061)	-0.011** (0.047)	-0.007 (0.184)	-0.007 (0.197)
The peers' workplace injuries x Internal communication			10.366** (0.048)			10.216** (0.048)
The peers' workplace injuries x External exposure				6.033** (0.035)		4.767* (0.062)
The peers' workplace injuries x Foreign ownership					-0.110 (0.146)	-0.153** (0.040)
Constant	12.623 (0.177)	12.294 (0.191)	12.578 (0.177)	11.363 (0.222)	12.767 (0.173)	12.093 (0.190)
Observations	791	791	791	791	791	791
R-squared	0.082	0.102	0.120	0.118	0.115	0.136
Year dummies	YES	YES	YES	YES	YES	YES

P-value in parentheses *** p<0.01, ** p<0.05, * p<0.10

Table 3. Robustness check: OLS with Fixed Effect

	Model (7)
Prevention Cost	-0.086 (0.172)
The focal organization's injured employees	0.086 (0.456)
Firm performance	1.032*** (0.000)
Firm size	0.271 (0.421)
Offer safety training	-0.349 (0.361)
Percentage of deaths per 10,000 employees	0.470 (0.437)
No workplace injury at peers	1.163 (0.228)
Private consumption in Community	-0.427 (0.214)
Disabled employees	-4.342 (0.101)
Union	0.162 (0.523)
Price competitiveness	-0.074 (0.681)
Firm age	-0.609 (0.815)
Most complain (Safety)	-0.254* (0.060)
Welfare benefits (Health)	0.238 (0.147)
The peers' workplace injuries	4.700* (0.080)
Constant	3.986 (0.722)
Observations	504
R-squared	0.109
Year dummies	YES

p-value in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4. Robustness check: Generalized Estimating Equations

	Model (8)
The focal organization's injured employees	0.020*** (0.002)
Firm performance	0.359*** (0.000)
Firm size	0.153*** (0.000)
Offer safety training	-0.066 (0.641)
Percentage of deaths per 10,000 employees	0.032 (0.715)
No injury workplaces at peers	0.069* (0.079)
Private consumption in Community	-0.060** (0.024)
Disabled employees	1.231** (0.015)
Union	-0.023 (0.776)
Price competitiveness	0.068 (0.151)
Firm age	0.022 (0.775)
Most complain (Safety)	0.125** (0.043)
Welfare benefits (Health)	0.109* (0.092)
The peers' workplace injuries	1.343* (0.091)
Constant	0.305 (0.580)
Observations	791
Year dummies	YES
p-value in parentheses *** p<0.01, ** p<0.05, * p<0.10	

Table 5. Robustness Check: Different measurements of IV.

	Model (9)	Model (10)	Model (11)	Model (12)	Model (13)
The focal organization's injured employees	0.216* (0.069)	0.217* (0.071)	0.217* (0.074)	0.215* (0.068)	0.214* (0.063)
Firm performance	0.729*** (0.000)	0.753*** (0.000)	0.769*** (0.000)	0.721*** (0.000)	0.744*** (0.000)
Firm size	0.218 (0.508)	0.207 (0.529)	0.201 (0.541)	0.223 (0.498)	0.212 (0.520)
Offer safety training	-0.409 (0.150)	-0.412 (0.142)	-0.409 (0.140)	-0.403 (0.157)	-0.295 (0.286)
Percentage of deaths per 10,000 employees	0.532 (0.256)	0.532 (0.252)	0.517 (0.262)	0.518 (0.270)	0.406 (0.373)
No workplace injury at peers	0.640 (0.207)	0.598 (0.240)	0.561 (0.271)	0.648 (0.200)	0.720 (0.147)
Private consumption in Community	-0.541** (0.026)	-0.623*** (0.009)	-0.677*** (0.004)	-0.511** (0.036)	-0.563** (0.016)
Disabled employees	-1.130 (0.663)	-1.241 (0.635)	-1.283 (0.625)	-1.058 (0.682)	-0.805 (0.755)
Union	0.086 (0.869)	0.074 (0.887)	0.062 (0.907)	0.085 (0.869)	0.038 (0.941)
Price competitiveness	0.050 (0.757)	0.055 (0.730)	0.060 (0.707)	0.048 (0.763)	0.066 (0.686)
Firm age	-1.662 (0.482)	-1.785 (0.449)	-1.849 (0.433)	-1.599 (0.500)	-1.146 (0.626)
Most complain (Safety)	0.045 (0.800)	0.037 (0.834)	0.035 (0.844)	0.052 (0.773)	0.109 (0.551)
Welfare benefits (Health)	0.211 (0.205)	0.221 (0.185)	0.230 (0.168)	0.209 (0.209)	0.229 (0.164)
The peers' workplace injuries (slow)	5.272*** (0.007)				
The peers' workplace injuries (fast)		6.385*** (0.002)			
The peers' workplace injuries (1yr)			6.614*** (0.002)		
The peers' workplace injuries (constant)				4.348** (0.017)	
The peers' workplace injuries (employees/workplaces)					0.223** (0.013)
Constant	11.556 (0.220)	13.393 (0.153)	14.589 (0.118)	10.843 (0.252)	9.680 (0.281)
Observations	791	791	791	791	791
R-squared	0.099	0.104	0.106	0.095	0.093
Year dummies	YES	YES	YES	YES	YES

p-value in parentheses *** p<0.01, ** p<0.05, * p<0.10

Table 6. Workplace age comparison between metropolitan vs non-metropolitan communities.

Metropolitan	mean	S.D.
No	3.267	.446
Yes	3.293	.484

Table 7. Comparison of workplace injuries between foreign-invested organizations and domestically-owned organizations

Workplace Injuries (Yes) t+1	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Foreign Ownership (Yes)	-.06	.029	-2.06	.04	-.118	-.003	**
Mean dependent var	0.112		SD dependent var		0.316		

*** $p < .01$, ** $p < .05$, * $p < .1$

APPENDIX A.

Region	Mean	S.D.	N
Seoul	3.248	0.491	200
Busan	3.536	0.442	73
Daegu	3.101	0.322	23
Incheon	3.231	0.480	63
Gwangju	3.191	0.579	17
Daejeon	3.553	0.372	11
Ulsan	3.184	0.344	13
Gyeonggi	3.326	0.415	179
Kangwon	3.296	0.530	24
Chungbuk	3.196	0.381	18
Chungnam	3.258	0.485	20
Jeonbuk	3.388	0.655	21
Jeonnam	3.267	0.332	9
Gyeongbuk	3.091	0.357	47
Gyeongnam	3.250	0.454	68
Jeju	2.688	0.128	5
Total	3.280	0.466	791

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