Managerial attitudes toward the Health and Safety at Work Act (2015): An exploratory study of the Construction Sector

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Abstract

The purpose of this research is to conduct an exploratory, qualitative study to examine the attitudes that managers in New Zealand's construction industry have towards occupational health and safety and the Health and Safety at Work Act (2015). Additionally, this study aims to assess whether managers believe that the increases in managerial commitment and worker involvement required by the new legislation will improve the safety culture and performance within the construction industry. Method: Eight semi-structured interviews were conducted with senior or frontline managers of construction companies that were responsible for overseeing the health and safety function within their organisations. Results: This study suggests that the Health and Safety at Work Act (2015) has forced managers within the construction industry to increase their commitment and employee involvement in occupational health and safety. Additionally it seems that the new legislation is beginning to create positive changes to the safety culture within the industry. Conclusion: The study has helped verify the government's goal to utilise the new legislation to drive positive changes to New Zealand's occupational safety culture to increase national safety performance. However managers highlight a number of barriers that may inhibit their ability to improve the safety performance within their organisations.

Keywords: construction; safety climate; managerial commitment; employee involvement; safety performance

Introduction

While the majority of workers in developed countries take for granted that going to work on a daily basis does not compromise their safety (Barling, Kelloway & Loughlin, 2002), New Zealand's poor occupational safety statistics suggests that they should think otherwise. Every year, thousands of New Zealanders are killed or injured at work, and between 600 and 900 people die from work-related illnesses. The financial impact of these accidents is estimated to cost the New Zealand government on average \$3.5 billion per year (MBIE, 2012). The immense human costs of these tragedies offer an equally disheartening perspective. On average, one person per week dies from a work-related accident and 15 people die prematurely due to occupational ill health (WorkSafe, 2016). The New Zealand government has responded to these statistics by announcing major changes to the national occupational health and safety legislation.

The Health and Safety at Work Act (HSWA) (2015) is part of the government's "Working Safer" reforms that aim to create a 25 per cent reduction in workplace deaths and injuries by 2025. The government has acknowledged that changing the occupational health and safety legislation is only the first step towards achieving this goal. A significant factor affecting its

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success lies in changing the safety culture within New Zealand workplaces. Results from a national survey commissioned by WorkSafe, New Zealand's health and safety regulator, suggests that high-risk industries house cultural characteristics that negatively affect health and safety performance (Nielsen, 2014). Of these high-risk industries, construction has been highlighted as being particularly complacent about health and safety, despite its high accident and injury rates. Between 2011 and February 2016, the construction sector contributed the second highest national workplace fatalities by industry (Statistics New Zealand, 2016). The industry accounted for a total of 68 fatal accidents between 2008 and 2014, averaging at almost 10 per year. Nielsen's (2014) study suggested that there was a general disbelief of the high accident rates reported in construction and there was a lack of urgency to address the issue of health and safety.

The purpose of this investigation is to examine the attitudes that managers in New Zealand's construction industry have towards occupational health and safety and the HSWA (2015). The government aims to create positive shifts in New Zealand's safety culture and performance by making greater levels of managerial commitment and employee involvement mandatory under the new legislation. It is designed so that these requirements will eventually lead New Zealanders to change their attitudes towards occupational health and safety, resulting in the practice of safer behaviours at work. This research assesses whether the government's desired changes have begun to take effect within the construction sector, and whether managers within the industry believe that increases in managerial commitment and worker involvement required by the new legislation will improve the safety culture and performance.

Safety Climate and Safety Performance

Following from Schneider's (1975) work on organisational climates, Zohar (1980) introduced the concept of safety climate as, "a summary of molar perceptions that employees share about their work environment," (p.96). Typically, the term safety climate is used within the literature to describe employees' perceptions of the significance of safety in their work environment (Neal, Hart & Griffin, 2000; Choudhry, Fang & Mohamed, 2007). Safety climate research has become increasingly popularised over the last three decades as an observable manifestation of safety culture (Mearns, Whitaker & Flin, 2003). Given that safety climate acts as a frame of reference for the behaviours and attitudes of both groups of and individual employees, there is an argument that this will influence their accident involvement (Clarke, 2006). The assumption is that workers in organisations that have a positive safety climate (where employees perceive workplace safety favourably) will be less likely to participate in unsafe acts (Hofmann & Stetzer, 1996), which are precursors to workplace accidents and injuries (Reason, 1990). This is because climate provides guidance on suitable organisational behaviour. Therefore, organisations with a positive safety climate will encourage behaviours that positively relate to workplace safety, such as wearing the appropriate safety equipment. In contrast, organisations with a more negative safety climate reinforce unsafe work behaviours (e.g. ignoring safety procedures to increase productivity), which are related to occupational accidents and injury (Clarke, 2006). Previous studies have highlighted the connection between positive safety climate and lower accident rates (Siu, Phillips & Leung, 2004; Clarke, 2006; Donald & Canter, 1994).

Dimensions of Safety Climate

Zohar (1980) attempted to introduce organisational characteristics that could distinguish between companies with high and low accident rates. The eight dimensions of safety climate he proposed were: successful safety training, management commitment to safety, status of safety officer, status of the safety committee, level of risk in the workplace, effects of safe conduct on promotion, effect of safe conduct on social status, and effects of required work pace on safety. Later, Brown and Holmes (1986) attempted to validate Zohar's (1980) eight safety climate dimensions model by testing it on 10 manufacturing and production companies in the US. The results of the questionnaires enabled them to narrow down the eight original dimensions to just three factors: management actions, management attitudes, and employee level of risk. DeDobbeleer and Béland (1991) provided further analysis by testing Brown and Holmes' (1986) three-factor model of safety climate. They found strong correlations between managerial concerns and reduced the model to just two factors: managerial commitment and worker's involvement.

Many scholars have conducted safety climate research within the construction sector because of its notorious international safety record (Mohamed, 2002; Glendon & Litherland, 2001; Choudhry, Fang, & Lingard, 2009). One study of the Hong Kong construction industry suggested that managerial commitment and employee involvement were found to be the most significant factors positively affecting safety climate and perceptual safety performance on construction sites (Choudhry et al., 2009). Additionally, research involving 44 Australian construction companies suggested that the major factors influencing safety performance were management and employee commitment to occupational health and safety. (Lin & Mills, 2001).

The Health and Safety at Work Act (2015)

The HSWA (2015) is New Zealand's key piece of occupational health and safety legislation. An important feature of the HSWA (2015) is that the number of duty holders and their respective responsibilities has increased from previous legislative requirements. These duties and the penalties associated with their breach are designed to force New Zealand workplaces to increase their safety performance by improving their safety culture (Worksafe, 2016). The HSWA (2015) aims to drive these cultural changes by making greater levels of managerial commitment and employee involvement mandatory under the new legislation. The duties of a 'person conducting business of undertaking' (PCBU) and officers aim to increase managerial commitment to occupational health and safety.

A PCBU may be a sole trader, a limited partnership, a business in the form of a limited liability company, a partner in a partnership (if the partnership is not a limited partnership), or an entity created by legislation, such as a university (Worksafe, 2016). Under section 36 of the HSWA (2015) a PCBU's primary duty of care is to ensure, so far as reasonably practical, the health and safety of workers, and that other people are not put at risk by its work. This duty promotes greater managerial commitment, as the PCBU and the officers in positions of authority within them are legally required to effectively manage health and safety within the workplaces they control. If a PCBU breaches its primary duty of care they can face penalties of up to five years imprisonment and a \$600,000 fine (Worksafe, 2016).

Under the HSWA (2015) any person that holds a position in a company that allows them to exercise significant influence of the business or undertaking is deemed an officer; therefore, examples may include company directors, partners in a partnership, board members, or CEOs. Section 44 of the HSWA (2015) requires officers to exercise 'due diligence' to make sure the PCBU complies with all its health and safety duties (Worksafe, 2016). This keeps officers proactive and involved in the health and safety practices within their organisation. An officer cannot claim ignorance in regard to health and safety failures within the firm and avoid accountability. If officers breach their duty of due diligence they may face five years imprisonment and a \$300,000 fine (Worksafe, 2016). The duties of the PCBU and officers are designed to make managerial commitment to occupational health and safety a legal requirement under the HSWA (2015).

Managerial Commitment to Health and Safety

Many studies have emphasised the role that managers play in promoting safety in the workplace (Mohamed, 2002; Jaselski, Anderson & Russell, 1996; Zohar, 1980). Heinrich (1931) was the first to state that occupational accidents are symptoms of a lack of managerial commitment to workplace safety; he stated that 98 per cent of accidents were preventable by management. Additionally, Niskanen's (1994) findings from interviews with construction managers and workers suggested that 'humanware' accounted for much of the underlying causes of occupational accidents. 'Humanware' was defined as a function comprised of leadership, fellowship, and the interaction between them. The results indicated that management commitment is responsible for the majority of the humanware problem. Another study conducted within the construction industry suggested that managerial inaction was the leading cause of construction accidents (Abdelhamid & Everett, 2000). Despite the importance placed in literature on managerial commitment to achieving greater safety performance and a more positive safety climate, there is often no agreement on safety roles among owner managers, contractors, and subcontractors on a construction site (Toole, 2002).

Worker's Duties and Involvement

The HSWA (2015) also identifies roles that workers must play in occupational health and safety. The term 'workers' in the HSWA (2015) is defined as any individual who carries out work in any capacity for a PCBU (Worksafe, 2016). In the workplace, workers have duties to take reasonable care for their own health and safety and that of others. Additionally, workers are required by their duty to follow any reasonable health and safety instructions given to them by the PCBU (Worksafe, 2016). If a worker fails to cooperate with any reasonable business health and safety policy or procedure, they could face fines of up to \$150,000. It is hoped that this significant potential fine for breaching their duty will encourage employees to comply with new health and safety practices as they are brought in to reflect the new law changes. The HSWA (2015) also includes a legal requirement on PCBUs to ensure that workers are engaged with health and safety issues that may affect them and are given the opportunity to participate in the continuous improvement of health and safety in their workplace (Worksafe, 2016). This requires the PCBU to have effective and continuous processes for workers to suggest improvements or to raise concerns around health and safety, typically through health and safety representatives or a health and safety committee.

Workers are in direct contact with the hazardous conditions of work and, therefore, have insights of how management's safety policies function in practice (Simard & Marchand, 1997). Consequently, workers can make valuable contributions and improve the organisation's health and safety processes. Holding site or "tool-box" meetings is a common method of involving workers in workplace safety management (Hinze & Raboud, 1988; Harper & Koehn, 1998). Additionally, organisations may wish to increase worker involvement by establishing a safety committee. Safety committees often have members consisting of representatives of the employer, workers, and subcontractors. These committees encourage interaction between the parties and have proven effective in discovering unsafe practices and problems (Lin & Mills, 2001). Discouraging workers from practising unsafe behaviours is a significant factor to decreasing workplace accidents, as unsafe acts of workers and co-workers are the second leading cause of construction accidents (Abdelhamid & Everett, 2000). Despite the benefits to safety performance that employee involvement brings, it is often overlooked or ignored by management (Dawson, Clinton, Bamford & Willman, 1985).

The duties assigned to PCBUs, officers, workers and others in the workplace and the penalties associated with their breach are designed to increase managerial commitment and employee involvement in occupational health and safety. These two factors are targeted by the HSWA (2015) to drive the improvements in national safety culture and safety performance. However, it is important, before proceeding, to acknowledge several other factors identified as possibly contributing to an organisation's safety performance. Older workers are generally cited as having more positive safety attitudes and habits (Siu, Phillips, & Leong, 2003; Gyekye & Salminen, 2009). Smaller firms are generally reported as more at risk of unsafe behaviour than larger firms with access to more sophisticated health and safety advice (Lin & Mills, 2001; Hinze & Raboud, 1988; Holmes, Lingard, Yesilyurt & De Munk, 2000; Wilson & Koehn, 2000). This is necessarily of concern in construction, being an industry largely populated by small firms. Effective training for both safe performance of tasks (Clarke, 2006; Eklöf, 2002; Prussia, Brown & Willis, 2003), as well as training in safety topics and first aid (Stokols, McMahan, Clitheroe & Wells, 2001), is also reported as a factor indicative of better safety performance.

Research Purpose and Method

To reiterate, the purpose of this research is to conduct an exploratory study to examine the attitudes that managers in New Zealand's construction industry have towards occupational health and safety and the Health and Safety at Work Act (2015). Additionally, this paper aims to assess whether managers believe that the increases in managerial commitment and worker involvement required by the new legislation will improve the safety culture and performance within the construction industry. Eight semi-structured interviews were conducted with the purpose of gaining a deeper understanding of the research questions:

- 1. How has the safety culture within the construction industry changed since the introduction of the HSWA (2015)?
- 2. How has the level of managerial commitment changed since the introduction of the HSWA (2015)?
- 3. How has the level of employee involvement changed since the introduction of the HSWA (2015)?
- 4. What are the barriers that inhibit safe work practices within the construction sector?

The qualitative method of interviewing was chosen in order to address the research questions. Participants involved in this study engaged in formal semi-structured interviews. These interviews were guided by the themes within the research questions, however, there was room for deviation if the conversation provided unique perspectives not outlined by the set questions. The rationale behind using semi-structured interviews lies in the fact that they are particularly useful for exploring the participants' attitudes (Richardson, Dohrenwend & Klein, 1965) and it can facilitate comparability by ensuring that all the questions are answered by each respondent (Bailey, 1987). Interviews were arranged at a time and location that suited the participants to accommodate their busy work schedules. The interviews were conducted in a quiet environment, audio taped and later transcribed.

Sample

The eight participants in this study were selected through a purposive sampling method (Silverman, 2013). Participants were either senior or frontline managers that were responsible for overseeing the health and safety functions within their organisations. To be eligible to participate in this study, the managers had to be currently operating and have had at least five years of experience working within the construction sector to ensure they have enough knowledge to accurately account for the differences in the occupational health and safety environment within their organisations and industry pre and post the Health and Safety at Work Act (2015). A mix of managers from differently sized construction companies was desired for comparison in the results of the study. The company size categories were determined by the number of managers and employees working within the organisation at the time of the interviews. Small companies were classified as having between one and nine people, medium companies having between 10 and 50, and large companies having over 100. Managers are given a corresponding letter and number, representing their participant number and company size. This is designed to differentiate the participant's responses within the results section (See Table 1).

Table 1:

	Small Company	Medium Company	Large Company
Participant 1	S1	M1	L1
Participant 2	S2	M2	L2
Participant 3	N/A	M3	L3

Data Analysis

The data for this study were collected from the audio taped interviews and transcribed for analysis. Data analysis was carried out by hand, as there were only a small number of participants within the study. The transcripts were coded by identifying emerging themes within the data relating to the research questions guiding the study.

Results

1. How has the safety culture within the construction industry changed since the introduction of the HSWA (2015)?

Every respondent emphasised that they had felt that the HSWA (2015) had brought changes to the construction industry. Many highlighted that there was a greater awareness surrounding the issue of occupational health and safety.

"There have been a lot of changes. Health and safety is a lot more prevalent, five years ago it wasn't even thought of," – Manager S1.

"The industry has changed a lot. Ever since I've been here there is a massive push for zero harm," – Manager L2.

One manager noted that the new legislation was a motivator to think more positively about occupational health and safety.

"I personally thought health and safety was a pain in the arse, as it took too much time, but at the start of this year I had to change my attitude and say come on, this is the way it is and I need to push it to the guys down the line," – Manager M2.

There was a unanimously positive response to the questions asking whether the new legislation will create safer workplaces and whether individual attitudes around safety affect the practice of safe work behaviour.

"Absolutely will make them safer," – Manager M2.

"They definitely will. Wearing the proper safety gear, earmuffs, knee pads, it'll definitely create safer workplaces," – Manager S1.

Participants within the study highlighted that the new legislation was improving the safety culture within the industry.

"It's becoming more accepted because it's here to stay, people's attitudes toward it are gradually getting better," – Manager S1.

"Year by year it is getting better and better and the trend will get better due to the increased pressure with legislation," – Manager M2.

One participant added that cultural change would increase with health and safety enforcement.

"Worksafe have increased their staff here and around the country so I would expect that they will be visiting the sites more regularly... Until it is enforced it will always be a battle with people," – Manager M2.

2. How has the level of managerial commitment changed since the introduction of the HSWA (2015)?

Responses from managers during the interview process suggested that the HSWA (2015) has forced managers to drive the required health and safety changes in their organisations.

"For me in the office there's a lot of difference in the management, control and monitoring bits and pieces," – Manager M1.

"Senior management have been pushing down through all the management staff the health and safety message," – Manager M2.

"A lot of guys do it (health and safety procedures) for a couple of weeks then it stops, so it's more management driven as much as self driven by the employees," – Manager M3.

Additionally managers felt pressured by the threat of fines to increase their commitment to occupational health and safety.

"From an employer's perspective there is a lot more responsibility when you can be charged within the Act. We probably could have gotten away with it in the past and blamed the employee, but now everybody's in line," – Manager M1.

"They're (the government) implementing it by threatening people, if they didn't have this threat of fines people wouldn't be doing any of the new health and safety stuff," — Manager S1.

However, other responses during the interview process suggested that some managers might be more committed to workplace health and safety than others. All of the small and medium company managers reported that they were not confident in knowing their legal requirements under the HSWA (2015). Those working in larger companies stated that the company had provided them with all the information within the new legislation that related to their job.

"Not confident at all. I don't think many people are. In fact I don't know anyone that is confident that they know all their legal obligations. That's one of the problems," – Manager S1.

"I would say I was 95 per cent sure. The Act's wording changes all the time. So I am reasonably familiar with it, at least what is relevant to us," – Manager L3.

"I'm fairly confident (knowing the health and safety requirements) in what I do. The company provide all the information for us that we need to know of in terms of what the legislation is and what not," – Manager L1.

Additionally, the managers of the large companies indicated that they spent the most time on health and safety per week compared to the managers of the small and medium sized construction companies. Managers S1 and S2 indicated that they would spend one hour per week on occupational health and safety, while managers L1, L2 and L3 indicated that they spent over three hours on occupational health and safety.

3. How has the level of employee involvement changed since the introduction of the HSWA (2015)?

Every manager interviewed indicated that employee involvement was very important to occupational health and safety.

"I think the objective is to make the employee more aware of health and safety," – Manager L3.

All but one participant stated that the HSWA (2015) required them to increase the level of employee involvement in their workplace health and safety processes.

"Employees are more committed now than before. We're doing it all the time now, it's not like something we do once a week, we do it all the time now," – Manager L1.

"Definitely more now after the law change, as they've had to be more involved," – Manager I.2.

Managers S1 and S2 struggled to identify forms of employee involvement in their health and safety systems.

"On every job site now there is a hazard board where people can write up hazards. There are meeting points in case of emergencies, fire extinguishers etc. These things are all new now because of the changes in legislation," – Manager S1.

The managers of medium and larger companies could identify a greater range of formal methods of involving employees in their health and safety systems.

"We have a task analysis that we use so we identify the areas of risk before we start work. The actual guys doing the job fill it in and work out the best way to do the job safely," – Manager M2.

"Employees now identify hazards daily with site checks, and a hazard identification register completed on site daily," – Manager L3.

"We do a toolbox meeting every Monday with our crews on any big issues, so employees can bring up issues with health and safety," – Manager L1.

"There is a health and safety committee with representatives from management and employees," – Manager L3.

Many managers related employee involvement to their level of commitment to occupational health and safety.

"It's got to be driven by the guys, if they don't want to do it then it is going to be them that is affected by it. I think it is very important for them to get it as if they don't understand they won't do it," – Manager M3.

"It's really important, if they're not involved there's no point in doing it. I could give them all the earmuffs and protective boots, but if they turn up to work and don't use it it's pointless," — Manager S1.

Managers M3 and L1 identified that employee involvement was increasing because of the HSWA (2015) and the increased duties and penalties placed on PCBUs, officers and the workers themselves. Manager M3 states that employees are more involved because they have a duty to comply with their company's health and safety.

"... The responsibility has moved down the chain to individuals. They are more liable for their part. It was always up to the boss to make sure it was done, but now there is more responsibility

on the individual as well so the more the individual is aware of that, the more it affects the change," – Manager M3.

"Companies are making sure that these things (employee involvement) are happening because they (managers) are liable now," - Manager L1.

4. What are the barriers that inhibit safe work practices within the construction sector?

A lack of safety knowledge was a prominent barrier identified by managers that inhibited safe work practices.

"The way to reduce the risks is by education. I guess this is our roles as managers," – Manager M1.

"I think education is a big thing, they just think if they fall down they'll be fine," — Manager M3.

In contrast, both managers of the small construction companies identified that their own safety knowledge, rather than the safety knowledge of their employees, was a barrier to safer work practices within their company.

"They say you have to fill out these hazard forms and don't tell you what's right and what's wrong, how much you've got to do. There's no specific guideline of what you've got to do. There are a lot of grey areas," – Manager S1.

"They (the government) should sit down and say come here and I'll explain it to you. There's nothing like that. They say go look it up on the net and read it, who's going to read a five thousand page thing?" – Manager S2.

The managers of the small construction companies within this study both felt that there were not any suitable avenues for them to obtain the relevant information they needed to comply with the new legislation. Manager M3 supports the statements of both small construction company managers, as M3 criticises the way that the government has rolled out the legislation and the lack of quality education available.

"It is the way they have brought out this legislation and they haven't really educated us well. I went to one seminar workshop through Worksafe, but it was the only one worth going to. The rest lack substance and are 50 per cent education. Too much focus on selling a product than that of education," - Manager M3.

Small and medium sized companies often emphasised the significance of the financial costs involved in complying with the new legislation.

"You've got to be price competitive to do the work, if I add on \$500 to do a job because of health and safety I won't get the job," - Manager S1.

"Cost is especially significant... Our wages haven't gone up to reflect all this health and safety that we have to supply," - Manager S2.

"The money that we have tied up in scaffolding is ridiculous... We pay \$4000 a year for tool tagging alone, as well as other associated costs for health and safety so it is built into our prices," – Manager M3.

It is interesting to note that manager M3 acknowledges the greater costs involved with complying with the new health and safety legislation and states that their prices for jobs have

increased to reflect this. However both manger S1 and S2 are reluctant to increase their prices to remain competitive in the market.

Aside from the direct financial costs, many managers also explained that complying with the new health and safety requirements also cost them in time.

"Cost is a massive one, as you've got guys not out there working and attending training courses. They're in classes learning stuff as opposed to out there earning money for the company," – Manager L2.

In addition to competing on cost, the participants in this study noted that the competitive nature of the market also forced them to keep to strict time schedules to complete jobs. Many managers in larger companies identified that these tight timeframes were a barrier to safety performance and safe work behaviours.

"When I first started, you'd go to a job site and just start doing the job straight away. Now there's a lot of paperwork involved in a lot of the work now, before you even start. That's the major difference. It's a time consuming thing," — Manager L1.

"The main problem is keeping the work up to the same speed while implementing the safety requirements of the company," – Manager L2.

However Manager M2 offered a differing opinion.

"I think a lot of people think they haven't got time to do health and safety. If you keep things tidy and do the checks at the start of the day it will keep it safer and actually speed up the job in the end," – Manager M2.

Every manager that mentioned age as a barrier to workplace health and safety performance identified that it is predominantly the older workers within their organisation that hold negative attitudes towards the new safety reforms.

"There is a greater awareness that things have changed, but a lot of older people especially think it's a load of rubbish," – Manager L3.

"The older guys don't want anything to do with it," – Manager M3.

Additionally, two managers highlighted the direct link between the negative attitudes held by the older workforce and their occupational ill health and accident rates.

"It's the older generation who have that mindset of, "she'll be right, let's just do it, it's only gonna take us ten minutes." We have found that these are the guys that are getting injured and hurt," — Manager L1.

"The older guys have got through the years without injury, in saying that... That one [pointing to a workmate] has industrial deafness and the other has a stuffed back," – Manager M3.

The respondents emphasised that the younger workers within their organisation have been quick to adapt to the new ways of working under the HSWA (2015).

"The younger guys have picked it up and run with it there is a couple there that are smart enough to see what it can do, but the others are doing it because we are telling them to do it," – Manager M3.

"It's the newer breed of guys who are buying into health and safety," – Manager L1.

One respondent highlighted that the older members of the workforce had a lot of power within their organisation over younger workers. Therefore, their negative attitudes towards health and safety was identified as a barrier to greater safety performance, as they had greater potential to influence younger workers to adopt their way of thinking.

"The tough man attitude is definitely a barrier. A lot of the guys are intimidated by the older guys. The younger guys who start working with you they will do what an authority figure will say to you. You know, an older guy says to you, "Pick up the asphalt, naah don't worry about your gloves," that tends to happen," – Manager L1.

Discussion and Concluding Remarks

The results from this study suggest that the HSWA (2015) has forced managers in the construction sector to be more proactive and drive the required health and safety changes within their organisation. Respondents often emphasised that the threat of fines due to duty breaches were a key motivator in increasing their commitment to occupational health and safety. Additionally, the findings also suggest that the HSWA (2015) has encouraged managers to increase the level of employee involvement in occupational health and safety practices within their organisations. Every participant indicated that employee involvement is a key driver of safety performance. Seven of the eight participants in this study recognised that the HSWA (2015) required them to increase the level of employee involvement in their workplace health and safety processes.

Every participant identified barriers that inhibit safe work practices within the construction sector and their own organisations. The results from this study dispute the literature's claim that older workers exhibit more positive attitudes towards occupational health and safety than their younger counterparts. Five of the eight participants identified that older workers and their negative attitudes towards health and safety was a significant barrier to positive safety performance within their organisation. In contrast, these same managers reported it has been the younger members of their workforce that have been quick to adapt to the changes under the HSWA (2015).

The findings of this study parallel previous literature, in that participants indicated that a lack of safety knowledge and education was a barrier to achieving greater safety performance within the construction industry. Managers identified that increasing the level of safety knowledge throughout the industry would contribute to improving occupational health and safety statistics. However, some managers have identified that it is currently difficult to access the relevant information they needed to comply with the new legislation.

Participants often mentioned that the HSWA (2015) has increased the financial costs to the business, as it requires them to have more advanced health and safety systems and provide their employees with greater safety equipment and training. These costs may be a significant barrier to many managers, as every participant in the study stated that they are operating in highly

competitive, price sensitive markets. Therefore, the added costs that the HSWA (2015) demands from managers may affect their motivation to comply, as they are currently reluctant to increase their job prices in what is a competitive industry. Many managers stated that complying with the HSWA (2015) also cost them in time, in a market where keeping to strict time schedules to complete jobs was paramount. Managers in larger companies, in particular, identified these tight timeframes as a barrier to safety performance and safety work behaviours, as it motivated workers to cut corners on health and safety to speed up the completion of jobs.

Lastly, this study supports findings from previous literature suggesting that company size may be a factor affecting health and safety performance and motivation. The managers of the small and medium sized companies reported that they were not confident in knowing their legal requirements under the HSWA (2015). This is contrasted with the responses from the managers from the large construction companies, all of whom reported that they were confident in knowing their legal requirements. Additionally, large company managers stated that ensuring their employees had adequate safety knowledge was one of their biggest barriers preventing greater health and safety performance. Managers from the small companies mentioned that safety knowledge was a barrier, but they emphasised that it was their lack of knowledge that was the greatest barrier. These results suggest that larger company managers have been more motivated to gain a better understanding of the HSWA (2015). This increased motivation from managers of the larger construction companies was shown in other aspects than safety knowledge. For instance, the large company managers indicated that they spent more time per week on health and safety than their small manager counterparts. Moreover, they could also identify a greater range of formal methods of involving employees in their health and safety systems.

This study aimed to contribute to the existing occupational health and safety literature by examining the attitudes of managers within New Zealand's construction industry towards workplace health and safety and the Health and Safety at Work Act (2015). Due to time restraints and word limits, this study has been restricted to eight interview participants. Therefore, this small sample size is not reflective of the entire industry. However this exploratory study may provide insights for future quantitative studies and other occupational health and safety research.

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