

Improving Occupational Safety and Health (OSH) Enforcement Among Employers in Manufacturing Sector in Kelantan

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Abstract. Compliance to occupational safety and health (OSH) laws in Malaysia is enforced by the Department of Occupational Safety and Health (DOSH), Ministry of Human Resource. The acts involved are the Occupational Safety and Health Act 1994 (OSHA) and the Factory and Machinery Act 1967 (FMA). Actions were taken against employers who breached the laws are either persuasive or punitive. From the statistics, it is clear that the OSH enforcement officers use more persuasive strategy compared to a punitive strategy, which leads to enforcement deficit. The objective of the study is to study the factors hindering OSH enforcement officers towards imposing punitive action against errant employers. The study used questionnaires developed after a thorough literature review on enforcement factors. The questionnaires were distributed to the selected population, i.e. DOSH Kelantan's officers. The data was analysed using SPSS version 25 software. The study shows that knowledge, understanding and expertise of OSH officers in investigation and preparation of IP followed by officers' attitude towards the preparation of IP and the availability of records, database, procedures and equipment are the prominent factors that have to be taken care of to improve OSH enforcement in Kelantan.

INTRODUCTION

Occupational safety and health (OSH) compliance in Malaysia is enforced by the Department of Occupational Safety and Health (DOSH), an agency under the Ministry of Human Resource (KSM). The OSH enforcement by DOSH is conducted according to 2 main acts, i.e. Occupational Safety and Health Act 1994 (OSHA) and Factory and Machinery Act 1967 (FMA) both of which made it compulsory for employers to ensure safety, health and welfare of workers at the workplace [1, 2].

In carrying out enforcement activities, DOSH has both practised persuasive and punitive strategies. DOSH's enforcement officers use persuasive as well as the punitive process in their enforcement. Still, usually, a persuasive strategy is used more often; therefore, very few individuals or employers who had breached the laws been punished [3].

Figure 1 shows the comparison between persuasive action (directive letters and notices) and punitive action (compound and court case) taken by DOSH from January until November 2017 [4]. From the figure, the ratio between persuasive action to punitive action is 50:1. Table 1 shows that in 2018 (until October), the ratio of persuasive strategy to the punitive strategy taken by DOSH Malaysia is 65:1 [5].

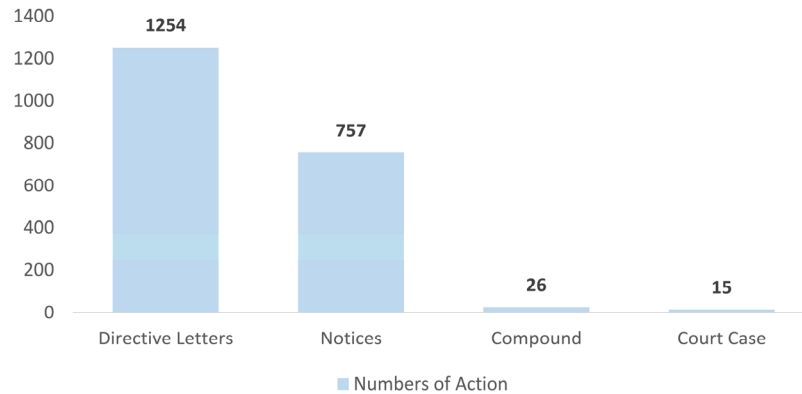


FIGURE 1. DOSH Malaysia took action against errand employers until November 2017 (DOSH, 2017).

TABLE 1. The action was taken by DOSH Malaysia against errand employers in 2018.

	Directive letters	Notice of improvement (NOI)	Notice of prohibition (NOP)	Compound	Court case
Numbers total	39,623	13,670	12,112	787	224
ratio		65,405	65 : 1		1,011

Table 2 shows that in 2018 (until October), DOSH Malaysia took one persuasive action in every 4.4 activities, while punitive action was taken once in every 281 activities [5]. Figure 1, Tables 1 and 2 show us DOSH officers' tendency in using the persuasive strategy compared to punitive strategy.

Too much use of persuasive strategy compared to punitive is a result of lack of enforcement or enforcement deficit which means lack of implementation and enforcement of law [3].

The research is carried out to enhance OSH enforcement in Malaysia by identifying factors that hindering OSH enforcement officers from taking punitive action against OSH law violators.

TABLE 2. Comparison of the strategy used by DOSH Malaysia in its enforcement activities in 2018.

Subject	Persuasive	Punitive
Total numbers of DOSH Malaysia's activities (Enforcement and investigation)	4.4 : 1	281 : 1

RESEARCH METHODOLOGY

The methodology used in the research is as shown in Table 3.

TABLE 3. Research framework.

Literature Review	Identification of enforcement factors that influence the use of persuasive or punitive strategy by enforcement officers.	
	Identification of research population and sample.	
Research Methodology	Development of research questionnaires using LIKERT scales [6]	
	Collecting data through questionnaires.	
Data analysis	Data analysis using SPSS version 25 software.	
	Descriptive Analysis– Identification of enforcement factors that influence enforcement officers' action towards errand employers.	Exploratory Factor Analysis– Analysing the factors in order to find the most important one.

The population chosen in the research is the OSH enforcement officers from the Department of Occupational Safety and Health Kelantan since it meets the criteria of easy to find, suitable location, suitable with available time and the samples are ready to take part in the data collection [7].

RESULTS AND DISCUSSIONS

Questionnaires developed are according to findings from a thorough literature review on enforcement factors. The factors are shown in Table 4. Demographic information of the respondents is, as shown in Table 5. The population at DOSH Kelantan consists of 31 samples. This research managed to get data from 30 samples which satisfies the table for determining the sample size of a general population by Krejcie and Morgan (1970) [11]. The samples represent all the categories (sex, age, experience, education, designation and section).

TABLE 4. Enforcement factors.

No.	Factor	Independent variables	Source
1.	Source	i. Law	Handbook of Criminal Investigation
		ii. Procedures	—
		iii. Records	Professionalizing Criminal Investigation [8]
2.	Quality of officers	i. Knowledge	Theory and Practice of Regulatory Enforcement: Occupational Health and Safety Regulation in British Columbia [3]
		ii. Expertise	
		iii. Understanding	
3.	Current work culture	i. Workload	Theory and Practice of Regulatory Enforcement: Occupational Health and Safety Regulation in British Columbia [3]
		ii. Coaching approach (Compliance support)	
		iii. Opinion that ‘informal sanction’ is enough.	
4.	Attitudes	i. Ability to control emotion.	Skills & Qualities Necessary to Be an Effective Investigator [9]
		ii. Ethical and honest.	Police Chief Magazine - Philosophy of Punishment, Justice, and Cultural Conflict in Criminal Justice [10]
		iii. Avoiding being second-guessed by a third party.	
5.	External factors	i. Relationship with someone in the industry.	Theory and Practice of Regulatory Enforcement: Occupational Health and Safety Regulation in British Columbia [3]
		ii. Low fined imposed by court.	

TABLE 5. Respondents demographic.

	Subject	Percentage
Sex	Male	83.3
	Female	16.7
Age	Below 30 years old	16.7
	31-40 years old	50.0
	41-50 years old	23.3
	Above 51 years old	10.0
	Less than 5 years	6.7
Years of service	5-10 years	40.0
	11-20 years	33.3
	More than 20 years	20.0

TABLE 5. Respondents demographic (Continued...)

	Subject	Percentage
Education	Certificate	26.7
	Diploma	43.3
	Degree	16.7
	Master	13.3
	Director	3.3
Designation	Deputy Director	6.7
	Assistant Director	10.0
	Officers	80.0
	Enforcement	13.3
	Statutory Inspection	13.3
Section	Small and Medium Enterprises	16.7
	Building Construction	10.0
	Health Industry	10.0
	Hygiene Industry	6.7
	Analysis and Process	10.0
	Investigation and Prosecution	6.7
	Promotion	6.7
	Special Risk	3.3

Exploratory Factor Analysis (EFA)

In order to achieve the objective of the research, the data was analyzed using EFA. EFA reduce the data by reducing numbers of item to a few factors [12]. It also determines whether items being analyzed show the same construct or forming new factors [13]. Every variable of the same factor is carefully studied, ranked and labelled accordingly. Reliability test was once again conducted to make sure the new construct is reliable, stable and will not be doubtful to anyone [14]. EFA and reliability test results are shown in Table 6.

TABLE 6. Exploratory factor analysis results.

Factor	Description	Variance	No. of Items	Cronbach Alpha
1	Knowledge, understanding and expertise in investigation and preparation of investigation paper (IP).	20.454	13	0.954
2	Attitudes towards investigation and preparation of IP.	12.776	8	0.931
3	Availability of records and database.	8.662	6	0.827
4	Availability of procedures and equipment.	7.685	4	0.874
5	Knowledge in OSH acts and regulations.	7.307	2	0.895
6	Steadiness of OSH laws.	7.273	3	0.946
7	Coaching (compliance support) approach.	6.093	4	0.706
8	Courses and other related laws.	5.810	2	0.760

TABLE 6. Exploratory factor analysis results (Continued...)

Factor	Description	Variance	No. of Items	Cronbach Alpha
9	Relation and communication with external party.	5.551	2	0.579
10	Tolerance with employers.	5.198	2	0.742

Table 6 shows the ranking of factors hindering enforcement officers from taking punitive action against errand employers when carrying out their enforcement activities. The Cronbach Alpha of 0.6 - 0.7 is taken as the least value to accepted for a reliable item [12]. However, the value of 0.579 for item 9 can be used for analysis [15].

CONCLUSION

In conclusion, the prominent factors that have to be taken care of to enhance OSH enforcement are firstly the knowledge, understanding and expertise of OSH officers in investigation and preparation of IP followed by officers' attitude towards the practice of IP and the availability of records, database, procedures and equipment.

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