Occupational Safety and Health (OSH) Enforcement Officers’ Perception Towards Imposing Punitive Action Against Errand 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 Occupational Safety and Health Act 1994 (OSHA) and Factory and Machinery Act 1967 (FMA). Actions taken against employers who breached the laws are either persuasive or punitive. Persuasive and punitive refer to the type of action taken by the enforcement officers against the errand employers. Making remarks in a log book, giving out directive letters and issuing notices (Notice of Prohibition, NOI and Notice of Improvement, NOI) are considered persuasive whilst opening an investigation paper (IP) for the purpose of offering compound and bringing the matter to court are considered punitive. From the statistics, it is clear that the OSH enforcement officers use more persuasive strategy compared to punitive strategy. The objective of the study is to study the perception of OSH enforcement officers towards imposing punitive action against errand employers. The study used questionnaires developed after a thorough literature review on enforcement factors. The questionnaires were distributed to selected population i.e. DOSH Kelantan’s officers. The data was analysed using SPSS version 25 software. The study shows that generally the respondents are in favour of imposing punitive actions against errand employers and the most paramount factors in doing so is the knowledge, understanding and expertise in conducting investigation and preparing investigation paper (IP).

1. 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 workplace [1][2].

Among DOSH’s enforcement objective are to reduce fatality rate and accident rate at places of work to 4.36 per 100,000 workers and 2.53 per 1,000 workers by the year 2020 respectively [3]. Knowledge and safety practice is important because it can create safety environment in workplace [4]. Figure 1 shows rates of accident for Malaysia from 2004 to 2016.
In carrying out enforcement activities, DOSH has both practiced persuasive and punitive strategies. Enforcement officers use persuasive as well as punitive strategy in their enforcement work but usually persuasive strategy is used more often, therefore very few individuals or employers who had breached the laws been punished. Furthermore, punishment or sentenced imposed are very little. This situation happened to repeating offenders too [5].

Figure 2 show that the ratio of persuasive action (directive letters and notices) to punitive action (compound and court case) taken by DOSH in 2017 (until November) is 50:1 [6].
Table 1. Action taken by DOSH Malaysia against errand employers in 2018 (until October).

| Subject                        | Directive Letters | Notice of Improvement (NOI) | Notice of Prohibition (NOP) | Compound | Court Case |
|--------------------------------|-------------------|-----------------------------|-----------------------------|----------|------------|
| Numbers                        | 39,623            | 13,670                      | 12,112                      | 787      | 224        |
| Total                          | 65,405            |                             |                             |          | 1,011      |
| Ratio                          | 65 : 1            |                             |                             |          |            |

Table 1 shows that in 2018 (until October), the ratio of persuasive strategy to punitive strategy taken by DOSH Malaysia is 65:1 [7].

Table 2. Comparison of strategy used by DOSH Malaysia in its enforcement activities in 2018 (Until October).

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

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 [7]. These figures (Figure 2, table 1 and table 2) show us DOSH officers’ tendency in using persuasive strategy compared to punitive strategy.

The research is carried out in order to study OSH enforcement officers’ perception towards imposing punitive action against errand employers. In order to do so, the research must first identify enforcement factors that influence OSH enforcement officers’ decision in taking action against errand employers (persuasive or punitive).

2. Research Methodology
The methodology used in the research is as showed 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. |
|-------------------|-------------------------------------------------------------------------------------------------|
| Research Methodology | Identification of research population and sample. Development of research questionnaires using LIKERT scales [8] Collecting data through questionnaires. Data analysis using SPSS version 25 software. |
| Data Analysis     | Descriptive Analysis– Identification of enforcement factors that influence the use of persuasive or punitive strategy by enforcement officers. Descriptive Analysis– Analyzing officers’ perception towards punitive action against errand employers. Exploratory Factor Analysis– Analyzing the factors in order to find the most important one. |

Population chosen in the research is the OSH 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 [9].

3. Results and Discussions
Questionnaires developed are according to findings from a thorough literature review on enforcement factors. The factors are shown in table 4.
Table 4. Enforcement factors.

| No. | Factor          | Independent Variables | Source                                                                 |
|-----|-----------------|------------------------|------------------------------------------------------------------------|
| 1.  | Source          | i. Law                 | Handbook of Criminal Investigation – Professionalizing Criminal Investigation [10] |
|     |                 | ii. Procedures         |                                                                        |
|     |                 | iii. Records           |                                                                        |
| 2.  | Quality of officers | i. Knowledge          | Theory and Practice of Regulatory Enforcement: Occupational Health and Safety Regulation in British Columbia [5] |
|     |                 | ii. Expertise          |                                                                        |
|     |                 | iii. Understanding     |                                                                        |
| 3.  | Current work culture | i. Workload           | Theory and Practice of Regulatory Enforcement: Occupational Health and Safety Regulation in British Columbia [5] |
|     |                 | ii. Coaching approach  |                                                                        |
|     |                 | (Compliance support)   |                                                                        |
| 4.  | Attitudes       | i. Ability to control emotion. | Skills & Qualities Necessary to Be an Effective Investigator [11] |
|     |                 | ii. Ethical and honest. | Police Chief Magazine - Philosophy of Punishment, Justice, and Cultural Conflict in Criminal Justice [12] |
|     |                 | 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 [5] |
|     |                 | ii. Low fined imposed by court. |                                                            |

Demographic information of the respondents is as shown in table 5.

Table 5. Respondents demographic information.

| 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       |
| Years of service         |            |
| Less than 5 years        | 6.7        |
| 5-10 years               | 40.0       |
| 11-20 years              | 33.3       |
| More than 20 years       | 20.0       |
| Education                |            |
| Certificate              | 26.7       |
| Diploma                  | 43.3       |
| Degree                   | 16.7       |
| Master                   | 13.3       |
| Designation              |            |
| Director                 | 3.3        |
| Deputy Director          | 6.7        |
| Assistant Director       | 10.0       |
| Officers                 | 80.0       |
| Section                  |            |
| Enforcement              | 13.3       |
| Statutory Inspection     | 13.3       |
| 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        |
The population at DOSH Kelantan consists of 31 samples. This research managed to get data from 30 samples which satisfies the table for determining sample size of a known population by Krejic and Morgan (1970) [13]. The samples represent all the categories (sex, age, experience, education, designation and section).

| Factor                      | Item   | SD | D  | N  | A  | SA | Min | Remarks |
|-----------------------------|--------|----|----|----|----|----|-----|---------|
| Law                         | Item 1 | 0  | 3.3| 33.3| 50 | 13.3| 3.73| High    |
| Item 2                      | 3.3    | 3.3| 23.3| 63.3| 6.7| 6.7 | 3.67|         |
| Item 3                      | 0      | 3.3| 33.3| 56.7| 6.7| 6.7 | 3.67|         |
| Procedure                   | Item 4 | 0  | 6.7| 26.7| 63.3| 3.3| 3.63|         |
| Item 5                      | 0      | 20.0| 40.0| 40.0| 0  | 0   | 3.20|         |
| Item 6                      | 0      | 6.7| 36.7| 56.7| 0  | 0   | 3.50|         |
| Records and Equipment       | Item 7 | 0  | 6.7| 30.0| 63.3| 0  | 3.57| Moderate|
| Item 8                      | 0      | 3.3| 46.7| 50.0| 0  | 0   | 3.47|         |
| Item 9                      | 3.3    | 13.3| 40.0| 43.3| 0  | 0   | 3.23|         |
| Item10                      | 3.3    | 20.0| 23.3| 53.3| 0  | 0   | 3.27|         |
| Item11                      | 0      | 6.7| 30.0| 63.3| 0  | 0   | 3.57|         |
| Item12                      | 10.0   | 3.3| 46.7| 40.0| 0  | 0   | 3.17|         |
| Knowledge                   | Item13 | 3.3| 0   | 20.0| 73.3| 3.3| 3.73| High    |
| Item14                      | 3.3    | 3.3| 23.3| 63.3| 6.7| 6.7 | 3.67|         |
| Item15                      | 3.3    | 3.3| 23.3| 66.7| 3.3| 3.3 | 3.47| Moderate|
| Item16                      | 3.3    | 6.7| 33.3| 53.3| 3.3| 3.3 | 3.47|         |
| Item17                      | 0      | 3.3| 13.3| 80.0| 3.3| 3.3 | 3.83| High    |
| Item18                      | 0      | 3.3| 10.0| 83.3| 3.3| 3.3 | 3.87|         |
| Item19                      | 0      | 16.7| 26.7| 56.7| 0  | 0   | 3.40| Moderate|
| Understanding               | Item20 | 0  | 3.3| 23.3| 56.7| 16.7| 3.87| High    |
| Item21                      | 0      | 6.7| 30.0| 60.0| 3.3| 3.3 | 3.60|         |
| Item22                      | 0      | 13.3| 40.0| 43.3| 3.3| 3.3 | 3.37|         |
| Expertise                   | Item23 | 3.3| 10.0| 30.0| 46.7| 10.0| 3.50| Moderate|
| Item24                      | 3.3    | 10.0| 20.0| 66.7| 0  | 0   | 3.50|         |
| Item25                      | 3.3    | 6.7| 26.7| 60.0| 3.3| 3.3 | 3.53|         |
| Item26                      | 3.3    | 6.7| 23.3| 60.0| 6.7| 6.7 | 3.60|         |
| Item27                      | 3.3    | 0   | 33.3| 56.7| 6.7| 3.3 | 3.63|         |
| Item28                      | 3.3    | 0   | 16.7| 80.0| 0  | 0   | 3.73| High    |
| Item29                      | 3.3    | 6.7| 30.0| 60.0| 0  | 0   | 3.47| Moderate|
| Item30                      | 6.7    | 13.3| 36.7| 40.0| 3.3| 3.3 | 3.20|         |
| Enforcement Style           | Item31 | 10.0| 0   | 13.3| 53.3| 23.3| 3.80| High    |
| Style                       | Item32 | 13.3| 10.0| 43.3| 30.0| 3.3 | 3.00|         |
| Item33                      | 10.0   | 3.3| 20.0| 53.3| 13.3| 3.57|         |
| Item34                      | 16.7   | 16.7| 40.0| 20.0| 6.7| 2.83|         |
| Attitude                    | Item35 | 10.0| 26.7| 36.7| 23.3| 3.3 | 2.83|         |
| Item36                      | 0      | 16.7| 46.7| 30.0| 6.7| 3.27|         |
| Item37                      | 6.7    | 33.3| 36.7| 20.0| 3.3| 2.80| Moderate|
| Item38                      | 10.0   | 20.0| 40.0| 26.7| 3.3| 2.93|         |
| Item39                      | 6.7    | 16.7| 40.0| 23.3| 13.3| 3.20|         |
| Item40                      | 0      | 6.7| 50.0| 40.0| 3.3| 3.40|         |
| Item41                      | 0      | 6.7| 26.7| 46.7| 6.7| 3.40|         |
| Item42                      | 10.0   | 13.3| 53.3| 23.3| 0  | 0   | 2.90|         |
| Item43                      | 6.7    | 23.3| 60.0| 10.0| 0  | 0   | 2.73|         |
| Item44                      | 0      | 10.0| 26.7| 50.0| 13.3| 3.67| High   | Moderate|
| External Factors            | Item45 | 3.3| 6.7| 56.7| 23.3| 10.0| 3.30| Moderate|
| Item46                      | 0      | 13.3| 66.7| 13.3| 6.7| 3.13|         |

*SD: Strongly disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree

Min score are represented by Low (1-2.33), Moderate (2.34-3.66) and High (3.67-5.00) [14]. There are 11 min which score High. The rest are Moderate and there is no Low min score.
3.1. Exploratory Factor Analysis (EFA)

EFA is used to reduce data by reducing numbers of item to a few factors [15]. It can also be used to determine whether items being analyzed show the same construct or forming new factors [16]. Every variable of the same factor is carefully studied and labelled accordingly. Table 7 shows the descriptions of the factors that have been identified.

| Factor | Description                                                                 | No. of Items |
|--------|-----------------------------------------------------------------------------|--------------|
| 1      | Knowledge, understanding and expertise in investigation and preparation of IP | 13           |
| 2      | Attitudes towards investigation and preparation of IP                        | 8            |
| 3      | Availability of records and database.                                        | 6            |
| 4      | Availability of procedures and equipment.                                    | 4            |
| 5      | Knowledge in OSH acts and regulations.                                       | 2            |
| 6      | Steadiness of OSH laws.                                                      | 3            |
| 7      | Coaching (compliance support) approach.                                      | 4            |
| 8      | Courses and other related laws.                                              | 2            |
| 9      | Relation and communication with external party.                              | 2            |
| 10     | Tolerance with employers.                                                    | 2            |

Table 7 show the ranking of factors in influencing enforcement officers in using punitive action when carrying out their enforcement activities.

4. Conclusion

In conclusion, the respondents generally supportive in imposing punitive action against errand employers. The enforcement factors that influence the most in this action is knowledge, understanding and expertise in carrying out investigation and preparation of IP, followed by officers’ attitude towards carrying out inspection and preparing IP and readiness of records and database.

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