CHAPTER 4 – RESULT AND FINDING

4.1 INTRODUCTION

Workplace health and safety representatives and union members should work towards identifying violent hazards in the workplace and instituting policies to curb violence. Workers should identify whether violence is a concern, who is affected, the extent of the problem and determine the employer's attitude towards the issue (Firth 1997).

Violent incidents should be included as part of health and safety inspections or audits in the workplace. By assessing violent incidents health and safety committee members can work towards implementing preventative strategies to defuse violence (ibid.).

Conducting a survey of workers to assess where violence is prevalent in the workplace and how much of a threat it is to workers is an effective method for assessing workplace violence. It is helpful to have management's co-operation in conducting a workplace survey. Management, after all, will be part of the solution (ibid.).

Establishing a workplace violence sub-committee comprised of heath and safety representatives and union members is a good idea. This sub-committee can be responsible for creating a questionnaire to distribute to workers. Once the survey has been conducted, the sub-committee, along with other health and safety representatives, should assess the survey to determine if violence is a risk, what the causes are and what measures can be taken to eliminate violence from their workplace. A series of

recommendations should be formulated, which should then be presented to management. Health and safety representatives should next work co-operatively with management to develop policies and guidelines regarding workplace violence specifying such measures as changes in work organisation, staffing and education all directed towards reducing the threat of violence in the workplace (ibid.).

The above paragraphs essentially discussed the issue of identifying problems in workplace. Which bring us to the objective of this chapter that is to provide the results and the findings of this research. The findings presented here are based on the theories presented in chapter 2 and 3.

4.2 ORGANISATION STRUCTURE

The finding of research shows that only certain department or agencies have managerial function on OSHH in the Malaysian Army. They are Medical Directorate under Armed Forces Headquarter, Logistic Command, Human Resource Department and individual Directorates under the Army Headquarter. Where else PSTP under the civilian organisation of MINDEF support the Malaysian Armed Forces in term of research and development.

From the roles listed at paragraph 2.3.1.1, implied that Medical Directorate is the main agency that is responsible for the OSHH issues in the Malaysian Army. From the interviewed with the Medical Directorate, found that its established organisational structure concentrate more on the health aspect of the soldiers and its surroundings environment (hygienic). They

normally do not venture into occupational safety hazards aspect since they do not have any specialist in that field.

Resources in term of equipment are very limited and some types are insufficient. However the Directorate is planning to procure more medical equipment when funds are made available.

At present, nearly 100% of the approved establishment of doctors have been filled. The Medical Directorate indicated to us that the ratio of doctors to number of soldiers is high, in comparison to other advance countries. The current numbers of doctors is sufficient to meet the requirement of taking care of our soldiers' health. However, Medical Directorate cannot spare any doctor to carry out research and development on OSHH on a full time basis.

The interviewee from Logistic Command stated that the manpower and OSHH equipment in each of the ammunition and explosive field units were not sufficient. Administrative effort has been taken to increase the required manpower and equipment for these field units. The currents Malaysian Army explosive directives are adequate and cover most of the safety aspect. Most of the safe procedures regarding explosives were adapted from the NATO publications. However there is still room for improvement, especially on chemical danger hazard " nitro-glitenin explosive ".

Currently Logistic Command does not have any Research and development cell to do research on OSHH pertaining to ammunition and explosive. The interviewee indicated that Pusat Sains dan Teknologi

Pertahanan (PSTP) should be responsible for Research and Development on OSHH pertaining to ammunition and explosive for the Malaysian Army.

From the interview, PSTP has indicated that they have the resources and expertise to conduct the research on OSHH. For any research on OSHH where they do not have the resources and expertise, they have the necessary mean to outsource it. To date there have been no request from the Malaysian Army for PSTP to do any OSHH research. Currently the utilisation of PSTP is more towards accident analysis.

The research shows that the Human Resource department in the Army Headquarter is structured similar to a typical commercial corporate organisation. However, the main difference between the corporation's human resource and the Malaysian Army 's human resource is that it does not have the responsibility or tasks to look into OSHH aspects.

The research found that the various Directorates were responsible to formulate the policy, plan and tactical and technical doctrine for their particular corps. They are also responsible in defining the safety regulation and procedure and implementing the safety procedure by their respective Corps. Appendix B is an example of the organisation structure of one of the directorate. As for procurement of new equipment or system that need to be introduced into the Malaysian Army, the sponsoring Directorate is responsible to produce the general staff requirement. The general staff requirement should include the specification of all safety requirement of the equipment.

No. 2 Royal Armour Regiment, Royal Artillery School and Armed Forces Hospital, Port Dickson do not have any committees to enforce and manage OSHH issues. Although there are no such OSHH committees, found that those Commanding Officers are held responsible to ensure their personnel observe the various safety procedures, which are issued by the various Directorates and equipment manufacturers.

The Armed Forces Hospital in Port Dickson which have a staff of three doctors is responsible in providing medical service for more than 15 Army units in the vicinity. From the interview, it was found that the number of doctors are not sufficient to provide the additional medical service coverage needed for OSHH issues for all the army units in Port Dickson.

From the pervious chapters, we can conclude that the organisation of the Malaysian Armed forces is based on a decentralised concept. For example the Medical Directorate, PSTP and the Army Headquarter are separate entity, meaning there is no unity of command with regard to the subject of OSHH in the Malaysian Amy. This research has shown that there is no one-stop agency that handle OSHH in the Malaysian Army.

Since there is no one-stop agency, the aspect of OSHH's planning, organising, leading and controlling in the Army is found to be ineffective and inefficient. Hence, it has caused the lack of standardisation and commitment on OSHH enforcement. Resolutions of any OSHH issues in the Malaysian Army were reactive in nature. There is no focus in controlling and reducing OSHH in the Malaysian Army.

4.3 STRATEGY, POLICY, AND ACTION PLAN

Strategy provides the organisation with the direction it needs to attain its vision. It offers specific goals, objectives and action plans to expedite its vision. In this research found that the Army does not have any strategies with regard to OSHH issues.

Policy provides the guidelines for the leadership to think in a specific direction (Robbins & Coultar 1996). Policy established parameter for the decisions maker rather than specifically stating what should or should be done. There were no specific policies on OSHH found in the Army during the research. Most of policies found at Directorates and units were more related to the overall safety usage of the equipment rather than on OSHH aspect. This is because the Directorates and units are more concern with the safety procedures on the usage of the equipment.

Action plan will implement the strategy by defining specific task, actions and policy that must be developed (ibid.). It identifies the responsible parties on departments, estimate cost and establish a committee to make resources available. Research found that there are no specific OSHH action plans drawn up by the various decentralised OSHH's agencies

Since there is no one-stop agency, these various decentralised OSHH's agencies has created a non-focus scenario. No organisations in the Army realised the importance of the need to produce the OSHH's strategy, policy and action plan. Without the strategy, the Army cannot formulate and implement OSHH's specific goal, objective and action plan. Without OSHH's

policies, the various level of management in the army will not have any directions to follow. As a result of the above, decisions making pertaining to OSHH will be left to the discretion of the lower level of management. The lack of strategy and action plan has caused the Army incapable to develop and identify the responsible parties or departments to handle the OSHH.

4.4 STATISTIC OF INJURIES IN THE MALAYSIAN ARMY

Ser	Type of Injury	1995	1996
1	Road Accident	578	548
2	Sport	9	12
3	Parachute Operation	8	18
4	Training	38	33
5	Operation	7	7
6	United Nation Peace Keeping Operation	16	8
7	Others	47	21
	Total	703	647

Source: Medical Directorate

Table 4– 1 - Injuries in the Malaysian Army

Table 4-1 was compiled from the monthly return submitted by the various formations in the Army. Medical Directorate has categorised the injuries into seven types that are road accident, sport, parachute operation, training, operation, United Nation Peacekeeping Operation and other injuries. Based on the current force level of 80,000 personnel the figure showed a small percentage of injuries being reported that is 0.8 %. Out of this

percentage, 0.7% are due to road accident injuries. Therefore, only 0.1 % may be due to occupational hazard. This can be interpreted that the number of occupational hazard occurrences in the army is negligible. The question here, is the statistic reliability. Does all army units submit the required return, does it include all type of injuries? From the interview conducted, we were make to understand that some units do not sent their monthly return promptly and minor injuries were not reported. It can be said that the data obtained from Medical Directorate is not reliable as a quantitative measurement. Although not reliable, these figures do provide useful input for this research. It established that occupational hazards do occurred in the Army and there is an organisation that collect OSHH data.

4.5 SOURCES OF HAZARDS

In Chapter 3, we have discussed in great detail of the 10 categories of hazard and how they effect the health and safety of personnel in the Army. From the various interviews and discussions conducted with Medical Directorate, focus group and units, they were all in agreement to the various type of sources of hazards as explained at paragraph 3.3. Table 4-2 summarise the interviews and discussion conducted on the sources of hazards. However this research cannot substantiate the various categories with medical proof in the Army context. This is because there are no medical investigations or scientific researches being carried out for each categories of the hazard.

Corp.	Task	Hazards									
		Stress	Acoustic Energy	Temperature extreme	Physical Trauma	Vibration	Shock	Radiation	Oxygen Deficiency	Biological	Chemical
Infantry	Fighting Arm	✓	✓	✓	✓	✓	✓			✓	✓
Armour	Combat Support Arm	✓	✓	✓	✓	✓	✓		✓	✓	✓
Signal	Combat Support Arm	✓	✓	✓	✓	✓	✓	✓		✓	✓
Engineer	Combat Support Arm	✓	✓	✓	✓	✓	✓			✓	✓
Artillery	Combat Support Arm	✓	✓	✓	✓	✓	✓		✓	✓	✓
Special Service	Fighting Arm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Intelligence	Combat Support Arm	✓	✓	✓	✓	✓	✓			✓	✓
Military Police	Service Arm	✓	✓	✓	✓	✓	✓			✓	✓
Supplies & Transport	Service Arm	✓	✓	✓	✓	✓	✓			✓	✓
Ordnance	Service Arm	✓	✓	✓	✓	✓	✓			✓	✓
EME	Service Arm	✓	✓	✓	✓	✓	✓	✓		✓	✓

Source: Research Interviews and discussions

Table 4-2 - The Various Hazard Faces by the Malaysian Army

4.6 TRAINING

The research did not find any subject on OSHH being taught to any individual in the army. According to Medical Directorate, their training concentrate on human health. They do not conduct any OSHH training for the Malaysian Army. To date no Malaysian Army personnel has been sent for course, seminar, or training in OSHH. It is concluded that the Army lacks the technical knowledge and know-how on the subject of OSHH.

4.7 AWARENESS

4.7.1 Communication

Effective communication within the organisation will bring awareness among all employees of the organisation on its mission, vision and objectives. It can be achieved through publication such as periodical newsletter, magazine, dialog and seminar. After reviewing the various Army's periodicals, it was found that these periodicals mostly concentrated on the operations, training, administration and social and family activities of the Army. The examples of Army's periodicals being reviewed were Patriot, Berita Tentera Darat and Sorotan Darat. These periodicals do not contain any news or awareness on the OSHH. During the research we researchers could not find any dedicated OSHH magazines produced by the Army which is similar to the Royal Malaysian Air Force OSHH magazine "*RMAF Safety Magazine*".

4.7.2 Safety Campaign

From the research finding, the various safety campaign conducted by the Army are focused to road accident, no smoking, balance diets, drug abuse and Total Quality Management. To date there has been no large-scale campaign launched by the Malaysian Army on the awareness of OSHH.

4.7.3 Dialogue

There are many types of dialogues in the army today, for example Officer Day, Senior Rank Day and Senior Officer Day dialogues. However, these dialogues concentrated on the operations, training, logistic and

religious issues. There are no dialogues that specifically discuss the subject of OSHH.

4.7.4 Level of Awareness

The soldiers in the Army are fully aware of the immediate danger if safety regulation is not followed. However they are not aware of the long-term effect of OSHH.

4.7.5 Reactive Nature

From the interview conducted, the management is only reactive in nature. They only response to the OSHH when an accident or incident happen. In other words they cure the symptom but not the cause of the problems.

The means of creating awareness through publication, safe campaign, dialogue, and magazine are readily available in the Army. However, the Malaysian Army has not fully utilised the full potential of these means to create awareness of OSHH amongst its personnel. Publicity campaign can raise awareness about OSHH issues. OSHH can be promoted by disseminating information in leaflets, newsletters, publishing articles in army publications and hold seminars on the issues to make all army personnel aware of the extent of the problem. Safety management is not solely management's responsibility but every individual must share the responsibility to prevent OSHH. The more widely the OSHH issues is made aware, the more likely progressive action will be taken to address the OSHH.

4.8 ENFORCEMENT AND INSPECTION

The Inspectorate Division of the army Headquarter is responsible for checking out the operational readiness of all army units. Beside that the army units are subjected to administrative inspection by their Brigade and Division Headquarter, medical inspection by the senior medical officer, ammunition and explosive inspection, CIV inspection and specialist inspections by the Army Logistic Command. Only the medical inspections and the ammunition and explosive inspection address the OSHH.

From the interviews conducted, it was found that there were no safety officers or committees establish in the unit level to look into OSHH enforcement or inspection. It was reported that Medical officers do not have the authority and enforcement power to implement the OSHH. The case given in the interview to illustrate this was the Army's directive to train an intake of 2000 recruits. It was reported that the Army Recruit Training Centre in Port Dickson did not have enough facilities (rooms and toilets) to accommodate an intake of 2000 trainee. Medical Directorate stated that these limited facilities will pose a safety and health hazard to the recruits. However medical Directorate can only advise the training institution with regards to the safety and health hazard but do not have the authority to stop or change the directive. Basically, Medical directorate does not have the enforcement authority to interfere or object in any Army activities base on health and safety hazard alone.

The research found that there are adequate policy on the enforcement and inspection pertaining to the handling of explosive and ammunition. Where else for the other OSHH issues, there is inadequate enforcement and inspection. Most of the inspections and enforcement carried out by various agencies tend to focus on the administrative and operational readiness of the army's units.

4.9 COMPENSATION

The process of compensation in the Malaysian Army is laid in the instruction KP/G - CSM/1/1(KEB) / 6759 dated 15 July 97. (Refer to Appendix C.) This instruction is found to be very comprehensive. It provides details on the condition for benefit, procedure and process of the request of compensation. The rates of compensation are as follows:

a.	Minor injury	-RM 600.00
b.	Major injury	-RM 4,000.00
c.	Major injury with permanent disablement	-RM 9,000.00
d.	Major injury with lost of sight, lost of limbs or paralyse	-RM21,000.00
e.	Death	-RM18,000.00

All the above compensations are decided through the Board of Inquiry and the medical board.

4.10 OSHH RESEARCH AND DEVELOPMENT

Most of the Research and Development of OSHH in the Malaysian Army were Master in Public Health theses done by Army's doctors. These researches were very specific field of study. As mentioned earlier the Medical Directorate does not have permanent Research and Development doctors. Despite this limitation they are trying to pool some doctors to study the effect of Malaria and common cold.

With regards to industrial safety, the Army does no have the capabilities to do any research. They have to rely heavily on PSTP. From the PSTP's interview we researchers found that they currently do not carry out any research on subject of OSHH. According to PSTP, the type of research carried out by them is determined by the request from the Services. To date, no request has been received from the Malaysian Army to conduct research on OSHH matter.

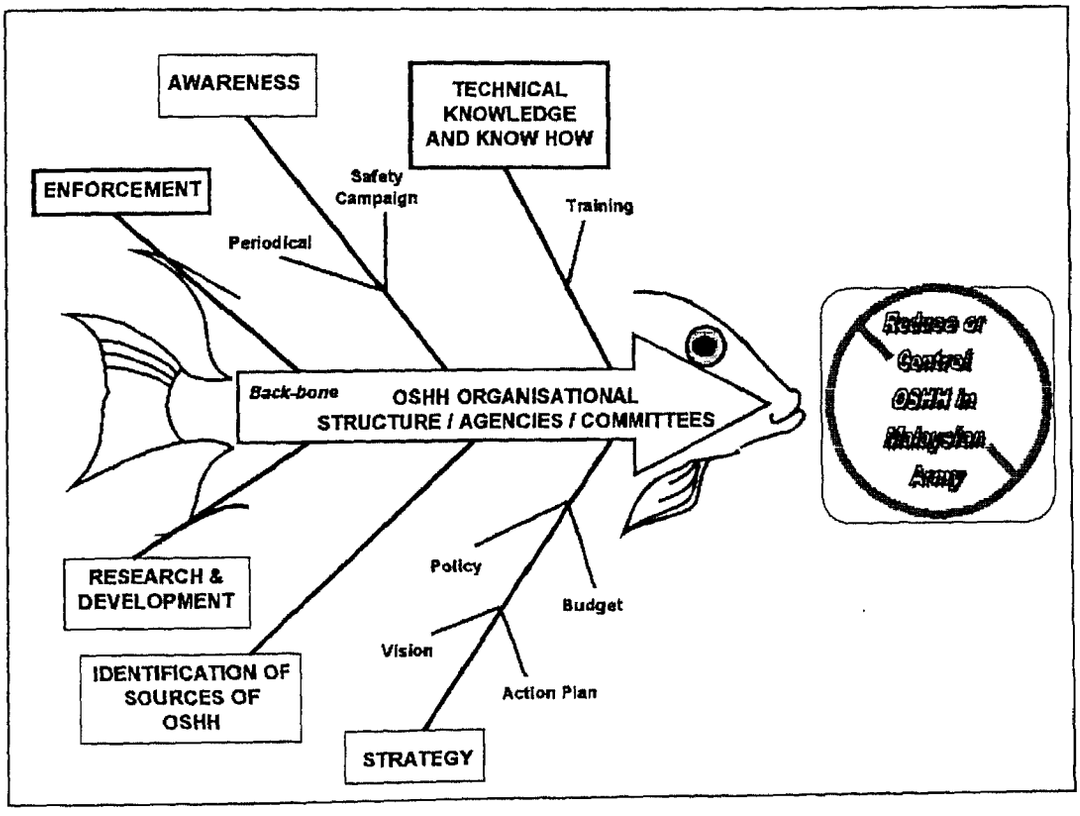
The OSHH Research and Development in the Army is very limited. It can say that the Research and development is done haphazardly. Although in the Ministry of Defence provide the mechanism for research and development through PSTP, the Malaysian Army has not request for a detail research into OSHH issues. This may be due to the lack of strategy and focus by the Malaysian Army to address the issue OSHH's research and development.

4.11 FINAL ANALYSIS

In our attempt to achieve our objectives stated in chapter 1, this study have analysed the components of Organisation structure, Strategy, Policy,

Action Plan, Sources of Hazard, Awareness, Enforcement and Inspection, Training, Compensation and Research and Development.

From the above paragraph, we researchers have attempted to analyse these components independently to answer the question of why, when, what, which, where and how. This approach has resulted in quite a shallow analysis because these components are interrelated and dependent to each other. In the final analysis, we now try to analyse the finding of this research by the interrelationship of each of component as a complete analysis using the fish-bone model approach.



Source: Research Finding

Figure 4-1 Fish Bone Model of OSHH Analysis

Figure 4-3 shows the Fish Bone Model use in the final analysis of our research. The aim of this final analysis is to group together the relevance components or areas that can influence or aim to reduce control OSHH in the Malaysian Army.

Lets start with the backbone of the model that is the organisation structure of the OSHH for the Malaysian army. By having necessary OSHH agency and safety committees will determine what OSHH to do, who is to do them, how the tasks are grouped, who report to whom and what level of decision to be made on the OSHH matters. The efficiency and effectiveness of this backbone is very dependent towards other components such as strategy, technical knowledge, identification of OSHH, enforcement, awareness and Research and development. An effective backbone will also influence the efficiency of the above components. What we have here is the phenomena of " chicken and egg " problem.

Likewise each of the components of the fish bone model cannot stand on its own. The effectiveness of each component is very dependent or influenced by the other components. For example, technical knowledge component will influence the Strategy component i.e. without sound technical knowledge on OSHH, the efficient and effective OSHH strategy cannot be formulated. Proper enforcement to provide indicator to management to initiate the necessary action plan to overcome the OSHH problems. Effective enforcement cannot be initiated when there is no awareness of the problem areas. Therefore, the required indicator to prompt management to initiate formulate strategy will not exist. Taking another example, there is

awareness, technical knowledge and enforcement, however there is no Research and Development. Then the strategy formulated may not be effective enough to solve the problem.

By relating this model, we can now see the weakness more clearly. The Malaysian Army on the subject of OSHH does not have the organisation structure for the solution of OSHH. Basically the current agencies that deal with OSHH are not united and integrated to formulate effective and efficient strategy to reduce and control OSHH in the Malaysian Army.

This structure is further aggravated by the lack of awareness, inadequate Research and development effort and commitment to deal with OSHH in the Army. The Army is weak in all of the components of the fish-bone model. The magnitude of OSHH in the Malaysian Army cannot be ascertained because of overall weaknesses in the components of the model. In conclusion, we can say the issue of OSHH in Malaysian Army from management perspective is weak.