

CHAPTER 4

RESULTS

4.1 Response Rate

From a total of 250 questionnaires which has been distributed to the employees of the three selected SMI companies, only 205 were completely filled and the response rate was 82% which represented the work population of the 3 selected SMI companies.

4.2 Socio Demographic Characteristics

Of the 205 respondents, 41.5% (85) was male and 58.5% (120) was female (Figure 4.1) where mean age for the respondent was 34.95 ± 7.14 years old with minimum age was 20 years old and maximum age was 55 years old.

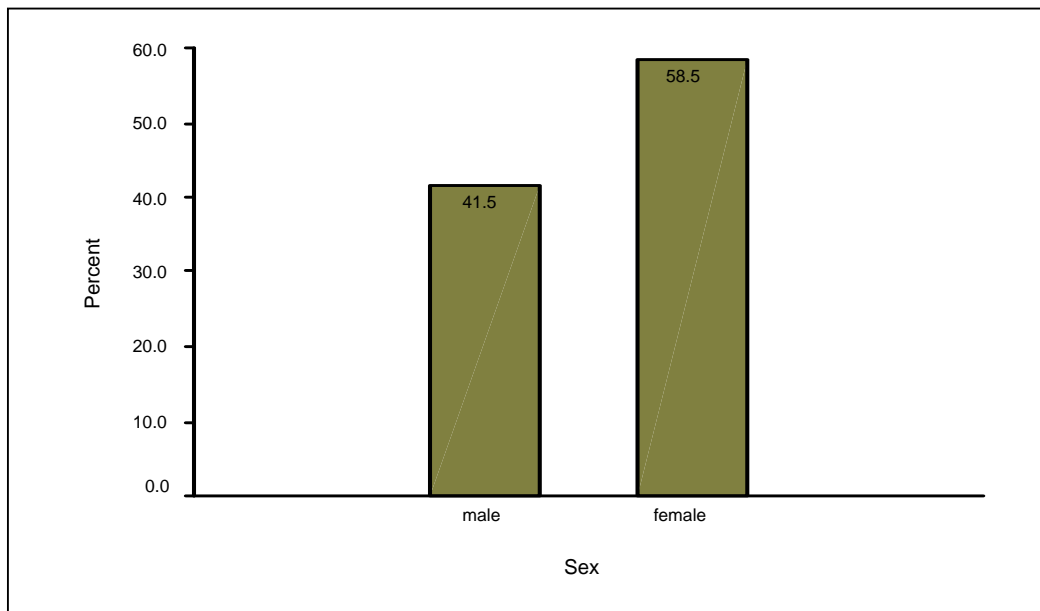


Figure 4.1: Percentage Vs Sex Among The Workers In The 3 Selected SMI Companies

Majority of the respondents (91.2%) were Muslim Malay and only about 8.8% was non Muslim and non Malay (Figure 4.2 and Figure 4.3).

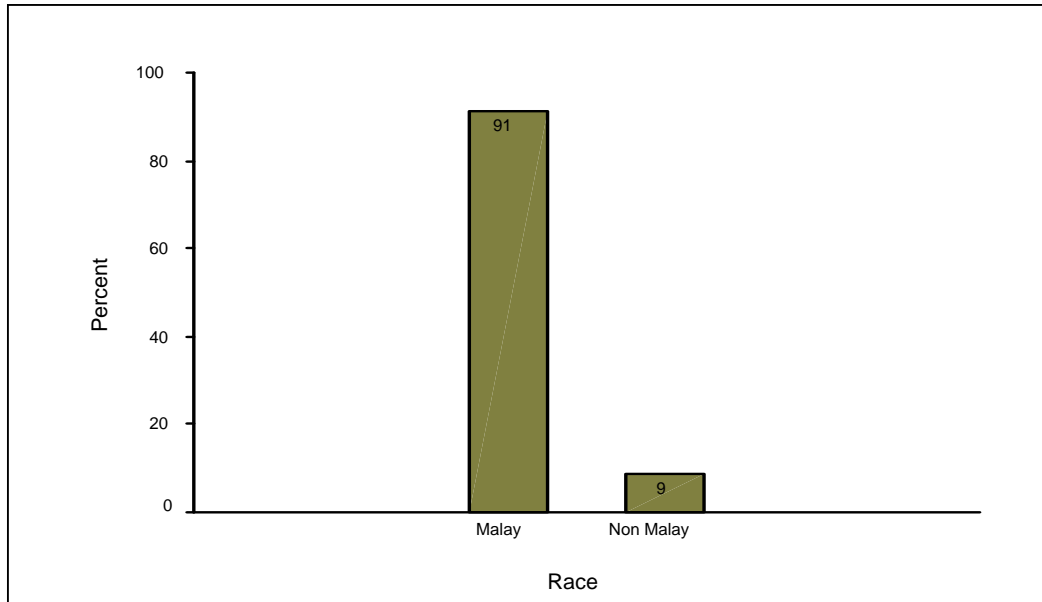


Figure 4.2: Percentage vs Race Among The Workers In The 3 Selected SMI Companies

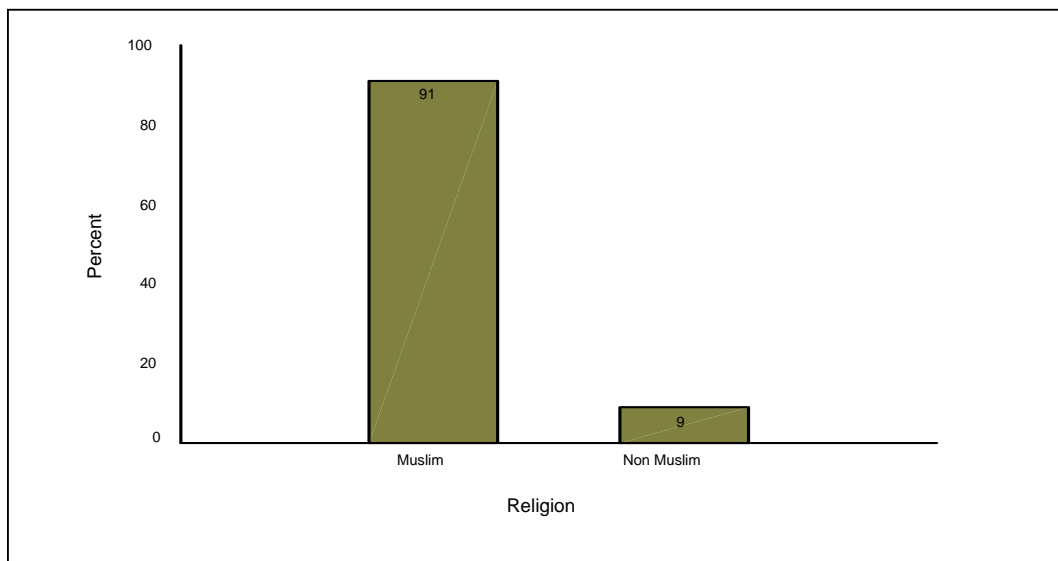


Figure 4.3: Percentage Vs Religion Among The Workers In The 3 Selected SMI Companies

Since the selected SMI companies were located near the Malay residential area, it is not surprised to see high percentage of the Muslim Malay workers. In addition, most of them were married women who work to find extra income to support their families.

Initial participants showed only 7.8% (16) of the employees hold SRP qualification and nearly 60% of the respondents completed their SPM level. About 6.3% respondents hold a certificate which specialised in their work and almost 24% had tertiary education (Figure 4.4).

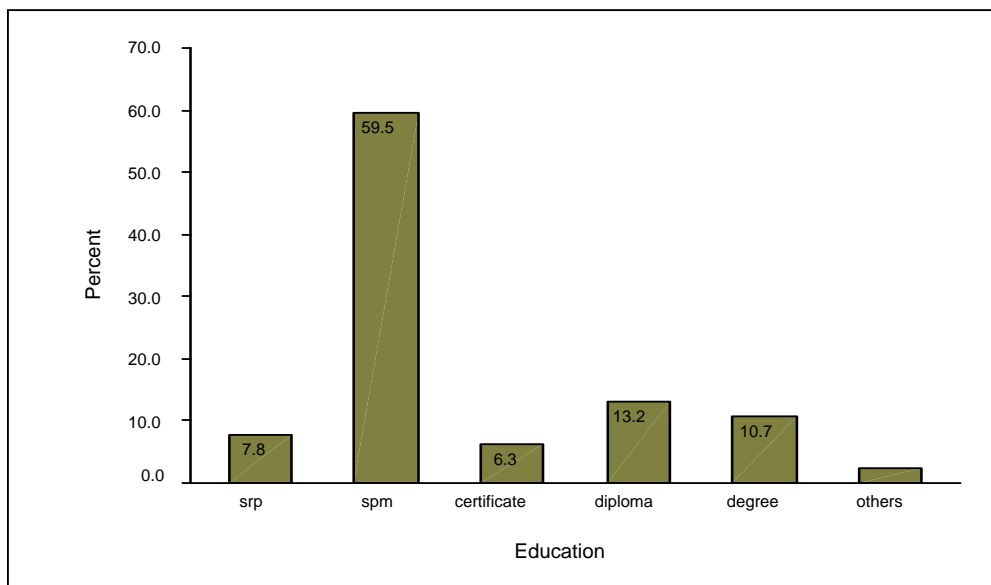


Figure 4.4: Percentage Vs Education Among The Workers In The 3 Selected SMI Companies

The number of employees who were paid less than RM 1000 was 57.1% and only 2.4% participants was paid more than RM 4000 (Figure 4.5).

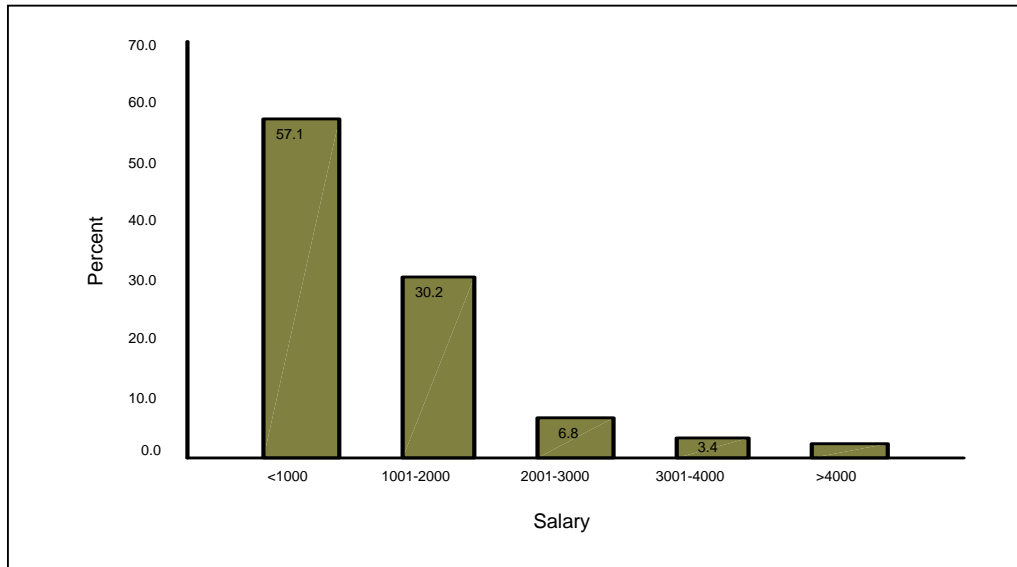


Figure 4.5: Percentage Vs Salary Among The Workers In The 3 Selected SMI Companies

Based on the nature of work, 62.4% respondents were working in production department, 17.1% in the administration, 7.3% in finance, 6.8% in marketing and 6.3% in packaging. This is a normal scenario where in manufacturing sector, production department would have higher manpower to support the organization (Figure 4.6).

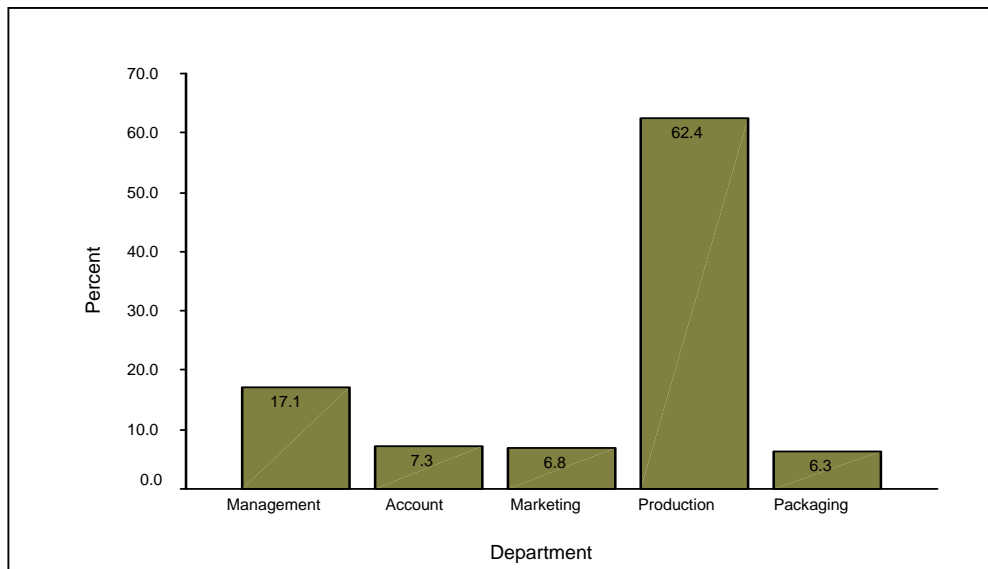


Figure 4.6: Percentage Vs Department Among The Workers In The 3 Selected SMI Companies

A part from that, qualification requirement to work in production department is not the main criteria and because of this also, high percentage among the respondents who were SPM holder can be seen (Figure 4.4). Mean of service in current department of the respondents were 7.83 ± 5.05 years with minimum of 1 year and maximum 28 years. The results also showed that mean year of working for the respondents in this study were 11.10 ± 5.87 years with minimum 1 year and maximum 35 years (Table 4.1).

Table 4.1: Socio Demographic Characteristics For Age, Number Of Children, Year Of Service And Year Of Service In Current Department.

Criteria	Mean±sd	Minimum	Maximum
Age (Year)	34.92 ± 7.14	20	55
Number of children	2.03 ± 1.65	0	6
Year of service	11.10 ± 5.87	1	35
Year of service in current department	7.83 ± 5.05	1	28

Majority of the participants (81.5%) were married compared to 18.5% were single (Figure 4.7) with mean number of children they have were 2.03 ± 1.65 with minimum number of children was 0 and maximum 6. The results for socio demographic characteristics are summarised in table 4.2 that can be found in Appendix 1.

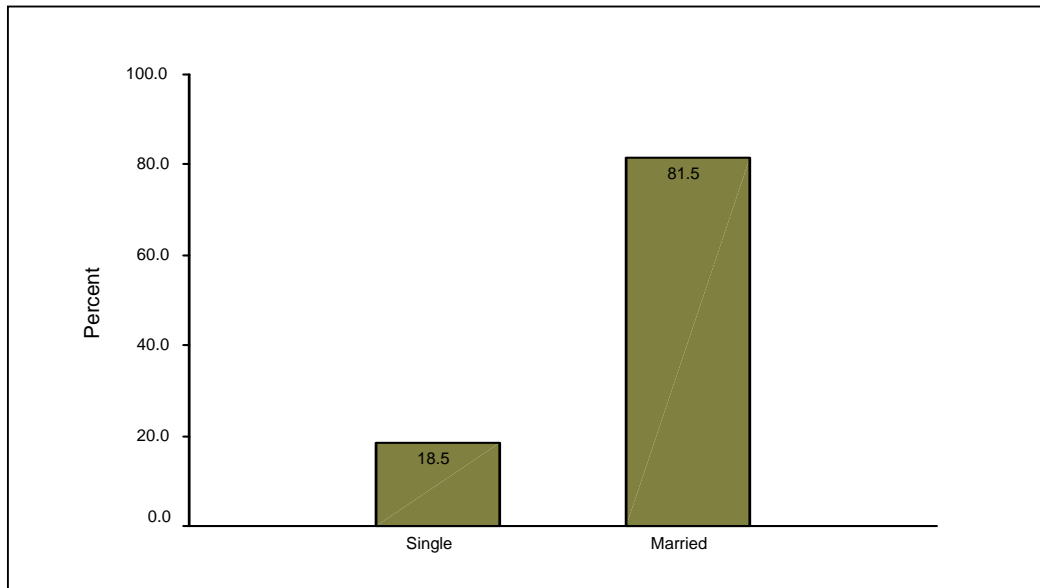


Figure 4.7: Percentage Vs Marital Status Among The Workers In The 3 Selected SMI Companies

4.3 Health and Safety Information

Additional information related to health and safety issues in the workplace have been questioned to the respondents and 68.8% (141) respondents acknowledged that health and safety policy has been enforced at their respective workplace. Mean while, balance of 31.2% noted otherwise (Figure 4.8).

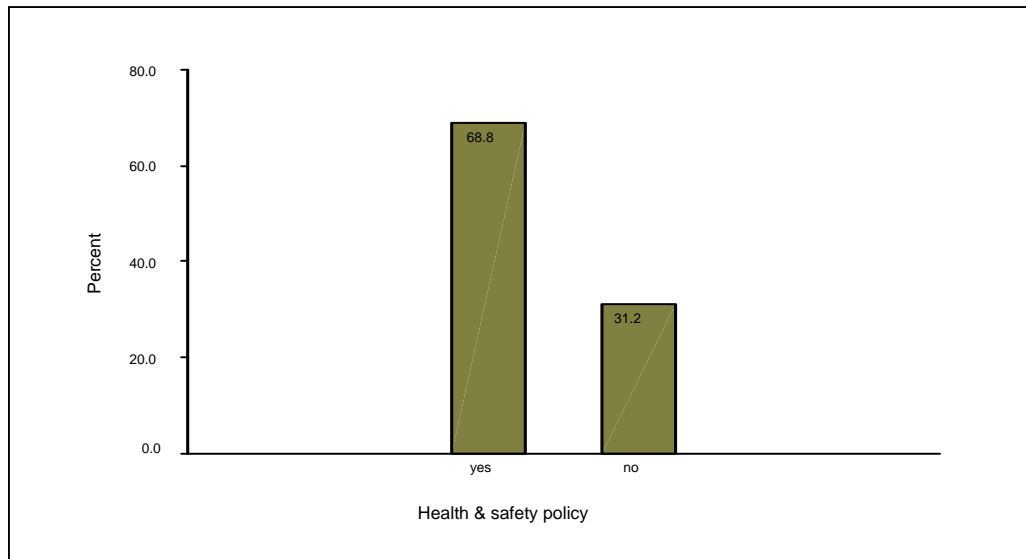


Figure 4.8: Percentage Vs Health And Safety Policy Among The Workers In The 3 Selected SMI Companies

Figure 4.9 shows that 26.3% of the respondent fully agreed that their employer were concerned over their health and safety at workplace, 52.2 % agreed and a total of only 4.9% did not agree and totally did not agree with the statement.

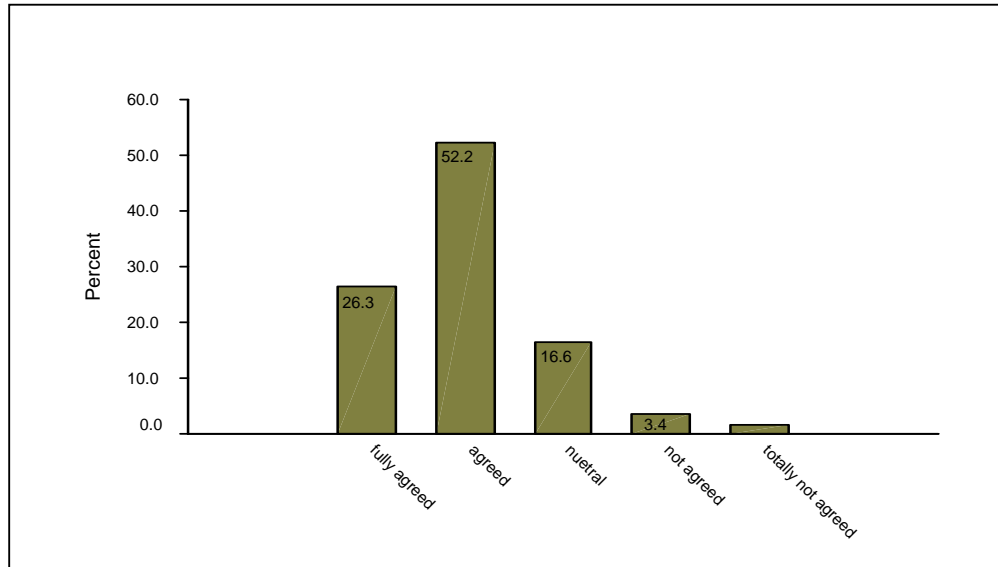


Figure 4.9: Percentage Vs Concern Among The Workers In The 3 Selected SMI Companies

Only 13.2% respondents took part as health and safety committee at their organization and 86.8% were not involved in the committee (Figure 4.10). One of the reasons on the formation of this committee, is to fulfill the requirement needed by the authority. Since involvement of the respondents in the committee was low, it reflected the following results related to health and safety issues and activities at their workplace.

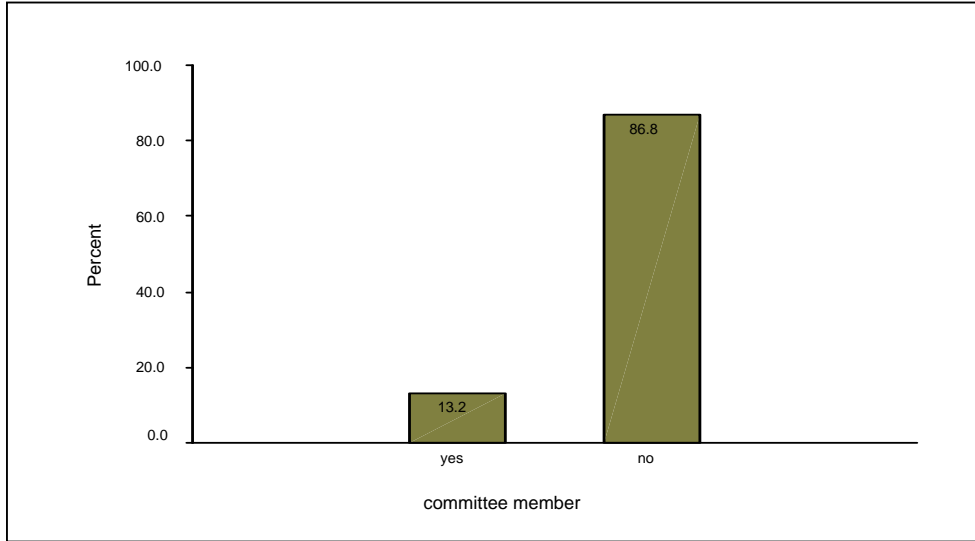


Figure 4.10: Percentage Vs Committee Member Among The Workers In The 3 Selected SMI Companies

The survey also showed only 18.5% of the respondents were aware of the health and safety meeting being held frequently at their organization and 59.5% respondents disagreed to say that the meeting is frequently held at their workplace (Figure 4.11).

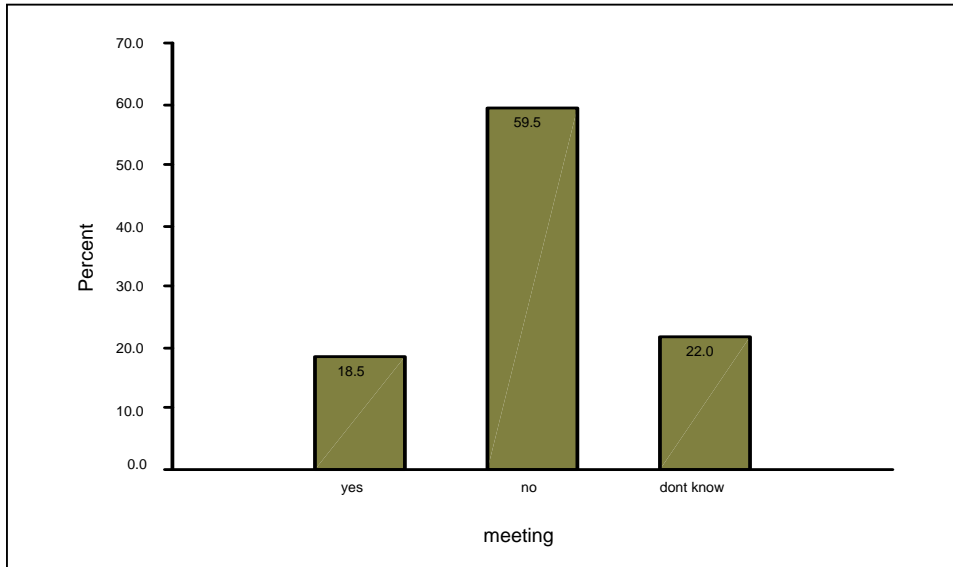


Figure 4.11: Percentage Vs Meeting Among The Workers In The 3 Selected SMI Companies

Out of 205 respondents, only 24.4% of the respondents agreed that issue of stress has been brought up during the health and safety meeting, 44.4% did not agree and a balance of 31.2% were not aware of what happened within the company (Figure 4.12). This is due to lack of information and communication system at workplace.

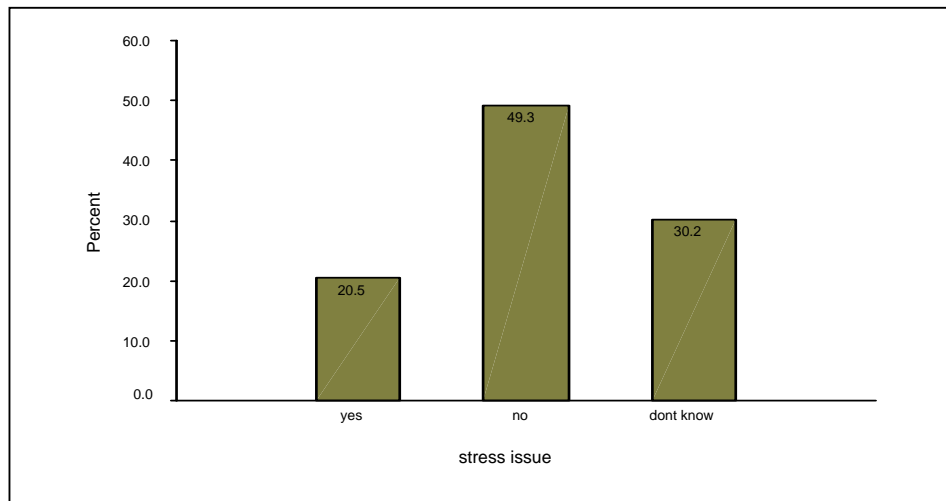


Figure4.12: Percentage Vs Stress Issue Among The Workers In The 3 Selected SMI Companies

Fairly the same, 35.1% of the respondents agreed that their employer will take action in order to solve stress problem, 36.1% did not agree to the statement and 28.8% were not aware of the action that their employer will take to solve the stress problem among them (Figure 4.13). This highlights the interaction gap between the management and workers.

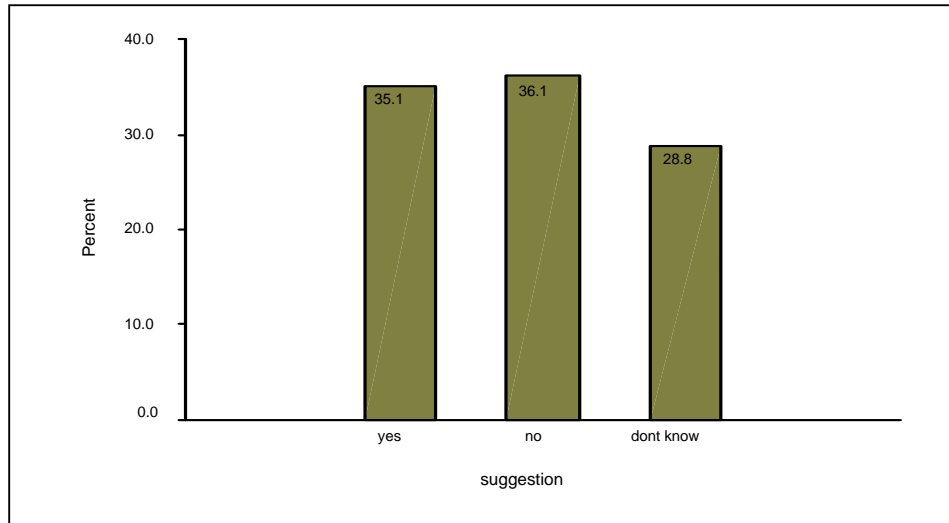


Figure 4.13: Percentage Vs Suggestion Among The Workers In The 3 Selected SMI Companies

On the whole 99% (203) respondents agreed that health and safety committees should be more proactive in handling stress problems to reduce hazard in health and safety at workplace (Figure 4.14) and followed by Table 4.3 which summarised for all the results in this section.

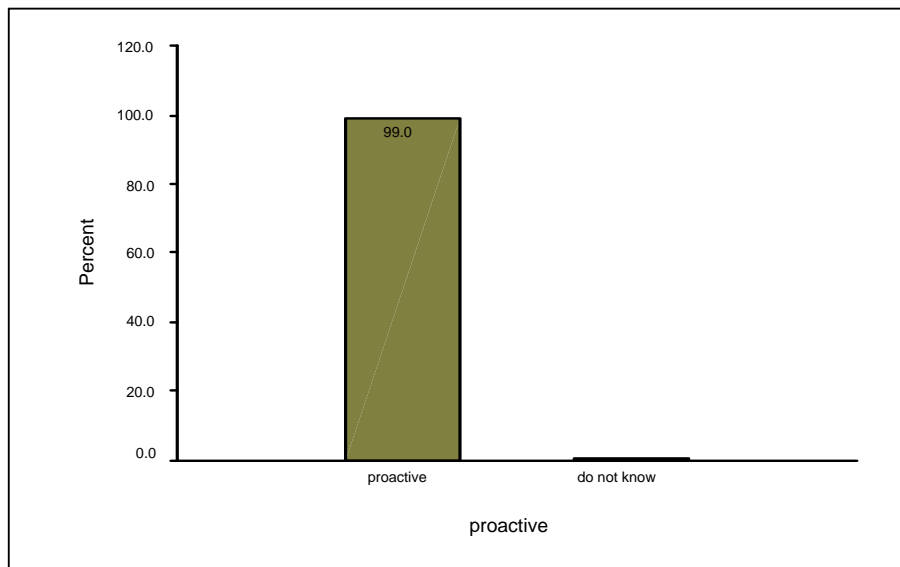


Figure 4.14: Percentage Vs Proactive Among The Workers In The 3 Selected SMI Companies

Table 4.3: Frequency Distribution In Health And Safety Information

Criteria	Number (N)	Percentage (%)
Health and safety policy		
Yes	141	68.8
No	64	31.2
Employer concern health and safety of the workers:		
Fully agree	54	26.3
agree	107	52.2
neutral	34	16.6
not agree	7	3.4
Totally not agree	3	1.5
Health and safety committee		
Yes	27	13.2
No	178	86.8
Frequent meeting		
Yes	38	18.5
No	122	59.5
Do not know	45	22.0
Stress issue		
Yes	50	24.4
No	91	44.4
Do not know	64	31.2
Take action		
Yes	72	35.1
No	74	36.1
Do not know	59	28.8
H&S committee more proactive		
Need	203	99.0
Do not know	2	1.0

4.4 Stress Score, Family and Marital Factor Score, Job Stress Score and Coping Strategy Score

Mean distribution for stress score among the respondents in this study was 36.37 ± 16.93 , for family and marital factors score 10.05 ± 6.31 , for job stress score 144.09 ± 38.01 and coping strategy score 36.35 ± 9.71 (Table 4.4).

Table 4.4: Means Score Distribution For Stress, Family And Marital Factors, Job Stress And Coping Strategy.

Variable	Mean \pm standard deviation
Stress score	36.37 ± 16.93
Family and marital stress score	10.05 ± 6.31
Job stress score	144.09 ± 38.01
Coping strategy score	36.35 ± 9.71

4.5 Stress Prevalence

Minimum value for stress score was 1 and maximum value 88. Mean for stress score was 36.37 ± 16.93 . Respondent is considered stress when total score for symptoms of stress is 40 and above. Out of 205 respondents, 84 respondents have total score of 40 and above and 121 respondents have total score less than 40. As a result prevalence of stress for this study was 41% and non stress was 59%.

4.6 Factors Related to Stress

4.6.1 Socio Demographic Factors

Table 4.5 shows there was no significant difference in age, number of children, year of service and year of service in current department.

Table 4.5: Relation Between Mean Distribution Of Socio Demographic Factors And Stress

Variable	Mean±sd		t	p value
	Stress (N=84)	Non-stress (N=121)		
Age	34.39 ± 6.58	35.29± 7.52	0.883	0.378
Number of children	2.00 ± 1.58	2.06 ± 1.70	0.247	0.805
Number of service	10.89 ± 5.85	11.24 ± 5.91	0.420	0.675
Number of service in current department	7.24 ± 4.37	8.24 ± 5.45	1.406	0.161

Independent t test: difference is significant when $p < 0.05$

Figure 4.15 shows respondent who received higher education was more stress compared to those who only finished secondary level of education. Mean while in Table 4.6 there was a significant association between education level and stress that supported the result which mention earlier.

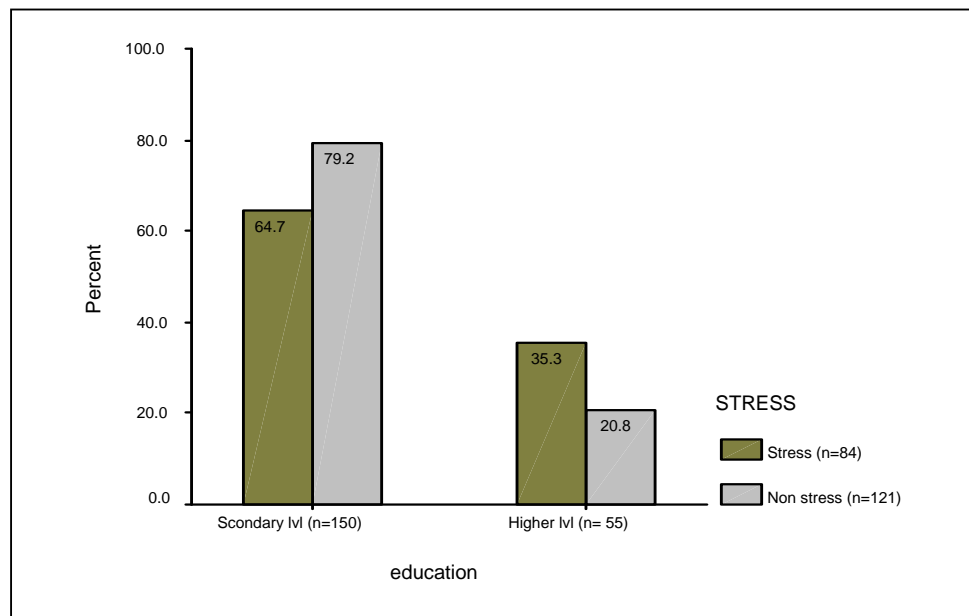


Figure 4.15: Percentage vs Education (Stress / Non Stress) Among The Workers In The 3 Selected SMI Companies

Table 4.6: Relation Between Frequency Of Socio Demographic Factors And Stress

Socio demographic factors	Frequency (%)		χ^2	p value
	Stress (N=84)	Non-stress (N=121)		
Sex				
Male	39	46	0.229	0.145
Female	45	73		
Race				
Malay	79	108	0.233	0.174
Chinese	2	7		
Indian	3	6		
Malay	79	108	0.233	0.174
Non Malay	5	13		
Religion				
Islam	79	108	0.464	0.319
Christian	1	0		
Buddha	1	7		
Hindu	3	6		
Muslim	79	108	0.464	0.319
Non Muslim	5	13		
Department				
Administration	18	17	0.395	0.242
Finance	8	7		
Marketing	3	11		
Production	51	77		
Packaging	5	8		
Administration	29	35	0.395	0.242
Production	55	86		
Salary				
< RM 1000	43	74	0.062	0.06
RM1000 – RM 2000	24	38		
RM2001 – RM 3000	9	5		
RM 3001 – RM 4000	4	3		
RM 4000	4	1		
Less than RM 3000	76	117	0.062	0.06
RM 3000 above	8	4		
Education				
SRP	2	14	0.017	0.013
SPM	47	75		
Certificate	4	9		
Diploma	15	12		
Degree	15	7		
Others	1	4		
Secondary level	54	96	0.017	0.013
Higher education level	30	25		
Marital status				
Single	14	24	0.566	0.350
Married	70	97		

Chi square test: association is significant when $p < 0.05$

4.6.2 Job Stress Factors

Job stress factors can be divided into 3 categories that consists of severity job stress (SJS), severity job pressure (SJP) and lack of organizational support (LOS). Results shows mean for severity job stress was 4.81 ± 1.26 , mean for severity job pressure (SJP) was 4.87 ± 1.56 and mean for lack of organizational support (LOS) 4.79 ± 1.41 . On the whole, respondents were stress at the workplace because of lack of organizational support.

The results show that stress respondents have higher mean scores in 3 subscales job stress factors compared to non stress respondents and statistically significant, $p < 0.05$ (Table 4.7). Mean for severity job stress (SJS) for stress group was 5.20 ± 1.17 and non stress group was 4.53 ± 1.25 . Mean for severity job pressure (SJP) for stress group was 5.35 ± 1.41 and non-stressed group was 4.51 ± 1.56 . As for lack of organizational support, mean for stress group was 5.16 ± 1.26 and for non stress group was 4.54 ± 1.46 .

Table 4.7: Mean Score Distribution Of Job Stress Factors According To Stress Group

Job Stress Factors	Mean \pm s.d		t	p value
	Stress (N=84)	Non-stress (N=121)		
Severity Job Stress (SJS)	5.20 ± 1.17	4.53 ± 1.25	3.83	$p < 0.0005$
Severity Job Pressure (SJP)	5.35 ± 1.41	4.51 ± 1.56	3.91	$p < 0.0005$
Lack of Organizational Support (LOS)	5.16 ± 1.26	4.54 ± 1.46	3.14	0.002

Independent t test: difference is significant when $p < 0.05$

Independent t test indicated a significant difference to all the subscales of job factors i.e between stress respondent and non stress and also factors that caused the outcome. In addition lack of organizational support also plays important role in influencing stress among the workers at workplace.

Multiple linear regression analysis has been done on 30 items of job stress factors to find the risk factors in relation to stress. Result from Table 4.8 shows that factors such as assignment of new or unfamiliar duties, fellow workers not doing their job, assignment of increased responsibility and insufficient personal time have significant differences with stress; p value < 0.05 . Combination of these 4 factors contributed 24% to stress ($R^2 = 0.24$). The balance of 76% was caused by other factors which were not in this study range.

Table 4.8: Job Stress Factors In Relation To Stress

Variable	β	t	p value
Assignment of new or unfamiliar duties	0.21	2.076	0.039
Fellow workers not doing their job	0.24	2.370	0.019
Assignment of increased responsibility	0.23	2.095	0.038
Insufficient personal time	0.22	0.204	0.043

Multiple linear regression: difference is significant when $p < 0.05$

4.6.3 Family and Marital Factors

Minimum value for family and marital factors score was 0 and maximum value was 30. Mean for total score of this factor was 10.00 ± 6.31 . For stress group, mean for total score of family and marital factors was 12.15 ± 6.36 compared to those not stress

group which only 8.59 ± 5.87 with statistically significant, $p < 0.05$ (Table 4.9). Therefore, family and marital factors are also significant to differentiate between stress and non stress respondent.

Table 4.9: Mean Score For Family And Marital Factors According To Stress Groups.

	Mean \pm s.d		t	p value
	Stress (n=84)	Non stress (n=121)		
Family and marital Factors	12.15 \pm 6.36	8.59 \pm 5.87	4.134	p<0.0005

Independent t test: difference is significant when $p < 0.05$

Family and marital factors that contribute to the stress were problems or conflict with children, not enough time to be with family members and conflict or distance from close friends or relatives (Table 4.10). Combination of these 3 factors showed of 20.2% variation in stress ($R^2 = 0.202$).

Table 4.10: Family And Marital Factors In Relation To Stress

Variable	β	t	p value
problems or conflict with children	0.25	2.553	0.011
not enough time to be with family members	0.22	2.961	0.003
conflict or distance from close friends or relatives	0.21	2.596	0.010

Multiple linear regression: difference is significant when $p < 0.05$

4.6.4 Coping Strategy Factors

Mean score for coping strategy 36.35 ± 9.71 with minimum value of 8 and maximum 58. Table 4.11 shows 3 factors of coping strategy; emotional support, behavioural change and humour were significantly different ($p < 0.05$) between stress and non stress respondents. These 3 factors of coping strategies were significantly used by the respondent to overcome the stress.

Table 4.11: Coping Strategy According To Stress Groups

Coping strategy Factors	Mean \pm s.d		t	p value
	Stress (n=84)	Non stress (n=121)		
Emotional support	2.18 \pm 1.25	1.80 \pm 1.35	2.030	0.04
Behavioral changes	1.48 \pm 1.41	0.90 \pm 1.19	3.16	0.002
Humour	1.69 \pm 1.28	1.28 \pm 1.22	2.37	0.019

Independent t test: difference is significant when $p < 0.05$

4.7. Correlation between Job Stress Score and Coping Strategy with Stress

4.7.1. Correlation between Job Stress Score and Stress

Table 4.12 showed a mild correlation between job stress score and stress where for severity job stress correlation, r was 0.270; severity job pressure, correlation r was 0.279 and for lack of organizational support the correlation was 0.22. All variables were significantly difference with $p < 0.05$. Overall, only 25% of job stress score correlates with stress.

Table 4.12: Correlation Between Job Stress Score And Stress

Variable	Pearson Correlation, r	p value
Severity Job Stress (SJS)	0.270	p<0.0005*
Severity Job Pressure (SJP)	0.279	p<0.0005*
Lack of Organizational Support (LOS)	0.220	p<0.0005*

*Difference is significant when $p < 0.05$

4.7.2. Correlation between Coping Strategy Score and Stress

Pearson correlation values between coping strategy score and stress score showed a positive correlation to 3 types of coping strategies that have a significant differences, i.e. emotional support, behavioral changes and humor. Overall, only 17% of coping strategy score correlates with stress as shown in Table 4.13.

Table 4.13: Correlation Between Coping Strategy Score And Stress

Variable	Pearson Correlation, r	p value
Divert self attention	0.109	0.12
Active problem solving	0.029	0.676
Denial	0.098	0.164
Abuse of material	0.055	0.434
Emotional support	0.141	0.044
Instrumental support	0.046	0.514
Behavioral changes	0.230	0.001
Expression of feeling	0.114	0.102
Positive assessment	0.110	0.118
Planning	0.024	0.735
Humour	0.152	0.029
Acceptance	0.057	0.414
Religion	0.073	0.299
Self blaming	0.129	0.065

Difference is significant when $p < 0.05$

4.8. Stress Predictor

Multiple regression analysis was done as extension analysis in order to determine stress predictor. Variables that have significant p value from previous independent t test were selected in this model predictor as independent variables versus stress score as dependent variable. The best stress predictor can be produced by using 'enter' method and F value was 10.78 ($p < 0.05$) and $R = 0.53$. The results showed that less time with family, conflict and distance from friends and relatives, fellow workers not doing their job and insufficient personal time have significant p value in the stress predictor model ($p < 0.05$). R^2 value is 0.252 which indicated that 25.2% variation in stress distribution is contributed by these variables. However, β value (Table 4.14) of insufficient personal time ($\beta = 0.231$) is the highest among 4 significant variables. This indicated that insufficient personal time is the factor that had the greatest influenced in stress score and the best predictor for this model.

Table 4.14 Results From Multiple Linear Regressions As Stress Predictor

Variable	Coefficient B	Standard error	β	p value
Less time with family	3.789	1.163	0.226	0.001
Conflict and distance from close friends and relatives	3.627	1.335	0.179	0.07
fellow workers not doing their job	1.710	0.518	0.218	0.001
insufficient personal time	1.761	0.516	0.231	0.001

Multiple linear regression: difference is significant when $p < 0.05$

4.9. Stress Management Programme

Referring to Table 4.15, among stress respondents, 85.71% were interested to participate in stress management programmes and only 14.29% were not interested. As for non stress respondents, 85% were interested in joining the programmes and 15% were not. This highlighted that there is interest among the stress workers to overcome their stress problems.

Table 4.15: Frequency Distribution Of The Participant In Stress Management Programmes

Interested to participate in stress management programmes	Frequency (%)		Total
	Stress (N=84)	Non stress (N=121)	
Yes	72 (85.71)	103 (85.12)	175
No	12 (14.29)	18 (14.88)	30
Total	84	121	205

From Table 4.16, an overall of 85% of the respondents were interested to participate in stress management programme, among which 42% were from stress respondents and 58% were from non stress respondents. Physical exercise (26%) has been chosen by the stress respondents as favourite method for this programme followed by stress workshop (23%) and sport activities (21%). However, for non stress respondents, their method of choices is different where 32% preferred to attend stress workshop, 26% for physical exercises and 15% for entertainment.

Table 4.16: Frequency Distribution Of Methods In Stress Management By Stress Group

Method for stress management	Frequency (%)	
	Stress (N=72)	Non stress (N=103)
Stress workshop	17 (23.61)	33 (32.04)
Counseling	5 (6.94)	12 (11.65)
Physical exercise	18 (25.0)	28 (27.18)
Sport activities	15 (20.83)	14 (13.59)
Entertainment	9 (12.5)	15 (14.56)
Others	8 (11.11)	1 (0.97)

On the whole, the results showed that the main finding in this study was the prevalence among the workers in 3 selected SMI companies was 41% with insufficient personal time as the stress predictor. Coping strategies that were significantly used by the workers were emotional support, behavioral changes and humour that 14% correlated to stress. Apart from that only 24.4% of the workers were aware that stress issue has been brought up during the health and safety meeting.