

**THE ERGONOMIC RISK FACTORS IN HARVESTING FRESH FRUIT  
BUNCH (FFB) AFFECTED PRODUCTIVITY OF HARVESTERS**

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**Final Year Project Report Submitted in  
Partial Fulfilment of the Requirements for the  
Degree of Bachelor of Science (Hons.) Plantation Management and Technology  
in the Faculty of Plantation and Agrotechnology  
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## DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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## **ABSTRACT**

### **THE ERGONOMIC RISK FACTORS IN HARVESTING FRESH FRUIT BUNCH (FFB) AFFECTED PRODUCTIVITY OF HARVESTERS AT FELCRA TERATAK BATU, PASIR PUTEH, KELANTAN**

The purpose of this study is to identify the ergonomic risk factors affected productivity of harvesters as well as to investigate the relationship between ergonomic risk factors in harvesting process affected productivity of the harvesters and determine the most dominant factor contribute to ergonomic risk affected productivity of harvesters. A sample of 80 respondents registered under FELCRA were taken, and selected by simple random sampling. A direct interview by face to face with a structural questionnaire was conducted to access the information required. Ergonomic risk refers to worker condition that poses the risk of injury to the musculoskeletal system of the worker. Data were analysed using Statistical Package for Social Sciences (SPSS) version 20. The data obtained were then analysed using the descriptive statistic, Pearson correlation and multiple regressions. The results revealed during this study were all is male, mostly age between 20-30years old (33.8%) and have working experience from 1-5 years (51.3%), most of the respondents were married (67.8%) and the race is temporary residents which are from Bangladesh, Indonesia and Myanmar. From ANOVA table result, it shows that all the factors which are have a significant difference with harvester productivity since p-value is 0.000 which is less than 0.05. The result of the study also revealed that there was a positive correlation between factor of practice, skill and knowledge, organization and attitude affected productivity of harvesters. For multiple regression analysis result showed that the factors that have significant relationship with productivity of harvesters at workplace are the practice, skill and knowledge and attitude since the p-value is less than 0.05 while organization factor does not have significant relationship with productivity of harvesters and the most dominant variable affected productivity of harvesters is skill and knowledge with the highest  $\beta$  value is 0.498. Chronologically, the factors that have significant relationship with productivity of harvesters at workplace are the practice, skill and knowledge and attitude. Since knowledge and skills is the most required to increase the productivity. In order to increase their skill and knowledge, FELCRA can get involved in the monitoring and observing in the fields. Since knowledge and skills is the most required to increase the productivity, programs such as training, talk, seminars and any other extension programs, either on the fields or off the fields are required to increase the harvesters knowledge and skills.

**Keywords:** Ergonomics, Practice, Skill and Knowledge, Attitude, Productivity of Harvesters, Oil Palm Plantation