A STUDY ON ATTITUDE TOWARDS USAGE OF AUTOMATED PUSHER BOX TECHNOLOGY USE BEHAVIOR IN FELDA RUBBER INDUSTRY

MOHD HARADZI BIN ABDUL KARIM

UNIVERSITI TEKNIKAL MALAYSIA

A STUDY ON ATTITUDE TOWARDS USAGE OF AUTOMATED PUSHER BOX TECHNOLOGY USE BEHAVIOR IN FELDA RUBBER INDUSTRY

SUBMITTED BY:

MOHD HARADZI BIN ABDUL KARIM

THIS REPORT IS SUBMITTED TO

FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP (FPTT) IN PARTIAL FULFILLMENT FOR BACHELOR OF TECHNOLOGY MANAGEMENT (INNOVATION) HONS.

FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP (FPTT),

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

JUN 2015

DECLARATION

"I declare that this dissertation is a result of my own independent investigation. I admit that this report is the result of my own except a summary and quote every thing I have explained the source"

Tandatangan	:
Nama Pelajar	: Mohd Haradzi Bin Abdul Karim
Tarikh	i

APPROVAL

"I / We" declare that have read this report and in view of the "I / we" this thesis is sufficient in terms of scope and quality for the award of Bachelor of Technology

Management (Innovation) with Honours

Singnature	:
Supervisor Name	: Dr. Juhaini Bt Jabbar
Date	:
Signature	i
Panel Name	: Ms. Siti Nor Wardatulaina Bt. Mohd Yusof
Date	i

ACKNOWLEDGEMENT

Thanks to the Divine Presence with His blessing and favor, I am finally able to also prepare my scientific training. Firstly I would like to express our appreciation and thanks goes to my supervisor that Dr.Juhaini Jabbar for any guidance throughout the process of scientific training. I am indebted to him for his kindness, his patience and cooperation in this investigation supervisor.

This award also goes to Felda Rubber Industry Pasir Besar, Negeri Sembilan which many cooperating and guidance during data collection for this study. In addition, I thank you also goes to members of my family that my mother Nor Aisiah Bt. Ahmad for the support, advice and encouragement, and pray for my success that I was able to complete these dissertation.

Finally, my sincere thanks to my colleagues for being very understanding of the self and give guidance when I do not understand something related to this thesis. God bless you, and thanks for your support and prayers terhasilah this thesis.

Mohd Haradzi Bin Abdul Karim

Bachelor of Technology Management (Technology Innovation) Hons

Faculty of Technology Management and Technopreneurship (FPTT),

Technical University of Malaysia Melaka

A Study On Attitude Towards Usage Of Automated Pusher Box Technology Use Behavior In Felda Rubber Industry

ABSTRACT

For this research, it's a study on automatically pusher box technology acceptance in rubber plants. This research will be done in rubber factory under Felda Global Venture (FGV) which is FRISB Kilang Getah Pasir Besar, Negeri Sembilan with the cooperation of the Project Manager. This company we strive to be the global leader in natural rubber processing offering high quality products and services through good manufacturing and eco-friendly practice and the same time they using new technology in the work environment. So, automatically pusher box is one of the new technologies which will be used into the company. Furthermore, this automatically pusher box it is suitable for labor saving and the same time to reduce cost of medicine in this company. Pusher box is technology to replace the manual system. Before this technology will be introduce, workers use the manual labor to push 1500kg the tank with Standard Malaysian Rubber (SMR) of scientific name is a latex. The problem that this pusher box will help is improve performance, reduce the incident in workplace. The appropriate questions will be asked and the data collected will be shown as figures to be clear about the results. This research used a methods like a surveys, filed observation, and quantitative methods. The researcher objectives will be achieved and answering the research question.

ABSTRAK

Kajian ini bertujuan, adalah untuk mengkaji ke atas Kotak Penolak automatik dan penerimaan teknologi ini dalam industri getah. Kajian ini dilakukan di kilang getah Felda Global Venture (FGV) yang beroperasi di Kilang Getah Pasir Besar, Negeri Sembilan (FRISB) dengan kerjasama Pengurus syarikat. Syarikat ini berusaha untuk menjadi pemimpin global dalam pemprosesan getah asli menawarkan produkproduk berkualiti tinggi dan perkhidmatan melalui pengeluaran yang baik dan amalan mesra alam dan pada masa yang sama mereka menggunakan teknologi baru dalam persekitaran kerja. kotak penolak automatik adalah salah satu teknologi baru yang akan digunakan dalam syarikat Kilang Getah Pasir Besar. Tambahan pula, kotak secara automatik penolak ini sesuai untuk penjimatan masa kerja tenaga buruh dan pada masa yang sama mengurangkan kos perubatan di syarikat ini. Kotak penolak adalah teknologi bagi menggantikan sistem manual yang sedia ada Sebelum teknologi ini akan memperkenalkan, pekerja menggunakan buruh manual untuk menolak tangki getah 1500kg yg telah di proses, Getah Mutu Malaysia (SMR). Sistem ini akan membantu meningkatkan prestasi pekerja dan mengurangkan kemalangan di tempat kerja. Kajian ini menggunakan kaedah seperti kaji selidik, pemerhatian dan kaedah kuantitatif.

TABLE OF CONTENT

CHAPTER	CON	TENT	PAGES
	Declaration		ii
	Approval		iii
	Ackn	nowledgement	iv
	Abst	ract	v
	Content		vi
	List	of Table	vii
	Lisy	of Figure	viii
I	INTRODUCTION		
	1.1	Background of Study	2
	1.2	Problem Statement	4
	1.3	Research Questions	5
	1.4	Research Objectives	6
	1.5	Scope and Limitation	
		1.5.1 Limitation and Scope of the study	6
		1.5.2 Key Assumption of the Study	7
	1.6	Significant and Importance of the Study	8
	1.7	Summary	9
II	LITI	ERATURE REVIEW	
	2.1	Introduction	10

	2.2	Technology Acceptance	11
	2.3	Modified Theoretical Framework	13
		2.3.1 Perceived Usefulness	14
		2.3.2 Perceived Ease Of Use	15
		2.3.3 Behavior Intention To Use	15
		2.3.4 Intention	15
		2.3.5 Attitude	16
	2.4	Hypothesis Development	17
	2.5	Summary	18
Ш	RESI	EARCH METHODOLOGY	
	3.1	Introduction	19
	3.2	Research Design	20
	3.4	Research subject	23
	3.5	Research Instrument	
		3.5.1 Survey and Questionnaire	23
	3.6	Primary & Secondary data	
		3.6.1 Introduction	26
		3.6.2 Primary Data	26
		3.6.3 Secondary data	27
	3.7	Data Collection	28
	3.8	Research Location	29
	3.9	Research Strategy	29
		3.9.1 Phase 1 (Questionnaire Development)	30
		3.9.2 Phase 2 (Pilot Testing)	30

		3.9.3	Phase 3 (Test for Validity)	31
		3.9.4	Phase 4 (Large Scale Survey)	31
		3.9.5	Phase 5 (Data Analysis and Discussion)	32
	3.10	Time ?	Horizon	32
	3.11	Analy	sis Technique	33
	3.12	Summ	nary	34
IV	DATA	A ANAI	LYSIS	
	4.1	Introd	uction	35
	4.2	Reliab	pility Statistic	36
	4.3	Analy	sis of Demographic Information	
		4.3.1	Gender	37
		4.3.2	Age	39
		4.3.3	Experience	40
	4.4	Validi	ty & Reliability	
		4.4.1	Validity Test	
			4.4.1.1 Validity analysis Perceived usefulness	43
			4.4.1.2 Validity analysis Perceived ease of use	44
			4.4.1.3 Validity analysis Attitude towrds usage	45
			4.4.1.4 Validity analysis Behavioral intention	46
	4.5	Reliab	pility Test	47
		4.5.1	Person Correlation Coefficient	49
	4.6	Relati	onship Between Variable	50
		4.6.1 1	Perceived Usefulness and Attitude Towards	53
		1	Using the System	

		4.6.2 Perceived Ease of Use and Attitude Towards	53
		Using the System	
		4.6.3 Attitude Towards Using the System and	53
		Behavioral Intention to Use	
	4.7	Hypothesis Verification	
		4.7.1 Hypothesis 1	54
		4.7.2 Hypothesis 2	56
		4.7.3 Hypothesis 3	58
	4.8	Summary	60
V	CON	CLUSION, DISCUSSION &	
V		CLUSION, DISCUSSION & OMMENDATION	
V			61
V	RECO	OMMENDATION	61 61
V	RECO 5.1	OMMENDATION Introduction	
V	5.1 5.2	OMMENDATION Introduction Conclusion	61
V	5.1 5.2 5.3	OMMENDATION Introduction Conclusion Discussion of Finding	61 63
V	5.1 5.2 5.3 5.4	OMMENDATION Introduction Conclusion Discussion of Finding Limitation	61 63 66
V	5.1 5.2 5.3 5.4 5.5 5.6	OMMENDATION Introduction Conclusion Discussion of Finding Limitation General Recommendation	61 63 66 66

LIST OF TABLE

Table		Pages
3.1	Construct of the question	25
4.1	Respondent's Gender	37
4.2	Respondent's Age	39
4.3	Respondent's Experience	40
4.4	Analysis for question perceived usefulness	43
4.5	Analysis for question perceived ease of use	44
4.6	Analysis question for attitude towards using system	45
4.7	Analysis question for behavioral intention to use	46
4.8	Cronbach's Alpa coefficient range and it's strength of	48
	of association	
4.9	Reliability Statistic	48
4.10	Rules of thumb about correlation coefficient	49
4.11	Correlation	51
4.12	Simple regression between perceived ease of use and	54
	attitude towards using system	
4.13	Simple regression between perceived usefulnes and	56
	attitude towards using system	
4.14	Simple regression between attitude toward usage and	58
	behavioral intention to use	

LIST OF FIGURE

Figu	Pages	
2.1	Technology Acceptance Model	12
2.2	Research Model	14
4.1	Respondent's Gender	38
4.2	Respondent's Age	39
4.3	Respondent's Experience	41

CHAPTER 1

INTRODUCTION

This chapter is about the introduction of the study. This introduction is important to determine the success of the research. There are common types of introduction for research that must include background of the study, problem statement, research question, research objective, scope, limitation and key assumption of the project.

1.1 Background of Study

This research focus on attitude towards usage of automated pusher box technology use behavior on Felda Rubber Industry to examine the effectiveness of automated pusher box for technology use behavior and attitude towards usage. They also offer natural rubber of product such as Standard Malaysia Rubber or the scientific name is Latex. Researcher want to investigate the effectiveness and efficiency for worker behavior about the technology and company competency. Before this technology will be used, employee in this company use the manual labor to push 1500kg box fill with latex. Automated pusher box technology will help the organization to improve the performance and also reduce the problem in the workplace. Researcher want to identified the attitude toward usage of automated pusher box and relationship technology use behavior.

According to Ajzen (1991), a person's action is determined by behavioral intentions, which in turn are influenced by an attitude toward the behavior and subjective norms. Arising from this motivation, several models were developed to help in predicting technology acceptance. Among these models, the Theory of Planned Behavior (TPB) (Ajzen, 1991) is a widely-used and validated model. TPB was proposed by Ajzen in 1991. According to Ajzen (1991), a person's action is determined by behavioral intentions, which in turn are influenced by an attitude toward the behavior and subjective norms.

Attitude toward the behavior is defined as one's positive or negative feelings about performing a behavior, for example using technology. It is determined through an assessment of one's beliefs regarding the consequences arising from one's behavior and an evaluation of the desirability of these consequences. Attitude toward use (ATU) guides behavior as the way individuals respond to and are disposed towards an object. The success of any initiatives to implement technology in an organization depends strongly on the support and attitudes of worker involved.

Use behavior is the ways in which one acts or conduct oneself, especially to word others depend on the situation event with machine or natural reaction work function. Internal factors influencing automated pusher box technology because this technology can help the worker to do their job effectively. Technology use behavior is when techniques derived from the behavioral sciences are applied to attitude, behavior and skill modification in many different fields. For instance, the technology use behavioral when some from apparatus, often electronic is used in research into human behavior. Processes for generating ideas can be developed anywhere and by any individual, inside or outside a company. Identifying source of information is one of the most important methods of obtaining new ideas for developing product or processes [Fernandes (1998)].

1.2 Problem Statement

Quality and technology are most important among employees to improve product quality and organization efficiency. Some organization think that to purchase good machine is very costly and not worth. The issue on this research is about automatically pusher box technology adoption in Kilang Getah Pasir Besar, Negeri Sembilan. Technology is most important among employees to improve product quality and reduce defect rate in Malaysian Rubber. The researcher can find some problem statement for this company. First organization less the experience worker to handle this technology. Second is manually machines are always down and error. Organization must provide training among employee, but the high costs was needed. Lastly, organization had to responsibility a loss when many employees take medical leave or resigned because workers often complain of back pain caused by pushing the box weighing 1500kg manual.

KAIZEN is a Japanese word that has become common in many western companies, the word indicates a process of continuous incremental improvement of the standard way of work (Chen et al., 2000). It is translated in the west as ongoing, continuous improvement (CI) (Malik et al., 2007). It is a compound word involving two concepts: KAI (change) and ZEN (for the better) (Palmer, 2001). Black, (1991) claimed that to compete in this continuously changing environment, these companies must seek out new methods allowing them to remain competitive and flexible simultaneously, enabling their companies to respond rapidly to new demands.

Researcher conclude that technology is important to improve the production process and to reduce the worker problem behavior. This is why researcher study on internal factor influencing automated pusher box technology use behavior.

1.3 Research Question

The purpose of this study is about the influencing the worker behavior when use the technology to make sure their job effectively and efficient. In order to reduce the risk do the job, various ways and idea to be applied to ensure more orderly manner or systematic working.

More specifically, the researcher would like to answer the following in the study:

RQ1: What are effect attitude towards usage of automated pusher box system in rubber plants?

RQ2: What is the relationship between variable and attitude towards using the system?

RQ3: What are the effect for perceived usefulness, perceived ease of use and attitude on behavioral intention to use on the automated pusher box technology?

1.4 Research Objective

Several studies have been carried out trying to identify source of information and their relationship with organizational innovation.

Based on the research question, the researcher construct research objective;

RO1: To identify affecting attitude towards use of automatically pusher box to the company.

RO2: To examine relationship between variable and attitude towards using the system.

RO3: To establish the effect for perceived usefulness, perceived ease of use and attitude on behavioral intention to use on the automated pusher box technology.

1.5 Scope, Limitation and key Assumption of the study

1.5.1 Limitation and Scope of the study

This research analyze the organization reaction and performance worker in production. The researcher do some research about the work method use in variety of production organization industry. The study will be carried out of all the data

collection about defect rate among employees and management in this company.

Here, the researcher see the view of employees to their work method and production process.

The researcher collect the data from human resource department and management department to see how many worker have a problem or injury occurs during doing their job in production process. The researcher investigate by itself in Felda Rubber Industry Sdn. Bhd. As we know, in producing a product, must have reject that occur because of human error, work methods or row material. So, the company must take an effort to reduce the reject and make the employees able to follow the procedures and also handling the technology or machines. This research will discuss about to viewing automatically pusher box technology acceptances as consistence process is the key to enabling hesitant users.

1.5.2 Key Assumption of the study

Organization need a good technology to produce quality product and expertise in doing the work. So that, the products can be reduce from the reject and performance of organization and employees will be improve efficiency. Organizational also will get the benefit and can achieve the goal with the productivities in production. The rule of work is important in production line because if employees follow all the procedure, the production process will run smoothly.

According to MacDuffie and Osterman (1995), emphasize structural aspects of the organization of work for example the use of work teams and other small group activities organized for production and related problem solving.

1.6 Significant and Importance of Study.

Employee's skill is important to produce product and they have to follow the rule to while doing the process in production line. Organization also have to play an important role to achieving their goals and increase productivity in rubber industry. This study will encourage them to increase work skills and work method.

This study researcher draws on evolutionary economics, innovation and strategy literature to identify two factors driving adoption. Firstly, the presence of complementary Human Resource practices and technology. Lastly, organizational characteristics and behaviors that reduce the cost of introducing new work practices. The literature on innovation provides further insight into how organization change takes places, distinguishing two different kinds of change.

1.7 Summary

In chapter 1, the researcher have described introduction of the topic and background of the research study clearly. Then, the research problem are identified by the researcher. The researcher also have explained the purposed for this research study to be conducted. After that, the research question and research objective are formed during this research conducted. Both of these are important because they contribute a clear way to complete the whole research study. Lastly, the researcher have made significant of study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter discusses about literature review that would have to be done on production management. It emphasizes on reducing defect rate in production process and organization performance. As we know, all organization is very concerned about quality of their product to an achievement their target. To achieved the objectives of this study, the information about production process and their implication to defect