UNIVERSITI TEKNOLOGI MARA

USABILITY STUDY ON SISTEM PENGURUSAN INVENTORI ARMADA VERSION 2 (SPIA V2) FOR ROYAL MALAYSIAN NAVY (RMN)

SARHAN ROZAINI BIN MOHAMED RADZI

IT Project/Dissertation submitted in partial fulfilment of the requirements for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

Dec 2013

ABSTRACT

Sistem Pengurusan Inventori Armada Version 2 (SPIA v2) is an intranet system that was developed for Royal Malaysian Navy (RMN) to facilitate its logistic system. However, the system is not fully used by the RMN personnel due to lack of acceptance and unclear usability issues. Hence, this research project is performed to objectively uncover the system acceptance based on understandability, learnability, operability and attractiveness, to identify usability factors required by users to improve the system design and to propose solution to improve the system design based on the identified usability factors. A survey questionnaire was developed and distributed to 100 users of SPIA v2. Interview was also performed to further understand problems and issues that arise from the use of SPIA v2. Four usability factors from ISO 9126, which are understandability, learnability, operability and attractiveness, is used to designed the questionnaire in evaluating the SPIA v2 system. The result shows that understandability, learnability, operability and attractiveness are the main issues in SPIA v2. A set of proposed solution for future versions of SPIA with some improvements in usability factors are provided at the end of the project. The proposed solution could be used by the system designers to improve SPIA v2, thus enhance acceptance and sustainability of the system.

ACKNOWLEDGEMENT

TABLES OF CONTENTS

CHAPTER ONE

INTRODUCTION

1.0   Introduction

Chapter one (1) presents the foundation of this study. It will briefly explains on the research background, problem statements, research objectives, significance of the research and scope simultaneously with report outline for the whole chapter. Generally, Chapter 1 will build preface perceptive about this study.

1.1   Overview

Nowadays, there are many existing website and application system in market. Besides, there are insufficient considerations paid to their usability. It is vital to conduct usability testing to know the quality of the product that has been used. There is various evaluation methods used to evaluate the existing system.

In defining usability, it is important to understand its framework. There are few frameworks of usability explained further in Chapter Two (Literature Review). The frameworks are from Shackel (1991), ISO 9126, Nielsen (1993) and so forth.