UNIVERSITI TEKNOLOGI MARA

PRODUCTIVE AGEING MODEL TO SUPPORT INTRINSIC VALUES ACTIVITIES THROUGH ICT SERVICES

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Thesis submitted in fulfillment of the requirements for the degree of **Doctor of Philosophy** (Information Technology and Quantitative Sciences)

Faculty of Computer and Mathematical Sciences

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Productive ageing refers to elderlies' participation in activities that provide a range of values to society and to themselves. With the elderlies' declining physical abilities, their quality of life is focused on their participation in intrinsic value activities for selfactualization. The advancement of ICT provides connectivity for elderlies; hence, providing opportunities for them to participate meaningfully in the society. The present ICT services appear to be geared towards physiological and safety aspects in supporting elderlies declining physical ability. However, ICT services that enhance social relatedness, self-development, self-esteem and self-actualization leading to intrinsic values among them, appear to be lacking. Elderlies are motivated to use ICT services if the services can give them the much needed intrinsic values. Although ICT services have the capabilities or potentials of providing social inclusiveness, its features should also be able to support the intrinsic value activities for the elderlies. Therefore, this research aims to discover the features of ICT services, which can enhance the intrinsic values among elderlies. Subsequently, an productive ageing model to support intrinsic value activities is proposed. This study employs the foresight methodology with key processes consisting of interviews with thirteen elderlies, brainstorming sessions with six ICT experts and scenario writing for the purpose of verification of the proposed model. The theory-driven content analyses are performed and have identified three dimensions of intrinsic value activities for elderlies, which are volunteering, caregiving and self-development. The motivations for performing these activities are autonomy, competence, relatedness, altruism and curiosity that have resulted in three intrinsic values of gratification, affiliation and self-esteem. The ICT services to support intrinsic value activities in productive ageing model comprises of the ICT services characteristics that are transactive, community-based with online communication channels, and incorporated with intelligent agents. This study has contributed towards new knowledge through the development of the productive ageing model to support the intrinsic value activities. The model gives insights on the intrinsic value activities among elderlies and some foresights into future technology characteristics to support productive ageing. The methodological contribution is reflected through the usage of foresight methodology in exploring future technologies for elderlies.

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TABLE OF CONTENTS

		Page
CONF	FIRMATION BY PANEL OF	ii
EXAMINERS AUTHOR'S		iii
DECL	ARATION ABSTRACT	iv
ACKN	NOWLEDGEMENT	v
TABLE OF CONTENTS		vi
LIST (OF TABLES	xi
LIST (OF FIGURES	xiii
ABBR	REVIATIONS	xiv
СНАР	TER ONE: INTRODUCTION	1
1.1	Background of the Study	1
1.2	Problem Statement	4
1.3	Research Questions	7
1.4	Research Objectives	7
1.5	Scope of the Research	7
1.6	Significance of the Research	8
1.7	Structure of the Thesis	9
СНАР	PTER TWO: LITERATURE REVIEW	11
2.1	Introduction	11
	2.1.1 Ageing	11
	2.1.1.1 Global Ageing	12
	2.1.1.2 Malaysia Elderlies Population	12
2.2	Productive Ageing	13
2.2.1	Monetary and Non-Monetary Activities	15
2.3	Intrinsic Values and Extrinsic Values	18
2.4	Intrinsic Motivation and Activities of Elderlies	20
	2.4.1 Self-Determination Theory (SDT)	22
	2.4.2 Flow Theory (FT)	23
	2.4.3 Organization Citizenship Behavior (OCB)	24
	2.4.4 Uses and Gratification Theory (U&G)	26
	2.4.5 Technology Acceptance Model (TAM)	26
	2.4.6 Theory of Intrinsically Motivating Instruction (TIMI)	27