

Cognitive Biases in Decision Making: Maximizing Utility or Minimizing the Effort?

A Thesis Submitted to the Othman Yeop Abdullah, Graduate School of Business, Universiti Utara Malaysia, in Fullfillment of the Requirement for the Degree of Masters of Economic

By

TEH WOUI TEIK

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ABSTRACT

This study examines cognitive biases in human decision-making. Three research objectives are investigated in the study: (i) identifying cognitive biases before the process of decision-making by individuals, (ii) identifying cognitive biases after the process of decision-making by individual and, (iii) suggest solution or de-biases method for an ideal condition in decision-making. The goal of this study is to understand various tendency biases in judgment and decision making and tries to suggest particular solution in order to achieve the ideal condition in decision making. Most of the findings in this study are developed from the theory of economic behavior and experimental-economics. The research highlighted the inadequacy of an economic theory which is, in reality people go for the minimization of effort rather than the standard assumption that every decision depends on the pursuit of “utility maximization”. In addition the study offers certain explanation concerning the boundaries assumption of rational-agent of economic theory and why it has been prevailed in the past decade.

ABSTRAK

Kajian ini meneliti tentang prasangka kognitif manusia dalam membuat keputusan. Terdapat tiga objektif penyelidikan yang diteliti dalam kajian ini : (i) menentukan prasangka kognitif individu sebelum proses membuat keputusan, (ii) menentukan prasangka kognitif individu selepas proses membuat keputusan dan, (iii) mengutarakan kaedah penyelesaian untuk tujuan membuat keputusan yang lebih berkesan dan berfaedah. Tujuan kajian ini adalah untuk memahami pelbagai biasan prasangka dalam penilaian dan keputusan yang akan membawa kepada kelakuan yang tidak rasional. Kebanyakan penemuan dalam kajian ini adalah berasaskan kepada teori perlakuan ekonomi dan ekonomi eksperimental. Kajian ini juga menunjukkan kekurangan dari segi teori ekonomi iaitu secara realitinya individu bertindak untuk meminimumkan usaha berbanding andaian teori ekonomi yang hanya menekankan kepada pemaksimuman utiliti. Selain itu kajian ini juga menawarkan penjelasan tentang batasan andaian rational dalam teori ekonomi dan kenapa ianya masih lagi merupakan teori unggul dalam ekonomi sejak beberapa dekad.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

Theories of how and why human beings make various decisions, and under what conditions, are largely divided between the decision making process under ideal conditions, normative theories (Rational Choice Theory), and the process as it exists in reality, descriptive theories (Prospect Theory). The normative decision theory has been developed from the Theory of Expected Utility proposed by John von Neumann and Oskar Morgenstern (1944) in the publication of Theory of Games and Economic Behavior. At the center of Von Neumann and Morgenstern's game theory, the foundation of theory of expected utility or neoclassical models is the concept of utility. The notion of utility, in a broad sense, is a numerically measurable amount of value. The theory predicted that a person would act so as to maximize the expected utility based on weighted probabilities of the alternative outcomes of a choice of his utility (known as Behavioral Decision Theory). The prediction essentially pre-supposes that human beings will always act rationally and choosing the option with the highest probability of delivering value. The rationality function of the theory is governed by certain axioms that characterize "rational behavior" required in rational decision making i.e. *Ordering of*

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