Dr. Muhammed Esat ÇETİN

Investigating The Relationship Between Health Product Consumption And Health Literacy İn The Pandemic Period



FİLİZ KİTABEVİ İSTANBUL 2024

Ağustos 2024

ISBN: 978-975-368-892-5

BASKI - CİLT

Filiz Kitabevi Basım Yayın Dağıtım Petrol Ürünleri Sanayi ve Tic. Ltd. Şti. Matbaacı Sertifika Numarası: 48596

YAYINLAYAN



Filiz Kitabevi Basım Yayın Dağıtım Petrol Ürünleri Sanayi ve Tic. Ltd. Şti. Cemal Yener Tosyalı Cad. No: 57/A (113) Vefa-Fatih/İSTANBUL Tel: (212) 527 0 718

> (850)441 0 359 Faks: (212) 519 20 71

www.filizkitabevi.com bilgi@filizkitabevi.com Yayıncı Sertifika Numarası: 48596

Copyright© Bu kitabın Türkiye'deki yayın hakları Filiz Kitabevi Basım Yayın Dağıtım Petrol Ürünleri San. ve Tic. Ltd. Şti.'ne aittir. Her hakkı saklıdır. Hiçbir bölümü ve paragrafı kısmen veya tamamen ya da özet halinde, fotokopi, faksimile veya başka herhangi bir şekilde çoğaltılamaz, dağıtılamaz. Normal ölçüyü aşan iktibaslar yapılamaz. Normal ve kanunî iktibaslarda kaynak gösterilmesi zorunludur.

PREFACE

Health is defined in the literature not only as the absence of disease. Health is defined by the World Health Organization as a state of complete mental, physical and social well-being. All this makes healthy life the most important part of human life. In human life, health is sometimes a goal to be achieved, sometimes a process to be maintained or even protected, and sometimes an effort expressed as "at least for a healthier life". Health constitutes an important aspect of the life-related concerns that people carry throughout their lives. Understanding the medical, economic and sociological processes related to health and the search for solutions to problems by identifying the problems constitute two of the most important reasons that make scientific efforts on these issues meaningful.

Health products constitute an important part of the consumption products that individuals use throughout their lives. The main purpose of this book is to examine the effect of individuals' consumption of health products, health literacy levels, perceived economic value and perceived economic risk levels during consumption on customer satisfaction in an extraordinary process such as the COVID-19 outbreak, using structural equation modeling.

In the first part of the book, definitions on health and health products, the content of these definitions, evaluation of health services, health expenditures, health products, over-the-counter (OTC) drugs and factors affecting the consumption of health products were discussed. In the second section, the concept of health literacy, the importance of health literacy, the concept of health literacy in the world and in Turkey were discussed. In the third section, the COVID-19 outbreak, the history of outbreaks and their effects on the economy, and their impact on

consumption behaviors were discussed. In the fourth section, the conceptual examination of perceived value, perceived risk, purchase intention and customer satisfaction, literature review on the concepts and explanations about their measurement are given. In the last part of the book, the methodology of the research, discussion, conclusions and recommendations are given in order to examine the effect of individuals' health literacy level on the consumption of health products during the COVID-19 process.

I would like to express my gratitude to all my professors and colleagues who contributed to the development and completion of my thesis, which forms the basis for the content of this book. I would like to express my gratitude to Dr. Veysel Bozkurt for providing invaluable guidance and expertise throughout my PhD studies, setting an admirable example and contributing to the development of my thesis. I would also like to acknowledge the important contributions of Dr Dilek Demirbaş and Dr Seyfettin Erdoğan.

I would like to express my gratitude to my family, especially my mother, father and my wife, whose support and prayers I feel with me at every moment of my education and training life.

İÇİNDEKİLER

INTRODUCTION	1	
PART ONE		
HEALTH AND HEALTH PRODUCTS		
1.1.The Concept of Health	5	
1.2. Evaluation of Health Services in Turkey		
1.2.1.Primary Health Care Providers		
1.2.2. Secondary Health Service Providers		
1.2.3.Tertiary Health Service Providers		
1.3.Health Expenditures in Turkey	9	
1.3.1. Public and Private Health Expenditures	10	
1.3.2. Individual Health Expenditures	18	
1.4. Factors Affecting Individual Health Expenditures	22	
1.5. Classification of Health Products	26	
1.5.1. Products Subject to Prescription	26	
1.5.2. Non-Prescription Drugs	26	
1.5.2.1. Food Supplements	27	
1.5.2.2 Traditional Herbal Medicinal Products	27	
1.5.2.3. Medical Devices and Medical Consumables	28	
1.5.2.4. Biocidal Products	28	
1.5.2.5. Cosmetic and Dermocosmetic Products	29	
1.6. Over-the-Counter (OTC) Medicines	29	
1.7 Salf Mediantian	20	

PART TWO HEALTH LITERACY

2.1. The Concept of Health Literacy	33
2.2.Overview of Health Literacy	
2.2.1. Health Literacy in the World	35
2.2.2. Health Literacy in Turkey	36
2.3. Importance of Health Literacy	38
2.4. Measuring Health Literacy	41
PART THREE	
COVID-19 AND CONSUMPTION	
3.1. Epidemics from History to the Present	43
3.2. COVID-19 Pandemic	
3.2. Economic Impact of COVID-19 Pandemic	46
3.3. COVID-19 Pandemic and Consumption Behavior	48
3.4. COVID-19 Fear and Measurement	50
SECTION FOUR	
PERCEIVED VALUE, CONSUMER SATISFACTION, PERCEIVED RISK, PURCHASE INTENTION	
4.1. Perceived Value Concept	51
4.1.1.Measurement of Perceived Value	
4.2. Customer Satisfaction Concept	53
4.2.1. Measurement of Customer Satisfaction	
4.3. Perceived Risk Concept	56
4.3.1. Measurement of Perceived Risk	58
4.4. Purchase Intention Concept	60

SECTION FIVE THE EFFECT OF INDIVIDUALS' HEALTH LITERACY LEV ON THE CONSUMPTION OF HEALTH PRODUCTS IN TH COVID-19 PROCESS	
5.1. Methodology of the Study	63
5.1.1.Purpose and Importance of the Research	63
5.1.2. Data Collection	
5.1.3. Population and Sample Size of the Study	65
5.1.4.Measurement of Variables and Preparation of Questionnaire	
Form	67
5.1.5. Inclusion Criteria	70
5.2. Analysis and Findings	70
5.2.1. Structural Equation Model	70
5.2.2.Demographic Data	
5.2.3. Frequency Table for Scale Statements	77
5.2.4. Confirmatory Factor Analysis	89
5.2.4.1. Perceived Value Confirmatory Factor Analysis	90
5.2.4.2. Perceived Risk Confirmatory Factor Analysis	91
5.2.4.3. COVID-19 Fear Scale Confirmatory Factor Analysis	92
5.2.4.4. Health Literacy Scale Confirmatory Factor Analysis	94
5.2.4.5. Customer Satisfaction Scale Confirmatory Factor	
Analysis	96
5.2.4.6. Confirmatory Factor Analysis of Purchase Intention	
Scale	97
5.2.5. Reliability and Validity Analysis	98
5.2.5.1. Perceived Value	98
5.2.5.2. Perceived Risk	99
5.2.5.3. Health Literacy	99
5.2.5.4. COVID-19 Fear	100

5.2.5.5. Customer Satisfaction	101
5.3. Testing the Model with Structural Equation Modeling	103
5.4. Summary Results of Hypotheses	107
DISCUSSION	111
CONCLUSION	117
CONCLUSION	11/
REFERENCES	123
APPENDICES	135

LIST OF GRAPHICS

Figure 1: Total health expenditure (Million TL)(TUIK, 2021)	11
Figure 2: Distribution of Total Health Expenditures by General and Private Sector (TUIK, 2021)	
Figure 3: Total Number of Physician Referrals by Years and Institution Types(Ministry of Health, 2021)	15
Figure 4: Number of Health Professional by Years, All Sectors (Ministry of Health, 2021)	17
Figure 5: Number of Physician Consultations per Person by Years and Service Scope (Ministry of Health, 2021)	19
Figure 6: Household Expenditures (Million TL) (TUIK, 2021)	20
Figure 7 Ratio of Expenditures to General Health Expenditures (%)(TUIK, 2021)	21
Figure 8: Factors influencing individual health expenditures	23
Figure 9: Health expenditure per capita (TL) (TUIK, 2021)	25
Figure 10:Model for Confirmatory Factor Analysis of Perceived Value Scale	90
Figure 11: Model for Confirmatory Factor Analysis of Perceived Risk Scale	91
Figure 12: Model for Confirmatory Factor Analysis of COVID-19 Fear Scale	92
Figure 13: Model for Confirmatory Factor Analysis of the Health Literacy Scale	94
Figure 14: Model for Confirmatory Factor Analysis of Customer Satisfaction Scale	96
Figure 15: Model for Confirmatory Factor Analysis of Purchase Intention Scale	97
Figure 16: Hypothesis diagram	. 104
Figure 17: Structural Equation Model and Standardized regression	
coefficients	
Figure 18: Model Result Table	. 110

LIST OF TABLES

Table 1: Disease Prevention/Health Promotion Dimension (Okyay &	
Abacıgil, Turkey Health Literacy Scales Reliability and	
Validity Study, 2016)	42
Table 2: Scale statements are based on the studies conducted by	
Ahorsu et al. (2020) and Bakioğlu et al. (2021)	50
Table 3: Based on Lee et al. (2012) and Yeşilyurt (2018)	53
Table 4: Taken from Oliver, (1980).	55
Table 5: Based on Oliver, (1980), Sütütemiz, (2005) and Yeşilyurt, (2018)	56
Table 6: Stone & Gronhaug (1993), Deniz & Erciş (2010) and Yeşilyurt (2018).	59
Table 7: (Putrevu & Lord, 2013) and (Ustaahmetoğlu & Toklu, 2015) studies were utilized while creating the statements	
Table 8: Sample Size Table (Tutar & Erdem, 2020: 267)	66
Table 9: Survey statements used to measure Health Literacy, Fear of	
COVID-19, Perceived Value, Perceived Risk, Customer	
Satisfaction and Purchase Intention	68
Table 10: Age Frequency Table of the Respondents	72
Table 11: Frequency Table of Marital Status of the Respondents	73
Table 12: Frequency Table of Educational Status of the Respondents	73
Table 13: Frequency Table of Respondents' Employment Status	74
Table 14: Income Frequency Table of the Respondents	74
Table 15: Frequency Table of COVID-19 Status of the Respondents.	75
Table 16: Frequency Table of Respondents' Trust in Pharmaceutical	
Companies	75
Table 17: Frequency Table of Vaccination Status of the Respondents	76
Table 18: Frequency Table of Gender Status of the Respondents	76

Table 19: Frequency Table for Perceived Economic Value	
Dimension	. 77
Table 20: Frequency Table for the Perceived Economic Risk	
Dimension	. 79
Table 21: Health Literacy Scale Frequency Table	. 81
Table 22: Fear of COVID-19 Scale Statements Frequency Table	. 85
Table 23: Customer Satisfaction Scale Frequency Table	. 87
Table 24: Purchase Intention Scale Frequency Table	. 88
Table 25: Fit Indices Used in the Examination of Research Models	. 89
Table 26: Fit Indices Used in the Examination of Research	
Models-2	. 90
Table 27: Perceived Value Scale Confirmatory Factor Analysis Fit Values	. 91
Table 28: Confirmatory Factor Analysis Fit Values of Perceived Ris	
Table 29: COVID-19 Fear Scale Confirmatory Factor Analysis Fit Values	. 93
Table 30: Health Literacy Scale Confirmatory Factor Analysis Fit Values	. 95
Table 31: Customer Satisfaction Scale Confirmatory Factor Analysis Fit Values	
Table 32: Confirmatory Factor Analysis Fit Values of Purchase	
Intention Scale	. 97
Table 33: Perceived Value Reliability Coefficient	. 98
Table 34: Perceived Risk Reliability Coefficient	. 99
Table 35: Health Literacy Reliability Coefficient	100
Table 36: COVID-19 Fear Reliability Coefficient	100
Table 37: Customer Satisfaction Reliability Coefficient	101
Table 38: Model Statements, Factor Loadings and CR/AVE values.	101
Table 39: Number of Variables of the Structural Model	105
Table 40: Goodness of Fit Values of the Whole Model	105
Table 41: Hypothesis Test Results	109

INTRODUCTION

Changing consumption habits in recent years have also had an impact on the consumption of healthcare products. Increasing applications to health service providers and increasing investments in health services in response to the need bring about a significant growth in the health sector. In Turkey, total health expenditures constitute an important economic item. According to 2019 data, total health expenditures constitute 5% of the gross domestic product (TUIK, 2020).

Individual health expenditures constitute a portion of health expenditures. Consumption of health products in health expenditures of individuals has an important place in many areas of healthy life such as treatment, protection, nutrition and exercise in daily life. Especially with the development of the concept of self-medication, individual health expenditures have been increasing recently. Individuals buy over-the-counter products especially from centers selling health products such as pharmacies as a result of their own experiences, recommendations or internet research.

The ratio of households' out-of-pocket health expenditures to total health expenditures is important as a data that will allow us to assess individuals' consumption of health products. The ratio of out-of-pocket health expenditures by households for treatment, medicines, etc. to total health expenditures was measured as 16% in 2020 (TUIK, 2020). Increasing expenditures out-of-pocket health may impoverishing effect especially on low- and middle-income individuals. For this reason, studies on the reasons affecting individual health expenditures are important. In Turkey, when household expenditures are broken down according to household consumption types, health consumption expenditures correspond to 2.2% of household

consumption expenditures (TUIK, 2019b). These data suggest that the consumption of health products has an important place in the lives of individuals not only in terms of their health but also economically.

In other words, self-medication, the advantages of individuals purchasing medicines directly from pharmacies for the treatment of simple diseases for which they cannot find an appointment for an examination or for which there is no need to go to a hospital, brings with it new regulations. Self-medication also carries some risks. Studies on the concept of self medication, which is increasingly on the agenda of the society with its advantages and risks, are gaining importance.

In order for the health system to be used effectively and fairly, each individual addressed by the system should be aware of the opportunities offered by the health system and should also be provided with access to these opportunities. In the same way, it is important that individuals are informed and guided correctly on issues related to their health, especially in public and private sector institutions where individual health services are provided.

People's access to health and their desire to benefit from health services is often a necessity for their lives rather than a choice. Considering this necessity, the protection of the individual as a consumer of health products in market processes such as competition and profit maximization is of particular importance. Considering these points, in order for individuals to have easy, effective and efficient access to health services, it is necessary to increase the health knowledge of individuals and to improve their capacity to understand and evaluate health issues.

Recently, states and international organizations aim to facilitate individuals' access to health services, increase their use of health services, and use the facilities and capabilities of health systems more effectively and efficiently with the concept of health literacy. In this sense, the definition of health literacy made by the World Health Organization is important:

"Health literacy is linked to literacy and refers to people's knowledge, motivation and competence to access, understand, evaluate and apply health information to make judgments and decisions in everyday life to maintain or improve quality of life throughout their lives through health care, disease prevention and health promotion (WHO, 1998)."

As the definition suggests, the goal of increasing the level of health literacy includes not only information but also active attitudinal change. Many people do not know how to access health information. They cannot distinguish the accuracy of information circulating on social media or among friends. These failures in access to accurate information not only affect the health of individuals, but also limit the effective use of the health system, increase waste in the health system as a result of unnecessary use, and make planning difficult. Moreover health information is often technical so to understand it, individuals need to be guided in different ways. Otherwise, it is difficult for individuals to comply with the right treatment, nutrition or medication.

Consumption and saving behaviors of individuals are affected during extraordinary processes. The COVID-19 pandemic also affected the demand for health products. Online purchasing behaviors have increased in consumer behavior. People tried to buy products that they could stock up, especially in the early stages of the pandemic. In this period, individuals' consumption of health products is influenced by environmental factors, advertisements, news, etc. with the increasing influence of social media.

Examining the reasons for the relationship between individuals' consumption of health products in extraordinary periods and crises and comparing the effects of this relationship in different groups is important for the production planning and market processes of health products, which have a vital place for health services, and for individuals to access these products in a healthy way.

This study aims to examine the effect of individuals' health literacy level on the consumption of health products during COVID-19. The health products analyzed in the study were limited to over-the-counter (OTC) health products, whose consumption is increasing. It is thought that evaluating these health products that individuals can purchase without a prescription will more accurately reflect individuals' health product consumption preferences. It is thought that health products prescribed by a physician and purchased through a prescription may lead to erroneous analyses in evaluating consumer behavior.

In the study, consumers' consumption behaviors were also addressed with their economic dimensions. In this sense, the statements of the perceived value and perceived risk scales were adapted to evaluate the economic dimensions of consumers' perceived risk and value. In addition, purchase intention and consumer satisfaction scales were also adapted from ready-made scales. The fear experienced by individuals during the COVID-19 pandemic was evaluated using the COVID-19 fear scale. In addition, the health literacy scale was used for health literacy.