

**FACTORS THAT INFLUENCING CONSUMERS PURCHASE DECISION
OF SUNSCREEN PRODUCT IN MALAYSIA**

NUR SYAFINI FITRIAH BINTI KAMARUDDIN

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

SUPERVISOR'S & PANEL'S DECLARATION

I hereby declared that I had read through this project paper and in my opinion, this project paper was adequate in term of scope and quality, which is fulfilling the requirement of Bachelor of Technology Management (High-Technology Marketing)

Signature :

Supervisor :

Date :

Signature :

Panel :

Date :

**FACTORS THAT INFLUENCING CONSUMERS PURCHASE DECISION
OF SUNSCREEN PRODUCT IN MALAYSIA.**

NUR SYAFINI FITRIAH BINTI KAMARUDDIN

**This report is submitted in
partial fulfillment of requirements for the
Bachelor Degree of Technology Management (High-Technology Marketing)
Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka.**

JUNE 2019

DECLARATION

“I hereby declare that the work in this report is my own except for summaries and quotation which have been duly acknowledge”

Signature :

Author :

Date :

ACKNOWLEDGEMENT

It is a pleasure to thank those who have given their help in making this thesis possible. First of all, I would like to thank Universiti Teknikal Malaysia Melaka (UTeM) for giving me the opportunity to perform this research as my final year project in order to fulfil my Bachelor in Technology Management (High-Tech Marketing) graduate requirement.

I am expressing multitude gratitude to my supervisor, Dr. Mohammed Hariri Bin Bakri and Madam Mislina Binti Atan @ Mohd Salleh for their guidance and patients throughout the years. It is my honour for me to have such a great supervisor who have been extraordinary supportive.

My deepest gratitude is also going to my friends in BTMM course, UTeM, whom have been guiding me through thick and thin, and special thanks to my friends in arms Putri Nilam Baiduri Sapeai, Anis Ashila Razaki, Nor Zalikha Syafiqah and Khairul Effendi Bin Ismail who without them during my hard times, this thesis will not be possible.

I owe my deepest gratitude to my beloved parents, Kamaruddin Bin Magaosh and Che Maziah Binti Mohamed, who have been supporting me in financial and mental support.

Lastly, I offer my regards and blessings to all of those who supported me either directly or indirectly in any aspect during the completion of this project. Without all of you, I believe I won't be graduated.

ABSTRAK

Penggunaan cahaya pelindung matahari yang berkesan untuk meningkatkan fungsi kosmetik memerlukan pemahaman mengenai keperluan perlindungan matahari dari segi persekitaran radiasi matahari dan pengetahuan terkini tentang kesan merosakkan cahaya matahari pada kulit manusia. Di samping itu, jumlah bahan aktif yang ada adalah terhad, dan prosedur untuk penilaian prestasi matahari adalah rumit. Pada zaman sekarang, ilmu pengetahuan terhadap fungsi produk pelindung matahari masih berkurangan justeru mencabar tindakan untuk meningkatkan sikap melindungi diri daripada matahari. Tujuan kajian ini adalah untuk mengetahui sebab mengapa pengguna memilih faktor tertentu apabila mereka membeli dan menggunakan produk pelindung matahari. Semua data dikumpul melalui pengedaran kuesioner di kalangan 384 responden di Malaysia dan menganalisis dengan menggunakan Statistik SPSS Versi 25.0. Faktor-faktor yang mempengaruhi keputusan membeli pengguna terhadap produk pelindung matahari di Malaysia akan diuji dengan analisis regresi berganda dan Korelasi Pearson. Kemudian, hasil kajian itu dapat membantu para pemasar kosmetik dan organisasi kesihatan untuk memahami faktor yang mempengaruhi keputusan membeli pengguna terhadap produk pelindung matahari dan menggunakan sepenuhnya faktor utama.

Kata kunci: Produk pelindung matahari, keputusan membeli

ABSTRACT

The effective use of sunscreens to enhance cosmetic functionality requires an understanding of the need for sunscreen protection in terms of the solar radiation environment and current knowledge of the damaging effects of sunlight on human skin. In addition, the number of available active ingredients is limited, and procedures for sunscreen performance evaluations are complex. The current knowledge on sunscreens product function present challenges in enhancing the practises of sun protection behaviour among consumers. The purpose of this study was to find out the reason why consumer had chosen particular factor when they intended to purchase and use sunscreen products. All the data are collected through distribute the questionnaire among the 384 respondents in Malaysia and analyse using SPSS Statistics Version 25.0. The factors that influence the consumers purchase decision of sunscreen product in Malaysia would be further tested with multiple regression analysis and Pearson Correlation. Then, the result of the study could assist the cosmetic marketers and health organizations to understand the factor that influencing the consumers purchase decision of sunscreen product and fully utilized the main factor.

Keywords: Sunscreen products, purchase decision

TABLE OF CONTENTS

CHAPTER	TITLE	PAGES
	SUPERVISOR & PANEL DECLARATION	i
	TITLE	ii
	DECLARATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRAK	v
	ABSTRACT	vi
	TABLE OF CONTENT	vii
	LIST OF TABLES	viii
	LIST OF FIGURES	x
	LIST OF ABBREVIATIONS	xi
	APPENDICES	xii
CHAPTER 1	INTRODUCTION	
	1.1 INTRODUCTION	1
	1.2 BACKGROUND OF STUDY	2
	1.3 PROBLEM STATEMENT	3
	1.4 RESEARCH QUESTION	4
	1.5 RESEARCH OBJECTIVE	4
	1.6 SCOPE OF STUDY	5
	1.7 LIMITATION OF STUDY	5
	1.8 SIGNIFICANCE OF STUDY	5
	1.9 SUMMARY	6
CHAPTER 2	LITERATURE REVIEW	
	2.1 INTRODUCTION	7
	2.2 SUNSCREEN PRODUCT IN COSMETIC INDUSTRY OVERVIEW	7
		vii

2.3	SUN EXPOSURE OUTCOMES	8
2.4	SUN PROTECTION BEHAVIOUR	9
2.5	PURCHASE DECISION OF SUNSCREEN PRODUCT	10
2.6	THEORY OF PLANNED BEHAVIOUR	11
	2.6.1 Attitude	11
	2.6.2 Subjective Norms	12
	2.6.3 Perceived Behaviour Control	13
	2.6.4 Knowledge	14
2.7	RESEARCH FRAMEWORK	16
2.8	HYPOTHESIS DEVELOPMENT	17
2.9	SUMMARY	19

CHAPTER 3 RESEARCH METHOD

3.1	INTRODUCTION	20
3.2	RESEARCH DESIGN	21
3.3	METHODOLOGY CHOICE	23
3.4	DATA SOURCES	23
3.5	LOCATION OF RESEARCH	24
3.6	RESEARCH STRATEGY	25
	3.6.1 Questionnaire Design	25
3.7	SAMPLING DESIGN	26
3.8	PILOT TEST	27
3.9	DATA ANALYSIS METHOD	28
	3.9.1 Descriptive Analysis	28
	3.9.2 Validity and Reliability	28
	3.9.2.1 Internal validity	29
	3.9.2.2 External validity	29
	3.9.2.3 Construct validity	30
	3.9.2.4 Reliability	30
	3.9.3 Factor Analysis	31
	3.9.4 Correlation Analysis	31
	3.9.5 Multiple Regression Analysis	32

3.10	TIME HORIZON	32
3.11	SUMMARY	32
CHAPTER 4	DATA ANALYSIS	
4.1	INTRODUCTION	33
4.2	PILOT TEST	34
4.2.1	Reliability Test	34
4.3	DESCRIPTIVE ANALYSIS	35
4.3.1	Profile of Respondent	36
4.3.1.1	Gender	36
4.3.1.2	Race	37
4.3.1.3	Age	38
4.3.1.4	Employment status	39
4.3.1.5	Income level	40
4.4	DESCRIPTIVE STATISTICS	42
4.4.1	Descriptive Statistics of Dependent Variable	42
4.4.2	Descriptive Statistics of Independent Variable	43
4.4.2.1	Descriptive Statistics of Attitude (IV1)	44
4.4.2.2	Descriptive Statistics of Subjective Norms (IV2)	45
4.4.2.3	Descriptive Statistics of Perceived Behaviour Control (IV3)	47
4.4.2.4	Descriptive Statistics of Knowledge (IV4)	49
4.5	INFERENCE ANALYSIS	51
4.5.1	Reliability Test	51
4.5.2	Confirmatory Factor Analysis	54
4.5.3	Pearson Correlation Coefficient	61
4.5.4	Multiple Linear Regression	63
4.5.5	Hypothesis Testing	66
4.6	SUMMARY	70

CHAPTER 5	DISCUSSION, RECOMMENDATION AND CONCLUSION	
5.1	INTRODUCTION	71
5.2	SUMMARY OF THE STUDY	71
5.3	DISCUSSION OF RESEARCH OBJECTIVES	72
5.4	IMPLICATION OF STUDY	75
5.5	LIMITATION OF THE STUDY	75
5.6	RECOMMENDATIONS FOR FUTURE RESEARCH	75
5.7	CONCLUSION	76
5.8	SUMMARY	76
	REFERENCES	78
	APPENDICES	84

LIST OF TABLES

TITLE	PAGE
4.2.1 Reliability Statistics	34
4.3.1.1 The gender of the respondents	36
4.3.1.2 The race of the respondent	37
4.3.1.3 The age of the respondent	38
4.3.1.4 The employment status of respondents	39
4.3.1.5 The income level of respondents	40
4.4.1.1 Descriptive Statistics of Dependent Variable	42
4.4.1.2 Mean Score Interpretation	42
4.4.2 Descriptive Statistics of Independent Variables	43
4.4.2.1 Descriptive Statistic of Attitude	44
4.4.2.2 Descriptive Statistic of Subjective Norms	45
4.4.2.3 Descriptive Statistic of Perceived Behaviour Control	46
4.4.2.4 Descriptive Statistic of Knowledge	47
4.5.1.1 Cronbach's Alpha Coefficient range and its strength of association	51
4.5.1.2 Reliability Test for Both Dependent Variable and Independent Variable	51
4.5.1.3 Reliability Test for each of Independent Variable	51
4.5.2.1 The KMO and Barlette's Test	54
4.5.2.2 The Communalities	55
4.5.2.3 Total Variance Explained (Extraction: Principle Component Analysis)	56
4.5.2.4 Rotated Component Matrix	57
4.5.2.5 New Listing extracted from Rotated Component Matrix	58
4.5.3.1 Correlation	61

4.5.3.2	Strength of Pearson Correlation Coefficient	61
4.5.4.1	Model Summary of Multiple Regression Analysis	63
4.5.4.2	ANOVA of Multiple Regression Analysis	63
4.5.4.3	Coefficient of Multiple Regression Analysis	64

LIST OF FIGURES

	TITLE	PAGE
2.7	The proposed conceptual framework of factors influences the consumers purchase decision of sunscreen product.	15
3.9.2.4	Cronbach's alpha measurement	29
4.3.2.1	The gender of the respondents	36
4.3.2.2	The race of the respondent	37
4.3.2.3	The age of the respondent	38
4.3.2.4	The employment status of respondents	39
4.3.2.5	The income level of respondents	40

LIST OF ABBREVIATIONS

SPSS	=	Statistical Package for the Social Science
TPB	=	Theory of Planned behaviour
DV	=	Dependent Variable
IV	=	Independent Variable
H ₀	=	Null Hypothesis
H ₁	=	Alternatives Hypothesis
A	=	Attitude
S	=	Subjective Norms
P	=	Perceived Behaviour Control
K	=	Knowledge

APPENDICES

1. QUESTIONNAIRES
2. GANTT CHART PSM

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

In the economic age, people are so busy on taking care about their look and appearance but the climate in Malaysia not so helping out in order to make this process successful. Many people especially women faces the problem in taking care their skin because of the sun exposure effect. Excessive and unprotected sun exposure can lead to a range of skin disorders, including sunburn, skin aging, suntan, blemishes, and skin cancer (Shaowei Cheng, 2010). Thus, sunscreens became their necessity in their basic skincare routine.

Sunscreen products have been widely used, so this research adopted the Theory of Planned Behaviour (TPB): attitude, subjective norm, perceived behaviour control and knowledge to investigate the factors that influencing consumers purchase decision of sunscreen product.

Furthermore, this chapter contained the information about the background study of research topic which was the factors influencing the consumers purchase decision of sunscreen products in Malaysia. At the same time, researcher discussed the problem statement, research questions, research objectives, scope and limitation of study and significant of the study.

1.2. BACKGROUND OF STUDY

The triggering of melanoma is mostly affected by sunburn specifically in ultraviolet B radiation with wavelength of 280 to 320nm, according to (FP. Noonan, 2001). More studies need to be done to investigate the relationship between UVA and the cause of DNA damage but the formation of cyclobutane pyrimidine dimers (CPDs) by the UVA 320 to 400nm has been proven (H. Ikehata, 2011).

Ultraviolet B (UVB) will cause a direct DNA damage. The formation of UVB-induced CPD is differs from the mechanism of UVA production of CPD as the UVA has the lower rates of removal of CPD than UVB irradiation. The skin carcinogenesis happened when the skin DNA damage from the contribution of UVA radiation. Many precautions should be taken to prevent problem such as skin carcinoma that occurs from exposure of UVA and UVB radiation (S. Mouret, 2006).

Active ingredients in the sunscreen products can protect the skin from the penetration of UV light by absorbing or reflecting the UV light. Organic chemicals to mineral compound are varying of those active ingredients. From the discovery before, salicylates were found as the ingredient that can reduce the effect of sunburn thus sunscreen was the first to be used at that time (Murphy, 1999).

According to the National Hydraulic Research Institute of Malaysia, as cited by Al-Amin et al., the average surface temperature that rising day by day is the strong evidence that this will affect the routine of people in Malaysia. For instant, every people are exposed to these harmful UV-rays while walking to anywhere and participating in outdoor activities. This study was aimed at exploring the actions of these people in facing climate changes and the way they perform their routine in the midst of these changes. In addition, there are no established data on the knowledge of sunscreen usage among health professionals in Malaysia. Hence, this study was expected to provide data on the usage of sunscreen among people in Melaka which might trigger more studies on the knowledge of sunscreen usage in Malaysia.

This research created to explore the factors (attitude, perceived behaviour control, subjective norms and knowledge) that influencing consumers purchase decision of sunscreen product.

1.3. PROBLEM STATEMENT

Nowadays, there are so much health and environment issues. The weather constantly changing and pollution of the atmosphere occurred lead to skin sabotage and poor skin condition (K.Khallaf, 2011). For instant, rashes, sores, acne, dull, wrinkles, blemishes and sunburn. The existence of sunscreen products will helps people to take good care of their skin and act as the sun protection. Cosmetic industry statistic stated, the sales of the skincare product companies increasing by year however there are still a lot of people not using sunscreen products due to the lack of knowledge about sun protection. There is no difference between male or female, everyone should emphasize on using sunscreen products as it serves as sun barrier (Robaee, 2010)

Regarding the ingredients of a product, consumer should have knowledge and understand what they are and what they can do to users' skin. The promotion or launch of new products should be analysed as often before the people make the purchasing decision. "The last thing you want to worry about in the morning is whether the products that make us and our kids clean and comfortable also contain chemicals that cause cancer" (Congressman Markey, 2013).

Moreover, related to the ingredient is the Halal certification product based also be an issue when addressing chemical or natural product. In general, with the reliable Halal certification, Malaysian Muslim consumers tend to believe in and buy a product.

These problems focus on the factors influencing the consumers purchase decision of sunscreen product. The health and beauty organization should study the significant factor that affects the consumers purchase decision of sunscreen product in order to reduce the skin problems among user. Furthermore, after examined few

studies, researcher decided to adopt the Theory of Planned Behaviour (TPB) to further investigate the consumers purchase decision of sunscreen product in Malaysia. All the factors influencing this research were further addressed by revising the available information of the current studies.

1.4. RESEARCH QUESTION

The research question was the fundamental aspects of this research since it would focus on the area of concern, research purpose, determine the suitable methodology for this research, emphasize the importance of this research and continuously guide this research into the stages of research which mainly consisted of inquiry, analysis and reporting. The research questions of this research were:

1. What are the factors that influence the consumer purchase decision of sunscreen products?
2. What are the relationship between the factors and purchase decision of sunscreen product?
3. Which is the significant factor of the consumers purchase decision of sunscreen product?

1.5. RESEARCH OBJECTIVE

In order to fully achieve the study purpose, research objectives were developed to guide through this research. The research objectives were:

1. To investigate the factors that influence consumers purchase decision of sunscreen products.
2. To determine the relationship between the factors and purchase decision of sunscreen products.
3. To identify the most significant factor that influences the consumer purchase decision of sunscreen products.

1.6. SCOPE OF STUDY

The purpose of this study was to propose the factors that may influence the consumers purchase decision of sunscreen product in Malaysia. In this study, the researcher suggested there were four factors which influence the consumers purchase decision of sunscreen product in Malaysia. Those factors were attitude, subjective norms, perceived behaviour control and knowledge. Researcher believes that these factors have strong relationship towards the consumers purchase decision of sunscreen product. Furthermore, this study also determined the main factor that influences the consumers purchase decision of sunscreen products in Melaka.

1.7. LIMITATION OF STUDY

The limitation of the study could affect the result of the study significantly. Limitations were influences beyond the researcher control in every single study. The limitation of this study was the limited coverage of the state which only covered the Melaka. Therefore, the result of the study is limited and cannot be generalized to every single state in Malaysia, future research needed to include large sample of states. Besides, the researcher only suggested there were four factors that affect the consumers purchase decision of sunscreen products in Malaysia. There were plenty of factors that may affect the consumers purchase decision; therefore in future research needed to include more factors to niche down which one is the main factor that influences the consumers purchase decision. Moreover, there was no integrity in respondents' answers by responding to the questionnaire abruptly. So the honesty of the respondent in the questionnaire could be questioned. Due to the limitation of the study, researcher is unable to collect accurate data.

1.8. SIGNIFICANCE OF THE STUDY

This research would help the cosmetic industry; especially in skincare products so the companies could know about the most significant factor that encourage the consumers buy the products. They could use the finding of this research to identify their weakness and strength of their sunscreen product so there

would be room for improvement to the business. This study was helpful for all kinds of organizations and firm because the researcher provided the research information about the factors that affects the consumers purchase decision of sunscreen products in Malaysia. This study will served as future reference for the researcher to proceed on the topic of the factor influencing the consumers purchase decision of sunscreen products.

1.9. SUMMARY

In this chapter, researcher discussed about the background of study, research problem, research question and research objective was further addressed in the first chapter. The research scope, limitation and significant were also discussed in the first chapter.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

In this chapter, this research will explore theory of planned behaviour which is the factors (attitude, subjective norm, perceived behaviour control and knowledge) that influencing the consumers purchase decision of sunscreen product. There are key gaps in the literature with respect to our understanding of the relationship between all the factors and consumers purchase decision of sunscreen product. Finally, the hypotheses of this research are proposed.

2.2. SUNSCREEN PRODUCT IN COSMETIC INDUSTRY OVERVIEW

Cosmetic industry is too wide, so this research is focusing on sunscreen product. Sunscreens are regulated as over - the-counter cosmetic products by the European Union, Japan, South America and South Africa (CL. Hexsel, 2008). Sunscreen can therefore be defined as a cosmetic product which has a protective function against ultraviolet radiation from the sun (Loden M, 2011). According to Liang's (2010) report, among these various products, skin-care product was the most popular products in cosmetic. Thus, sunscreen product are included in skincare product range.

There are five basic skincare steps that usually use by Malaysian and the last step is protection. To have a good protection, everyone must apply sunscreen products to their face and body to avoid them from the sun exposure. Currently, there

are many cases of breakout skin and one of the factor is because expose skin to the sun without any protection for a long term.

Sunscreen has various strengths of sun Protection factor (SPF) and is marketed by a number of manufacturers. In addition, most of sunscreen products in the market are available in waterproof and bug proof formulas. Sunscreen products are also available in colours so it will look attractive and encourage being use by adolescents and children. Even so, there is a continual increase in incidence of skin cancer. Many researchers suggest that many individuals fail to effectively use sunscreen as a means of protection against skin cancer (Murray, 2001).

2.3. SUN EXPOSURE OUTCOMES

The increasing in the time and interest in leisure and recreational pursuits made higher chance people to be exposing to the sun. The scarier thing happened to people who are concern about their facial care is photo aging. Erythema and UVR-induced ROS are also implicated in photo-aging (Halliday, 2008). Photo aging is characterised by wrinkling, loss of skin tone and resilience, roughness, dryness and irregular pigmentation (Wlazcheck, 2001) and (Malvy, 2000). UVA that reaches the dermis can, via ROS and singlet oxygen, cause collagen degradation. This causes lack of elasticity (tone and resilience) of the skin (Pijken, 2011). All these effects really matters towards poor skin condition, that leads to breakout skin.

In the other hands, most research shown the most cases that related to sun exposure is skin cancer. It is the most prevalent types of cancer in the world. Skin cancer denoting an increase with duration and intensity of exposure to the ultraviolet radiation that can be intentional or incidental (D.Whiteman, 2014) National Cancer Institute mentioned, skin cancer increases because of the exposure to ultraviolet radiation. Knowledge of these risks and appropriate behaviours is essential to minimize its incidence and reducing skin cancer cases. Essentially all dermatologists involved in the survey agreed that regular use of sunscreen helps to reduce the risk of skin cancer