



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

PROJECT 1

**SCSI 2143 – PROBABILITY & STATISTICAL DATA
ANALYSIS**

2017/2018

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DUE DATE: **25 MARCH 2018**

Introduction

It's no secret that students spend bucks on their skin-care regimens, but the skincare statistics breakdown for how student spend their money to fix various skin issues and the range of price of the product that they willing to invest to achieve a healthy skin.

If this truly the case, is there any factor for them to spend on skincare? Is there any proof that the majority of students do spend big or small bucks for their skin? If so, what is the price range for the skincare products that they mostly prefer? And are the products that the students use, really helping their skin to get any healthier?

These questions will all be answered in the context of this survey form through an observational study. The data will be analysed through different section for us to narrow deep down the study. If you think you know the answer to one or all of these questions, maybe you are in for a small surprise!

Data Collection Techniques

In order to get an accurate and representative sample of the usage of skincare products by Universiti Teknologi Malaysia (UTM) student, the survey was conducted entire UTM and also at random times. The following are examples of some of the question asked on this survey.

- Gender: Male or Female
- Type of skincare product used: Cleanser, Moisturizer, Face Mask, Eye Cream, Exfoliator or others
- Expenditure: <RM10, RM10-RM30, RM30-RM50 or RM50 and above
- Price Range: RM5-RM15, RM15-RM25, RM25-RM35 or RM35 and above

Some of the data from this survey were omitted in our analysis. As much information as possible was recorded in order to have more data to work than finding later in our analysis that our data must be thrown out due to insufficient detail. The survey that was conducted was pretty smooth and fast. The survey was conducted through an online platform and this helped in collecting data, since many people are resist to taking the time and filling the survey out themselves.

Data Analysis

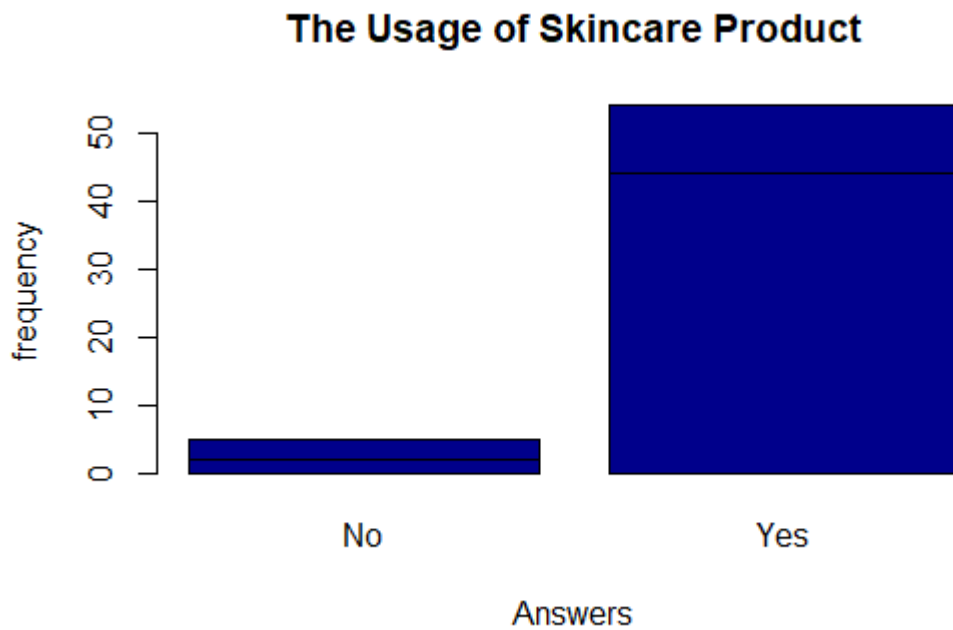
Total size for the sample of this survey is 60. Participants are randomly selected, hence resulting of 13 responses for male students and 47 for female students. Below is the graphical representation for their answer of the usage of skincare products.

Categorical Data

- 1) The usage of Skincare product by sample.

Gender	Answer in Percentage (%)	
	Yes	No
Female	75	3.33
Male	16.67	5

Table 1: Percentage of Answers by UTM Undergraduates students



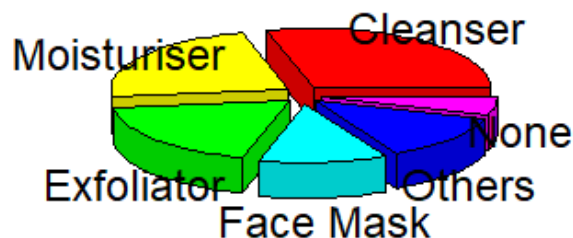
Graph 1: The answers given by sample of UTM undergraduate students.

Based on Graph 1, we can see that most of the participants has answered Yes for using skincare product which has 75% from the female students and 16.67% from the male students. The percentage for those who had answered No for female students is 3.33% whereby male students is 5%. Thus, we can conclude that mostly the respondents has used skincare or currently using skincare product in their life.

2) Types of Skincare product sample use.

Types of Skincare product	Relative Frequency	Percentage (%)
Cleanser	0.83	83.33
Moisturiser	0.65	65
Exfoliator	0.53	53.33
Face Mask	0.33	33.33
Others	0.35	35
None	0.15	15

Types of Skincare Student of UTM Use



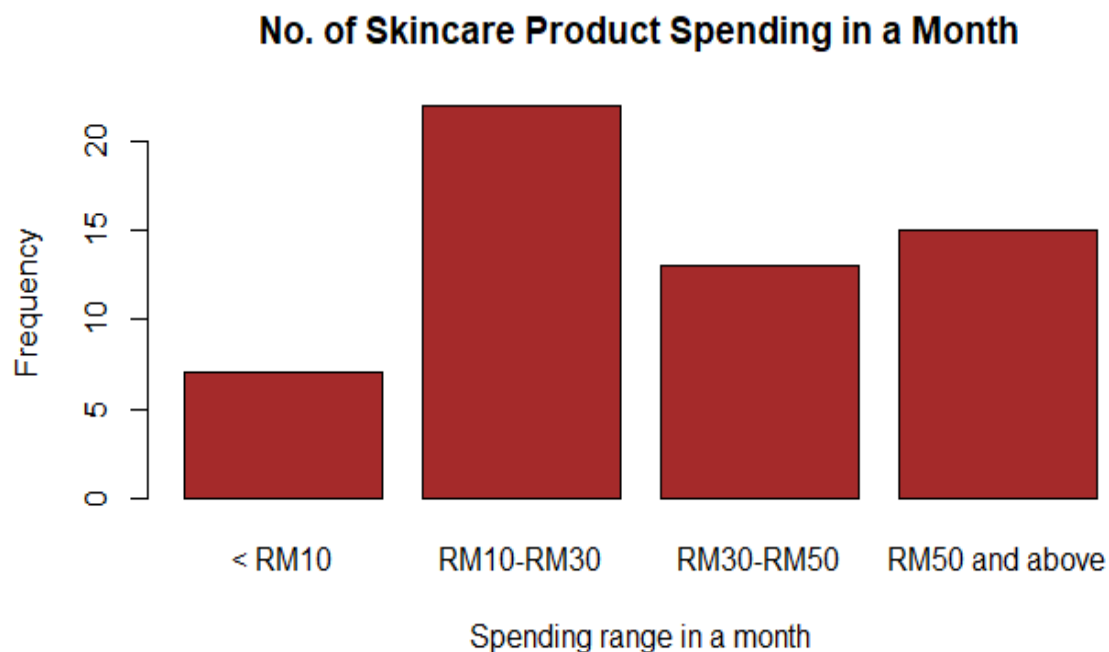
Graph 2: Types of Skincare the sample use

Based on this Graph 2, we can see that Cleanser has the highest percentage (83) which means it has the highest rate of usage among the named skincare products while Face Mask has the lowest percentage (33.33), indicating that only a few of the participants use this product. The second highest percentage (65) is Moisturizer and the third highest is the Exfoliator that has a percentage of 53%. There is also a percentage of 35% that uses other skincare product such as Toner, Serum, Eye Mask and etcetera. Generally, the lowest percentage in this Graph 2 is “None” which is the percentage of those who do not use any of skincare product.

Numerical Data

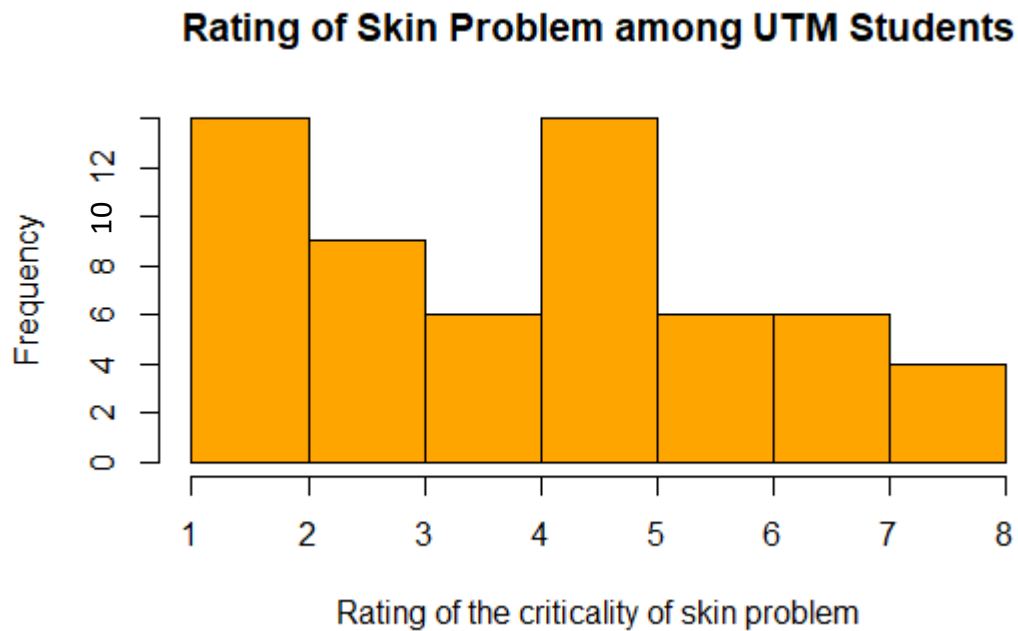
1) Number of Skincare Product Spending in a Month.

Based on the Graph 3 below, the highest range of a student would spend a month for skincare product is between RM10-RM30 which has a frequency of (22) and the lowest range is RM10 and below (6). The second highest spending range is RM50 and above which has a frequency of (14) while the range of RM30-RM50 has a frequency of (13). The size of sample who actually use skincare product is 55 because five over the overall sample has answered that they do not use any skincare product.



Graph 3: The Spending Range of Skincare Products per Month

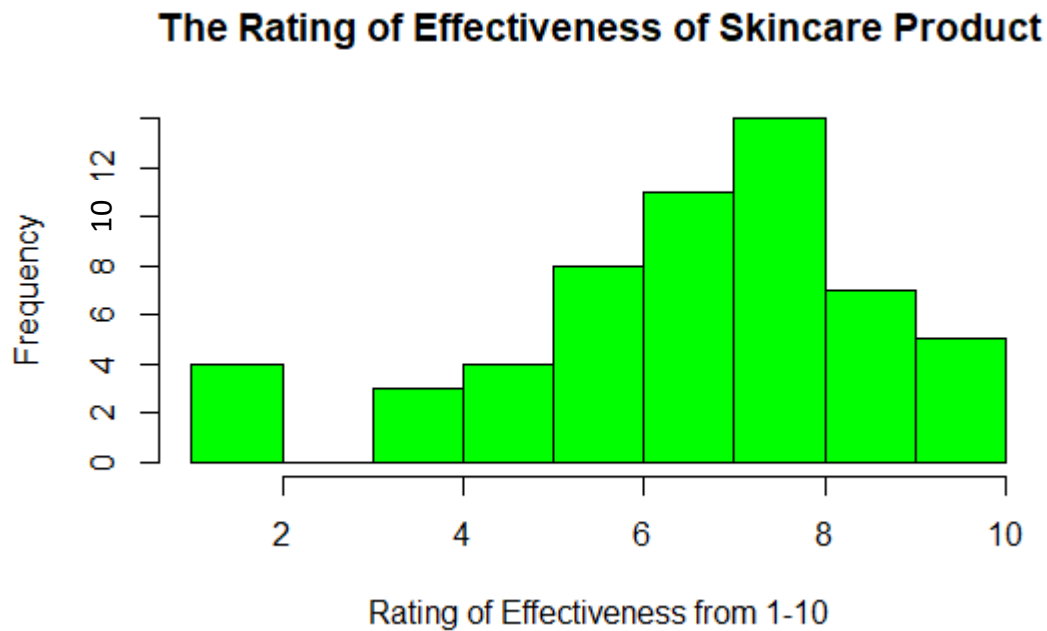
2) Rating of Skin problem



Histogram 2: Rating of the criticality of skin problem faced by UTM Undergraduate students

In this graph, 1-10 is a ratio scale where it means from less problematic to very problematic. We have included a question whereby we ask of the criticality of skin problem the sample has. However, rating from 8-10 has zero rating hence resulting no frequency in this graph. The range of rating that most students have chosen is from 1-4 which means that most of the participants of this survey does not have a very problematic skin problem, there are only 16 people over 60 students who rated 5-10 of the criticality skin problem rating. The average rating for the criticality of skin problem is 4.

3) Effectiveness of skincare product



Histogram 2: The Rating of Effectiveness of Skincare Product

In this survey, we have included a question whereby we ask of the effectiveness of the skincare product the sample use. 1-10 of the rating means from less effective to very effective. Hence based on this histogram 2, we can see that the mode of the effectiveness of the skincare product is 7 which has the highest rating by sample (14). However, there is also 4 people who marked 1 as the rating of effectiveness of skincare product to overcome their skin problem. We can also see that this graph is negatively skewed. Therefore, concluding that the range between 6-10 of rating of effectiveness has a larger value than below it, hence stating that most of the skincare products are effective to overcome their skin problem.

Conclusions

After this study, we conclude that most UTM students care about their skin condition especially since they are in the age where skin problems can affect their appearance and self-esteem. Thus, many of them spend bucks to get better skins by purchasing different kind of products. Ironically though, not many willing to spend any more than RM50 for the sake of getting a flawless skin due to being student with not enough money for branded and high quality items as a lot of them use their own moneys for this purpose. However, in average, they are satisfied with the effectiveness of the skincare products they have been using.

This study managed to figure out the spending and range of skincare products by UTM student through 60 sample respondents.

Survey of the Spending and Range of Skin Care Product among UTM Students

Hi! We're conducting a survey on the usage of skincare products by UTM students. Skin Care is mostly focusing on the facial skin to help fight with skin problems such as acne, pimples, skin dryness and harsh affects by the weather. Hence, this research is focusing on the spending behavior of UTM students on Skin Care products and the range prices of products they will likely to buy.

* Required

1. **Gender ***

Mark only one oval.

- ☐ Female
☐ Male

2. **Which faculty are you from? ***

3. **What programme are you in? ***

Mark only one oval.

- ☐ Undergraduate
☐ Postgraduate

4. **Age ***

General matter about Skin Care

5. **Have you ever used any skincare products?**

Mark only one oval.

- ☐ Yes
☐ No

6. What type of skincare product you use?*Check all that apply.*

- ☐ Cleanser
- ☐ Moisturizer
- ☐ Face Mask
- ☐ Eye Cream
- ☐ Exfoliator
- ☐ Other: _____

7.

How many skincare product you own?*Mark only one oval.*

- ☐ 0-5
- ☐ 5-10
- ☐ 10-15
- ☐ >15

8.

How often did you use skincare products?*Mark only one oval.*

- ☐ Never
- ☐ 1-3 times a day
- ☐ 1-3 times a week

Spending on Skin Care

9.

Do you prefer skincare products from drugstore (e.g.: Watson, Guardian) or high-end brand(e.g.: Dior, Calvin Klein)?*Mark only one oval.*

- ☐ Drugstore
- ☐ High end brand

10.

Where do you usually buy your products from?*Check all that apply.*

- ☐ Online
- ☐ Drugstore
- ☐ Product store
- ☐ Other: _____

11. How much do you spend on these products in a month?*Mark only one oval.*

- ☐ < RM10
- ☐ RM10-RM30
- ☐ RM30-RM50
- ☐ RM50 and above

12.

What is the range price of a product that you will likely to buy?*Mark only one oval.*

- ☐ RM5-RM15
- ☐ RM15-RM25
- ☐ RM25-RM35
- ☐ RM35 and above

13.

Where do you get the money to buy the skincare products?*Check all that apply.*

- ☐ Own money
- ☐ Parents
- ☐ Scholarship
- ☐ PTPTN
- ☐ Other: _____

14.

Which of the following has an influence on your decision to purchase a skincare product?*Mark only one oval.*

- ☐ Popularity
- ☐ Advice from others
- ☐ To boost self-esteem
- ☐ To care for the skin
- ☐ Other: _____

15.

Where do you get information about skincare products?*Check all that apply.*

- ☐ Relatives
- ☐ TV Commercials
- ☐ Social Medias
- ☐ Friends
- ☐ Other: _____

Skin Problem & Solution

The questions here are asking about the condition of your skin problem and the effectiveness of the product you are currently using

16. **Rate 1-10 of the condition of your skin problem.**
Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
least problematic	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	very problematic

17. **How did you rate the effectiveness of the product you have been using for your skin problem?**
Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Less effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Very effective

18. **Have you ever suffered any side effect from the products you use?**
Mark only one oval.

☐ Yes
☐ No

19. **Does achieving a healthy skin important to you?**
Mark only one oval.

☐ Strongly disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly agree

Thank you for answering our survey!



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