UNIVERSITI TEKNOLOGI MARA

JOHOR INTERNATIONAL INNOVATION, INVENTION COMPETITION AND SYMPOSIUM

PROCEEDINGS OF JOHOR INTERNATIONAL INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2024 (JIIICaS 2024)

"Flourish and Nurturing Sustainable Innovation for a Prosperous Nation"

Editorial Board

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Preface

In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.

This e-book compiles the extended abstracts that submitted to Johor International Innovation Invention Competition and Symposium 2024 (JIIICaS2024), where JIIICaS2024 is a virtual platform for all creative minds to share and present their invention and innovation. Each abstract gives a brief background on the innovation or project.

We hope that this e-book will help the readers to get to know the innovation done by the students and get some ideas to develop future innovation products.

JOHOR INTERNATIONAL INNOVATION, INVENTION COMPETITION AND SYMPOSIUM

Foreword Rector

Assalamualaikum warahmatullahi Wabarakatuh, Salam Sejahtera, Salam Malaysia MADANI and Salam UiTM Dihatiku.

In the name of Allah, the Most Gracious, the Most Merciful.

It is a great honor to welcome you to the Johor International Innovation, Invention, Competition, and Symposium 2024 (JIIICaS 2024). This event connects various disciplines, focusing on education and engaging educators, students, researchers, and innovators from all walks of life.

Innovation is not just about ideas; it demands perseverance, creativity, and determination to turn those ideas into reality. The remarkable projects showcased today highlight the dedication and spirit of all participants. Initiatives like this not only explore new technologies but also cultivate skills and leadership among our youth. At Universiti Teknologi MARA (UiTM) Johor Branch, we are fully committed to fostering a dynamic culture of innovation, promoting the commercialization of new products, and encouraging meaningful collaborations with industry and society.

As we celebrate this event, I would like to extend my heartfelt gratitude to all sponsors, judges, the College of Computing, Informatics and Mathematics, UiTM Pasir Gudang Campus as the event organizer, as well as to the researchers and participants for their hard work in making this event a success. Let us continue striving for innovation and excellence. May the ideas presented today inspire us and lay the groundwork for future achievements.

Thank you.

Associate Professor Dr. Saunah Zainon
Rector
Universiti Teknologi MARA (UiTM)
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(A-PP002) MALAYSIAN HOUSEHOLD INCOME SURVEY FOR NECESSITIES

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ABSTRACT

The term of household income in buying essential needs refers to the combined gross income of all members of a household above a specified age. Household income aims to guarantee the affordability of housing for every category of salary earner, including the low income, middle income and high income individuals. This study aims to fill a knowledge gap about the spending habits of essential households versus income household among Malaysian. By conducting a survey, we hope to gain a more nuanced understanding of these households' financial dynamics, shedding light on how they allocate their limited resources to meet their basic needs. From this survey, it is conclude that the cost of living against the cost of expenses can be shown in the purchasing behaviours. The majority of Malaysians concur that their household income is adequate to pay for their necessities.

Keywords: Income, Household, Essential

1.0 INTRODUCTION

"Household income" refers to the total gross income of all household members who are older than a given age. Household income includes every family member that lives under the same roof, including partners and their children who are at an age of maturity. The income of everyone is counted even if they do not support the household expenses. This also includes anyone living under the same roof even if they are not related. Household income is important to measure for a useful economic indicator of an area's standard of living. Furthermore, household income aims to guarantee the affordability of housing for every category of salary earner, including the low income, middle income and high income individuals.

The problem that usually Malaysian people have been facing is the cost of living. Whether the government should subsidize the goods or the wages should be increased. On how the economy should be developed in the future.

Furthermore, one of the advantages of conducting this survey is to measure how well people in a given area are doing financially. All of the factors will be a stepping stone for respondents to make decisions to buy and purchase behavior respectively. It is also to measure the effect of purchasing behaviors on families that may change according to various factors as a result of the characteristics of families. Such as the size of a family, the place of living and the number of individuals in the household are considered as factors that affect buying essential needs of a household. We aim to provide surveys automatically to run statistically accurate surveys across the nation.

By conducting a survey, we hope to gain a more nuanced understanding of these households' financial dynamics, shedding light on how they allocate their limited resources to meet their basic needs. The emphasis is on essential expenditures such as food, housing, healthcare, education, and other basic necessities that comprise the daily fabric of life. Therefore, this survey is conducted to study on the household income for the buying essentials need among Malaysian people.

2.0 OBJECTIVE

The following are the overall objectives of this study:

- To estimate how much Malaysian people spend monthly to buy essential item
- To approximate monthly household income of Malaysian people
- To determine if the household income is sufficient to cover Malaysian people essential expenses (e.g., housing, utilities, food, healthcare)

3.0 DESCRIPTION OF DATA

3.1 Population and Sample

The term population is used to represent all possible measurements or outcomes that are of interest to us in a particular study or piece of analysis. In this report, Malaysian people are selected as a population.

The term sample is used to designate a subset of items that are chosen from the population. A sample of 80 respondents are selected Malaysian people.

3.2 Sampling Techniques

Given the objective of understanding household income in buying essential needs among Malaysians, a convenience sampling technique would be appropriate. Convenience sampling is the procedure where the selection of respondents is at the convenience of a researcher. The respondents are selected because they happened to be in the right place, at the right time where we are conducting the survey. By employing a convenience sampling technique, you can capture the diversity of the Malaysian population and ensure that the survey results are reflective of various socio-economic conditions.

3.3 Data Collection Method

We used an online survey for this. With this method, we build a questionnaire using a Google Form and distribute it to everyone. We will have to wait for the respondents' submissions of the Google Form questionnaire. Not to forget that the 80 participants were selected at random for the study since there was an equal chance of selection for each person. All in all, this online survey proved to be an effective method of collecting data for this study.

4.0 RESULTS

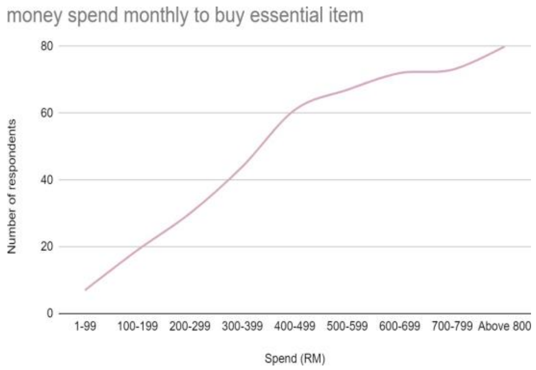

Figure 1 : Ogive chart of respondents' evaluation based on the amount of money spend monthly to buy essential item

Based on the ogive above, it shows that most of the respondents spend RM400 to buy their essential item monthly.

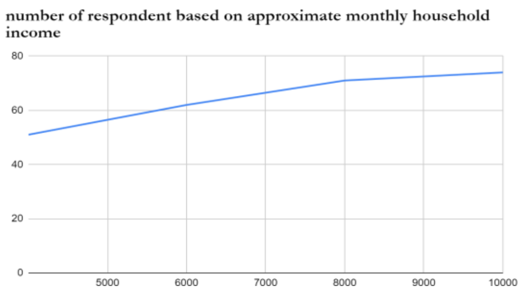

Figure 2 : Ogive chart of Number of respondent based on approximate monthly household income

Based on the ogive above, it shows the highest approximate monthly household income of respondents are below RM2000 which is 28 respondent and the lowest is in "RM 8001-10000" income range.

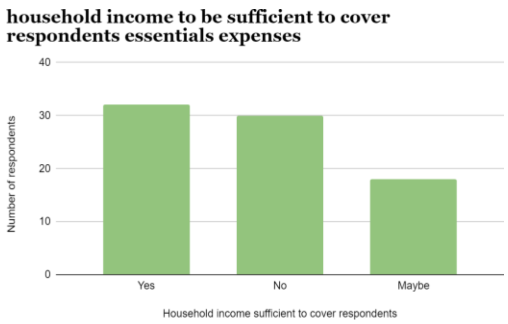

Figure 3 : Bar chart of household income to be sufficient to cover respondents essential expenses

The bar chart illustrates that respondents' household income sufficiently covers their essential needs more with 32 respondents than who said no with 30 respondents and who are uncertain about how sufficient the household income to cover their essential needs with 18 respondents.

5.0 CONCLUSION

In conclusion, an overall of 80 Malaysians responded to the survey that has been conducted to determine the number of respondents based on the amount of money spend monthly to buy essential item. With 17 respondents, the majority of respondents spend between RM 400 and 499. Spending decreases as the price ranges increase from RM 1-99 to RM 700-799. The "RM above 800" category has increased once more, indicating a group of respondents with higher spending habits. The RM 400-499 range could represent a middle-income bracket, and a sizable portion of the surveyed population could fall into this income bracket. Middle-income people frequently strike a balance between income and expenditure.

Next, from the observation number of respondent based on approximate monthly household income, the majority of respondents 28 are in the "RM below 2000" income range, indicating that a sizable portion of the surveyed population has a lower monthly household income. The number of respondents generally decreases as the income ranges increase, indicating a smaller proportion of individuals with higher income. The surveyed population may predominantly consist of individuals or households with lower economic means. This could be influenced by the geographic location, type of industry, or the overall economic conditions of the surveyed area.

Moreover, from the questions regarding household income to be sufficient to cover respondents essential expenses. As we can observe, individuals in this category believe that their household income is sufficient to cover their essential expenses. These respondents are confident in their ability to meet basic needs. Respondents in the "Yes" category may have financial stability, as their income meets or exceeds their essential expenses on a consistent basis. This could be because of well-paying jobs, multiple sources of income, or good budgeting.

From the survey it can be concluded that almost all of Malaysian people, spend their money wisely based on their monthly income. Most of them agree that their household income are sufficient to cover their essential expenses.