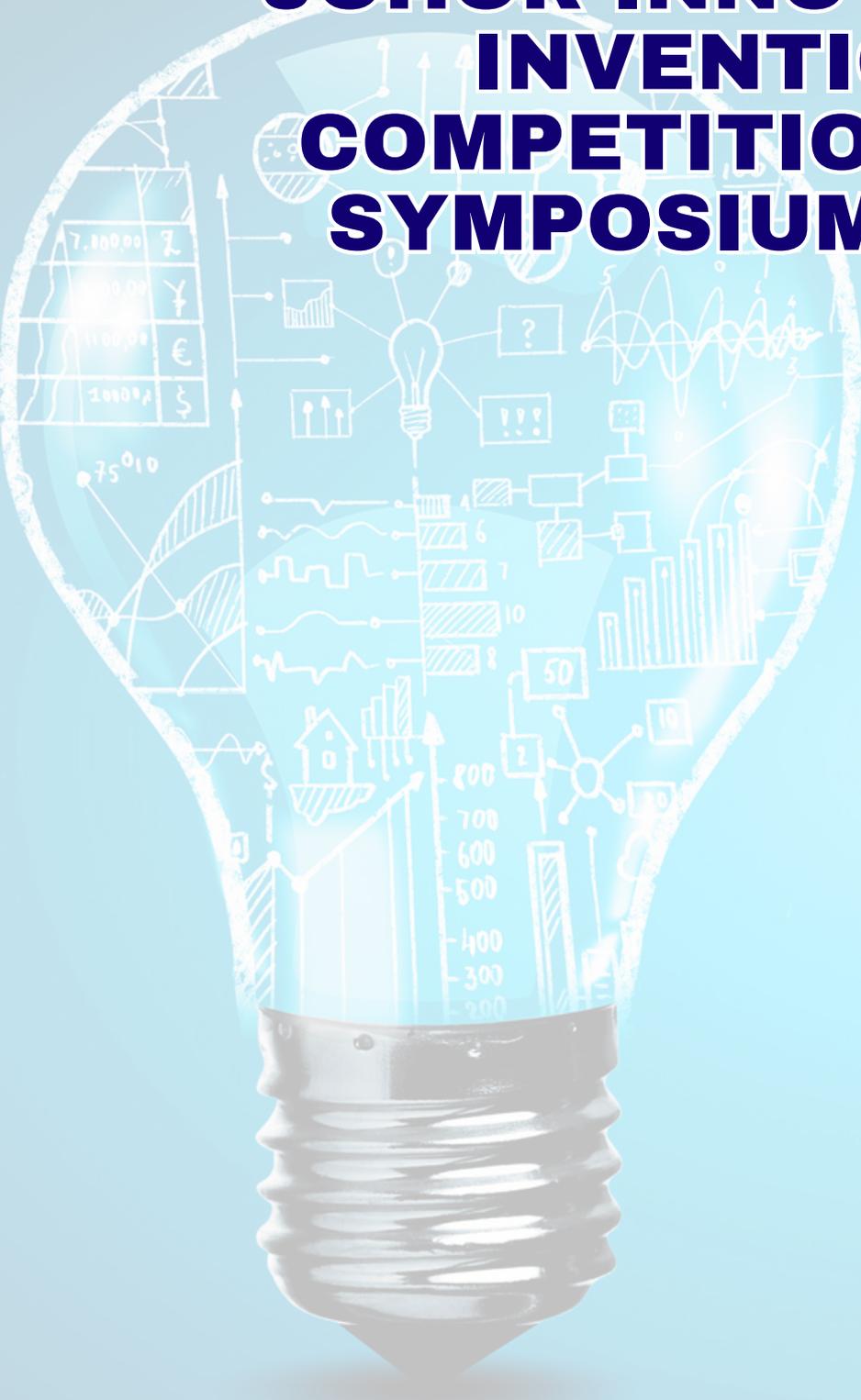


JOHOR INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2023



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" Innovation Inspires a Society to be
Critical and Creative"

Editors-in-Chief

**AHMAD KHUDZAIRI KHALID
NUR INTAN SYAFINAZ AHMAD**



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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 Innovation Invention Competition and Symposium 2023 (JIICaS2023), where JIICaS2023 is a virtual platform for all creative minds to share and present their invention and innovation. The extended abstracts are divided into two categories, which are Category A (Higher Educational Student/ Any Recognized Institutional Students in Malaysia) and Category B (Primary/ Secondary School Students / Special Education School Students in Johor). 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 from both categories and get some ideas to develop future innovation products.



THE PREFERRED FORM OF PAYMENT FOR UNIVERSITY STUDENTS IN MALAYSIA

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ABSTRACT

In this modern world with new technology there are many varieties of payment methods that have been made by commercial banks in the world. These are the several types of payment methods including cash, mobile e-wallet, cheque, instant transfer, and cryptocurrencies as the relative newcomers in this modern technology. Since the pandemic started, many businesses take a new step in upgrading their businesses providing new payment method. The percentage of using online transaction increasing due to the urge from the government to encourage Malaysian people to use contact less payments options in response to pandemic concerns. Due to this announcement, almost all university in Malaysia have been introducing online payment for all transaction. Some student are convenient with convention method that is using cash while others are more eager to use online payment in any transaction. Due to this reason, studied has been done to examine the type of payment that is commonly used by students in Malaysia. Based on the finding, students nowadays prefer to make cashless transaction rather than cash. This conclude that students nowadays preferred paying by using QR code payment type as it is easier to use and some of them still carrying cash as for emergency or they just preferred paying by using cash rather than other payment type provided.

Keywords: cashless, payment, online, cash.

1.0 INTRODUCTION

In this modern world with new technology there are many varieties of payment methods that have been made by commercial banks in the world. By introducing new global payment method, there are many possibilities that cash will soon be disappeared. These are the several types of payment methods including cash, mobile e-wallet, cheque, instant transfer, and cryptocurrencies as the relative newcomers in this modern technology. According to "*Amir Akmal Basir*" (September 2009) the e-payment system has been increasing among consumers in Malaysia. This can be observed from the increases in the non-cash retail transactions in recent years. The volume of non-cash transactions in Malaysia increased from 3% up to 7% (from 2003 to 2007).

In 2020, the whole world has been infected by a new virus called Corona Virus or known as COVID-19. Since the pandemic started, many businesses take a new step in upgrading their businesses providing new payment method. Besides, any business that requires a transaction between themselves need to stay in tune with the rapidly evolving payment technologies coming into play. Therefore, consumers are looking for fast, easy, and secure ways to make purchases or pay for services. The usage of e-wallet increased by 131% to over 600 million transactions in 2020 compared to the previous year, the percentage of Malaysians who used

cash payments had dropped 11% to 78% from 89% prior to the pandemic (Minister of Domestic Trade and Consumer Affairs Datuk Seri Alexander Nanta Linggi,2022). The statistic is increasing due to the instruction of government which is “contact less” payments options in response to pandemic concerns.

In addition, the increase of e-payment method also led to safety and security. For example, risk of theft and human error due to holding cash can be reduced by using the new e-payment method. Also, with the consumer willingness to use e-payments is the confidence offered from the safety and security of commercial banks that provide protection against theft and scammers, such as personal identification numbers. Among the several types of payment, the payment that used by Malaysians are mostly credit cards, internet banking, and e-wallet. Credit cards are now used to buy things that quite expensive and credit cards providers such as Visa has piloting fingerprint authentication on physical cards and mobile devices. This biometric feature has increased the e-payment technology for faster, secure, and more efficient payment.

University is a place that provides students to study and pursue their dreams in the future. In Malaysia, there are 20 public universities and 50 private universities that offered variety courses. Every student has their own bank account and can carry out daily transactions individually. Based on the survey carried by university students they most probably have a variety of payment options. Cash is the most convenient method of payment, but E-payments are on the rise in this decade. There are still students who like to use cheque even now it is obsolete.

This study examines the frequency of students utilised QR payment. In addition, the university itself has provided an ATM machine and the cafe has enabled e-payment for transactions, which are convenient for students with mobile devices and credit cards to make payments. In addition, the university itself has provided an ATM and the cafe has enabled e-payment transactions, which are convenient for students with mobile devices and credit cards. Most university fees are paid through cashless transactions, and according to (Linh Khanh, Le Ha Ngan,2020) and (Huong Pham) from the University of Hanoi, 52.9% of students are still unfamiliar with this new concept of transactions.

2.0 OBJECTIVES

The objectives of the study are

- To find student preferences on what payment type students prefer to use
- To determine the most prefer bank student use
- To measure satisfaction level among students based on their selection on payment type
- To identify the most prefer category students spend their money

3.0 DESCRIPTION OF DATA

3.1 Population and Sample

Population is one of an element that can be used to complete a set of items that are gathered for interest in the research. In our survey, all private and public universities in Malaysia were included.

Sample is a subset of people that are chosen from the population. The sample for our survey consists of 80 students who utilize various payment methods.

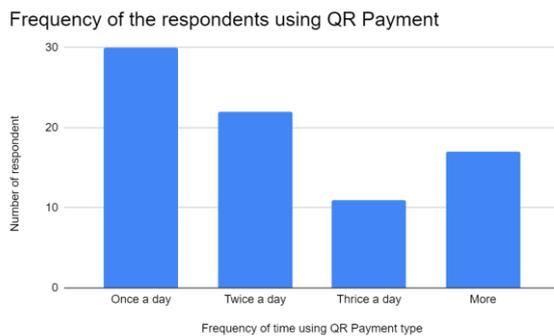
3.2 Sampling Techniques

The sampling technique we used is quota non probability. Random members from our community will be selected to complete the questionnaire. This technique is considered to be more efficient and reduce costs when collecting data from Malaysian students. The 80 respondents represent all communities that utilize various payment types.

3.3 Data Collection Method

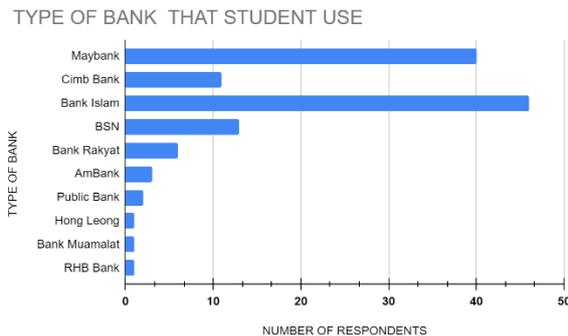
This study using direct questionnaire as data collection method. In this method, we will greet respondents and explain our purpose before providing the link to the questionnaires. Using this method, we will obtain the respondent as quickly as possible. This method utilises primary data sources, as the source is derived from primary information.

4.0 RESULTS



Based on the bar chart, most of the respondents used QR payment once a day while thrice a day are the lowest frequency that has been chosen.

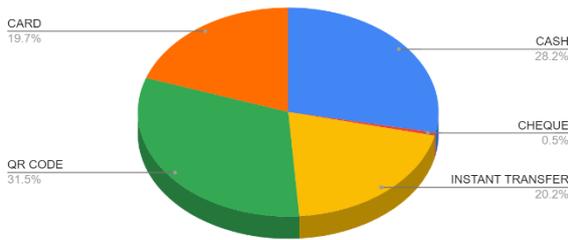
Bar chart of Frequency Of Respondents Using QR Payment



Based on the bar chart above, most of the respondents choose Bank Islam as the main account bank for their spending and saving, this follow by Maybank. The least chosen bank are RHB Bank, Muamalat Bank and Hong Leong Bank.

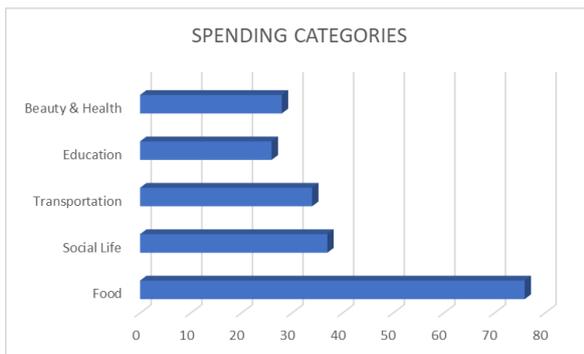
Bar chart of Type Of Bank That Students Use

TYPE OF PAYMENT METHOD



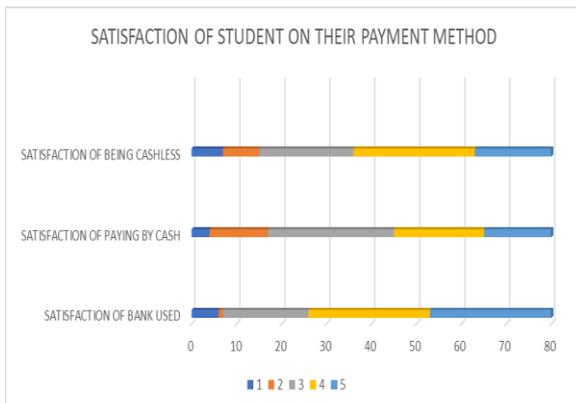
Based on the pie chart, students frequently used QR payment type than the other payment type. The second most prefer method are using cash while the least prefer are using cheque.

Pie Chart Of Different Payment Method That Student Use



This bar chart shows that students spend most of their money on food and consider it as a daily necessity. This result follow by social life as the second highest category. The least category that has been chosen are education.

Bar Chart Of Spending Category



Stacked Bar Chart on Satisfaction Of Students On Their Payment Method

According to the displayed stacked bar graph, 19 of 80 respondents are becoming neutral about the bank they use, while 27 agree and 27 strongly agree. However, one respondent disagrees with it, and the remaining six respondents disagree strongly. The results for payment by cash indicated that 27 respondents supported it, 21 were neutral, and 17 strongly supported it. Seven respondents chose to strongly disagree, while eight respondents disagreed. Finally, 27 respondents who are neutral about daily cashless transactions chose to express their delight with students not carrying cash. 11 respondents expressed agreement, with 7 students expressing strong agreement. However, 18 respondents disagree with the statement, and 17 respondents strongly disagree. This means that students nowadays prefer to have cashless and carry a small amount of cash for emergencies.

5.0 CONCLUSION

In conclusion obtained, students have different type of payment choice that they preferred and others may have different type of payment choice daily. 44 from our respondent's gender is female and 69 of our respondent age is between 18-20 years old and is from the non-resident college student. Most our respondent is from the third semester which conclude the age around 18-20 years old.

As for their preferred bank, Bank Islam was the most popular option (57.5%), as many UiTM students utilised Bank Islam as a common bank. Maybank has the second highest preference among students (50 percent) because it provides the best services.

The most preferred payment method among students is the QR code (83.8%), as it is easier to pay by simply scanning the code and entering the amount, and most stores in Malaysia now provide QR codes. Cash is the second most popular payment method. This suggests that some still carry cash in case of an emergency, while the majority prefer to pay in cash because it is physically easier for them.

For the QR payment type, most student use DuitNow as the most preferred payment type. DuitNow work as the simplest QR payment since it is connected to most of the commercial bank in Malaysia and students can also access it from any application that includes QR payment such as TNG E-Wallet, Boost and GrabPay. While QR payment type is the most comfortable payment type, most student also carried a small amount of cash daily as an emergency.

The category in which students spend the most is food, as the majority of them (28.7%) spend RM250 or more per week on it. As the price of food continues to increase, it has an impact on the amount of money that students carry with them to spend on food.

Most of students are satisfied with the bank they use to pay, and their satisfaction with cash payments is neutral; however, 27 out of 80 respondents are satisfied with daily cashless transactions. The daily transaction recording levels of students are neutral. The fact that students are satisfied using QR Codes to pay demonstrates how simple it is to pay simply by scanning. Some students record their daily transactions to keep track of their spending, whereas others are still adjusting to their spending habits.

This conclude that students nowadays preferred paying by using QR code payment type as it is easier to use it and some of them still carrying cash as for emergency or they just preferred paying by using cash rather than other payment type provided.