Impact of consumer’s security, benefits and usefulness towards cashless transaction within Malaysian university student

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ABSTRACT

The main purpose of this study is to evaluate the correlation of perceived security, benefits, and usefulness that has been associate with the cashless transaction attitude. The chosen mode for this research is a quantitative approach. This method is favored because of its simplicity and systematic approach. The primary data were collected by distributing the respondents’ questionnaires, A self-administered survey is a questionnaire that was developed exclusively for a respondent. This questionnaire is the most suitable approach for this research because respondents respond comfortably and don’t need to make appointments with respondents. However, this study involves 120 participants from several locations in Selangor University, DarulHikmah Library at IUM in the Gombak area, and Shah Alam area. In the part of the analysis, there is two measurements that would be tasted in the context of demographic component and assess the relations between the structures and how independent variables affect the dependent variable. On the other hand, the mode of analysis is descriptive statistics and multiple regressions. Also, Both the results are presented by using the statistical tools which are IBM Social Science Statistical Package (SPSS) version 25.0. The findings indicate that the benefits perceived and the adoption of cashless transactions are linked positively and are of perceived importance and acceptance. From the study, this paper discovered that perceived protection correlates negatively. For future research of this subject, a greater variety of independent factors and more detailed models may have been used and further analyses required for the factor analysis. This can lead to further findings that will give the next generation a wider range of knowledge.

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Introduction

Cashless companies and technical advancement are growing worldwide famous (Fabris, 2019). In the absence of currency, cashless payment refers to financial transactions in which customers conduct financial transactions, primarily by using cards or electronic methods (Bilinski-Refomat & Kiezel, 2016). Many countries, such as the Netherlands, Germany, and mostly Scandinavia, have been used even more intensively for cashless payment schemes (Krüger & Seitz, 2014; Sreenv, 2020). In 2018–2019 the volumes for global transactions without cash increased by 14 percent to 708.5 billion, the fastest growth reported in the past decade, according to the Global Payments Report (2020) and Global Trade (2020). Check use globally decreased by 13.4% and over the last 10 years, there has been an increasing increase in the debit card-to-credit card ratio from 59:41 to 90:10 (World Payments Report, 2018). The global rise in Cashless Transactions (CAGR) between 2015 and 2020 is projected to reach 10.9 percent (World Payments Report 2020), while growth in emerging Asia is projected to rise by 30.9 percent (CAGR) as a result of digital disruption and digital financial inclusion payments (Research&Market, 2020).

In Malaysia, e-money is mostly spent 58.4 (56.2%) times per person, followed by internet banking on average at 18.7 (18.0%) times per person, according to Pikri (2019). Most high-value payments are made via internet banking. Many Malaysian consumers can make transactions through online banking for their insurance, vehicle, and home. Negara Bank Malaysia (2019) has registered 10.3 million credit card owners in 2018, compared to 42.5 million holders of debit cards. Non-cash customers in 2018 grew by 32.4
million compared with 35.7 million in 2014. (Bank Negara Malaysia, 2019). There is steady development in other non-cash ways like ATM and e-banking. Mering (2019) estimated that in Malaysia 63% of customers are using debit card cashless payments, and 57% are using online banking, in particular for paying online and telephone bills.

There are several benefits for customers by using cashless payments. Payments without cash are easy and fast (Teo, Tan, Ooi, Hew, &Yew,2015). Cashless transfers do not encourage robs and other cash offenses, unlike regular cash purchases (Armey, Lipow, &Webb, 2014), so people carry less money while shopping. The research by (Thomas, Jain, and Angus 2013) in 33 countries all over the world put Malaysia in a cashless group at the beginning five years ago. In Kenya, South Africa, the UAE, and Poland, however, the same party shows high growth trajectories because of innovation in payment solutions and heavy credit and debt extension. Their research showed that access to financial markets, macroeconomic and cultural considerations are the pre-requisites for customer cashless preparation. Above these are some of the factors affecting consumer adoption of cashless payments that are explored in our study.

The goal of this study is to demonstrate how people rely on the financial model of transactions and how certain factors influenced non-cash transactions. Since Malaysia has many youthful people with a high spending potential. The cashless mode of payment is one of Malaysia's most common medium of transactions, with e-payment in particular(Ramalingam, 2012). Nevertheless, it is emphasized that Malaysia is not yet much interested in e-payment transactions, for instance. That is because of many issues including an inadequate knowledge about the online payment system, internet, and a lack of trust in e-payment platforms (Lin & Luarn, 2005). Certain consumers still use cash and checks because consumers still have concerns about the electronic payment system (Hataiseree, 2008). On the other hand, the e-wallet introduces new dangers in cyber protection as new technologies in the paying sector. When transacting online purchases, consumers are vulnerable to threats. Hacking, ransomware, and physical attacks are among the risks. According to the report, while e-Wallet technology in Korea with 100,000 readers and terminals at a commercial point of sale (POS) and numerous e-Wallet software has been in operation for over two years, there is a big problem because consumers have no interest in the use of this technology. Internet connectivity was a big barrier in Mumbai for users to accept e-Wallet because e-Wallet requires internet access. The e-wallet availability depends on the Internet and smartphones, such as tablets or handheld telephones. If the handset is battery-free or has internet access, users can not get to the e-wallet. Malaysia's central bank records (2009), because of lack of training and understanding, consumers are reluctant to participate in cashless transactions. Several types of research have also shown that privacy and faith are the reason not to be part of the cashless transaction. This study aims to (i) to evaluate the correlation of perceived security with a cashless transaction attitude; (ii) to evaluate the correlation of perceived benefits with a cashless transaction attitude, (iii) to evaluate the correlation of perceived usefulness with a cashless transaction attitude.

The advancements in internet technology are the result of rapid technological progress in terms of data provision, saving time, and minimizing workload. Currently, a majority of individuals use transaction systems which is technology-based to save time and reduce the risk of carrying cash. Some individuals in Malaysia are currently engaged in cashless payments and this figure seems shortly to increase massively. Non-cash payments have become a standard that companies should encourage and inspire the young generation, in particular. There is already a couple of young adults using tablets, desktops, and smartphones in their everyday lives, thereby growing the number of cashless transactions. This is why a cashless transaction implementation will lead in the future to a positive result. Any use of technologies, however, needs numerous safety tools to protect a person from the theft of identity. This research will help us better understand the factors influencing people towards using e-transactions. This could have an effect on the credibility for e-payment and can be used as a young individual, the future consumer who will then become a preferred means of e-payment for cash companies in Malaysia, as clearly set out in the economic area model 2011-2020(Central bank of Malaysia, 2012). In various previous studies, the study was found to have been done worldwide on e-Wallet. E-Wallet consumers take the decision to use e-Wallet as a means of payment for their electronic transfers into account multiple considerations. Though concluded that control and protection are controllable, the need to increase efficiency, impact in society, and usefulness as factors for explaining the motivation of Punjab in using e-Wallet was a requirement. The social effect and usefulness considerations are considered to impact users with deals, conveniences, and cashback on the use of a digital wallet. Also, concluded that their study has only explored such e-Wallet adaptation factors and proposed that additional aspects be applied to potential research models for further analysis. While in several surveys, the utility was listed as one of the main factors for e-wallet usage, the research found that e-wallet use had little impact. Perceived Security was described as the largest consideration and technological evidence was followed.

**Literature Review**

**Theoretical Background, Empirical Review and Hypotheses Development**

**Perceived security**

In accordance with Linck et al (2006), the perceived security shall be called the subjective value of electronic transactions decided by the consumer. However the research has been acknowledged by Stroborn et al. (2004), in any e-transaction, an e-payment system needs very strong protection. However, it is unlikely that customers would participate in purchases that do not attain a standard of protection (Tsikas & Sthephanides, 2005). That being said, sufficient safety information can influence the user's safety perceptions (Mukharjee & Nath, 2003). In electronic transactions, the information on security policy announcements, data protection declarations, and safety features should be comprehensive (Belanger, Hiller, & Smith, 2002). Many studies have indicated that the important
portions of the electronic payment or transaction calls for significant authentications, amendments, and confirmations generally referred to as data security and integrity under technical protection specifics (Tsiakis & Sthephanides, 2005; Linck & Pousttchi, 2006). Both the e-transactions and processes shall be adequately secure to satisfy customers’ security needs and standards. Clients’ security issues would impact electronic payment structure appropriation. The respondents also said that if they encountered any violation of protection they would not use the online exchanges. In either case, particular consideration was given considerable importance to the crucial relationship between protection and deliberate use of e-payment systems. This could conveniently allow customers to begin exchanging electronic payment platforms by enhancing and creating managerial and safer protection within the system (Kurnia & Benjamin, 2007). This is why safety is seen in the study of e-payment or transactions as being 8 very significant (Abrazhevich, E-payment systems: issues of user acceptance, 2001).

H1: The security perceived positively affects the intention of people to embrace cashless transactions.

Perceived benefit

Non-cash payments or payment systems like e-payments are effective as they are not too expensive Chou et al (2004). Therefore, the bank delivering such services provide customers with the Highest sum of Transactions amount. However, this is one of the benefits of comparatively inexpensive online purchases (Gerrard & Cunninghham, 2003; San-Martín & Lo’pezCatalán, 2013). As Eastin (2002) says, the four online e-commerce exercises, for example, in the field of shopping, Control of the account, donation, and electric payment, found that the selected option would be affected by comfort and money related to gain in time fetched. Some main e-payment issues include savings in times and prices, as well as the ability to spend, transport, and shop (Chakravorti, 2003).

H2: The benefit perceived is the purpose of individuals to embrace cashless transactions.

Perceived usefulness

Even during the decade, contactless card purchases in retail and other industry sectors became widely used. Retailers, in particular, benefited greatly from quicker transactions, greater spending, and enhanced customer satisfaction, while consumers enjoy the ease of use, speed, and increased security. TAM is the framework taken in this study (Davis, 1989; Davis et al., 1989) suggests that the two key drivers of technology adoption are two special assumptions, perceived utility and Simple to use perceived. The TAM has frequently been used to determine the plan to develop emerging technologies, like mobile payments. The technology acceptance model and its derivatives propose that the decision to implement new technologies depends on perceived value and ease of use, and additional factors such as subjective expectations and Perceived threats. Perceived usefulness means “to the extent that a person assumes the efficiency of his work will be increased using a system. “Perceived usefulness factors include performance growth, efficiency improvement, efficiency, ultimate utility, cost-saving, and improved work performance (Tomi Dahlberg, 2010).

The perceived usefulness is generally considered an invitation to use the technologies of knowledge and, specifically, the perceived use of usefulness is defined as “the level of an individual who chooses to believe that by using a certain system would boost the effectiveness of his/her job” (Davis, 1989). Previous studies have confirmed the effect of deliberate utilized in different IT circumstances, particularly booking online (Kucukusta et al., 2015), cell phone WiFi technology (Kim and Garrison, 2009), e-commerce (Hernandez et al., 2009), online banking and cell phone commerce (Chong et al., 2012). The present study demonstrates how beneficial it is to assume that using a cash-based platform saves a lot of days and time rises the efficiency of the purchase process. For example, (Prybutok, 2008) reinterpreted TAM into RFID technology with the perceived usefulness and perceived ease of six uses. The results of its study showed that higher perceived comfort (the perceived efficiency and performance expectancy of use) contributed to more RFID technology being adopted. The findings of (Ozturk, 2016), in line with actual and previous TAM research, confirmed the greatest influence on intention of using perceptual ease of use and perceived use. The results indicated that the predominant 10 factors are deciding the perceived usefulness and user-friendliness in evaluating customers’ desire to utilize cashless RFID payment systems. In addition to its convenience and protection, electronic payments as shown by researchers are economically efficient and these opportunities will if massively increased, contribute greatly to a country’s economic growth. “Digital automated transactions are helping to expand bank deposits and increase funds ready for immediate loans – which is driving all economic activity in general.

A crucial number of macro-economic advantages are brought by reliable, secure and efficient electronic payments” (Ajayi, 2014). In the same topic by Hord (2005), for the customer, electronic payment is quite easy. In several situations, only the account details like credit card details and shipping address require to be entered once. The data is then processed on the retailer’s internet server in a database. You sign in only with your user id and password when you come right back to the Web site. Accomplishing a payment is just as easy as clicking the mouse: simply confirm your order and you are done (Hord, 2005). Many people have been told that electronic cash is convenient, that it saves time on people and easy access, which means that money can be immediately accessible for us without being transported whilst money exchanging is largely redundant. As the key advantages of cashless payments are frequently listed, transaction speed and convenience are suggested to influence consumer perception that cashless payments are useful (Chen, 2006).

H3: The desire of people to embrace non-cash transactions is influenced by perceived usefulness
Acceptance

One of the fascinating challenges in modern banking is to switch to cashless payment. Cashless transactions can have benefits such as growing 11 government revenue, accessibility, lowering prices, reducing corruption, drug trafficking, and financial fraud. Also, keeping cash in circulation is very costly, and substantial resources, i.e. only about two hundred billion ($200) are needed in the United States To maintain the circulation of paper money each year. Chief of the Solutions Aon Chance Financial Services Division, John Brosnan, stated, "I predict that in the next 30 years, after centuries of printing and cashing banknotes, we will be cash-free and digital" ("Capital & Economics," n.d., In-Depth section, para. 2). One of the greatest pros to get cashless is to improve the approach we pay for stuff, says Alex Reichmann, CEO of the iTestCash. For example Apple or Samsung Pay on your mobile may sometimes be used "(Nash, S. N. 2017). Also, Jack Forestall believed that in 2020 about 70 percent or 5 billion people will be linked to a cashless transaction through smartphones. Progress would be a significant step towards a non-cash transaction in the implementation of these online payment solutions.

Sweden is heading into a non-cash system, and Dr. Stephen Lesavich, 70-year-old is very happy to have a cash-free transaction because Sweden does not charge any charges for electronic payments. Therefore, he is more willing to pay online than in cash. I believe that when cash clears up and all these cash transactions we can even erase the imbalance. It's really difficult when you talk about a non-cash economy, but first, we need to do something so it can be achieved in a non-cash trade. Following Sanga, B (2016), In a day, Rome wasn't established 7 and there won't be a cashless society until good progress has been made. Surprisingly, in developed nations, most of the cashless approaches are taken. The physical infrastructure of finance in Africa is not adequate for people in rural areas; mobile payment is an easy choice for them. A few futurists expect that in the first quart of the following century the developing world will be a cashless society 12 to answer the drug smuggling issue. Unlawful activity typically takes place in currency. Dr. Lesavich, therefore, stated that online anonymity will be compromised because banks, issuers of cards, and the government would identify what you're doing and where you're doing.

Cash will go down and the world will eventually shift in a cashless way Some people, however, assume that cashless payment is very risky and will have a huge effect on them. Following, Online payment will make people feel really worried. Arman believes that money is available anywhere, often works, never causes problems, private, easy, and anywhere is good. Security seems to be another concern, and an attacker can easily interrupt several user-profiles and rob money. Reichmann also opined what would happen when you're losing your phone or somebody else attempting to break into your account for digital payment. It is also difficult to equate the security of your digital account to a large amount of cash. Technology is acceptable, but network communication is the big issue of being cashless when technology is running. Any connection broken would be a tragedy and will affect the large numbers of people in a non-cash society. Also, what if consumers cannot buy in emergencies? Dr. Stephen, however, opined what about those who are potentially stuck in perpetual debt cycles due to high rates of interest, late fees, and other charges which they might dream of being cashless? It is vital to be aware of how to use smartphones for payments before moving into a cashless transaction. Therefore, there are different views among different people.

Relevant Theoretical Background

![Technology Acceptance Model (TAM)](image)

**Figure 1:** Technology Acceptance Model (TAM)

**Technology Acceptance Model (TAM)**

The TAM was used to select the options to engage in various e-commerce activities and to learn how to embrace and grasp technology (Abrazhevich, 2004). Nevertheless, research performed by (Davis, Bagozzi, &Warshaw, 1989) found that perceived usability and efficiency of use are compatible and connected to several TAM studies and this is due to a significant expansion in the e-payment system in the future. Most experts believe that perhaps the perceived usefulness is the most positive of the system's true utility, (Venkatesh & Davis, A Theoretical Extension of the Technology Acceptance Model: While perceived ease of use has a strong impact on overall perceived utility and a limited effect on the use of frames. Since the first investigation of TAM by Davis was carried out in 1986, TAM is related in various distinctive ranges to the data frameworks. A study carried out by (Lee, Kozar, & Larsen, 2003) found that the key areas used by TAM are other communication systems, advanced business systems, general-purpose systems, and office systems. That being said, most analysts in this area believe that the perceived usefulness is what the real use of
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The ease of use, on the other hand, has a profound effect on the use of this system (Venkatesh, 2000). TAM is better at describing what the behaviors is about using information systems than TRA (Theory of Reasoned Action) and TPB (Theory of Planned Behaviors) (Mathieson, 1991). An accurate inspection structure is an important framework already proved by the TAM model (King & He, 2006).

Theoretical Framework

In this study, researchers use the theoretical structure. This theoretical framework consists of three individual variables considered as being of benefit, perceived usefulness and security, and acceptance is one of the dependent variables. The above figure shows the relation between dependent and independent variables in the proposed conceptual structure.

![Theoretical Framework](image)

**Figure 2: Theoretical Framework**

Research and Methodology

Research Design

The first step is to draw up a study strategy, as a research approach must be developed. This study is organized in a traditional quantitative design. The chosen mode for this research is a quantitative approach. This method is favored because of its simplicity and systematic approach, which contrast with the high-quality measurement and evaluation criteria of a qualitative approach (Kothari, 1990). The primary data were collected by distributing the respondents’ questionnaires and used for the execution of a self-administered survey. Questionnaires are methods used to gather data from this study, which is distributed through mail surveys and Google Form-created online surveys. A self-administered survey is a questionnaire that was developed exclusively for a respondent. This questionnaire is the most suitable approach for this research because respondents respond comfortably and don't need to make appointments with respondents.

Study Area

The system in which a region to be sampled is chosen randomly is the sample area. The area plays a vital role to perform the survey in research. It will show the potential results from a particular region and a particular location. University Islam Malaysia is selected for sampling in this report, including the International Islamic University of Malaysia, University of Selangor (University of Selangor), Malaysia University of Science and Technology (MUST). The field of preference is Selangor (IIUM), Gombak, Shah Alam (Unisel), University of Petalingjaya (UIM), Petaling Jaya (MUST).

**Table 1: The field of preference**

| No | Area                | Name of the University                                      |
|----|---------------------|-------------------------------------------------------------|
| 1  | Gombak, Selangor    | International Islamic University Malaysia (IIUM)             |
| 2  | Shah Alam, Selangor | University of Selangor (Unisel)                             |
| 3  | Petalingjaya, Selangor | Malaysia University of Science and Technology (MUST)        |
| 4  | Petalingjaya, Selangor | Universiti Islam Malaysia                                  |

Sampling Design

We would use samples that are easy to sample when choosing subjects since they are available and close to the researcher. Due to lack of time, speed, and costs to get sufficient people, this sampling was also a feasible option. In Malaysia’s International Islamic University, the total number of students is predicted to be more than 17,000. Clients/students from IIUM, Unisel, MUST, and UIM
with cashless purchases in various areas will be mainly used to perform this survey and 120 survey framework respondents will be responsible for the survey.

Data analysis

According to James (2004), data processing should organize data, grouping it according to topics and themes into productive units. In this analysis, the demographic component was evaluated in descriptive statistics. Frequencies have been calculated and reported to indicate the samples taken the efficiency of the structures for Cronbach’s Alpha has been calculated for each of the construction for review. Multiple regressions were made to assess the extent of the relations between the structures and how independent variables affect the dependent variable. Both results were carried out using the program known as IBM Social Science Statistical Package (SPSS) version 25.0, with the main for data interpretation and formulation by questionnaires.

Results

The aim of this paper is to make the respondents aware of the situation. The sample features are especially critical in ensuring that the right sets of people are involved. But this analysis is particularly necessary if quantitative techniques such as descriptive frequency statistics are to be interpreted by the respondents.

Demographic Information

To explain the demographic diversity of their genders, age, Study levels, and nationality, descriptive demographic statistics with frequencies, percentages, means, and standard differences were used. In the context of gender, the table reveals that most (27.5%) of the participants represented 120 respondents, while the other participants represented 87 male participants (72.5%). We can see here that these male participants are higher than females. On the other hand, age table indicate that between 20 and 25 years of age the lowest members, 23 respondents (19.2 percent). Followed by a “26 and above” group of 97 participants (80.8 percent). Apart from this two, there are two more segment has been identified which is study level and nationally . for the study levels, it shows that postgraduate students with 100 people participated the maximum (83.3 percent). Followed by participants who are studying at the IIUM, 20 participants (16.7 percent). Last but not the least is nationality and in the case of nationality, there are very few international students compare to iiun in others university. therefore, less than foreign students participated in Malaysia. In Malaysia 19 respondents (15.8%) and in the IIUM 101 students are foreign (84.2 percent).

| Attributes  | Category       | Frequency | %  |
|------------|----------------|-----------|----|
| Gender     | Male           | 87        | 72.5 |
|            | Female         | 33        | 27.5 |
| Age        | Between 20-25  | 23        | 19.2 |
|            | 26 and above   | 97        | 80.8 |
| Level of study | Undergraduate | 20        | 16.7 |
|            | Postgraduate   | 100       | 83.3 |
| Nationality| Malaysian      | 19        | 15.8 |
|            | International  | 101       | 84.2 |

Data Collection and Descriptive statistics

Description statistics also describe the main features of information collection as a quantitative discipline (Mann, Prem S., 1995). It aims to summarise a relativity survey rather than to expend details to investigate the population that should be the sample of data. This means that descriptive statistics are not based purely on the probability theory (Dodge, Y., 2003). several of the methods that are normally used for defining a collection of data include central tendency measures that include mean, median, and mode, and variability or dispersion measures that include regular ( Also known as variance) minimum and maximum value variables.

The questionnaire is nevertheless developed for this analysis to reach the surveyors using five evaluation points on the Likert scale. The designs ranged from 1 = strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. To evaluate the results, we have used SPPS version 25.0.

Cashless transfers tend to be longer time-saving processes, reflecting the highest total score of 4.52 and the standard deviation of 0.745. However, the second-highest mean value in the question we asked respondents was 4.51 with a standard deviation of 0.745 for the Cashless transaction, followed by “E-payment minimize payment time” with a standard deviation of 4.48 and a standard deviation of 0.748. Regarding the issue “Digital banking is a lot simpler than physical banking ” most of the 120 respondents decided that on-line banks with a median score of 4.30 and standard deviations of 0.717 are generally easier than physical banking.
Table 3: Descriptive statistics

| No | Items                                                                 | N   | Mean | Std. deviation |
|----|----------------------------------------------------------------------|-----|------|----------------|
| 1  | The most cashless payment provides adequate payment security          | 120 | 3.65 | 0.718          |
|    | cashless payments ensure the ample protection of transaction          |     |      |                |
| 2  | if the software is protected, I am willing to use e-payment           | 120 | 3.42 | 1.234          |
| 3  | I will consider e-payment to be secure as if 3rd parties authentication is checked. | 120 | 3.97 | 0.829          |
| 4  | In financial transactions, I remain uncertain about digital payment limited costs. | 120 | 4.04 | 0.974          |
| 5  | cashless transaction encourages easiest operational activites         | 120 | 3.68 | 0.980          |
| 6  | It helps to saves customer time as well.                              | 120 | 4.51 | 0.745          |
| 7  | The shop where cashless transactions are approved can easily be found. | 120 | 3.64 | 1.083          |
| 8  | Cashless transactions offer discounts and promotions.                 | 120 | 3.82 | 1.037          |
| 9  | E-wallet helps to change the way I looked for payment                 | 120 | 3.36 | 1.165          |
| 10 | E-paid eliminates the amount I currently spend.                       | 120 | 4.84 | 0.744          |
| 11 | E-paid helps me to settle on better payments                          | 120 | 4.43 | 0.750          |
| 12 | E-payment enables the comparison of goods between payment modes.       | 120 | 4.39 | 0.737          |
| 13 | Transactions online are much better than traditional banks            | 120 | 4.30 | 0.717          |
| 14 | Customers begin to purchase products and services online.             | 120 | 3.84 | 1.230          |
| 15 | I embrace alternate cash payment mechanisms                           | 120 | 4.26 | 0.704          |
| 16 | The new transactional cashless mechanism has enabled our lives easier | 120 | 4.52 | 0.745          |

Factor analysis

Factor analysis is a method used to simplify a wide variety of factors into fewer numbers. This procedure removes the highest common variation and positions them in a common score from all variables. We will use this score to further evaluate it as an index of all variables.

Kaiser-Meyer-Olkin (KMO) Measure of sampling adequacy

KMO tests the proportion of variation in the underlying factor variables which may be induced. KMO investigates whether there are slight associations between variables. KMO value fundamental guidelines are:

- The poor are considered less than 0.05.
- The average is between 0.5 and 0.6
- It is regarded to be appropriate between 0.6-0.7.
- Good is considered from 0.7-0.8.
- It is regarded as excellent above 0.

Bartlett’s test of sphericity

Bartlett measures whether the correlation matrix is a matrix of identity (the diagonal value s is 1, and the off-diagonal values are 0). This just implies that the variables are completely distinct and therefore the model element is inappropriate. If the p-value of the test is less than 0.005, the identity matrix can be ruled out.

Table 4: KMO and Bartlett’s Test

| Kaiser-Meyer-Olkin Measure of sampling Adequacy | .728 |
|-----------------------------------------------|-----|
| Bartlett’s Test of Sphericity                 |     |
| Approx. Chi-Square                           | 594.520 |
| Df                                            | 120  |
| Sig.                                          | .000 |

As can be seen in the KMO value, the average KMO value is 0.728, which is 0.5 above. It means that we can do a factor analysis in this report. In Bartlett, which is less than 0.005, the measurement implies 0.000, so the variable is satisfactory. The findings show that the correlation or coefficient between the items is not very high.
Total variance explained

The percentage of the overall difference of the variables is the only aspect that can be clarified. The cumulative variance would be equated to the number of variables during measurement if the variables are independent of each other. The eigenvalue is used to decide the number of factors. We can see that, where the first factor defines 27.060% of the variance, the overall variance described is 58.287%. The second factor provided an average variance of 11.883%, the third factor calculated variance of 10.104%, and the fourth factor determined a variance of 9.241%.

| Component | Initial eigenvalues | Extraction Sums of Squared Loadings |
|-----------|---------------------|-------------------------------------|
|           | % of Variance       | % of Variance                       | Cumulative% | Cumulative% |
| 1         | 4.330 24.060        | 27.060                              | 4.330       | 27.060       | 27.060 |
| 2         | 1.901 11.833        | 38.942                              | 1.901       | 11.883       | 38.942 |
| 3         | 1.617 10.104        | 49.046                              | 1.617       | 10.104       | 49.046 |
| 4         | 1.479 9.241         | 58.287                              | 1.479       | 9.241        | 58.287 |
| 5         | 0.947 5.916         | 64.203                              |            |              |        |
| 6         | 0.793 4.956         | 69.159                              |            |              |        |
| 7         | 0.782 4.889         | 74.048                              |            |              |        |
| 8         | 0.735 4.594         | 78.641                              |            |              |        |
| 9         | 0.675 4.220         | 82.862                              |            |              |        |
| 10        | 0.566 3.538         | 86.400                              |            |              |        |
| 11        | 0.522 3.262         | 89.662                              |            |              |        |
| 12        | 0.460 2.876         | 92.539                              |            |              |        |
| 13        | 0.423 2.642         | 95.180                              |            |              |        |
| 14        | 0.321 2.008         | 97.188                              |            |              |        |
| 15        | 0.269 1.683         | 98.871                              |            |              |        |
| 16        | 0.181 1.129         | 100.000                             |            |              |        |

Table 5: Total Variance Explained Output

Reliability Analysis

The primary objective of the reliability test is to determine the accuracy of the results. It applies therefore to the extent to which the elements of the scale are compatible. Cronbach's Alpha is used to investigate the reliability of these papers in the questionnaire. Pallant (2007) has nevertheless claimed that the scale coefficient should be 0.7 or higher.

| Cronbach’s Alpha | N of Items |
|------------------|------------|
| 0.745            | 16         |

Table 6: Reliability Analysis and Cronbach’s Alpha

Figure 3: Scree Plot, Component Number and Eigenvalue
However, we can see that the Cronbach’s Alpha is 0.745, which is higher than 0.7. Therefore, we have no trouble continuing our studies with this instrument.

**Model Summary**

**Regression analysis of the coefficient**

Data collected from this research reveal that the value of R Square is 0.686 using the model description table. The value of R Square is appropriate if it is above 0.5. This results in a satisfactory R square value in this analysis as it is greater than 0.5.

| Model | R  | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|----|----------|-------------------|---------------------------|
| 1     | .686 | .471     | .457              | .41473                    |

*a. Predictors: (Constant), PUMM, PBMM, PSMM
b. Dependent Variable: ACMM

**Regression analysis of ANOVA test**

Regression analysis is a mathematical method to estimate the relationship between variables. The study of regression also helps to explain the relationship between one variable dependent on it and one or more independent variables. Regression analyses are usually used for estimation and prediction and to consider, and investigate these correlations, which of the individual variables are related to the dependent variable. The regression analyses were applied in this analysis to study the effects on consumer satisfaction of food quality, restaurant climate, comfort, and price& value.

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|-------|----------------|----|-------------|---|------|
| Regression | 17.746 | 3 | 5.915 | 34.391 | .000 |
| Residual | 19.952 | 116 | 0.172 |
| Total | 37.698 | 119 |

**Regression analysis and coefficient**

The following table shows that the regression of the coefficient test is used to test the correlation between the independent variables and dependent ones. The table states the equation is:

Cashless transactions Acceptance = 1.047 (security) +.528 (benefit) +0.205Usefulness) Acceptance = 1.047

Perceived Security = 0.071
Perceived Benefit=0.528
Perceived usefulness= 0.205

In other words, every 1 protection unit raises acceptance by 0.071 units.
The acceptance would rise by 0.528 units per 1 unit of benefit increases.
For one unit of usability increase the acceptance by 0.205 units.

| Model | Understudied Coefficients | Understudied Coefficients | t | Sig. |
|-------|---------------------------|---------------------------|---|------|
| (Constant) | 1.047 | 0.355 | 2.947 | .004 |
| Security | 0.071 | 0.67 | 0.077 | 1.053 | .294 |
| Benefit | 0.528 | 0.063 | 0.582 | 8.356 | .000 |
| Usefulness | 0.205 | 0.072 | 0.211 | 2.863 | .005 |
Hypothesis testing

From the coefficient regression study table, it reveals that the perceived security and the acceptability of cashless regression analysis transactions have a major negative effect. Since the coefficient value of the standardized is β=0.077, the p-value is 0.005<0.05. This means H1: The security perceived positively affects the intention of people to embrace cashless transactions. Thus, the perceived security is not a good indicator of this assertion and should be omitted from the list.

The Regression analysis table of the coefficient indicates that the perceived benefit and acceptance factor, a major positive impact on the perceived security and the acceptance of cashless regression empirical transactions. As the value coefficient is β=0.584 and p-value is 0.000<0.05. This means the H2: The benefit perceived is the purpose of individuals to embrace cashless transactions.

The coefficient regression analysis table indicates that the relative utility and recognition of non-cash transactions and acceptance of non-cash transactions in the regression analysis have a significant positive effect. The p-value is β=0.211 and 0.005<0.05 when the coefficient is normalized. H3: The desire of people to embrace non-cash transactions is influenced by perceived usefulness.

Summary of this analysis

We can see from it that all the theories discussed earlier in the literature review have been studied. After the experiments we find, however, that out of three hypotheses two hypotheses that are important in embracing cashless transactions while one is not accepted are supported. Regression analyses also were used to evaluate conclusions, and related findings were also established where the security perceived has not been supported; where perceived benefits and usefulness are supported, acceptance of transactions without cash has a positive effect.

Table 10: Summary of the hypothesis testing results.

| Hypothesis | Results |
|------------|---------|
| H1         | Not supported |
| H2         | Supported |
| H3         | Supported |

Discussion

For this report, the demographic factors were asked four questions. Gender, age, level of study, nationality are all considerations. In general, male, and female respondents were nearly similar to the results, but male respondents were higher than female, at 87 and 33. The second issue was the age, with 97 of the 120 respondents aged between 26 and above, covering about 80.8% of the overall survey. The third question was about the research stage and we found that more postgraduates than undergraduates were answered. 83.3 percent of the study were composed of 100 postgraduate students. Nationality became the fourth issue. Here you will see that there were more foreign students than Malaysian ones. They represent 84.2 percent of the study of 101 foreign students.

The instruments were tested for their durability and validity and the Cronbach alpha reliability test was used to assess the internal accuracy of this scale. However, by using Cronbach's alpha we have achieved results. The alpha value is 0.745 and 0.7 (0.745>0.7). We, therefore, have no difficulty continuing our studies with this instrument.

The regression analysis table of the coefficient indicates that the Perceived benefit and acceptance of non-cash transactions have a substantial positive impact on the perceived security and that the cashless transactions from a regression analysis have been adopted. Since the standardized value of the coefficient is β=0.584, the p-value is 0.000< 0.05. This means the Hypothesis H2: The benefit perceived is the purpose of individuals to embrace cashless transactions.

The coefficient regression analysis table indicates that the perceived usefulness and acceptance of non-cash transactions and acceptance of non-cash transactions in the regression analysis have a significant positive effect. The p-value is β=0.211 and 0.005<0.05, as the coefficient value is standardized. This means Hypothesis H3: The desire of people to embrace non-cash transactions is influenced by perceived usefulness. But we found that H1: The security perceived positively affects the intention of people to embrace cashless transactions. Therefore, our analysis does not have a reasonable indicator. So, we got rid of H1 from the list because Perceived security is not a good predictor for this statement.

Furthermore, the review of this thesis has fulfilled all the explained research objectives. However, one of the three factors has a negative influence on cashless transaction acceptability. The results show that the acceptance of cashless transactions does not affect the acceptance of the three independent factors which only perceive security. Two other considerations, such as perceived benefits and financial usefulness, have a beneficial impact on the adoption of cashless transactions.
Conclusions

While this analysis manages to predict a meaningful outcome, there are few drawbacks to be considered for prospective studies. Since the sample for this study is not sufficiently different, it is restricted to the Malaysian population. To generalize the results of the report, future studies should also suggest using a population from all states in Malaysia. To verify the translated questionnaire, more studies could also consider carrying out the reliability test. We should ensure that the data reflect the principles they are to calculate and that they do so accurately when employing statistical methods on the data. Validity and trustworthiness are not just an easy job (Smith, 2003). It takes time, work, and experience to create valid and effective measuring instruments. Tools developed already by other researchers are much easier to implement. For researchers, there have been several issues with interpreting measuring devices, as in other cross-cultural studies. Because of cultural and linguistic variations, the questions or objects in the interpreted instruments can have very different definitions and thus endanger the authenticity and efficiency of measures (Van der Vlijer, 2003).

But in the context of generalization, transaction being an big issue that associated with consumers' cashless payments are a crucial and diverse field of research in finance. One needs to develop the theoretical achievements against the pragmatic nature of cashless payments. It is necessary to attain new knowledge of descriptive and exploratory character since such knowledge can help explain the studied phenomena. Additionally, this knowledge may help to formulate suggestions for business practice, as well as policy formulation, in cashless transactions. Today, cashless payments have become one of the crucial components of the global economy and it is perceived as an important determinant of economic expansion. To this end, this study intends to explore the success factors affecting the adoption of cashless payments among consumers. Based on the research objective of this paper, we formulated the following research question, what are the success factors affecting consumers' adoption of cashless payment? The main contribution of this paper is to understand consumers' points of view in terms of their willingness to adopt cashless payments. Technology providers tend to focus more on the system itself and inadvertently ignore consumers' preferences. In this study, a well-established unified theory of acceptance and use of technology, the given model is used to capture the adoption of cashless payment among Malaysian consumers. However, that adoption of cashless purchases was based on perceived benefit and usefulness. The perceived security is not determined.

References

Abrazhevich, D. (2001). E-payment systems: issues of user acceptance. Stanford-Smith, B. and Chiozza, E. (Eds), E-Work and E-Commerce, IOS Press, Amsterdam, 354-360.

Abrazhevich, D. (2004). Electronic payment system. Eindhoven University of Technology, 1206.

Ajayi. (2014). Effect of cashless monetary policy on Nigerian banking. International Journal of Business and Finance Management Research.

Armey, L. E., Lipow, J., & Webb, N. J. (2014). The impact of electronic financial payments on crime. Information Economics and Policy, 29, 46-57.

Bank Negara Malaysia (2019). Malaysia's payment statistics. Retrieved 10 July 2019, from http://www.bnm.gov.my/index.php?ch=ps&page=ps_stats&lang=en.

Belanger, F., Hiller, J., & Smith, W. (2002). Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. The Journal of Strategic Information Systems, 245270.

Bilińska-Reformat, K., & Kieżel, M. (2016). Retail Banks and Retail Chains Cooperation for the Promotion of the Cashless Payments in Poland. In Proceedings of 15th International Marketing Trends Conference, Venice.

Central Bank of Malaysia. (2009). Payment and settlement systems report 2009. Retrieved from http://www.bnm.gov.my/files/publication/sps/en/2009/cp04.pdf.

Central bank of Malaysia. (2012). E-payments on the rise. Retrieved from www.bnm.gov.my/index.php/ch/4ps_mep&pg/4ps_mep_rise&lang=en.

Chakravorti, S. (2003). Theory of credit card networks: a survey of the literature. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=419944 (Google scholar).

Chen, L.-D. (2006). A Theoretical Model of Consumer Acceptance of mPayment. Americas Conference on Information Systems.

Chong, A. Y. L., Chan, F. T., & Ooi, K. B. (2012). Predicting consumer decisions to adopt mobile commerce: Cross country empirical examination between China and Malaysia. Decision support systems, 53(1), 34-43.

Chou, Y., Lee, C., & Chung, J. (2004). Understanding M-commerce payment systems through the analytic hierarchy process. Journal of Business Research, 1423-1430.

Cunningham, G. (2003, April). ‘UNEP Net Information Services for Watershed Management. In Presentation at the Symposium on Improving Public Participation and Governance in International Watershed Management. Charlottesville, Virginia (pp. 18-19).

Davis, F., Bagozzi, R., &Warshaw, P. (1989). User acceptance of computer technology: a comparison of two theoretical models. Management science, 35(8), 982-1003.

Davis. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information. MIS Quarterly.

Eastin, M. (2002). Diffusion of e-commerce: an analysis of the adoption of four e-commerce activities. Telematics and informatics, 251-267.
Fabris, N. (2019). Cashless Society—The Future of Money or a Utopia?. *Journal of Central Banking Theory and Practice, 8*(1), 53-66.

Golobal Trade (2020). Toward a global cashless economy. Retrieved from https://www.globaltrademag.com/toward-a-global-cashless-economy/.

Har Lee, C., Cyril Eze, U., & Oloy Ndubisi, N. (2011). Analyzing key determinants of online repurchase intentions. *Asia Pacific Journal of Marketing and Logistics, 200*-221.

Hataiseree, R. (2008). Development of E-payments and Challenges for Central Banks. Retrieved from https://www.ecb.europa.eu/home/pdf/research/WP_2008_01.pdf?abb527a3021b006ba1 8fed884a7a818.

Hernández, J., & Marcotequi, B. (2009, September). Filtering of artifacts and pavement segmentation from mobile lidar data. In *ISPRS Workshop Laserscanning 2009*.

Hord. (2005). Electronic payments. *The Free Press. New York*.

Kim, S., & Garrison, G. (2009). Investigating mobile wireless technology adoption: An extension of the technology acceptance model. *Information Systems Frontiers, 11*(3), 323-333.

King, & He. (2006). A meta-analysis of the Technology Acceptance Mode. *Information & Management, 740*-755.

Kothari, C. (1990). Research Methodology: Methods and Techniques. *New Age International Publishers, 1*-414.

Krüger, M., & Seitz, F. (2014). Costs and benefits of cash and cashless payment instruments: overview and initial estimates. *Study commissioned by the Deutsche Bundesbank. Frankfurt*.

Kucukusta, D., Law, R., Besbes, A., & Legohérel, P. (2015). Re-examining perceived usefulness and ease of use in online booking. *International Journal of Contemporary Hospitality Management*.

Kurnia, S., & Benjamin, L. (2007). Exploring the reasons for a failure of electronic payment systems a case study of an Australian company. *Journal of Research and Practice in Information Technology, 34*-67.

Lee, Y., Kozar, K., & Larsen, K. (2003). The technology acceptance model: past, present, and future. *Communications of AIS, 2003*(12), 752-780.

Lin, H., & Luarn, P. (2005). Toward an Understanding of the Behavioral Intention to Use Mobile Banking. *Computer in Human Behaviour, 873*-891.

Linck, K., & Poustchi. (2006). Security issues in the mobile payment from customer viewpoint. *MPRA, 1*-12.

Mathieson, K. (1991). Comparing the Technology Acceptance Model with the Theory of Planned Behavior. *Information & Management, 752*-760.

Mering, R. (2019). Survey: More Malaysians prefer cashless payment with debit cards, online banking. Retrieved 11 July 2019, from https://www.malaymail.com/news/money/2019/01/17/survey-more-malaysians-prefer-cashless-payment-with-debit-cards-onlinebank/1713682.

Ozturk, A. B. (2016). Customer acceptance of cashless payment systems in the hospitality industry. *International Journal of Contemporary Hospitality Management*.

Pikri, E. (2019). How cashless is Malaysia right now? Retrieved 10 July 2019, from https://fintechnews.my/19964/payments-remittance-malaysia/cashless-malaysia-credit-debit-card-e-wallet-money/.

Piyush, K. (2015). An Analysis of Growth Pattern Of Cashless Transaction System. *International Journal of Research In Business Management, 37*-44.

Prybutok, H. a. (2008). Consumer acceptance of RFID technology: an exploratory study. *EEE Transactions on Engineering Management*.

Ramalingam, K. (2012). Is Malaysia ready for greater adoption of e-payments? Retrieved from http://www.theedgemarkets.com/article/malaysia-ready-greater-adoption-e-payments-1.

Research and Market (2020). Global cards & payments market insights, 2015–2019 & 2019–2023. Retrieved from https://www.globenewswire.com/news-release/2020/04/ 16/2017151/0/en/Global-Cards-Payments-Market-Insights-2015-2019-2019-2023.html.

San-Martin, S., & López-Catalán, B. (2013). How can a mobile vendor get satisfied customers?. *Industrial Management & Data Systems*.

Sanga, B. R., Villavicencio, A. M., Padilla, V. S., Alvia, S. V., & Ponguillo, R. A. (2016). Software Defined Radio Using USB Receptors. In *Proceedings of the World Congress on Engineering and Computer Science (Vol. 1).*

Sreenu, N. (2020). Cashless Payment Policy and Its Effects on Economic Growth of India: An Exploratory Study. *ACM Transactions on Management Information Systems (TMIS), 11*(3), 1-10.

Stoborn, K., Heitmann, A., & Leibold, K. (2004). Internet payments in Germany: a classificatory framework and empirical evidence. *Journal of Business Research, 1431*1437.

Teo, A. C., Tan, G. W. H., Ooi, K. B., Hew, T. S., & Yew, K. T. (2015). The effects of convenience and speed in m-payment. *Industrial Management & Data Systems*.

Thomas, H. Jain, A., & Angus, M. (2013). Measuring Progress Toward a Cashless Society, MasterCard.

Tomi Dahlberg, N. M. (2010). Trust Enhanced Technology Acceptance Model. *Swedish School of Economics*.

Tsakisis, T., & Sthephanides, G. (2005). The concept of security and trust in e-payments. *Computers and Security, 10*-15.

Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation and emotion into the technology acceptance model. *Information Systems Research, 11*(4), 342.
Venkatesh, V., & Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. Management Science 0025:186(119).

Word Payments Report (2018). Non-cash transaction analysis. Retrieved from https://worldpaymentsreport.com/wp-content/uploads/sites/5/2018/10/World-Payments-Report-2018.pdf (accessed: the 11th July, 2019).

World Payment Report (2020). Non-cash payments volume. Retrieved from https://worldpaymentsreport.com/non-cash-payments-volume-2/ (accessed: the 11 September, 2020).

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