Organization and Parental Perceptions of Electronic Payments by Selected Seventh-day Adventist (SDA) International Schools in Thailand

Chalermsri Ritthitraiphop¹ and Wayne Hamra²

¹ Senior Accountant, Adventist International Mission School, Muak Lek, and MBA Graduate, Asia-Pacific International University, Thailand
² Assistant Professor, MBA Program, Asia-Pacific International University, chalermsri@aims.ac.th

ABSTRACT

This research explored the use of electronic payments by selected Seventh-day Adventist International Schools in Thailand and investigated the factors that affected parental perceptions of these payments. A Descriptive Research Design approach was utilized. Questionnaires and interviews were used to collect the data. A statistical software package was used to analyze the data, and stepwise multiple regression was applied to test the hypotheses. The 319 parents who had previously made electronic payments to the schools and eight Finance Department staff members at the schools were selected as respondents. Frequencies, percentages, means, standard deviations, and multiple regression (stepwise multiple regression analysis) were utilized for data analysis.

The results indicated that the factors of benefits, trust, self-efficacy, ease of use, and security were rated at the “High” level. The highest mean score was benefits (4.16), followed by self-efficacy (3.91), ease of use (3.89), trust (3.81), and security (3.55), respectively. Also, all factors – except for self-efficacy – were related to parental perceptions of e-payments at the 0.05 level of significance. Findings from group interviews of the finance staff at each school revealed that the factors of ease of use, trust, security, and benefits affected their perceptions of electronic transactions for both receiving and disbursing funds.

Keywords: Electronic transactions, Benefits, Self-Efficacy, Ease of Use, Trust, Security.

INTRODUCTION

Technological progress has increased rapidly in the past few years, and electronic payment systems are rapidly becoming part of our daily lives. All sectors are trying to adopt electronic payments in their businesses because they see the advantages of modern technology, including convenience and speed that make shopping easier (Siriwatthanakun, 2018).
In Thailand, use of the Internet has become more widespread as the economy has grown. Based on a survey by Digital Age Magazine (2017), in the year 2017 the proportion of Internet usage via mobile phones alone in Thailand is 66%.

![Proportion of Internet Usage via Mobile Phones in Selected Countries](image)

Source: Digital Age Magazine (2017)

**Figure 1.** Proportion of Internet Usage via Mobile Phones in Each Country in 2017

Today, electronic payments have become a popular way for people to make online purchases. Growth of the Internet has significantly impacted and facilitated development of online payments, which have become quite popular (Teoh, Chong, Lin, & Chua, 2013). Since schools are businesses, they have also started using information technology tools such as high-speed Internet access in order to meet the needs of their customers. The increasing popularity of electronic payments in Thailand has led to an increasing number of service providers and service methods (Orratai, 2015).

Electronic payments in schools offer benefits for organizations and students’ parents. Both electronic payments and receipt of funds may be more convenient, save time and cost, and reduce the risk of holding cash. Electronic payments also increase the efficiency of financial management, because the service is an online and real time payment system, therefore increasing the convenience in case of urgent payment requests. Travel time to make payments is eliminated, and payees are able to receive and manage money within a short period of time (Kaewtan, 2014).

By using electronic transactions, schools are able to communicate quickly with their customers, as well as create more convenience for both customers and suppliers. However, electronic transactions – especially transactions through Internet service providers – may be susceptible to fraud or human error. When using the Internet for financial transactions, organizations may
also face the risk of internal or external fraud, which may cause users to lack confidence in using electronic payments. According to Teoh et al. (2013), several factors that affect consumers’ perception of electronic payments, including benefits, trust, self-efficacy, ease of use, and security. It is interesting to explore these factors, particularly in Seventh-day Adventist International Schools in Thailand. The researcher wished to explore the factors that have a significant relationship associated with the parental perception toward electronic payments, and to understand the problems related to such transactions, internal control systems, and suggested best practices to protect against risks and prevent fraud that may occur via electronic transactions.

LITERATURE REVIEW
Usage of information technology is growing very rapidly, including communication devices, computers, and Internet networks, which are not only connected to computers, but especially to smart phones with high transmission speeds of 4G, and soon will be 5G in the future. The term “electronic transaction” refers to any activity that occurs between a business entity, a private enterprise, or a governmental organization for the purpose of business, trade, or governmental contact.

Electronic Payments are defined as “financial transactions that are often initiated through the use of computer terminals, online banking automated phone systems, or other methods of electronic funds transfer” (Government Finance Officers Association, 2008). Using e-payments, users are able to realize capital transition or monetary exchanges by themselves or by an authorized person (Tella & Abdulmumin, 2015).

The researcher found five electronic methods for E-payment transactions that are commonly used in Thailand, consisting of the following channels (Bank of Thailand, 2016):

1. Money Transfers through Automated Teller Machines (ATM)
2. Credit Cards - a card via which the card issuer gives credit to the cardholder.
3. Bill Payment - a service provided by banks for products and services through which customers use a form to pay bills at a bank counter.
4. Mobile Banking and Online Transfers via Internet - A facility provided by a bank or other financial institution that permits customers to perform different types of financial transactions using a mobile device, such as a mobile phone or tablet that uses the app provided by them (Sheetal, Purohit and Anup, 2019)
5. Online Payment via Quick Response (QR) Code - is a barcode that can be read by webcams or smart phones using FinTech methods of electronic payments.

Electronic payments trend is increasing. There were 3,215.3 million electronic transactions in 2016. During the years from 2012-2016, the average growth rate of E-Payment transaction by volume in each channel showed that 97% used mobile banking, 24% used debit cards, 23% used Internet banking, 22% used e-money, 9% used credit cards, 6% used direct credits and 5% direct debits, funds transfers, and bill payment at ATM. The average growth rate in use of e-payments from 2012-2016 was 19% (Bank of Thailand, 2016).

At present, people are interested in using more electronic transactions. According to Abrazhevich (2004), users need to trust that payments will be conducted properly, and that their money will not be stolen or misappropriated. Salem, Baidoun, and Walsh (2019) found that technological leadership, e-trust, e-loyalty, customer value for online personalization, and customer concern for privacy affect the use of online banking services.

Benefits referred to advantages gained from the use of electronic payments, which are convenience, fast speed, time saved, and usefulness. Kim, Ferrin, and Rao (2009) indicated that perceived benefits have both direct and indirect effects on a customer’s decision whether or not to adopt an e-transaction service.

According to Wai-Ching (2008), the benefit of using electronic transactions is to save time, save traveling costs, and to enable them to conduct transactions faster than in real time at any place. Fatonah, Yulandari, and Wibowo (2018) agreed that an electronic transaction system helps users to have faster payouts, better tracking, transparent transactions, reduced time use, cost savings and increased trust of users.

Trust can be defined as confidence in the performance of the providers’ system when using electronic payment or electronic receipt services. It is confidence that the provider has a good system to protect their information, and confirm that an accurate transaction was made. Abrazhevich (2004, p. 37) affirmed that “trust refers to the degree of customers’ confidence that their money and personal information will be safe, and that all parties involved will not act against users’ interests”. According to Pestek, Resic, and Nozica (2011), trust is the key factor that determines the success or failure of Internet-based operations. If customers lack trust, e-transactions will not occur.

Self-efficacy may have different definitions. As cited by Dory et al. (2009), self-efficacy referred to a particular person’s understanding and beliefs, skills and capability to perform a
given task. Bandura (1986) as cited by Teoh et al. (2013) noted that the perception one has of his or her abilities to do a particular task would increase the possibility that it will be successfully completed. Studies have found that self-efficacy has a substantial positive effect on perception and behavioral intention to use information system.

It is the degree to which a person believes that using a system will be free from efforts pertaining to the process leading to the end result (Sanayei, Ranjbarian, Shaemi, and Ansari, 2011). Numerous studies have confirmed that a technology will be perceived as more useful when it is easier to use (Legris, Ingham, & Collerette, 2003). The study of Suwunniponth (2016) also commented that the easy-to-use features of online payment applications have a positive effect on a person’s intention to use e-payments. The clear steps and the uncomplicated process of online payments increased the confidence of users to adopt this service because of its ease of use, convenience and benefits.

Security refers to technical aspects that ensure integrity, confidentiality, authentication, information protection, and avoidance of data risk, such as setting up an access code that must be entered before an account may be used. Poon (2008) reported that an authorized username and password are extremely important to prevent any risks.

This study aimed to explore the perceptions of electronic transactions for receiving and disbursing funds by selected Seventh-day Adventist International Schools, and to study the relationship of each factor affecting school and parental perceptions toward electronic payments (e-payments).

**Source:** Modified by Researcher from Teoh, Chong, Lin, & Chua, J. (2013).

**Figure 2**. Conceptual Framework for Study
METHODS

This independent study project primarily used a Descriptive Research Design approach to gather the needed data based on quantitative and qualitative methods. The study targeted a population consisting of 2,026 parents at three schools (a, b & c), and the sample consisted of two categories as follows:

1. Altogether 406 parents responded to the survey questionnaire from three selected Seventh-day Adventist (SDA) International Schools in two provinces of central Thailand. The researcher used convenience sampling to contact potential respondents.

2. Interviewed respondents consisted of eight finance office staff who process electronic transactions and provide service to parents at the three selected Seventh-day Adventist International Schools.

Data Collection

Surveys
Primary data was collected through a questionnaire distributed to 900 parents from the classes of Prep-Center to Grade 6 for two schools, and the classes of Prep-Center to Grade 10 for another school. Altogether 425 parents responded to the survey, but 19 questionnaires were incomplete, and so only 406 questionnaires could be used in this study. Among the group who completed the questionnaire, 319 respondents had previously used electronic payments, which represented 78.57% of the sample size.

Group Interviews
An interview guide was used to gather qualitative data from eight respondents who were financial and accounting office staff that worked at the three selected Seventh-day Adventist International Schools. Open-ended questions were asked to the interviewees in order to acquire findings that would help in understanding their perceptions toward and problem regarding electronic transactions.

Data Analysis
The analysis of data using a statistical software package was used to analyze the data as follows:

1. Descriptive Statistics were calculated to describe the data collected in terms of frequency, percentages, means, and standard deviations. Stepwise multiple
regression was used to test the study’s hypotheses; the level of significance was set at 0.05. The mean score for each factor was interpreted based on the following measurement scale:

4.51-5.00 = Very High  
3.51-4.50 = High  
2.51-3.50 = Medium  
1.51-2.50 = Low  
Less than 1.50 = Very Low

2. A narrative approach was used to describe the interview data collected from the finance office staff of the selected Seventh-day Adventist International Schools.

Research Hypotheses:

H1 There is a significant relationship between benefits and parental perception toward electronic payments.

H2 There is a significant relationship between trust and parental perception toward electronic payments.

H3 There is a significant relationship between self-efficacy and parental perception toward electronic payments.

H4 There is a significant relationship between ease of use and parental perception toward electronic payment.

H5 There is a significant relationship between security and parental perception toward electronic payments.

RESULTS

The demographic profile of the respondents of this study consisted of gender, age, occupation, education, income, type of devices used, and e-payment channels used. Table 1 shows that there were 319 respondents, of whom 74.9% were women. The majority of respondents were 41-50 years old, about 60% were business owners, and most respondents earned an income of 100,001-300,000 Baht per month per family. A majority of 62.7% of respondents had earned a Bachelor Degree, and an overwhelming majority of 93.7% usually accessed the Internet on a smart phone. They used a variety of e-payment channels for tuition and fees payments, with the most popular consisting of Net Banking or Online Transfers (37.6%).
Table 1. **Demographic Background of Respondents \((n = 319)\)**

| No  | Variables                        | n  | Percentage |
|-----|----------------------------------|----|------------|
| 1.  | Gender                           |    |            |
|     | Male                             | 80 | 25.1       |
|     | Female                           | 239| 74.9       |
| 2.  | Age                              |    |            |
|     | Below 30                         | 21 | 6.6        |
|     | 31-40                            | 118| 37.0       |
|     | 41-50                            | 161| 50.5       |
|     | 50 and above                     | 19 | 6.0        |
| 3.  | Occupation                       |    |            |
|     | Business Owner                   | 191| 59.9       |
|     | Employee                         | 84 | 26.3       |
|     | Government Officer               | 22 | 6.9        |
|     | Other                            | 22 | 6.9        |
| 4.  | Education                        |    |            |
|     | Below Bachelor Degree            | 22 | 6.7        |
|     | Bachelor Degree                  | 200| 60.3       |
|     | Master Degree                    | 94 | 30.0       |
|     | Doctoral Degree                  | 3  | 2.0        |
| 5.  | Monthly Income                   |    |            |
|     | Below 100,000 Thai Baht          | 92 | 28.8       |
|     | 100,000-300,000 THB              | 126| 39.5       |
|     | 300,001-500,000 THB              | 44 | 13.8       |
|     | 500,001-700,000 THB              | 29 | 9.1        |
|     | 700,001-900,000 THB              | 20 | 6.3        |
|     | More than 900,000 THB            | 8  | 2.5        |
| 6.  | Type of Devices Used             |    |            |
|     | Smart Phone                      | 299| 93.7       |
|     | Laptop/Tablet                    | 6  | 1.9        |
|     | Desktop Computer                 | 14 | 4.4        |
| 7.  | Channels of E-Payments           |    |            |
|     | Debit/Credit Card                | 78 | 24.5       |
|     | ATM Transfer                     | 14 | 4.4        |
|     | Bill Payment                     | 96 | 30.1       |
|     | Net Banking or Online Transfer   | 120| 37.6       |
|     | QR Code Payment                  | 11 | 3.4        |
Table 2. Parental Perceptions of Electronic Payments

| Items                                                                 | \( \bar{X} \) | S.D. | Level   |
|----------------------------------------------------------------------|---------------|------|---------|
| **Benefits**                                                         |               |      |         |
| 1. Electronic payments are convenient for me.                        | 4.35          | 0.762| High    |
| 2. The use of e-payment services is available everywhere and in real time. | 4.32          | 0.780| High    |
| 3. E-payments take a longer time to finish all the steps.            | 3.50          | 1.117| Medium  |
| 4. Use of e-payment services saves my time to travel to and from the bank | 4.41          | 0.751| High    |
| 5. The school’s payment channels are useful for me.                  | 4.23          | 0.772| High    |
| **Average Score**                                                    | 4.16          | 0.593| High    |
| **Trust**                                                            |               |      |         |
| 6. The bank or e-payment service provider has a good system to protect customer information. | 3.83          | 0.886| High    |
| 7. E-payment confirmed immediately after the transaction was made.   | 4.17          | 0.801| High    |
| 8. The bank or service provider can accurately take care of Electronic payment process. | 3.85          | 0.916| High    |
| 9. I am not sure that the electronic payment that I made to school is correct. | 3.40          | 1.131| High    |
| **Average Score**                                                    | 3.81          | 0.650| High    |
| **Self-Efficacy**                                                    |               |      |         |
| 10. New technology advertising influences the use of my electronic payment service. | 3.92          | 0.891| High    |
| 11. Electronic payments make my life easier.                         | 4.26          | 0.771| High    |
| 12. It is hard for me to learn to use electronic payments.           | 3.57          | 1.174| High    |
| 13. I have skills and knowledge about how to use e-payment.          | 3.90          | 0.863| High    |
| **Average Score**                                                    | 3.91          | 0.614| High    |
| **Ease of Use**                                                      |               |      |         |
| 14. Access to e-payment processes is not complicated.                | 4.09          | 0.744| High    |
| 15. It is easy to use e-payments through all channel provided by the school. | 4.03          | 0.902| High    |
| 16. It is hard to understand the steps of how to make e-payment.     | 3.58          | 1.187| High    |
| **Average Score**                                                    | 3.89          | 0.716| High    |
| **Security**                                                         |               |      |         |
| 17. E-payments are risky because my personal information may be stolen. | 2.52          | 1.015| Medium  |
| 18. E-payment always have a confirmation from the system.            | 4.12          | 0.757| High    |
| 19. Passwords should be changed every three months for security purposes. | 3.85          | 0.966| High    |
| 20. Using e-payments is more risky than payment by cash.             | 3.20          | 1.102| Medium  |
| 21. The company code and student ID are set to make the e-Payment correctly. | 4.08          | 0.816| High    |
| **Average Score**                                                    | 3.55          | 0.519| High    |
| **Parental Perception of Electronic Payments**                       |               |      |         |
| 22. An e-payment system is better than traditional payment channels   | 3.99          | 0.793| High    |
by school.
23. I will choose the trusted e-payments system to make transaction 3.87 0.912 High
24. E-Payments did not work the way I wanted them to work. 3.46 1.092 Medium
25. Electronic payments give me more control over all transaction 3.81 0.893 High

**Average Score** 3.78 0.646 High

Findings in Table 2 showed the mean scores (\( \bar{X} \)) and standard deviations (S.D.) for all items under each variable. In terms of the independent variables for the “Benefits” category, the average mean score (4.16) was “High”. The statement which received the highest score (4.40) was “Use of electronic payment services saves my time to travel to and from the bank”, which means that using electronic payments increased usefulness or benefit in terms of saving time, saving costs, and increasing convenience.

For the “Trust” category, the average mean score of (3.81) was also at the “High” level. The statement which had the most influence on respondents’ trust in electronic payments was “Electronic payments are confirmed immediately after the transaction was made”.

For the “Self-Efficacy” category, the average mean score (3.91) was at the “High” level. The statement which had the most influence on respondent’s self-efficacy in making electronic payments was “Electronic payments make my life easier”.

For the “Ease of Use” category, the average mean score (3.89) was also at the “High” level. The statement with the most influence on respondents’ ease of use was “Access to electronic payment processes is not complicated.”

For the “Security” category. The average mean score (3.55) for the factors was at the “High” level. The statement with the highest score on respondent’s security in electronic payments was “Electronic payments always have a confirmation from the system.”

**Table 3. Factor Average Scores for Parental Perceptions of Electronic Payments**

| Variables                  | Mean  | S.D.  | Perception Level |
|----------------------------|-------|-------|------------------|
| Benefits                   | 4.16  | 0.593 | High             |
| Trust                      | 3.81  | 0.650 | High             |
| Self-Efficacy              | 3.91  | 0.614 | High             |
| Ease of Use                | 3.89  | 0.716 | High             |
| Security                   | 3.55  | 0.519 | High             |
| **Total**                  | **3.86** | **0.219** | **High** |
| Parental Perception of E-Payments | 3.78  | 0.646 | High             |

1152
Table 3 shows the average scores for each factor (independent variable) and the dependent variable, or parental perception toward electronic payments. The overall mean score was 3.86 and standard deviation was 0.219; the overall decision scale indicated a “high” perception level, with a mean score of 3.78. If considered by factor, most respondents agreed that benefits (4.16) was the main factor affecting parental perception toward electronic payments, followed by self-efficacy (3.91), ease of use (3.89), trust (3.81), and security (3.55) respectively. All items had scores above 2.50. The standard deviation scores for all variables were well below 1.00, indicating consistency in respondents’ answers (Teoh et al., 2013).

Hypothesis Test Results

Stepwise Multiple Regression Analysis was conducted using independent variable(s) that affect parental perception toward electronic payments, analyzing each variable in its turn. The multiple regression results display relationships between all the independent variables and the dependent variable.

The results of multiple regression for the variable “Ease of Use” in Table 4.1 were significant at the 0.01 level; this factor predicted 39.5 percent (R=0.629, R² = 0.395) of the variance in parental perception toward electronic payments.

Table 4.1 Multiple Regression Using Ease of Use to Predict Perception of E-Payments

| Predictor Variables | B   | Beta | t-value |
|---------------------|-----|------|---------|
| Constant            | 1.570 | 10.052 |
| Ease of Use         | 0.568 | 0.629 | 14.232 ** |

R = 0.629  R² = 0.395  R² adjusted = 0.394  F = 207.367

* p < 0.05, **p < 0.01

When the variable “Trust” was added to the regression equation (Table 4.2), the results showed that both “Ease of Use” and “Trust” were significant at the 0.01 level. These two factors jointly predicted 53.1 percent (R=0.729, R² = 0.531) of the variance in parental perceptions of electronic payments.

Table 4.2 Multiple Regression Using Ease of Use and Trust to Predict Perception of E-Payments

| Predictor Variables | B   | Beta | t-value |
|---------------------|-----|------|---------|
| Constant            | 0.598 | 3.497 |
| Ease of Use         | 0.428 | 0.475 | 11.369** |

1153
When the variable “Security” was added to the regression equation (Table 4.3), the results showed that “Ease of Use, Trust and Security” were all significant at the 0.01 level. These three factors jointly predicted 55.2 percent ($R^2$ = 0.552) of the variance in parental perception of electronic payments.

Table 4.3 Multiple Regression Using Ease of Use, Trust, and Security to Predict Perception of E-Payments

| Predictor Variables | B     | Beta  | t-value |
|---------------------|-------|-------|---------|
| Constant            | 0.296 |       | 1.595   |
| Ease of Use         | 0.382 | 0.423 | 9.822** |
| Trust               | 0.309 | 0.311 | 6.574** |
| Security            | 0.231 | 0.185 | 3.774** |

$R = 0.743$  $R^2 = 0.552$  $R^2_{adjusted} = 0.547$  $F = 129.218$

* p < 0.05,  **p < 0.01

Results in Table 4.4 showed that when the variable “Benefits” was then added to the regression equation, the results showed that “Ease of Use”, “Trust”, “Security”, and “Benefits” were all significant at the 0.01 level. These four factors were variables that jointly predicted 56.2 percent ($R = 0.750$, $R^2 = 0.562$) of the variance in parental perception toward electronic payments.

The results showed that ease of use has the most affected on parental perception, followed by trust, security, and benefits respectively.

Table 4.4 Multiple Regression Using Ease of Use, Trust, Security, and Benefits to Predict Perception of E-Payments

| Predictor Variables | B    | Beta  | t-value |
|---------------------|------|-------|---------|
| Constant            | 0.116|       | 0.592   |
| Ease of Use         | 0.321| 0.356 | 7.204** |
| Trust               | 0.256| 0.258 | 5.087** |
| Security            | 0.215| 0.173 | 3.532** |
| Benefits            | 0.162| 0.149 | 2.722** |

$R = 0.750$  $R^2 = 0.562$  $R^2_{adjusted} = 0.556$  $F = 100.737$  Durbin-Watson=1.917

* p < 0.05,  **p < 0.01

The hypothesis test using stepwise multiple regression found that ease of use had the most effect on parental perception toward electronic payments, followed by trust, security and...
benefits respectively. This means that $H_1$, $H_2$, $H_4$, and $H_5$ are accepted, and that “Ease of Use”, “Trust”, “Security”, and “Benefits” were all significant at the 0.05 level or higher. However, self-efficacy was not significantly associated with parental perception toward e-payments. Therefore, $H_3$ was not accepted.

Results from Exploratory Research

Exploratory research was conducted through a series of group interviews. In total, eight respondents from three Seventh-day Adventist (SDA) International Schools were queried. They were two males and six females, aged between 35 to 45 years old. All respondents worked in the finance or accounting offices and were aware of the use of electronic payments.

Factors that Affect Perceptions of Electronic Payments

1. All respondents agreed that electronic payments benefited their school in terms of being convenient, cost-effective, and saving time for the school. The person who makes a request for funds via the Internet can receive them right away.

2. Self-Efficacy. The finance staff found the electronic payment system to be user-friendly and easy to learn. Electronic payments help increase the work efficiency of the finance office, as parents or vendors don’t have to spend time in a line, waiting for their turn to transact.

3. Ease of Use. The electronic payment system was developed by the bank with all needed functions and features, so no special knowledge or experience are needed to use it. Therefore, it is easy for the school to adapt and use it.

4. Security and Trust. Banks provide cash management or a cash-link system to schools with security features: for example, the system requires a login and password, with dual authorization per transaction for better internal control. In the e-payment process, 3 or 4 persons are involved for internal control. After an electronic transaction is made, the system always confirms its success and accuracy. Schools decided to use e-payment systems because they trust bank security systems; however, this trust developed after using electronic payments a few times.

Suggested Control Guidelines for Electronic Transactions

1. Segregate duties among 2-3 persons involved in electronic transactions, such as one person makes the transaction, a second person checks the transaction, and a third person
authorizes or ensures adequate internal control. One person should not be authorized to execute wire transfers or similar electronic disbursements alone.

2. Authorized users involved in electronic transactions and transfers should not share login and password information with anyone else.

3. To prevent fraud, the system must require authorized persons to change their passwords every 2-3 months for security purposes.

4. Double check the transactional information before uploading it to the bank’s electronic payment system.

5. The person involved in electronic payments and collections should sign-out every time after using the program.

6. Perform monthly bank reconciliations.

7. Schools may need to open more bank accounts in different banks for some parents who use other bank services.

8. Using the new QR payment app makes it easier for parents to make e-payments, and to set references to confirm these payments.

DISCUSSION

The conclusion and discussion of this study are based on its objectives of exploring the perceptions of electronic transactions for receiving and disbursing funds. Both students’ parents and the finance staff of the selected Seventh-day Adventist (SDA) International Schools were queried, and the relationship of benefits, trust, self-efficacy, ease of use and security that affect parental perception toward electronic payments were studied.

Discussion of Mean Scores

The results indicated that “Benefits” showed the highest average mean score (4.16). This was followed by “Self-Efficacy”, with an average mean score of 3.91, which was at the “High” level. Next was “Ease of Use”, with an average mean score of 3.89, which indicated a “High” level.

This was followed by “Trust”, with an average mean score of 3.81, which was also at the “High” level. Next was “Security”, with an average mean score of 3.55 at the “High” level. Respondents agreed that an e-payment system is better than traditional payment channels, and they would choose a trusted e-payment system to conduct transactions. Most agreed that electronic payments gave them more control over transactions.
Discussion from the Hypothesis Testing
The results from the relationships among benefits, trust, self-efficacy, ease of use, and
security that affect parental perception toward electronic payments were analyzed per the
hypothesis of this study.

H1 There is a significant relationship between benefit and parental perception toward
electronic payments.
This means that using electronic payments increased the usefulness or benefits in terms of
saving time, saving cost, and providing more convenience to both parents and the financial
staff of the schools. This finding is related to the study of Fatonah, Yulandari, and Wibowo
(2018), who cited that electronic transaction systems help users to have faster payouts, better
tracking, transparent transactions, reduced use of time, cost savings, and increased trust.

H2 There is a significant relationship between trust and parental perception toward
electronic payments.
Trust is a predictor that significantly affected parental perceptions at a “High” level. This
means that if parents trust the electronic payment system provided by the school, they will be
more likely to use it. If parents trust that a bank or school has a good system to protect their
privacy, and the bank or school can accurately take care of the electronic payment process,
including immediate confirmation after a transaction is made.
This finding is related to the study of Abrazhevič (2004, p. 37), who noted that “Trust refers
to the degree of customers’ confidence that their money and personal information will be
safe, and that all parties involved will not act against users’ interests”. Pestek, Resic, and
Nozica (2011) also found support for the notion that trust is the key factor that determines the
success or failure of internet-based operations. Trust brings successful operations to a
company because customers believe that their e-transactions will be successful and their data
will not be shared with third parties.

H3 There is a significant relationship between self-efficacy and parental perception
toward electronic payments.
The results found even though self-efficacy had an average mean score of 3.91 but the
multiple regression test showed that self-efficacy was not significantly associated with
parental perception toward electronic payments. This is not according to hypothesis H3. It
means that new technology advertising, skills and knowledge were not a predictor for
parental perception toward electronic payments. This finding differs from the study of Teoh
et al. (2013) self-efficacy is a main factor associated with consumer’s perception toward electronic payments. Each individual has a different level of self-efficacy, and this may be the reason why self-efficacy was not significantly associated with parental perception of electronic payments as cited by Brown, Malouf, and Schutte (2005) in the work of Bandura (1994). Previous studies found that self-efficacy was important because individuals with high efficiency for a task tend to put more effort into it, and experience positive emotions after having performed it. People with a high sense of efficacy also believe that they can achieve difficult tasks; they perceive this as a challenge to be mastered, rather than as a threat to be avoided.

H4 There is a significant relationship between ease of use and parental perception toward electronic payments. The results found that ease of use significantly affected parental perception of payments with a mean score at the “High” level. This means that parents felt that the electronic payment system provided by the school and the bank was not hard to use, and it was easy to understand the steps of how to make electronic payments. This was related to Arvidsson’s (2014) finding that the importance of ease of use is because whether consumers will adopt something or not is the result of a learning process, and because the process was not complicated.

H5 There is a significant relationship between security and parental perception toward electronic payments. The results found that security has a significant relationship associated with parental perception toward electronic payments. This is because security is a set of procedures, mechanisms, and computer programs to authenticate the sources of information and guarantee the integrity and privacy of the information (Tsiakis & Stephanides, 2005). If parents perceive a high risk, they may feel not secure. In this study, most respondents agreed that electronic payments always have a confirmation from the system. The way that the school sets up a company code and student ID number helps parents to make e-payments correctly, even though they may fear that their personal information may be stolen. However, setting up login user names and passwords and changing them every three months helps for security purposes. This finding is related to the study of Poon (2008) that authorized usernames and passwords are extremely important to prevent risks, because perceived risk creates uncertainty about using the service
Conclusion

In conclusion, new applications allow financial transactions to be made via mobile phones or various software systems that are convenient for users. This eliminates time spent processing manual payments, and – when properly set up – is more secure than physical receipts. Many institutions or organizations have used technology to help departments increase their speed of work, especially the finance department. Therefore, the use of electronic payment systems increases convenience as a benefit for both service users and service providers.

In this study, “Ease of Use”, “Trust”, “Security”, and Benefits” were all significantly associated with parental perception toward e-payments. Parents can make payments through different channels provided by each institution, especially through mobile banking via the Internet or online transfer, which makes it easy to use the application provided by the bank to make transactions quickly. Use of electronic payment and receipt transactions should build confidence for customers, especially regarding the safety of transactions. All systems must be verified for correctness in every transaction, and the transaction code must be changed every three months, or else company or customer code must be assigned so that customers can reference these and execute correct transactions.

Recommendation

As a result of these findings, schools should endeavor to increase use of electronic payment systems by offering training to parents who still make traditional payments in order to reduce or eliminate them. More e-payment channels from different banks should be made available to support such initiatives. For example, step-by-step processes of how to use each e-payment channel may be created for LINE parent groups, sent through email, or presented on parent conference days. Making tuition and fees payments via mobile banking should be especially emphasized.

School finance office staff should improve their knowledge and skills via training in e-payment and e-collection technology. Schools can develop specific controls to address and monitor risks to make sure controls over electronic payments are consistently applied. Schools which use electronic transactions need to provide strong online authentication methods geared to protect client account information and access. They should also implement segregation of duties or involvement of multiple individuals, which means that user access to each data section or authorized area must be clearly defined. The overarching principle for internal control is that two or more persons are involved in each process, or dual control.
Suggestions For Further Studies
To enhance the accuracy and generalizability of these findings, collection of larger sample sizes across different locations could be considered in future studies, perhaps from other private international schools, and focus on other factors that affect parental perception, such as the lifestyle, incentives, and intentions toward electronic payments. This will help to better understand more about the behavior of respondents toward electronic payments.

REFERENCES

Abrazhevich, D. (2004). Electronic payment systems: A user-centered perspective and interaction design (Doctoral dissertation). Technical University of Eindhoven, Eindhoven, the Netherlands. Retrieved from http://www.idemployee.id.tue.nl/p.markopoulos/downloadablePapers/ThesisAbrazhevich.pdf

Bank of Thailand (2016). Payment systems report, 2016. Retrieved from https://www.bot.or.th/Thai/PaymentSystems/Publication/PS_Annually_Report/Pages/default.aspx.

Bandura, A. (1994). Self-Efficacy. In V.S. Ramachaudran (Ed.), Encyclopedia of Human Behavior (Vo.4 pp. 71-81). New York: Academic Press, 1998.)

Brown, L., Malouff, J., & Schutte, N. (2005). The effectiveness of self-efficacy intervention for helping adolescents cope with sport competition loss. Journal of Sports Behavior 28(2), 136-137. Retrieved from http://samples.jbpub.com/9781449689742/Chapter2.pdf

Digital Age Magazine (2017, May). The growth of internet users worldwide in 2017. No. 221, p. 64.

Dory, V., Beaulieu, M., Pestiaux, D., Pouchanin, D., Gay, B., Rocher, G. & Boucher, L. (2009). The development of self-efficacy beliefs during general practice vocational training: An exploratory study. Medical Teacher (31)1, 39-44. doi: 10.1080/01421590802144245

Fatonah, S., Yulandari, A., & Wibowo, F. (2018). A review of e-payment system in e-commerce. Journal of Physics Conference Series, 1140(1), 1-7. doi: 10.1088/1742-6596/1140/1/012033.

Kaewtan, J. (2014). Factors influencing the acceptance of electronic payment using smartphone devices: In case of Bangkok and Pathum Thani (Master’s independent study). Rajamangala University of Technology Thanyaburi, Thailand. Retrieved from http://www.repository.rmutt.ac.th/bitstream/handle/123456789/2544/146591.pdf?sequence=1

Legris, P., Ingham, J. and Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. Information and Management, 40(3), 191-204. Retrieved from https://www.sciencedirect.com/journal/information-and-management/vol/40/issue/3

Orratai, S. (2015). The satisfaction of the service paid by invoice (bill payment) service at the counter of the service in Bangkok| Thammasat University. Retrieved from http://ethesisarchive.library.tu.ac.th/thesis/2015/TU_2015_5702010116_2952_1996.pdf
Pestek, A., Resic, E., & Nozica, M. (2011). Model of Trust In E-Transactions: Znanstveno-Strucni Casopis Znanstveno-Strucni Casopis. Ekonomsko Istrazivanja, 24(3), 131-146. Retrieved from https://search.proquest.com/docview/1315523997?accountid=39909

Poon, W. (2008). Users’ adoption of e-banking services: The Malaysian perspective. Journal of Business and Industrial Marketing (23)1, 59-69. Retrieved from https://www.researchgate.net/publication/240258910_Users%27_adoption_of_e-banking_services_The_Malaysian_perspective

Sanayei, A., Ranjbarian, B., Shaemi, A., & Ansari, A. (2011). Determinants of customer loyalty using mobile payment services in Iran. Interdisciplinary Journal of Contemporary Research in Business, 3(6), 22-34. Retrieved from https://www.researchgate.net/profile/Mojtaba_Saeidinia/publication/216324092_The_Effect_of_ICT_on_Work_Experiences_Iranian_multinational_electrical_manufacturing_companies/links/0310fba189816c0a0bd68fdc.pdf#page=22

Siriwatthanakun, T. (2018, 28 Nov). สังคมไร้เงินสด [The Cashless Society]. Retrieved from https://rabbittoday.com/th-th/articles/scoops/cashless-society

Suwunniponth, W. (2016). Customer’s intention to use electronic payment system for purchasing. International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering, 10(12), 3925 – 3930. Retrieved from https://waset.org/publications/10006099/customers-intention-to-use-electronic-payment-system-for-purchasing

Teoh, W., Chong, S. Lin, B., & Chua, J. (2013). Factors affecting consumers' perception of electronic payment: An empirical analysis. Internet Research, 23(4), 465-485. doi:https://doi.org/10.1108/IntR-09-2012-0199

Tsiakis, T. and Sthephanides, G. (2005). The concept of security and trust in electronic payments. Computers and Security, 24(1), 10-15. Retrieved from https://www.researchgate.net/publication/222559488_The_concept_of_security_and_trust_in_electronic_payments