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## The Payment Behavior and Electronic Payments Usage of University Students

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### Abstract

The purposes of this quantitative research were to study university students' payment behavior in Phitsanulok, Thailand; to compare expenses paid through financial technology services by students classified by their gender, universities, and monthly income; and to investigate the relationship between electronic payments usages and students' total expenses. The data were collected from samples of 400 students through a questionnaire. Statistical methods employed in analyzing the data included the use of percentage, frequency, mean, standard deviation, t-test, one-way analysis of variance, and Eta. The results showed that cash payment was the payment method used by the highest number of students; this was followed in descending order by mobile banking and credit card. Among electronic payment service providers, TrueMoney Wallet was used by the highest number of samples, followed by bank applications. Furthermore, in the month when the data collection took place, the majority of the samples did online-shopping once or twice a month with the average expense of 1,193.70 Baht and the standard deviation of 2,456.71 Baht. The strongest deciding factor when choosing payment service providers was the service convenience, followed by the safety. The expenses paid through financial technology varied in a statistically significant manner among different genders, universities, and monthly incomes. In addition, internet banking and mobile banking had the highest relationship with the total expenses among electronic payments usage, although the relationship between both payment usages was still quite weak.

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## พฤติกรรมการชำระเงินและการใช้สื่อการชำระเงินทางอิเล็กทรอนิกส์ ของนักศึกษามหาวิทยาลัย

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วัตถุประสงค์ของการศึกษาเชิงปริมาณในครั้งนี้ คือ เพื่อศึกษาพฤติกรรมการชำระเงินของนักศึกษามหาวิทยาลัยในจังหวัดพิษณุโลก เปรียบเทียบค่าใช้จ่ายที่ชำระโดยใช้เทคโนโลยีทางการเงินจำแนกตามเพศ มหาวิทยาลัย และรายได้ต่อเดือนของนักศึกษา และศึกษาความสัมพันธ์ระหว่างการใช้สื่อการชำระเงินทางอิเล็กทรอนิกส์และค่าใช้จ่ายรวมของนักศึกษา ผู้วิจัยสำรวจและเก็บข้อมูลจากนักศึกษาที่กำลังศึกษาในมหาวิทยาลัยจำนวน 400 คน โดยใช้แบบสอบถามเป็นเครื่องมือในการเก็บรวบรวมข้อมูล สถิติที่ใช้ในการวิเคราะห์ ได้แก่ ร้อยละ ความถี่ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน t-test F-test และค่า Eta จากผลการวิจัย พบว่า กลุ่มตัวอย่างมีพฤติกรรมการชำระเงินในชีวิตประจำวันเป็นเงินสดมากที่สุด รองลงมา คือ ใช้ Mobile Banking และบัตรเครดิต กลุ่มตัวอย่างใช้บริการเทคโนโลยีทางการเงินที่เกี่ยวข้องกับการชำระเงินของผู้ให้บริการมากที่สุด คือ True Money Wallet รองลงมา คือแอปพลิเคชันของธนาคาร และในรอบ 1 เดือนที่ทำการศึกษา กลุ่มตัวอย่างซื้อของผ่านอินเทอร์เน็ตด้วยความถี่สูงสุด 1-2 ครั้ง โดยมีค่าใช้จ่ายในการซื้อของผ่านอินเทอร์เน็ตเฉลี่ยอยู่ที่ 1,193.70 บาท ส่วนเบี่ยงเบนมาตรฐานเท่ากับ 2,456.71 บาท เหตุผลที่กลุ่มตัวอย่างตัดสินใจเลือกใช้บริการเทคโนโลยีทางการเงินที่เกี่ยวข้องกับการชำระเงินที่สำคัญมากที่สุดคือความสะดวกในการใช้บริการ รองลงมาคือความปลอดภัย ค่าใช้จ่ายที่ชำระโดยใช้เทคโนโลยีทางการเงินเมื่อจำแนกตามเพศ มหาวิทยาลัย และรายได้ต่อเดือนมีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติ นอกจากนี้ ยังพบว่า ค่าใช้จ่ายรวมของกลุ่มตัวอย่างมีความสัมพันธ์กับการใช้สื่อการชำระเงินทางอิเล็กทรอนิกส์ด้วย Internet Banking สูงที่สุด รองลงมาคือ Mobile Banking อย่างไรก็ตาม ขนาดของความสัมพันธ์อยู่ในระดับที่ค่อนข้างต่ำ

## 1. Introduction

Technology and innovative development in digital society causes people's lifestyle to become more convenient, fast-paced and efficient. These changes call for the business sector to satisfy consumers' needs by shifting its paradigm, especially in electronic payment transactions, in order to make the payment process convenient, fast, safe, and low cost for the customers. Many businesses have developed Financial Technology (FinTech), the process in which businesses differentiate their products and services to respond to the rapid changes of the economy and society. Financial innovation has revealed the potential of many products and services to meet the ever-changing demands of customers. Financial innovation development also aligns with the profit maximization goal of the economy.[1] The classification of innovation may vary depending on business circumstances and the objectives of innovation. Classified by the perspectives of business scope, the innovation consists of two categories: Technological Innovation and Administrative Innovation. [2]

In Thailand, the government is supportive of financial innovation. According to Thailand 4.0 policy, technology and innovation, including electronic payment methods, have made basic financial transactions and services much more convenient for consumers. Financial service providers, both bank and non-bank, need to constantly improve their services to provide satisfaction for various kinds of customers, who are required to adapt to innovation as well. The payment system in Thailand has apparently changed to a digital one, as suggested by the development of Promptpay and Thai QR Code for bill paying. The National e-Payment expansion can successfully meet the needs of each group of consumers, especially in high-growth e-Commerce and

Social Commerce, and also in SMEs and large enterprises. [3-4] Although cash remains the most popular payment method among Thai people, the development of Promptpay, along with the various kinds of Promptpay's extended services and online banking fee waiver, became the turning point for the rising popularity of e-payment. This shift resulted in 2018 e-Payment transactions totaling at 5,955 million transactions, representing the growth of 42.8 percent from the previous year. The number of people using mobile banking and internet banking has increased up to 121.0 percent in volume and 81.40 percent in value compared to previous year. Card payment usage has overall increased over the year 2018, resulting in 62.10 million debit cards and 22.10 million credit cards at the end of 2018, indicating the growth of 5.1 percent and an 8.9 percent accordingly. At the same time, the e-Money service is an electronic payment instrument that can satisfy the younger generation's need for convenient and fast payment methods for daily usages, for instance, using the public transportation cards, purchasing groceries, or shopping online through mobile applications. e-Money payment has continuously increased each year, as the growing rate of e-Money accounts is 49.90 percent compared to that of the previous year, resulting in 77.6 million accounts at the end of 2018 with the total expense of 203.2 billion Baht (63.00 percent increase from the year before). The e-Money services provided by both banks and non-banks still have an upward trend, being used mostly for mobile phone top-ups (buying airtime), followed by the payment for goods and services and e-Money fund transfer respectively. [4]

Cashless payment is well-known in Asia as there is a widespread use of credit or debit card and mobile applications to replace cash payment. Most payment methods are mobile banking and mobile shopping,

allowing for fast financial transaction with the important supporting factors being a widespread access to smartphones, internet and high-speed wireless. For example, most Chinese consumers are accustomed to mobile payment via mobile applications such as Alipay in Alibaba group holdings and WeChat Pay in Tencent holdings. Alipay is also used for investing in money funds as well. Financial technology providers for goods and services purchase and money transfer include Paypal, Alipay, AirPay LinePay, and RABBIT. The providers for the mobile services include Mpay and TrueMoney Wallet, which offers a payment service via e-Wallet for consumers' direct deposit, bill pay, and transfer payment.

The payment behavior is the decision and action involved in purchasing goods and services to satisfy consumers' needs with the internal and external incentives. Whereas the e-Payment behavior is the action of transferring payment instruments to purchase via electronic devices including internet and communicative devices such as mobile phone and computer. According to Liengpradit [5], whose research focuses on e-Payment Behavior of People in the Bangkok Metropolitan Region, the most used electronic payment methods are e-Money, ATM card, and debit card respectively, with the most accepted reasons of convenience, speed, and time-efficiency respectively. Most samples spend an average amount of 1,001-2,000 Baht per each payment with the frequency of 3-4 times a month.

An increasing number of Australian consumers prefer to use electronic payment methods. Many people now tap their cards, or sometimes phones, for small purchases rather than paying in cash. Consumers also have an increasing range of options available for making everyday payments. Nonetheless, cash still accounts for a significant share of lower-

value payments and a material proportion of the population continues to make many of their payments in cash. [6] Accordingly, Wornchanok and Watanyoo [7] studied the diffusion and adoption of electronic payment systems in Bangkok, Thailand and found that user behavior had a positive correlation with personal income; higher-income users tend to use electronic payment systems more than lower-income users. This research also shows that adoption readiness, income, and internet banking positively influence user behavior significantly. Apart from this, Shweta et al. [8] used an online survey to gather data on college student credit card payment activity and demographic characteristics. College students participated in the survey are then categorized into four behavioral segments based on useful characteristics of their credit card payment behaviors—those who always pay in full and on time, those who sometimes pay in full and on time, those who rarely pay in full and do not pay on time, and those who neither pay in full nor pay on time. The research found that clear distinctions exist between segments who behave in responsible ways versus those who do not practice responsible behaviors. Given potential risk in credit card marketing targeted college students, findings about payment behaviors of college students will be beneficial for policymakers, credit card companies and college administrators.

Sallie Mae (the nation's saving, planning, and college loan company, offering private education loans, free college planning tools, and online banking) has partnered with Ipsos (world's leading company in market research) to conduct the study of Majoring in Money and compare past and modern financial habits of college students: how they pay for purchases, their knowledge and use of credit, their perception of their money management skills, and their desire

for opportunities to improve their credit and money management. Online interviews of survey samples were conducted in English between December 21, 2018 and January 16, 2019. The survey sample comprised a cross-section of 810 college students, with 804 young adults (age 18-24), who have graduated from college (completers), and 805 young adults (age 21-29) who left college without a degree (non-completers). The key findings show that debit card payment is nearly a universal mean of purchase payment and the most frequently used payment method. Mobile payment usage among students and completers is similar to their debit card possession rate but is used by fewer non-completers. The majority in all three populations has a credit card, though a higher ratio of completers has them. Despite the number of alternative payment methods available, cash still matters, especially when paying for low-cost purchases. [9]

Khantket and Chaveesuk [10] studied the level of electronic payment system acceptance by demographics of working adults in the central region of Thailand. The research analysis found that for the working-age with different gender accepted electronic payment systems, there were no significant differences in their opinions. Indicated by differences in education and average net income, at least one pair of significance was found from the testing assumption. Meanwhile, Pumim [11] studied consumers' decisions to adopt electronic payment instruments in Thailand. The result shows that age and gender influence the likelihood of electronic payment instruments adoption, while education and income also have a positive correlation with the likelihood. Moreover, the likelihood of internet banking or mobile banking adoption is positively correlated with the total expense paid through electronic payment.

Electronic payment methods have a considerable number of benefits such as convenience, safety and simplicity that facilitates the transition to a cashless society, the emergence of new SMEs and entrepreneurs, and the expansion of the economic system due to online shopping. On the other hand, these electronic payment methods also face a pushback from elderly's limited exposure to technology and lack of trust for digital payment. Thus, the small, niched users seem to only include people in urban areas, especially office workers. Most researchers do not usually focus on the opinions and the electronic payment behaviors of new generations, such as university students, who are the country's main future workforce. This study aims to close this gap in order to provide guidelines for financial service providers, both bank and non-bank, who can apply these research results to develop financial technology catered to the needs of new generations. Besides, the government would be able to make use of these results to develop and promote the digital payment system. The purposes of this research were (1) to study university students' payment behavior in Phitsanulok, Thailand; (2) to compare the expenses paid by students classified by their gender, universities, and monthly income through financial technology services; and (3) to investigate the relationship between electronic payment usage and students' total expenses.

## 2. Research Methods

This research is a quantitative study, using a cross-sectional data collecting method. The research population is a total of 33,249 undergraduate students at Naresuan university and Pibulsongkram Rajabhat university in the academic year of 2018. [12-13] The sample size is calculated by Taro Yamane's method [14] at the confidence level of 95 percent, resulting

in the minimum number of 400 samples. The researchers conduct probability sampling, proportional stratified sampling, and simple random sampling. Lastly, the number of returned questionnaires is 400 (100 percent response rate)

The methodology consists of the exploratory and documentary methods that involve the use of a questionnaire, whose content validity is approved by experts. The questionnaire's reliability is validated through pre-testing with a sample-like group of people. The statistics used in this study are percentage, frequency, mean, standard deviation, and median to describe the characteristics of the variables. The researchers use t-test to compare the expenses paid by students classified by their gender and universities through financial technology services. One-way analysis of variance is also used to compare the expenses paid through financial technology services of students classified by monthly income.

From literature review, the researchers build three hypotheses that factors including gender, university, and monthly income are related to varying amounts of expenses paid through financial technology services:

Hypothesis I: Gender affects the amount of expenses paid through financial technology services.

Hypothesis II: University affects the amount of expenses paid through financial technology services.

Hypothesis III: Monthly income affects the amount of expenses paid by financial technology.

Besides, the researchers investigate the relationship between electronic payment usage and students' total expenses, using the calculation of Eta value in order to find the relationship between ratio variable and nominal variable. The two variables are not related if Eta value is 0, and the two variables are highly related if the Eta value is 1 noted that the Eta value cannot be a negative number. The Eta value that is approaching 1 indicates a stronger relationship. [15] The researchers also build hypothesis IV stating that each electronic payment usage has a positive correlation with total expenses.

### 3. Results

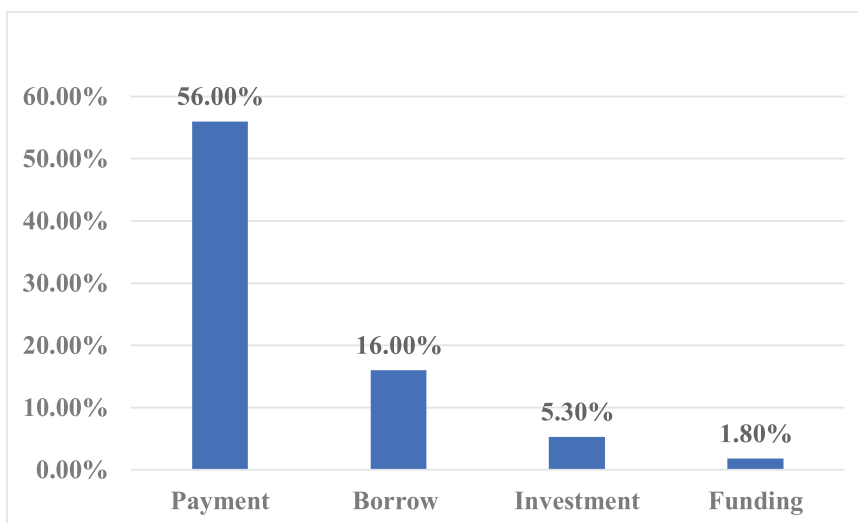
**Part 1:** The result of the study of the university students in Phitsanulok's payment behavior are as follows (table 1 to 2 and figure 1 to 5):

**Table 1** Personal information of survey respondents

Personal Information	Amount	Percentage
Gender:		
Male	159	40%
Female	241	60%
University:		
NU	237	59%
PSRU	163	41%
Faculty group:		
Social and Human Science	221	55%
Science and Technology	116	29%
Health Science	63	16%
Level of education:		
Freshmen	116	29%
Sophomores	124	31%
Junior	107	27%
Senior	53	13%
Guardian's education:		
Lower than undergraduate	241	60%
Undergraduate or higher	159	40%
Monthly income:		
5,000 Baht or less	98	25%
5,001-10,000 Baht	184	46%
10,001-15,000 Baht	51	13%
higher than 15,000 Baht	67	16%

**Table 2** The comparison of average expenses by payment method

Payment Method	Average Expenses (Baht)	S.D.	Median
Financial Technology	1,542.39	2,550.13	1,000.00
Cash	2,935.14	3,415.07	2,000.00
Total	4,477.54	4,925.96	3,360.00

**Figure 1** Purposes in using Financial Technology

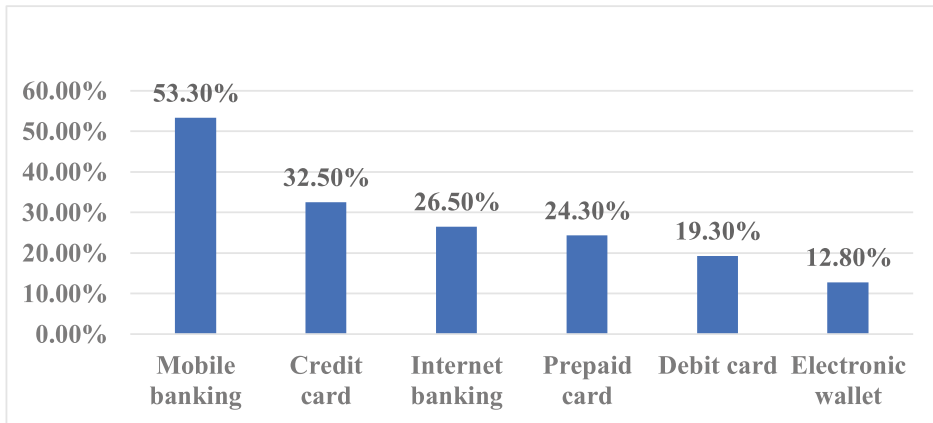


Figure 2 The non-cash payment

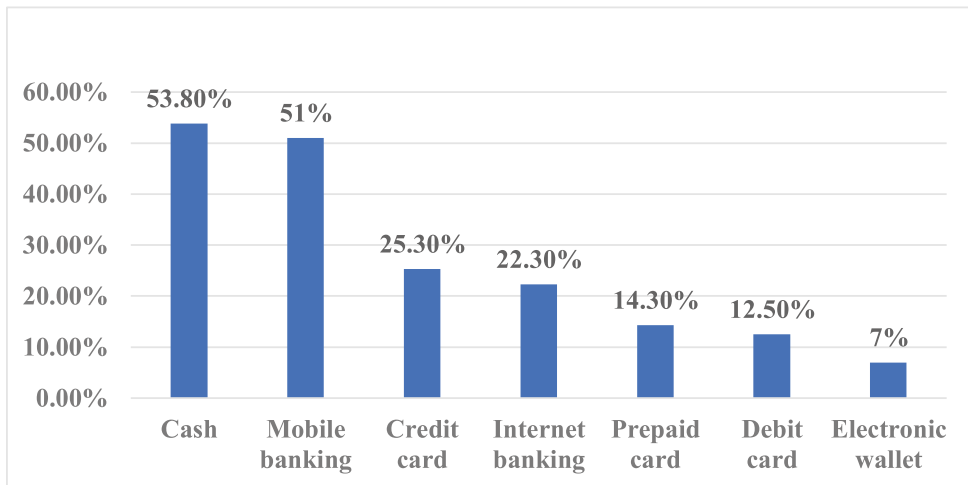


Figure 3 The daily payment

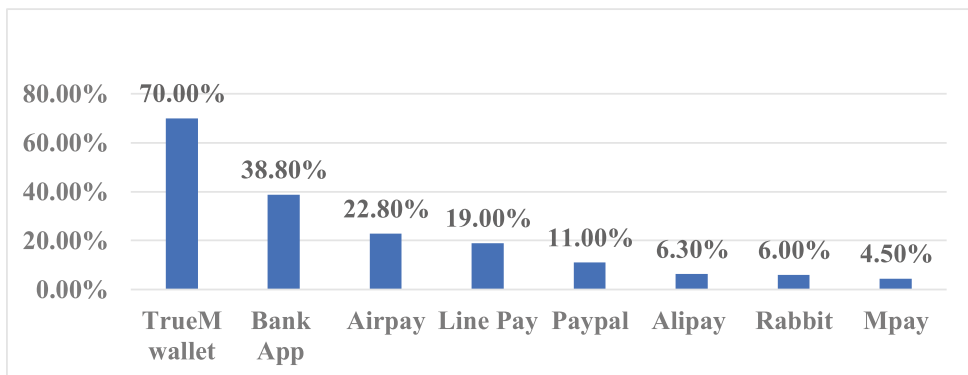


Figure 4 Usage of payment service provider



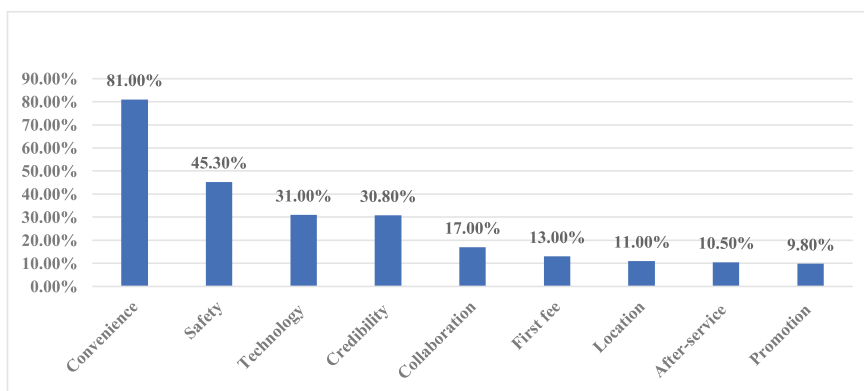


Figure 5 Reasons in choosing payment service providers

According to table 1, the respondents' personal information includes gender, university, faculty group, the current level of education, guardian's highest education level, and monthly income. The majority of the samples are female (241 students or 60 percent), and the remaining 40 percent are 159 male students. 59 percent of the samples study at Naresuan university, while the rest study at Pibulsongkram Rajabhat university. Regarding faculty groups, 55 percent of the samples study Social and Human Science, while 29 percent study in Science and Technology, and the rest study in Health Science. For the current level of education, 31 percent are sophomores (second-year student); 29 percent are freshmen (first-year student); 27 percent are junior (third-year student); 13 percent are senior (fourth-year student or higher). For guardian's highest education level, the majority of guardians (60 percent) received an education lower than a bachelor's degree while the rest completed a bachelor's degree or higher. Lastly, with the monthly income difference, the majority of respondents (46 percent) have a monthly income of 5,001-10,000 Baht, followed by 25 percent earning 5,000 Baht or less, 16 percent earning higher than 15,000 Baht, and the rest earning 10,001-15,000 Baht per month.

69 percent of all respondents have used Financial Technology for different purposes: 56 percent for the payment, 16 percent for money borrowing, 5.30 percent for the investment, and 1.80 percent for fund-raising, as shown in the figure 1.

In figure 2, most samples (91 percent) have used the non-cash payment using different methods: 53.30 percent using mobile banking, 32.50 percent using credit card, 26.50 percent using internet banking, 24.30 percent using prepaid card, 19.30 percent using debit card, and 12.80 percent using electronic wallet. The samples are accustomed to these payment service providers, including TrueMoney wallet (75.50 percent), Airpay (30.50 percent), Line Pay (26.00 percent), Paypal (21.50 percent), Mpay (19.30 percent), Rabbit (11.80 percent), and Alipay (10.00 percent). In addition, 68.80 percent of respondents have used Promptpay, which is operated by Bank of Thailand and Commercial banks to provide new money-transferring services using identification card number and mobile phone number. The deciding factor for using Promptpay includes its convenience, time-efficiency, low cost, minimal fee or free of charge service. On the other hand, the main reasons for not using Promptpay are safety concerns and the lack of need for the service.

In figure 3, with the consideration of sample's use of financial technology for daily payment during the last month, the majority of samples (53.80 percent) use cash payment, followed by mobile banking (51.00 percent), credit card (25.30 percent), internet banking (22.30 percent), prepaid card (14.30 percent), debit card (12.50 percent), and electronic wallet (7.00). In the aspect of the usage of payment service providers, the highest number of respondents (70.00 percent) use TrueMoney Wallet, greater than other providers including Bank application (38.80 percent), AirPay (22.80 percent), LinePay (19.00 percent), Paypal (11.50 percent), Alipay (6.30 percent), Rabbit (6.00 percent), and Mpay (4.50 percent), as shown in the figure 4.

In the past one month, most samples (30.30 percent) have made online shopping payment once or twice a month with the average amount of expense of 1,193.70 Baht (the standard deviation of 2,456.71 Baht and the median of 500 Baht). Overall, the samples make payment via financial technology such as online shopping, prepaid card, and payment applications in the average amount of 1,542.39 Baht (the

standard deviation of 2,550.13 Baht and the median of 1,000 Baht). In addition, the samples make a payment using cash at an average expense of 2,935.14 Baht (the standard deviation of 3,415.07 Baht and the median of 2,000 Baht). In total, the samples have the total average expense of 4,477.54 Baht in the last one month (the standard deviation of 4,925.96 Baht and the median of 3,360 Baht), as shown in table 2.

According to figure 5, the most important deciding factors for the samples' choice of payment service providers is convenience (81.00 percent), followed by safety (45.30 percent), technology (31 percent), providers' trustworthiness (30.80 percent), the collaboration with the bank and mobile service providers (17 percent), first fee (13 percent), service location (11 percent), after-service (10.50 percent), and lastly marketing promotion (9.80 percent).

**Part 2:** The comparison of the amount of expenses paid by financial technology categorized by gender, university, and monthly income of the university students in Phitsanulok, as shown in table 3, table 4, and table 5.

**Table 3** The comparison of the amount of expenses paid by financial technology categorized by gender

	Male		Female		t stat.	p-value
	$\bar{x}$	S.D.	$\bar{x}$	S.D.		
Expense paid by financial technology	1,402.75	1,582.71	1,634.52	3,023.40	-0.889**	.040

\*\* significance at the level of 0.05

**Table 4** The comparison of the amount of expenses paid by financial technology categorized by universities

	NU		PSRU		t stat.	p-value
	$\bar{x}$	S.D.	$\bar{x}$	S.D.		
Expense paid by financial technology	1,935.17	3,104.77	971.30	1,191.75	3.776***	.000

\*\*\* significance at the level of 0.01

**Table 5** The comparison of the amount of expenses paid by financial technology categorized by monthly income

Sources of Variance	Sum of Squares	df	Mean Square	F	p-value
Between Groups	2.012E8	5	4.023E7	6.623	0.000***
Within Groups	2.394E9	394	6,075,104.87		
Total	2.595E9	399			

\*\*\* significance at the level of 0.01

According to table 3, sig value of 0.040 (less than 0.05) indicates a significantly different amount of expense in electronic payment of male and female, with the statistical significance at the level of 0.05. The result shows that female students' expense is higher than that of male students. The result shown in table 3 is consistent with hypothesis I.

According to table 4, sig value of 0.000 (less than 0.01) indicates the significantly different amount of expense in electronic payment of Naresuan university students and Pibulsongkram Rajabhat university students, with the statistical significance at the level of 0.01. The result shows that Naresuan university students have a higher expense via financial technology than Pibulsongkram Rajabhat university students do. The result shown in table 4 is consistent with the hypothesis II.

According to table 5, Sig value of 0.000 (less than 0.01) indicates the significantly different amount of expense in electronic payment of different groups of students whose monthly income varies; At least one

pair of significance at the level of 0.01 was found from the testing assumption. The researchers use the multiple comparisons method to test the differences between each pair and use the test of Homogeneity of variances to calculate Levene Statistic value, resulting in different variances in each group of students. The researchers conduct the Post Hoc test, using Tamhane method since equal variances are not assumed. The result shows that the expense of the group with monthly income of less than 5,000 Baht is significantly different from that of the group with a monthly income between 10,001 and 15,000 Baht, with the statistical significance at the level of 0.10. The result shown in table 5 is consistent with hypothesis III.

**Part 3:** The result of the relationship between electronic payment usage and the students' total expenses, indicated by Eta value, a statistical method used for calculating the strength of the relationship of ratio variable and nominal variable, as shown in table 6.

**Table 6** The relationship between electronic payments usage and total expenses

	Eta Value
<b>Electronic Payments Usage</b>	
debit card	0.13
credit card	0.05
prepaid card	0.04
Mobile Banking	0.20
Internet Banking	0.21
electronic wallet	0.15

According to table 6, the total expense is related to electronic payment usage, as corroborated by the positive correlation from the hypothesis IV. Internet banking and mobile banking are electronic payments that have the strongest relationship with the total expenses, with the relationship size of 0.21 and 0.20 respectively, followed by electronic wallet and debit card. However, the relationships in all payment usages are quite low.

#### 4. Conclusions and Discussion

The study of university students' payment behaviors and their electronic payment usage in Phitsanulok has led to the conclusion that university students in Phitsanulok still prefer cash payment the most, as supported by the study of James et al. [6] and Ipsos. [9] In addition, the most used electronic payment methods are mobile banking and credit cards, which is consistent with Bank of Thailand's Payment systems report 2018 [4], indicating the mobile banking volume growth of 121.00 percent, the value growth of 81.40 percent compared to 2017, and the continuous growth of credit card usage at the point of sale and online shopping, with the total number of 22.10 million cards in 2018, representing an 8.90 percent growth compared to 2017, since the commercial banks' payment innovations satisfy customers' needs and lifestyles. The result also shows that the most used electronic service provider is TrueMoney wallet, potentially because of the widespread service stores, the application design that aligns with the needs of various groups of customers, and the high efforts in marketing and advertising.

TrueMoney wallet precedes the second most used electronic service provider, which is bank application. This contributes to a new discovery that young generations prefer non-bank to bank when

making payment.

In the past, banks played the most important role as an intermediate in the payment process and they have since opened more branches to meet the rise in customer demands. However, with this coming age of financial technology, the many branches become unnecessary and the younger generation has turned to mobile banking, reducing the significance of bank branches.

Another contribution to this study is the finding that non-bank becomes a more widely used option and has surpassed bank in its popularity. With the development of electronic payment, a large number of the younger generation turn to electronic wallets owned by non-bank, a challenging competitor for the bank in the view of the development payment system.

The students' main deciding factors for choosing payment service providers are service convenience and safety respectively, as supported by the research of Liengpradit [5], which shows that safety and information accessibility are what people in the Bangkok metropolitan region considered a deciding factor for choosing payment service providers. Makarapong and Punnakitikashem's [16] study also supports this result by indicating that attitude toward usefulness and facilitating conditions are the factors influencing the adoption of new technology. This result is also corroborated by Bank of Thailand's Payment system report 2018 [4], describing the increasing trend of electronic payment in both value and volume of payment, due to the continuous development and support for the replacement of cash and check payment to improve the convenience, speed and safety, and to reduce the cost of cash management globally.

The expenses paid through financial technology in each group of samples categorized by gender and

monthly income differ significantly. This result is in accordance with Khantkhet and Chaveesuk's research [10] and Liengpradit's research [5], which explains that the personal factors of gender and income are significantly related to the amount of payment. In addition, the relationship between electronic payment usage and the students' total expense reflects that internet banking usage has the strongest relationship with the students' total expense, followed by mobile banking usage. This result is consistent with Ipsos report [9], Pumim's study [11] and Bank of Thailand's Payment systems report 2018. [4]

## 5. Implications and Further Study

The findings from this research indicate that the foundation of the financial sector is very important, especially the design of digital payment systems, which is connected to the continuously growing systems of e-Commerce and online shopping. Although financial technology is significantly improving, it cannot always satisfy every customer's and entrepreneur's needs. Therefore, the challenge for the financial sector is to attract the target group, university students, to adopt electronic payment. To tackle the challenge, the payment system has to be more accessible and easier to use, and the financial sector should find ways to encourage the use of electronic payment methods. The financial sector is well on its way to building a cashless society that can fully support financial technology.

This research can benefit institutions using electronic payments; for instance, the financial institutions can apply information to develop a system that is truly accessible to their users. e-Commerce entrepreneurs can also satisfy their target group's needs by ensuring safety and time-efficiency when using electronic payment methods. It is also important to note

the risk to be addressed; Each electronic payment method offers different operating systems, binding the customers to registering several times with each provider and entrepreneurs to installing different devices supporting various payment methods.

To develop the early stage of a cashless society in Thailand, people from every position may face many challenges, such as the inequality of financial service accessibility. Hence, the government should encourage people to use electronic payment services and expect a higher global electronic payment usage. The understanding of policy makers towards payment behaviors and consumers' deciding factor for using electronic payment could lead to the proper policies, replacing cash payment by making electronic payment the first choice for every business and customers. Despite the increasing number of digital payment users, this payment is still not widely used, especially by people in rural areas and youths in suburban and rural areas. Hence, the development of payment system is required in order to promote economic activities effectively.

In this study, most independent variables are not ratio variables but nominal variables, making this research's unsuitable for multiple regression analysis. Further research is recommended to collect data in the form of ratio variables to enable simultaneous multiple regression or logistic regression analysis of the many independent variables effects on the result.

Due to limitations in this cross-sectional study, trend analysis is a better alternative to precisely predict future trends. Therefore, further research should include longitudinal study to extensively explore the change in users' electronic payment behavior and to assist policy makers in making payment systems more efficient in the future.

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