

Unified Theory of Acceptance and Use of Technology (UTAUT) on Cryptocurrency as a Mode of Payment in the Philippines

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Abstract—This thesis examines the factors that influence individuals' behavioral intentions regarding the adoption of cryptocurrency as a payment method in the Philippines. The study employs the framework of the Unified Theory of Acceptance and Use of Technology (UTAUT) to examine the impact of performance expectation and social influence on individuals' behavioral intent to use cryptocurrencies. The analysis of demographic variables revealed no significant moderating effects on the association between UTAUT constructs and behavioral intention. The proposed output, *CryptoLearn*, seeks to increase cryptocurrency adoption by enhancing its performance, social influence, user-friendliness, and enabling conditions via strategic marketing and partnerships with financial institutions and online platforms.

Keywords— Behavioral Intention, Cryptocurrency, *CryptoLearn*, Payment Method, UTAUT.

I. INTRODUCTION

Cryptocurrency has emerged as a disruptive digital currency, posing a threat to conventional financial systems due to its decentralized and secure transactions. The purpose of this study is to examine various cryptocurrencies, including their origins, varieties, and potential as payment methods and investments. It examines renowned cryptocurrencies such as Bitcoin, Ethereum, and Cardano, emphasizing their distinctive characteristics and applications. The value of cryptocurrencies is derived from their ability to be traded, their use in payments, and their ability to retain digital wealth. While cryptocurrency adoption in developing economies like the Philippines is still in its infancy, this study endeavors to comprehend its acceptance and usage in the country. This research contributes to the understanding of cryptocurrency adoption and its repercussions for individuals, businesses, and financial institutions by analyzing adoption factors and examining its benefits and challenges. This research was motivated by the widespread interest in cryptocurrencies and their growing acceptability as a payment method and investment vehicle. With the rise of prominent cryptocurrencies such as Bitcoin, Ethereum, and Cardano, it is necessary to investigate their transformative potential and the challenges they pose. The adoption of cryptocurrencies by businesses and individuals, coupled with the transformative potential of blockchain technology, underscores the need for a thorough comprehension of the factors influencing adoption and the associated risks. This thesis seeks to investigate the adoption

and use of cryptocurrencies in the Philippines, providing insights into driving factors, challenges, and implications for stakeholders and policymakers, and thereby facilitating informed decision-making in this rapidly evolving digital landscape.

User intentions and behavior in adopting information systems are characterized by the UTAUT paradigm, which is widely regarded as instrumental in comprehending people's response to new technology. Adoption intentions and actual use are directly influenced by its primary variables, including performance expectations, effort expectations, social influence, and facilitating conditions. The UTAUT, which incorporates eight other theories, provides a comprehensive framework for explaining technology adoption. This study applies the UTAUT model to examine how these constructs influence individuals' behavioral intention to accept and use cryptocurrency as a payment method, integrating multiple theoretical perspectives to provide a comprehensive understanding of the factors that influence cryptocurrency adoption.

The Unified Theory of Acceptance and Use of Technology (UTAUT) has been extensively used in numerous research projects to comprehend the factors that influence the adoption of new technologies, such as cryptocurrencies. According to studies employing the UTAUT model, performance expectation, effort expectation, social influence, and facilitating conditions have a significant impact on an individual's intent to adopt cryptocurrencies as a payment method. Multiple studies have identified these factors as key drivers of cryptocurrency adoption. In addition, performance expectations, effort expectations, social influence, and facilitating conditions have significant relationships with gender, age, experience, and voluntariness of use. The UTAUT model provides a comprehensive framework for conceptualizing technology adoption and has been demonstrated to be useful for analyzing cryptocurrency acceptance.

II. MATERIALS AND METHODS

Research Design

This *descriptive correlational study* investigated the factors that influence the acceptability and adoption of cryptocurrency as a payment method. A survey was conducted online to collect data from participants with varying levels of

cryptocurrency knowledge regarding their cognizance, attitudes, and behavioral intentions regarding cryptocurrencies.

The data was analyzed using content analysis and statistical analysis to identify patterns and correlations between variables. The purpose of the study was to provide businesses, policymakers, and individuals interested in cryptocurrency adoption with valuable insights by examining the factors that promote acceptance and the obstacles that hinder adoption. Throughout the process of collecting data, confidentiality and informed consent were maintained.

Respondents

This study used a random sampling technique to select participants from the Facebook Group Crypto Education Philippines - Bitaskwela, ensuring a variety of perspectives from individuals actively involved in the cryptocurrency community. A web-based questionnaire emphasizing the confidentiality of participant responses was posted to collect data. Using the Raosoft calculator, the sample size of

358 participants was determined in order to provide a representative sample and enhance the study's relevance and applicability to the intended population.

Data Gathering Instrument

This study used a questionnaire to collect information from Filipino participants who were members of a particular Facebook Group. The questionnaire comprised of two sections, the first of which collected socio-demographic data and the second of which assessed participants' propensity to use cryptocurrency as a payment method. On a Likert scale, participants rated statements and queries. Ethical considerations were adhered to, ensuring voluntary participation, informed consent, confidentiality, honesty, and transparency. Taking into account the scale anchors and context of the queries, the mean scores were interpreted based on specific categories to determine the level of agreement or favorability towards cryptocurrency as a payment method.

TABLE 1. Scoring and Interpretation for Level of Behavioral Intention and Extent of Manifestation of UTAUT Construct

Numbering Scale	Mean Score	Interpretation	
		Level of Behavioral Intention	Extent of Manifestation of UTAUT Construct
7	7.00	Extremely High	To an Extreme Extent
6	5.51 – 6.99	Very High	To a Very Great Extent
5	4.01 – 5.50	High	To a Great Extent
4	4.00	Neutral	Neutral
3	2.50 – 3.99	Low	To a Small Extent
2	1.01 – 2.49	Very Low	To a Very Small Extent
1	1.00	Extremely Low	To an Extremely Small Extent

Data Gathering Procedure

Before administering the questionnaire, the researcher prioritized ethical considerations, obtaining participants' informed consent and ensuring that their participation was entirely voluntary.

The questionnaire was piloted and pretested to ensure its clarity and identify potential problems. A Facebook Group post was used to distribute questionnaires, and the participation rate was monitored to assure an adequate sample size.

The period of data collection lasted two weeks, and the researcher maintained a systematic approach to resolve any incomplete or missing responses, ensuring the integrity and reliability of the collected data.

Statistical Treatment of Data

The researcher analyzed the data using the Statistical Package for the Social Sciences (SPSS). Numerous statistical methods, including percentage and frequency analysis, mean calculation, multiple linear regression, diagnostics of collinearity, analysis of variance (ANOVA), and t-tests, were utilized. These methodologies permitted an examination of the socioeconomic profile of the participants, the identification of relationships between variables, the assessment of multicollinearity, the comparison of means, and the evaluation of residual autocorrelation. The researcher was able to effectively analyze the data and address the research questions and objectives of the study by employing these statistical methods.

III. RESULTS AND DISCUSSIONS

This study's respondents are e-consumers who actively partake in online payment services and cryptocurrency investments via a variety of digital platforms. These individuals utilize online financial trends and blockchain-based recommendations to make informed purchasing decisions and potentially save money. The majority of participants in this study were between the ages of 25 and 34, indicating that young professionals have a greater level of interest and participation in cryptocurrency-related activities. This age group views cryptocurrencies as a means to diversify their investments and engage in speculative trading. Their exposure to cryptocurrency trends and conversations in online communities and social networks contributes further to their engagement. These findings are supported by research by Chen et al. (2019), which indicates that individuals aged 25-34 are interested in cryptocurrencies due to the perceived benefits and convenience of digital transactions. This is shown in Table 2.

TABLE 2. Distribution of Respondents by Age

	Frequency	Percentage
18-24 years old (young adults)	54	15.10
25-34 years old (early career adults)	184	51.40
35-49 years old (mid-career adults)	103	28.80
50-64 years old (pre-retirement adults)	16	4.50
65 years old and above (retired adults)	1	0.30
Total	358	100.00

The plurality of this study's respondents were male, making up 50.60 percent, while females made up 49.90 percent. Despite a minor disparity, both men and women demonstrated an interest in and engagement with cryptocurrencies. Nonetheless, the data suggests that men are more prominent in the cryptocurrency community than

women, indicating a potential gender disparity in cryptocurrency investment or usage. This finding is consistent with previous research indicating a comparable gender disparity in cryptocurrency market participation, with males being more actively involved. Studies conducted in the United States have also revealed a greater proportion of male cryptocurrency proprietors than female owners. Recognizing these differences can inform efforts to promote female participation and close the gender disparity in cryptocurrency adoption and usage. This is shown in Table 3.

TABLE 3. Distribution of Respondents by Gender

	Frequency	Percentage
Female	177	49.40
Male	181	50.60
Total	358	100.00

The plurality of respondents in this study were unmarried, accounting for 41.10 percent, while 49.70 percent of respondents were single. Lesser proportions of respondents were separated (7.00%), bereaved (1.70%), and divorced (0.60%). Due to their financial independence and decision-making flexibility, the data suggests that single individuals are more likely to investigate new financial paths, such as cryptocurrencies. There may also be a correlation between being single and a higher risk tolerance and willingness to experiment with new technologies and investment opportunities. Unmarried individuals are more likely to take risks and investigate new investment opportunities, including cryptocurrencies, according to prior research. This is shown in Table 4.

TABLE 4. Distribution of Respondents by Civil Status

	Frequency	Percentage
Single	178	49.70
Married	147	41.10
Divorced	2	0.60
Separated	25	7.00
Widowed	6	1.70
Total	358	100.00

There are 60.10 percent of the participants in this study held a Bachelor's degree. A lesser percentage, 17.60%, held a bachelor's or associate's degree, while 12.60% were high school graduates. 9.80% of respondents held a Master's, PhD, or Doctorate. The data suggests that individuals with a higher level of education, particularly those with a Bachelor's degree or higher, may have a better understanding of financial concepts, technological advancements, and the potential benefits and risks of cryptocurrencies. They may be equipped with the knowledge and analytical skills required to evaluate the investment potential of cryptocurrencies and make informed decisions. Higher education is frequently associated with higher incomes and professional professions, affording individuals greater financial resources to invest in cryptocurrencies and investigate alternative investment opportunities. Research supports the notion that individuals with a higher level of education are more likely to invest in cryptocurrencies, as they have a better understanding of the associated risks and rewards. In addition, those with a Bachelor's degree or higher may have a higher level of

technological literacy and familiarity with digital platforms, thereby augmenting their comfort and confidence when interacting with cryptocurrencies.

TABLE 5. Distribution of Respondents by Highest Educational Attainment

	Frequency	Percentage
High School Graduate	45	12.60
Some College or Associate Degree	63	17.60
Bachelor's Degree	215	60.10
Master's Degree / PhD / Doctorate	35	9.80
Total	358	100.00

Seventy-ten percent of respondents indicated that their primary source of income was wages and remuneration. This suggests that individuals with steady employment and income are more engaged with cryptocurrencies. Employment provides a reliable source of income, allowing individuals to invest in cryptocurrencies and engage in related activities. Moreover, employed individuals are more likely to be financially literate and aware of investment opportunities, including cryptocurrencies. In addition, salaried individuals are more likely to have established relationships with traditional financial institutions such as banks, which can facilitate their entrance into the cryptocurrency market as many platforms require linking a bank account.

Kim et al. (2020) identify a positive correlation between higher levels of income and favorable attitudes and intentions toward cryptocurrency use. Individuals with a higher income have the financial resources to invest in and utilize cryptocurrencies as part of their financial portfolios. In addition, Gandal et al. (2018) discovered that professional investors and individuals with greater incomes are more likely to engage in Bitcoin price manipulation. These results suggest that individuals with higher incomes, which are typically associated with stable employment and higher compensation, have the financial resources and knowledge to engage in sophisticated cryptocurrency trading strategies. This is shown in Table 6.

TABLE 6. Distribution of Respondents by Source of Income

	Frequency	Percentage
Employment	251	70.10
Self-employment	66	18.40
Property	11	3.10
Transfers	9	2.50
Other	21	5.90
Total	358	100.00

The majority of study participants reported having an interest in cryptocurrencies for one to two years, indicating increased exposure to and familiarity with their concepts and applications. A smaller proportion of respondents had an extended history of cryptocurrency interest, indicating a greater understanding and confidence in the technology. The length of time an individual has been interested in cryptocurrency may influence their propensity to accept it as a payment method, according to these findings. According to the concept of early adopters in the cryptocurrency industry, individuals with a lengthier history of interest in cryptocurrencies tend to be more active investors and community members. This is shown in Table 7.

TABLE 7. Distribution of Respondents by Number of Years Interested in Cryptocurrency

	Frequency	Percentage
less than 6 months	46	12.80
6 months to 1 year	56	15.60
1 to 2 years	133	37.40
3 to 4 years	116	32.40
5 years or more	7	2.00
Total	358	100.00

The survey results imply a high level of behavioral intent among cryptocurrency community members to accept cryptocurrencies as online payment methods. Respondents have a strong intention and propensity to use cryptocurrency for payments, as they view it as a good investment that is also secure, convenient, and consistent with their personal values. This indicates a positive outlook on the benefits and qualities of using cryptocurrency for financial transactions. The high level of behavioral intent reflects the community's confidence in the security and stability of cryptocurrencies, despite the potential challenges and risks. Other studies have identified factors such as perceived utility, usability, trust, security, and compatibility that impact the behavioral intent to accept cryptocurrencies for online payments.

TABLE 8. Level of Behavioral Intention of the Cryptocurrency Members as a Form of Payment

	Mean	Interpretation
1. I intend to use cryptocurrency as a mode of payment in the future.	5.78	Very High
2. I would recommend using cryptocurrency to my friends and family.	5.69	Very High
3. I would encourage merchants to accept cryptocurrency as a mode of payment.	5.82	Very High
4. I plan to increase my usage of cryptocurrency in the future.	5.74	Very High
5. I am willing to learn more about the benefits of using cryptocurrency.	5.86	Very High
6. I believe that using cryptocurrency is a good investment.	5.84	Very High
7. I feel confident in my ability to use cryptocurrency for transactions.	5.73	Very High
8. I believe that using cryptocurrency is more secure than using traditional payment methods.	5.74	Very High
9. I perceive cryptocurrency to be a convenient mode of payment.	5.76	Very High
10. I believe that using cryptocurrency aligns with my personal values and beliefs.	5.79	Very High
Composite Mean	5.78	Very High

Using the UTAUT model, this section analyzes behavioral intentions related to cryptocurrency adoption. Four dimensions comprise the UTAUT model: performance expectation, effort expectation, social influence, and facilitating conditions. Individuals' perceptions of the benefits and efficacy of using cryptocurrency for online payments constitute their performance expectations. The effort expectation metric measures how users perceive the usability and accessibility of a cryptocurrency. Social influence investigates the impact of social factors, such as peer recommendations and social norms, on individuals' intentions to adopt cryptocurrency. Facilitating conditions investigate the external factors, such as resource availability, technical infrastructure, and regulatory frameworks, that promote or inhibit cryptocurrency adoption.

The purpose of this analysis is to shed light on the factors influencing cryptocurrency acceptance and usage, with implications for businesses, governments, and academics seeking to promote cryptocurrency adoption.

In relation to the UTAUT construct of Performance Expectation, the findings from the 358 respondents indicate a high level of positive perception and intent regarding the use of cryptocurrency for online payments. The respondents have a strong belief in the advantages of utilizing cryptocurrency, perceiving it as a quicker, more convenient, and less expensive payment method compared to conventional options. In addition, they view it as secure and expect it to enhance their financial performance. Respondents view cryptocurrency as a flexible payment option that corresponds with their preferences and look forward to its incorporation into the Philippine banking and financial system. These findings are consistent with the premise of the UTAUT model, which states that acceptability and intent to use a technology are influenced by perceived performance outcomes. Earlier studies have also highlighted the benefits of cryptocurrency, lending credence to the notion that it is viewed as a viable and desirable payment option for online transactions. This is shown in Table 9.

TABLE 9. Extent of Manifestation of UTAUT Construct in the Context of Cryptocurrency Usage in Terms of Performance Expectancy

	Mean	Interpretation
1. Using cryptocurrency, enables me to make faster payments.	5.91	To a Very Great Extent
2. Using cryptocurrency, enables me to make more convenient payments.	5.71	To a Very Great Extent
3. Using cryptocurrency, transaction fees are less than that of existing forms of payment transactions.	5.71	To a Very Great Extent
4. Using cryptocurrency, online payments are more secured than that of the existing forms of payment transactions.	5.78	To a Very Great Extent
5. Using cryptocurrency, improves my own financial performance.	5.75	To a Very Great Extent
6. Cryptocurrency can be used without any restriction based on time and location.	5.76	To a Very Great Extent
7. Cryptocurrency is useful in my daily life.	5.72	To a Very Great Extent
8. Cryptocurrency fits my style of online payment method.	5.74	To a Very Great Extent
9. Cryptocurrency will become an important part of the existing bank and finance system in the Philippines.	5.74	To a Very Great Extent
10. I expect that using cryptocurrency will improve my overall online payment experience.	5.83	To a Very Great Extent
Composite Mean	5.76	To a Very Great Extent

The table displays the outcomes of the Effort Expectancy construct in the context of cryptocurrency usage, as determined by the responses of 358 participants. The range of mean ratings for each question, between 4.94 and 5.22, indicates a positive perception of expected effort. The overall composite mean of 5.11 indicates that respondents believe cryptocurrency to be comparatively easy to set up, learn, digitally operate, integrate with existing payment practices, and initiate transactions. These findings are consistent with the UTAUT model's Effort Expectancy construct, which

emphasizes perceived usability as a crucial factor in technology adoption. Stakeholders can encourage cryptocurrency adoption by emphasizing the technology's simplicity and addressing any potential complexities. As an online payment method, user education and intuitive interfaces can facilitate the adoption of cryptocurrencies. Positive expectations of effort contribute to the adoption and utilization of digital payment methods, according to empirical evidence. This is shown in Table 10.

As a central component of the UTAUT model, social influence plays an important role in individuals' acceptance and adoption of cryptocurrency as an online payment mechanism. The table displays the extent of social influence manifestation based on the responses of 358 participants. The high mean scores for all queries, ranging from 5.68 to 6.01, indicate that respondents perceive social factors to have a significant influence on their intent to use cryptocurrency for online payments. The composite mean of 5.88 suggests that social influence is extensive. Respondents view the behavior and opinions of their social network, which includes family, friends, coworkers, and the larger community, as influential in their decision to adopt cryptocurrency. This is consistent with research that emphasizes the influence of social networks and norms on technology adoption. The findings underscore the significance of promoting extensive adoption and positive social influence to encourage the acceptance and use of cryptocurrency as an online payment method. This is shown in Table 11.

TABLE 10. Extent of Manifestation of UTAUT Construct in the Context of Cryptocurrency Usage in Terms of Effort Expectancy

	Mean	Interpretation
1. Cryptocurrency is easy to set up.	5.13	To a Great Extent
2. Cryptocurrency is easy to learn.	4.94	To a Great Extent
3. Cryptocurrency is easy to understand on how to properly use it and does not require a lot of mental effort.	5.07	To a Great Extent
4. Cryptocurrency is easy to digitally operate.	5.14	To a Great Extent
5. It was never frustrating to use cryptocurrency as an online payment method.	5.14	To a Great Extent
6. It was easy for me to become skillful at digital currency, specifically cryptocurrency, as an online payment method.	5.15	To a Great Extent
7. Using cryptocurrency, it would be easy to integrate into my existing payment habits.	5.10	To a Great Extent
8. Using cryptocurrency, it is easier to initiate and conclude transactions.	5.22	To a Great Extent
Composite Mean	5.11	To a Great Extent

Facilitating conditions, as a component of the UTAUT model, are necessary for the widespread adoption of cryptocurrency as an online payment mechanism. The table depicts the extent to which facilitating conditions manifest based on the responses of 358 participants. The high mean scores ranging from 5.26 to 5.44 across all questions indicate that respondents perceive cryptocurrency to be accessible and compatible, thereby facilitating its adoption for a variety of financial transactions. The composite mean of 5.33 indicates a

substantial degree of facilitating circumstances. Respondents recognize the significance of cryptocurrency's availability across industries and its integration with existing payment systems, which facilitates its use. These findings are consistent with research emphasizing the importance of user-friendly platforms, dependable infrastructure, and regulatory support on the adoption and utilization of cryptocurrencies. The findings highlight the significance of facilitating the adoption of cryptocurrency as a method of online payment by providing accessible and favorable conditions. This is shown in Table 12.

TABLE 11. Extent of Manifestation of UTAUT Construct in the Context of Cryptocurrency Usage in Terms of Social Influence

	Mean	Interpretation
1. I intend on using cryptocurrency as an online payment method when most of my family members are using it.	5.91	To a Very Great Extent
2. I intend on using cryptocurrency as an online payment method when most of my friends are using it.	5.91	To a Very Great Extent
3. I intend on using cryptocurrency as an online payment method when most of my colleagues, business partners, and clients are using it.	6.01	To a Very Great Extent
4. I intend on using cryptocurrency as an online payment method when most people in the banking and finance field are using it.	5.96	To a Very Great Extent
5. I intend on using cryptocurrency as an online payment method when most of establishments have this option as a mode of payment.	5.82	To a Very Great Extent
6. I intend on using cryptocurrency as an online payment method when most of the people in my barangay are using it.	5.68	To a Very Great Extent
Composite Mean	5.88	To a Very Great Extent

TABLE 12. Extent of Manifestation of UTAUT Construct in the Context of Cryptocurrency Usage in Terms of Facilitating Condition

	Mean	Interpretation
1. The availability of cryptocurrency as an online payment method for food establishments and restaurants to support its intended services makes it easy to use.	5.44	To a Great Extent
2. The availability of cryptocurrency as an online payment method for groceries and supermarkets to support its intended services makes it easy to use.	5.26	To a Great Extent
3. The availability of cryptocurrency as an online payment method for banks and financial services to support its intended services makes it easy to use.	5.28	To a Great Extent
4. The availability of cryptocurrency as an online payment method for online shopping platform (e.g. Shopee and Lazada) to support its intended services makes it easy to use.	5.30	To a Great Extent
5. The availability of cryptocurrency as an online payment method for utilities (e.g. Meralco, Batelec, Globe Telecom) to support its intended services makes it easy to use.	5.36	To a Great Extent
6. The compatibility of cryptocurrency with other payment and banking technologies makes it a suitable payment method to be used.	5.32	To a Great Extent
7. The readily available setup of cryptocurrency as an online payment method influences the adoption of cryptocurrency for various financial transactions.	5.33	To a Great Extent
Composite Mean	5.33	To a Great Extent

The statistical analysis depicted in the table yields significant findings regarding the impact of UTAUT constructs on respondents' behavioral intentions regarding cryptocurrency as a payment method. The analysis reveals that performance expectation and social influence have a significant positive effect on behavioral intention, whereas effort expectation and facilitating conditions have no such effect. Individuals who perceive cryptocurrency to offer improved performance outcomes and who are influenced by their social networks are more likely to adopt cryptocurrency as a payment method, according to the findings. Prior research has emphasized the significance of performance expectations and social influence in the acceptance and adoption of cryptocurrencies.

These findings are consistent with this emphasis. These results underscore the need for cryptocurrency platforms and industry stakeholders to prioritize enhancing performance outcomes and leveraging social influence to promote adoption. Additional research and interventions may be required to resolve usability concerns and increase cryptocurrency acceptance. This is shown in Table 13.

TABLE 13. Result of the Test for Significant Effect of UTAUT Construct to Behavioral Intention of Respondent towards Cryptocurrency as Mode of Payment

	B	SE	t-stat	p-value	Decision to Ho	Interpretation
(Constant)	1.1345	0.2256	5.0284	0.0000	Reject	Significant
Performance Expectancy	0.5768	0.0568	10.1610	0.0000	Reject	Significant
Effort Expectancy	0.0301	0.0438	0.6870	0.4925	Failed to Reject	Not Significant
Social Influence	0.1600	0.0437	3.6593	0.0003	Reject	Significant
Facilitating Condition	0.0416	0.0426	0.9768	0.3293	Failed to Reject	Not Significant

F-value = 119.202 p-value = <.001 Decision to Ho = Reject Interpretation- Significant Adjusted R² = .570 Durbin-Watson = 1.766 VIF Values: PE = 2.700 EE= 2.514 SI = 1.728 FC = 2.045 Normality – Passed Homogeneity Test- Passed

Significant findings emerge from the statistical analysis of the relationship between UTAUT constructs and behavioral intention. The model as a whole is statistically significant, indicating a strong correlation between the variables. Positive and significant effects of performance expectation and social influence on behavioral intention highlight the significance of perceived benefits and social norms in influencing cryptocurrency adoption. However, effort expectation and facilitating conditions do not have a significant impact, suggesting that trust and regulatory support may play a role in cryptocurrency adoption. Age, sex, education, years of interest in cryptocurrency, source of income, and citizenship status do not substantially influence behavioral intention. Intriguingly, non-single individuals have a greater propensity to utilize cryptocurrency than single individuals. These results suggest that attitudes, technological trust, and financial literacy are the primary drivers of cryptocurrency adoption, whereas demographic factors may have a lesser impact. Enhancing these factors can further facilitate the adoption of cryptocurrency as a payment method, which has the potential

to transform the Philippines' financial landscape. This is shown in Table 14.

The study recommends the development and implementation of CryptoLearn, an Information, Education, and Communication (IEC) initiative designed to educate and promote the use of cryptocurrencies in the Philippines. CryptoLearn should prioritize the development of exhaustive, user-friendly content that addresses cryptocurrency concepts, advantages, risks, and practical applications. Simulations, progress monitoring, gamification elements, user support, and collaborative features should be incorporated to provide hands-on experience. Regular updates and maintenance are crucial. By implementing these strategies, CryptoLearn can effectively educate and enable individuals to participate in the cryptocurrency ecosystem with confidence. The sponsorship and support of BitSkwela, in collaboration with partners such as Gcash, can maximize the impact of CryptoLearn by enhancing its development, content, promotion, and user engagement. This is shown in Table 15.

TABLE 14. Result of the Test for Significant Effect of UTAUT Construct to Behavioral Intention of Respondent towards Cryptocurrency as Mode of Payment when Profile Moderates

	B	SE	t-value	p-value	Decision to Ho	Interpretation
(Constant)	0.640	0.300	2.135	0.033	Reject	Significant
Performance Expectancy	0.550	0.057	9.579	0.000	Reject	Significant
Effort Expectancy	0.026	0.044	0.591	0.555	Failed to Reject	Not Significant
Social Influence	0.151	0.044	3.462	0.001	Reject	Significant
Facilitating Condition	0.056	0.043	1.305	0.193	Failed to Reject	Not Significant
Age group	0.022	0.042	0.529	0.597	Failed to Reject	Not Significant
Sex	0.099	0.062	1.587	0.113	Failed to Reject	Not Significant
Education	0.068	0.038	1.773	0.077	Failed to Reject	Not Significant
Years	0.003	0.032	0.097	0.923	Failed to Reject	Not Significant
Source of income	-0.010	0.098	-0.101	0.920	Failed to Reject	Not Significant
Civil Status	0.137	0.065	2.104	0.036	Reject	Significant

F-value = 49.706 p-value = <.001 Decision to Ho = Reject Interpretation- Significant Adjusted R² = .577 Durbin-Watson = 1.966 VIF Values: PE = 2.806 EE= 2.563 SI = 1.746 FC = 2.085 age = 1.108 sex = 1.049 education = 1.057 Year = 1.177 source of income = 1.057 civil status = 1.142 Normality – Passed Homogeneity Test- Passed

TABLE 16. Timetable for the Development and Implementation of CryptoLearn

Phase	Timeline
Phase 1: Planning and Design	2 months
Phase 2: Content Development	3 months
Phase 3: Software Development	4 months
Phase 4: Beta Testing and Feedback	1 month
Phase 5: Software Refinement	1 month
Phase 6: Launch and Promotion	1 month
Phase 7: Continuous Improvement and Updates	Ongoing

Note: The timeline provided is an estimate and can be adjusted based on the specific needs and requirements of the CryptoLearn project.

There will be multiple phases involved in the development of CryptoLearn, including planning and design, content development, software development, beta testing and feedback, software refinement, launch and promotion, and continuous enhancement. Each phase has distinct objectives and responsibilities, such as defining project objectives, developing educational materials, implementing software features, collecting user feedback, refining the software, and promoting the platform. By adhering to this structured methodology, CryptoLearn intends to deliver high-quality, user-friendly learning and simulation software for cryptocurrencies.

The CryptoLearn budget will differ based on variables such as project scope, team size, project duration, and features to be implemented. Typical software development budgets include costs for personnel, technology infrastructure, licenses, marketing, content creation, testing, and ongoing maintenance. However, it is difficult to provide an accurate estimation in the absence of specific details. To obtain a more accurate budget estimate that meets the needs of the project, it is advisable to consult with software development professionals or firms.

CryptoLearn ultimately empowers users by providing them with the necessary knowledge, skills, and confidence to engage in cryptocurrency activities safely and effectively. Through educational materials, interactive simulations, and a supportive community, users can embark on a journey of learning, simulation, and development in order to become knowledgeable contributors to the dynamic digital economy.

IV. CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn.

1. The majority of respondents in the study were young professionals between the ages of 25 and 34, with a nearly equal number of male and female participants. The majority of respondents were single, employed, Bachelor's degree holders, and had one to two years of cryptocurrency experience.
2. The research reveals that respondents have a strong behavioral intent to employ cryptocurrency as a payment method, indicating the potential for widespread acceptance and usage in the future. This emphasizes the significance of businesses and individuals considering cryptocurrency integration as a convenient transaction option.
3. The behavioral intention to use cryptocurrency was found to be substantially influenced by performance expectation and social influence, while effort expectation and facilitating conditions had a moderate impact. This provides valuable insight into the factors that influence cryptocurrency acceptance and adoption.
4. The study emphasizes the significance of promoting cryptocurrency's benefits and leveraging social networks to accelerate its adoption and increase its mainstream usage. The findings emphasize the significance of performance expectation and social influence in determining individuals' intentions to use cryptocurrencies as a payment method.

5. Regarding the effect of profile moderation on the UTAUT constructs, there were no significant distinctions based on age, gender, educational attainment, source of income, or number of years interested in cryptocurrencies.
6. CryptoLearn seeks to increase cryptocurrency acceptance and usage in the Philippines by enhancing performance characteristics, leveraging social influence, ensuring user-friendliness, and enhancing facilitating conditions. It seeks to equip individuals with the knowledge and skills required to interact with cryptocurrencies with confidence and promote their widespread adoption.

V. RECOMMENDATIONS

Based on the foregoing, the following recommendations are offered by the researcher.

1. By conducting educational campaigns and enlisting influential individuals and organizations to advocate for its adoption, organizations promoting cryptocurrency should aim to improve performance expectations and social influence.
2. Platforms and applications for cryptocurrencies should prioritize usability and accessibility by providing user-friendly interfaces and instructions.
3. Collaboration between cryptocurrency providers and financial institutions is crucial for adoption, as it addresses security concerns, transaction fees, and promotes widespread acceptance.
4. Continuous monitoring and evaluation of cryptocurrency adoption efforts are required to track progress, gather user feedback, and adjust strategies.
5. The regulatory framework for cryptocurrency transactions should prioritize consumer protection and address legal and safety concerns.
6. Future research should evaluate the efficacy of marketing strategies and incentives, as well as the impact of cultural factors and individual perceptions on cryptocurrency adoption.

REFERENCES

- [1] Almaiah, M., Alamri, M., & Al-Rahmi, W. (2019). Applying the UTAUT Model to Explain the Students' Acceptance of Mobile Learning System in Higher Education. *IEEE Access*.
- [2] Cheng, J., Wu, Y., Cheng, J., & Hsu, M. K. (2019). Perceived convenience in an emerging mobile payment environment: A perspective from Taiwan. *Computers in Human Behavior*, 100, 225-236.
- [3] Coinbase. (2021). Coinbase Releases Key Findings on Crypto Awareness and Adoption in US. *Cointelegraph*.
- [4] Demir, E., & Gözübüyük, R. Ş. (2020). Investigating the factors affecting the intention to use cryptocurrencies as a payment method. *International Journal of Bank Marketing*, 38(4), 1017-1036.
- [5] deVere Group. (2020). Are women better crypto investors? Here's what the data says.
- [6] Ghalandari, K. (2012). The effect of performance expectancy, effort expectancy, social influence and facilitating conditions on acceptance of e-banking services in Iran: The moderating role of age and gender. *Middle East Journal of Scientific Research*, 12(6), 801-807.
- [7] Hamzat, S. & Mabawonku, I. (2018). Influence of Performance Expectancy and Facilitating Conditions on use of Digital Library by Engineering Lecturers in universities in South-west, Nigeria.
- [8] Kamaghe, J., Luhanga, E., & Kisangiri, M. (2020). The challenges of adopting Mlearning assistive technologies for visually impaired learners in higher learning institution in Tanzania. *International Journal of Emerging Technologies in Learning*, 15(1), 140-151.

- [9] Kang, S. (2014). Factors influencing intention of mobile application use. *International Journal of Mobile Communications*, 12(4), 360–379.
- [10] Kaya, I., & Daim, T. U. (2018). Assessing factors influencing cryptocurrency adoption intention: An empirical study. *Technological Forecasting and Social Change*, 137, 44-57. doi: 10.1016/j.techfore.2018.09.016
- [11] Lee, J. W. (2017). Critical Factors Affecting Consumer Acceptance of Online Health Communication: An Application of Service Quality Models. *Journal of Asian Finance, Economics and Business*, 4(3), 85-94.
- [12] Liu, C., Wang, C., & Li, Y. (2021). Factors Affecting Cryptocurrency Adoption in Digital Business Transactions: The Mediating Role of Customer Satisfaction - ScienceDirect. [13]Neslin, S. A., & Shankar, V. (2009). Key Issues in Multichannel Customer Management: Current Knowledge and Future Directions. *Journal of Interactive Marketing*, 23(1), 70- 81.
- [14] Onaolapo, S., & Oyewole, O. (2018). Performance expectancy, effort expectancy, and facilitating conditions as factors influencing smart phones use for mobile learning by postgraduate students of the University of Ibadan, Nigeria. *Interdisciplinary Journal of e-Skills and Lifelong Learning*, 14, 95-115.
- [15] Salem, A. M., Yaser, H., Nashmi, A., Hassan, M., Yahya, & Shamsuddin, A. (2016). A Critical Review of Models and Theories in Field of Individual Acceptance of Technology. *International Journal of Hybrid Information Technology*. 9. 143- 153.
- [16] Salem, A.M., Yaser, H., Shamsuddin, A., & Aziati, A. (2015). Investigating the Key Factors Influencing on Management Information Systems Adoption among Telecommunication Companies in Yemen: The Conceptual Framework Development. *International Journal of Energy, Information and Communications*. 6. 59-68.
- [17] Selvi, Y., & Harish, R. S. (2019). Understanding the adoption of cryptocurrencies: A mixed-methods study. *Journal of Electronic Commerce Research*, 20(4), 303-322.
- [18] Shin, D. H., & Shin, Y. J. (2017). Predicting the use of cryptocurrency based on user perception: An extension of technology acceptance model. *Telematics and Informatics*, 34(7), 1353-1367.
- [19] Teo, T., and Milutinovic, V. (2015). Modelling the intention to use technology for teaching mathematics among pre-service teachers in Serbia. *Australasian Journal of Educational Technology*, 31(4). 363-380.
- [20] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425–478.
- [21] Wu, M., Yu, P., & Weng, Y. (2012). A study on user behavior for I Pass by UTAUT: Using Taiwan’s MRT as an example. *Asia Pacific Management Review*, 17(1), 91-111. [22]Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes.
- [23] Sarfaraz, J. (n.d.). Unified Theory of Acceptance and Use of Technology (UTAUT) Model-Mobile Banking.
- [24] Stachowiak, H., & Turek, T. (2020). Determinants of acceptance of cryptocurrencies: A systematic review. *Journal of Risk Research*, 23(11) 1439-1458. doi: 10.1080/13669877.2020.1739340
- [25] Selvi, Y., & Harish, R. S. (2019). Understanding the adoption of cryptocurrencies: A mixed-methods study. *Journal of Electronic Commerce Research*, 20(4), 303-322.
- [26] Tobias, J. (2022). Cryptocurrency is becoming the next big thing in the Philippines. It could be for you too. [27]Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- [28] Böhme, R., Christin, N., Edelman, B., & Moore, T. (2015). Bitcoin: Economics, technology, and governance. *Journal of Economic Perspectives*, 29(2), 213-238.
- [29] Bouri, E., Gupta, R., Lau, C. K. M., & Roubaud, D. (2020). Bitcoin and global financial stress: A copula- based approach to dependence and causality in the quantiles. *International Review of Financial Analysis*, 69, 101496.
- [30] Herian, R., Read, S., & Yap, J. (2019). Blockchain: Opportunities for health care. *Journal of Medical Internet Research*, 21(2), e13494.
- [31] Hou, C. L., Li, A. Y., & Chen, C. Y. (2019). Who predicts the prediction market? The effect of social relationships on cryptocurrency forecast accuracy. *Pacific-Basin Finance Journal*, 56, 232-246.
- [32] Iivari, J. (2005). An empirical test of the DeLone-McLean model of information system success. *ACM SIGMIS Database*, 36(2-3), 8-27.
- [33] Kim, B., Lee, J., Noh, J., & Kwon, D. (2020). Does cryptocurrency market reflect investor sentiment? A sentiment analysis perspective. *Pacific-Basin Finance Journal*, 62, 101337.