

Vicenarian Professionals' Awareness and Determinants of Engagement in Cryptocurrency in Koronadal City, South Cotabato, Philippines

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ABSTRACT

This research delves into investigating the awareness and engagement of vicenarian professionals with cryptocurrency and the digital economy in Koronadal City, Philippines. The study examined the demographic profiles to gain a comprehensive understanding of the participants. Furthermore, it assesses the participants' level of awareness concerning cryptocurrency applications, trading platforms, and associated risks and opportunities. To achieve its objectives, the research adopts a descriptive multivariate correlational approach, leveraging confirmatory predictive analysis to identify significant factors influencing engagement. The study reveals a balanced gender distribution among the participants, showcasing diverse income levels and educational backgrounds. Interestingly, most respondents demonstrate neutral levels of awareness concerning cryptocurrency applications and the associated risks and opportunities. Surprisingly, technological awareness, economic conditions, government regulations, and security concerns do not emerge as significant factors influencing engagement. However, the study uncovers that social media factors play a pivotal role as a significant determinant of engagement among vicenarian professionals. This finding provides valuable insights for policymakers and industry stakeholders aiming to boost cryptocurrency and digital economy participation among young professionals in the region.

Introduction

The advent of cryptocurrency and the digital economy has transformed the global financial landscape, revolutionizing financial transactions and investments. Cryptocurrency, as a recent innovation in the financial industry, offers a decentralized currency free from government control, utilizing blockchain technology. Despite its rapid growth and increasing market value, there is a significant research gap concerning cryptocurrency adoption.

In the international context, The study conducted by [1] examines cryptocurrency adoption in mainland China, with a focus on Bitcoin. It explored key factors influencing adoption. Notably, awareness and trustworthiness are significant determinants of

intention to use Bitcoin. Additionally, perceived usefulness partially mediates the relationship between ease of use and adoption intent. These findings offer insights into cryptocurrency adoption in China, contributing to existing knowledge and informing policymakers about this evolving trend in the region. [2] examined the relationship between cryptocurrencies and traditional assets in five emerging economies. The findings indicate that cryptocurrencies did not provide diversification, hedging, or safe haven benefits in these markets. In the study of [3], Bitcoin was found to have a significant impact on the BIST100 stock market index in Turkey, and a two-way causality relationship was observed between them. One-way causality relationships were also identified, including from Japan and China.

In the Philippines, [4] conducted a study that explored the ramifications of technological advancements that automated manual tasks. The central focus was on cryptocurrency, a digital currency distributed across computers. The study yielded comprehensive results, highlighting cryptocurrency's significance, operational mechanisms, common scams, and preventive measures. The research article by [5] provides a concise overview of the regulatory landscape for crypto currency operations in the Philippines, focusing on the Guidelines for Virtual Currency Exchanges issued by the Bangko Sentral ng Pilipinas.

Play-to-earn (P2E) gaming, based on blockchain and cryptocurrency tech, attracts those with a penchant for financial risk [6]. Understanding the awareness and drivers of engagement in cryptocurrency among young professionals aged twenty to twenty-nine is crucial, particularly given its predominance in developing nations. Therefore, this study aims to shed light on the factors influencing vicenarian professionals' participation in the digital economy in Koronadal, South Cotabato, Philippines. By incorporating insights from both international and local studies, this research seeks to deepen the understanding of cryptocurrency adoption in the region.

The primary concern in this study is the awareness, risk perception, and the underlying motivations of vicenarian professionals regarding their engagement in crypto currencies. Despite the global attention on cryptocurrency adoption, there is a noticeable lack of research focusing on the engagement of vicenarian professionals with cryptocurrency in the specific local context of Koronadal, South Cotabato, Philippines. This research aims to address this gap by investigating the awareness and engagement of young professionals with cryptocurrency and the digital economy in this particular region.

The primary objective of this research is to investigate the awareness and engagement in cryptocurrency and the digital economy among vicenarian professionals in the City of Koronadal, South Cotabato, Philippines. This study builds upon the current state of knowledge in the field, aiming to identify key determinants and factors influencing cryptocurrency adoption. Leveraging existing insights and research findings, the researchers seek to provide valuable and up-to-date insights that can effectively guide efforts to promote cryptocurrency awareness and involvement in the regional market. Ultimately, the goal is to foster wider acceptance and use of cryptocurrencies among young professionals in Koronadal, thus contributing to the ongoing development of the digital economy in the area.

Research Methods

Research Design

This descriptive multivariate correlational (confirmatory factor analysis) study aimed to determine the most significant factors influencing the awareness of vicenarian professionals in cryptocurrency and the digital economy in Koronadal City. Only primary data was used for the study, and the data gathering procedure involved random sampling. The study employed a descriptive approach to describe the characteristics of the target population and utilized a quantitative approach due to its statistical nature. Furthermore, it adopted a multivariate correlational approach as it included more than one independent variable and sought to capture the significant relationships of each variable with the dependent variable.

Sampling Design

The researcher used random sampling wherein the population of professionals in Koronadal City will be narrowed down to the professionals' with age bracket of 20-29 years and shall be selected randomly in any manner (personal or online) as long as they are qualified to the criteria of being the subject matter of the study. Random sampling is one of the simplest forms of collecting data from the total population. It is a sampling method that allows for the randomization of sample selection.

Sample Size Calculation

Sample for unknown population.

$$n = z^2(\sigma \times (1 - \sigma))/E^2$$

$$Z = z\text{-Score (90\% = 1.645)}$$

$$\sigma = \text{standard deviation at } 0.5$$

$$E = \text{Margin of Error (E = 0.10)}$$

$$N = 1.645^2 \times 0.5 / 0.1^2$$

$$n = 68$$

Research Instrument

For data collection, a semi-structured self-made questionnaire served as the research instrument, effectively capturing all the necessary data and information essential for the study. This semi-structured questionnaire was uniquely designed specifically for this research and composed of three sections.

In Section 1, the primary objective was to capture the socio-economic profile of the respondents, who were vicenarian professionals. *Section 2* was dedicated to determining the level of awareness and identifying the determinants that influenced the vicenarian professionals' engagement in Koronadal City. *Lastly*, *Section 3* was meticulously designed to capture the determinants that affected the engagement of vicenarian professionals in the same city.

The thorough testing and validation processes, including the KMO reliability test and content validation by experts, further fortified the credibility and robustness of this research instrument, ensuring accurate and meaningful data collection for the study.

Statistical Tool and Statistical Treatment

All the data gathered from the processed questionnaire will be tabulated and processed using the SPSS V23 or the Statistical Package for Social Sciences. This software

offers a variety of statistical analyses suited enough for qualitative research. The following Statistical tools/analysis will be used in the study;

Descriptive statistics (Frequency and Percentage Distribution)

Frequency and Percentage Distribution was used to organize and sort the demographic profile of the respondents. Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data.

5 Point-Likert’s Scale of Ordinal and Weighted Mean

In order to catch the necessary data in statistical qualitative form, 5 Point-Likert’s Scale of Ordinal was used in rating the statements and question pertaining to the level of awareness and factors affecting purchasing preference of the tricenarian educators in Koronadal City. The weighted mean will be used to statistically synthesize and describe the data gathered from using the 5-point Likert scale.

Table 1: Level of Awareness

Scale	Mean Range	Description	Intensity
1	1.00-.1.8	Fully Not Aware	Very high Level
2	1.81- 2.60	Not Aware	Low Level
3	2.61-3.40	Neutral	Average
4	3.41-4.20	Aware	High Level
5	4.21-5.00	Fully Aware	Very high Level

Table 2: Factors Affecting The Engagement In Cryptocurrency

Scale	Mean Range	Description	Intensity
1	1.00-.1.8	Strongly Disagree	Very high Level
2	1.81- 2.60	Disagree	Low Level
3	2.61-3.40	Neutral	Average
4	3.41-4.20	Agree	High Level
5	4.21-5.00	Strongly Agree	Very high Level

Table 3: Level Of Engagement In Cryptocurrency And Digital Economy

Scale	Mean Range	Description	Intensity
1	1.00-.1.8	Not engaged at all	Very high Level
2	1.81- 2.60	Slightly Engaged	Low Level
3	2.61-3.40	Moderately engaged	Average
4	3.41-4.20	Very Engaged	High Level
5	4.21-5.00	Extremely Engaged	Very high Level

Multiple Linear Regression (Enter Method)

Multiple Linear Regression was employed to identify the most influential factors affecting the engagement of vicenarian professionals in Koronadal City regarding cryptocurrency and the digital economy. This statistical technique allows us to predict the engagement level, the dependent variable, based on the values of two or more independent or explanatory variables, which are the factors under consideration.

The regression equation: $E = \alpha \pm \beta_1 TA \pm \beta_2 EC \pm \beta_3 GR \pm \beta_4 SC \pm \beta_5 SMF \pm e$
 E= Level of Engagement (Dependent Variable)

α = Constant

β = Independent variable coefficients

TA= Technological Awareness (Independent variable)

EC= Economic Condition (Independent variable)

GR= Government Regulation (Independent variable)

SC= Security concerns (Independent variable)

SMF= Social Media Factors (Independent variable)

e = standard error (other factors)

Result and Discussion

This section contains research results or experiments and analysis of research results or experimental results.

Descriptive Statistics (Frequency, Percentage, Valid Percent, And Cumulative)

Descriptive statistics was used in the study to describe and organize the collected data extracted from the questionnaires. Frequency and Percentage distribution was used to summarize the categorical variables especially the profile of the respondents.

Table 4. Sex

		Frequency	Percent	Valid Percent	Cumulative Percent
V	Female	42	61.8	61.8	61.8
	Male	26	38.2	38.2	100.0
	Total	68	100.0	100.0	

Based on the descriptive data provided for the study entitled "Vicenarian Professionals' Level of Awareness and Determinants of Engagement in Crypto Currency and Digital Economy in the City of Koronadal, South Cotabato, Philippines," it appears that the sample consisted of a total of 68(61.8%) participants. Out of these participants, 26 were identified as male, while 42(38.2%) were identified as female.

Table. 5 Monthly Income

	Frequency	Percent	Valid Percent	Cumulative Percent
V	1	1.5	1.5	1.5
	P1,000-10,000	15	22.1	23.5
	P11,000-20,000	23	33.8	57.4
	P21,000-30,000	20	29.4	86.8
	P31,000-40,000	6	8.8	95.6
	P41,000-50,000	1	1.5	97.1
	P51,000 and above	2	2.9	100.0
	Total	68	100.0	100.0

Interpreting the results, approximately 22.39% of the respondents reported a monthly income between 1,000 and 10,000 pesos. The majority of the respondents (34.33%) fell into the income range of 11,000-20,000 pesos per month. Around 29.85% reported a monthly income between 21,000 and 30,000 pesos. Only a small proportion of

respondents had higher income levels, with 8.96% falling into the range of 31,000-40,000 pesos, 1.49% in the range of 41,000-50,000 pesos, and 2.99% earning 51,000 pesos or above.

Table 6. Educational Attainment

	Frequency	Percent	Valid Percent	Cumulative Percent
V College Graduate	46	67.6	67.6	67.6
College Level	8	11.8	11.8	79.4
Post graduate (Master's Degree, Doctorate Degree, etc.)	10	14.7	14.7	94.1
Vocational studies	4	5.9	5.9	100.0
Total	68	100.0	100.0	

Interpreting the results, approximately 74.19% of the respondents in the study were college graduates. A smaller percentage, 12.90%, had completed college-level education without attaining a degree. About 6.45% of the respondents had pursued post-graduate education, which includes master's degrees, doctorate degrees, and other advanced degrees. Similarly, 6.45% of the respondents had completed vocational studies.

Table 7. Weighted Mean- Awareness

	N	Minimum	Maximum	Mean	Std. Deviation
Are you aware of the concept of crypto currency?	68	1	5	3.22	1.020
Are you aware of the crypto currency trading platforms like Coinbase, Binance, Kraken, Robinhood, eToro and others?	68	1	5	3.54	.888
Are you aware with the potential risk associated with crypto currency investments?	68	1	5	3.06	1.006
How aware are you of the opportunities presented by crypto currencies in terms of financial growth?	68	1	5	3.18	1.050
Weighted Mean					3.25

In this study, the overall weighted mean is 3.25, indicating that, on average, the respondents were neutral in their level of awareness about cryptocurrency and the digital economy. This means that the respondents neither strongly agreed nor strongly disagreed with the statements or questions related to their awareness.

Table 8. Factors of Engagement- Technological awareness

	N	Minimum	Maximum	Mean	Std. Deviation
I have good understanding of blockchain technology.	68	2	5	3.46	1.099

	N	Minimum	Maximum	Mean	Std. Deviation
I am aware of the concept of cryptocurrencies and their role in digital economy.	68	2	5	3.49	.954
I am updated with the latest technological advancements in the cryptocurrency in the cryptocurrency industry.	68	2	5	3.51	1.072
I have used cryptocurrency exchanges or digital wallets.	68	2	5	3.57	1.262
Weighted Mean					3.50

In this study, the overall weighted mean is 3.50, indicating that, on average, the respondents agreed with the factors related to engagement in technological awareness of cryptocurrency and the digital economy. This means that the respondents expressed a positive perception or agreement with the statements or questions about the factors that influence their engagement in this domain.

Table 9. Factors of Engagement-Economic Condition

	Minimum	Maximum	Mean	Std. Deviation
Job opportunities in the traditional economy affect my engagement in crypto currency and the digital economy.	2	5	3.25	.835
Economic conditions like inflation, economic growth, government policies can influence decision to engage in crypto currency and digital economy.	2	5	3.29	.865
Weighted Mean				33.27

In this study, the overall weighted mean is 3.27, indicating that, on average, the respondents were neutral in their agreement with the factors related to engagement in the economic condition of cryptocurrency and the digital economy. This means that the respondents neither strongly agreed nor strongly disagreed with the statements or questions about how the economic condition influences their engagement in this domain.

Table 10. Factors of Engagement-Government Regulations

	N	Minimum	Maximum	Mean	Std. Deviation
I am aware of government regulation related to cryptocurrency and digital economy in the country.	68	1	5	2.85	1.040
Government regulations in the country impacted my engagement in	68	1	5	2.90	.995

cryptocurrency and the digital economy.

Government regulations could be improved to better support vicenarian professionals' engagement in cryptocurrency and the digital economy.	68	1	5	3.44	.904
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Government regulations influence my confidence in cryptocurrency and digital economy.	68	1	5	3.18	.961
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Weighted Mean **3.09**

In this study, the overall weighted mean is 3.09, indicating that, on average, the respondents were neutral in their agreement with the factors related to government regulations affecting their engagement in cryptocurrency and the digital economy. This means that the respondents neither strongly agreed nor strongly disagreed with the statements or questions about how government regulations impact their engagement.

Table 11. Factors of Engagement-Security Concerns

	Minimum	Maximum	Mean	Std. Deviation
I am concern about the security aspects of engaging in cryptocurrency and digital economic activities.	1	4	3.04	.953
I am confident in the security measures implemented by the cryptocurrency platform.	1	4	2.97	.914
I consider the security measures and safeguards of cryptocurrency and digital economy activities are safe enough.	1	4	2.94	.976
Weighted Mean			2.98	

In this study, the overall weighted mean is 2.98, indicating that, on average, the respondents were neutral in their agreement with the factors related to security concerns affecting their engagement in cryptocurrency and the digital economy. This means that the respondents neither strongly agreed nor strongly disagreed with the statements or questions about how security concerns impact their engagement.

Table 12. Factors of Engagement-Social Media factors

	Minimum	Maximum	Mean	Std. Deviation
I consider the social media content is influential in shaping my opinions and decisions regarding cryptocurrency and the digital economy.	1	5	3.69	.868
Cryptocurrency-related information shared on social media influenced my decision to perceive credibility.	1	5	3.44	.968

	Minimum	Maximum	Mean	Std. Deviation
Social media influencers can impact my engagement in cryptocurrency and the digital economy.	1	5	3.68	.921
Social media is important for staying updated and connected with the cryptocurrency and digital economy communities.	1	5	3.71	.882
Weighted Mean			3.63	

In this study, the overall weighted mean is 3.63, indicating that, on average, the respondents agreed with the factors related to engagement in social media factors concerning cryptocurrency and the digital economy. This means that the respondents expressed a positive perception or agreement with the statements or questions about how social media factors influence their engagement in this domain.

Table 13. Level of Engagement

	N	Minimum	Maximum	Mean	Std. Deviation
Level of Engagement	68	1.00	5.00	3.1029	.90008

In this study, the overall weighted mean is 3.1029, indicating that, on average, the respondents demonstrated a moderate level of engagement in cryptocurrency and the digital economy. This means that the respondents expressed a moderate degree of involvement, interest, and participation in this domain.

Multiple Linear Regression (Factor Analysis)

Table 14. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465 ^a	.216	.153	.82838

a. Predictors: (Constant), Social Media Factors, Technological Awareness, Security Concern, Economic Condition, Government Regulation

Table 15. ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.735	5	2.347	3.420	.009 ^b
	Residual	42.545	62	.686		
	Total	54.279	67			

a. Dependent Variable: Level of Engagement

b. Predictors: (Constant), Social Media Factors, Technological Awareness, Security Concern, Economic Condition, Government Regulation

Table 16. Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
1 (Constant)	1.873		2.671	.010

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Technological Awareness	.006	.129	.006	.047	.962
Economic Condition	-.028	.166	-.025	-.170	.866
Government Regulation	.183	.238	.178	.767	.446
Security Concern	-.309	.183	-.263	-1.688	.096
Social Media Factors	.457	.188	.421	2.432	.018

a. Dependent Variable: Level of Engagement

Based on the p-values associated with each independent factor, we can assess their statistical significance in relation to the level of engagement:

1. Technological awareness (p-value: 0.962): The p-value for technological awareness is 0.962, which suggests that there is no statistically significant relationship between technological awareness and the level of engagement. In other words, technological awareness does not appear to be a significant determinant of engagement in this study.
2. Government regulation (p-value: 0.446): The p-value for government regulation is 0.446, indicating that there is no statistically significant relationship between government regulation and the level of engagement. Therefore, the study does not find government regulation to be a significant determinant of engagement in the context of cryptocurrency and the digital economy in Koronadal.
3. Security concern (p-value: 0.96): The p-value for security concern is 0.96, suggesting that there is no statistically significant relationship between security concern and the level of engagement. This means that security concerns do not appear to have a significant impact on the level of engagement in this study.
4. Social media factors (p-value: 0.018): The p-value for social media factors is 0.018, indicating that there is a statistically significant relationship between social media factors and the level of engagement. This suggests that social media factors have a significant influence on the level of engagement among the vicenarian professionals in Koronadal.
5. Economic condition (p-value: 0.886): The p-value for economic condition is 0.886, indicating that there is no statistically significant relationship between economic condition and the level of engagement. Thus, economic condition does not seem to be a significant determinant of engagement in this study.

Additionally, the regression analysis provides some additional statistical measures:

R-square: The R-square value of 0.216 indicates that the independent variables included in the analysis explain approximately 21.6% of the variance in the level of engagement. This means that other factors not included in the analysis may also contribute to the level of engagement among vicenarian professionals in Koronadal.

ANOVA: The ANOVA test, with a p-value of 0.009 and an F-value of 3.420, suggests that the overall regression model is statistically significant. This means that the combined effect of the independent variables on the level of engagement is significant, indicating that the model has some predictive power.

In summary, based on the regression analysis results, it appears that social media factors have a statistically significant relationship with the level of engagement among vicenarian professionals in Koronadal. However, technological awareness, government regulation, security concern, and economic condition do not show significant relationships with the level of engagement. It's important to consider the limitations and context of the study when interpreting these findings.

Conclusion

This aimed to explore the demographic characteristics of Vicenarian professionals, their awareness of cryptocurrency and the digital economy, and the factors influencing their engagement in this realm. Regarding the demographic profiles, the sample exhibited a balanced gender distribution, with 26 males and 42 females among the respondents. In terms of income levels, the majority fell within the 11,000-20,000 pesos range, followed by other income brackets. Educational background analysis showed that college graduates constituted the largest group, followed by college-level, post-graduates, and vocational studies. The result is also supported by the study conducted by [7], which concluded that crypto currency users clustered with varying literacy levels and established that financial literacy was associated with Bitcoin and little to no knowledge about other crypto coins and [8] pointed out that financial literacy significantly influence engagement in financial markets, including crypto currency trading.

Analyzing the level of awareness on cryptocurrency and digital economy, the researchers found that respondents were neutral concerning awareness of applications and websites related to cryptocurrency. However, most respondents expressed agreement regarding their awareness of cryptocurrency trading platforms. Regarding the risks and opportunities linked to cryptocurrency and digital economy, the majority maintained a neutral stance.

When investigating the factors influencing engagement, the study revealed that technological awareness, economic conditions, government regulations, and security concerns were not significant factors affecting engagement among Vicenarian professionals in cryptocurrency and the digital economy. However, social media factors were identified as a significant influencer in driving engagement.

The result pertaining to the significance of social media factors aligns with a study conducted by [9] , study highlights how influencer playfulness and content expertise impact social media users' engagement and purchase intentions, particularly in the context of cryptocurrency promotion via influencers.

Overall, the study indicated a moderate level of engagement among Vicenarian professionals in Koronadal regarding cryptocurrency and the digital economy, with an overall weighted mean of 3.1029. The finding of social media factors being a key influencer presents opportunities for leveraging social media platforms to enhance engagement. In contrast, other factors such as technological awareness, economic

conditions, government regulations, and security concerns showed no significant impact on engagement.

These findings suggest the potential for further growth and development in engagement with cryptocurrency and the digital economy among Vicenarian professionals in Koronadal. The result is also true with the study conducted by [10] which underscores the influence of age (vicenarian, tricenarian, and etc.) and educational status on individuals' attraction to crypto currency engagement. Efforts could be directed towards enhancing technological awareness, providing resources for understanding economic conditions and government regulations, addressing security concerns, and strategically utilizing social media platforms to encourage greater engagement in this domain.

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