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Master's Thesis of Business Administration

Large versus Small Nominal value Cryptocurrencies

– The Impact of the Nominal Value based
Product Valuation in Cryptocurrency on
Consumer's Willingness to Spend –

암호화폐의 액면가치 크기가
소비자의 지불의향에 미치는 효과

August 2020

Graduate School of Business
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Abstract

This thesis paper explores different consumers' spending pattern when using cryptocurrencies as a payment method. Product valuation occurs in two forms: nominal and real terms. The article shows when a consumer performs a product valuation of a product priced in cryptocurrency, he or she is likely to overweigh the nominal value over real value, which is essentially the salience bias effect, without much thought to consider the real value in the traditional home currency, cryptocurrency adjusted using the exchange rate. When the nominal value of a cryptocurrency is greater in number of digits and greater than one unit of a consumer' s home currency (e.g., \$ 1 US = 9 Cryptocurrency), consumers' willingness to spend decreases. On the other hand, when the nominal value is in the decimals and less than one unit of a consumer' s home currency, consumers will be willing to spend more.

Keyword : salience bias, willingness to spend, ease of use, cryptocurrency, nominal value, traditional currency

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Chapter 1. Introduction

The purpose of cryptocurrency is mainly twofold, a means of investment and a payment method (Hileman and Michel 2017). This article will merely focus on the daily payment aspect of the cryptocurrency. Since the creation of cryptocurrency and up until recently, many of the cryptocurrency users were in the industry as a means of investment. However, as the number of cryptocurrency payment systems and the number of businesses implementing cryptocurrency increased, more people are using cryptocurrency as a payment method. The usages of cryptocurrency as a payment method has been growing annually (Rauchs et al. 2018, Jonker 2018). Anecdotal evidence from the cryptocurrency communities suggests people treat cryptocurrencies differently from traditional currency usages. People are more lenient with spending in cryptocurrency, and some users hypothesize it is due to people treating cryptocurrency as monopoly money.

Not much research has been done for cryptocurrency. It is still a new technology and form of currency; research in cryptocurrency in relation to consumer behavior is close to nonexistent. Hence, this research hopes to stimulate interest in the topic and encourage others to explore the field of study. People's interest in cryptocurrency is growing, and it has great potential, bound to become a dominant form of payment currency (Rauchs et

al. 2018).

This research paper proposes consumers' spending behavior is affected by the nominal values of cryptocurrencies. Throughout the research article, two types of nominal values will be discussed and studied. The nominal value is named as large, referring to a nominal value that is a multiple of an equivalent traditional home currency; a cryptocurrency is higher than one in terms of the exchange rate (e.g., \$ 1 US = 20 Cryptocurrency). As for when the nominal value is named as small, a fraction of an equivalent traditional home currency; speaking in terms of the exchange rate, a cryptocurrency is less than one, in the decimals (e.g., \$ 1 US = 0.007 Cryptocurrency). When consumers experience a large nominal value cryptocurrency, their willingness to spend increases. On the other hand, when consumers experience a small nominal value cryptocurrency, their willingness to spend decreases. This paper suggests the difference in spending behavior within the contexts is due to the salience bias effect; people are prone to focus on more notable information and disregard the less so and make a decision based on the prominent information. Within the subject of cryptocurrency, consumers overweigh nominal terms rather than using the exchange rate to consider the real terms. Furthermore, considering cryptocurrency is perceived as a new technology, the paper also explores the perceived ease of use as a potential explanation for the spending behavior explained above.

Chapter 2. Theoretical Background

2.1. Perceived Ease of Use

Generally, in regard to the theory of reasoned action, people' s behavioral intentions and decisions are primarily affected by one' s subjective norm influenced by the norm formed by third parties (Fishbein and Ajzen 1975). The Technology Acceptance Model (TAM) was developed based on this theory; TAM is widely proven (Davis et al. 1989) and recommended (Liebana et al. 2014) when modeling the acceptance of a novel technology. Many technologies and systems such as e-mail, spreadsheets, mobile payment, and blockchain technology have been studied based on TAM (Kim, Mirusmonov and Lee 2010).

TAM introduces two constructs, perceived usefulness and perceived ease of use, as the main factors that affect the acceptance of new technology. Consumers determine whether to use a technology or not based on their perceived usefulness and perceived ease of use of the technology. The ease of use is as it is referring to one' s perception of utilizing a technology is merely easy and effortless (Taylor and Todd 1995; Davis 1989).

In addition, as for the scale' s validity, the ease of usage scale introduced in the technology acceptance model was initially a scale with fourteen different items. The number of elements of the

scale was reduced to six after thorough studies tested for reliability and validity (Davis et al. 1989).

In terms of cryptocurrency, the perceived ease of use pertains to the ease of usage as a payment method; perceived ease of use affects a consumer's intention of adopting cryptocurrency as a payment method (Guych et al. 2018).

Such theories and findings suggest perceived ease of use when comparing different cryptocurrencies with the traditional currency will likely differ and result in varying spending behavior.

2.2. Different Nominal Values of Cryptocurrencies

People handle foreign currencies differently compared to how they treat and use their home currencies. Different explanations are available from the antecedent research articles, such as the monopoly money phenomenon referring to individuals treating foreign currencies as toy currency, and simply the difficulty of thinking in terms of the foreign currencies because of the constant need to calculate using exchange rate (Priya and Joydeep 2008). Then there is the salient finding of face value effect (Priya and Joydeep 2002), which is related to the money illusion effect (Shafir, Diamon, and Tversky 1997).

Economic transactions are twofold, the nominal and the real. Within the context of the relationship between foreign and local currencies, nominal value refers to the face value of the foreign currency, and the real value pertains to the value of the home currency, the foreign currency adjusted by the exchange rate (Priya and Jodeep 2002). People understand the discrepancy between nominal and real terms, yet the money illusion effect is dominant to the majority of the people. The money illusion effect describes when assessing economic transactions, bias is prevalent because people predominantly think more of the nominal terms rather than real values (Shafir, Diamon, and Tversky 1997). Specifically, people simply overweigh nominal values since nominal terms are pertinent and straightforward. Shafir et al. (1997) discovered people tend to care more about the face value increase in wages or prices rather than the economically corrected wages or prices. In detail, this is due to the salience bias.

2.3. Salience Bias

Salience bias refers to individuals having the tendency to focus heavily on more prominent information and disregard others that are relatively less obvious – hence creating a bias favoring observable and salient factors (Kahneman et al. 1982, Bordalo et al. 2012, Allcott and Wozny 2013). When in critical moments in need of decision making, people would react to and focus on factors that are simple and clear to process compared to those that are more

informative yet more difficult to calculate – this results in suboptimal decisions.

Within the context of traditional currencies, people's spending behaviors when using foreign currencies vary according to the different relationships between individuals' home currency and the nominal values of foreign currencies (Priya and Joydeep 2002). When the nominal value of a foreign currency is multiple units of the local currency, consumers tend to spend less because foreign currency seems to be more than what it is in normative terms. Vice versa, when the nominal value of a foreign currency is a fraction unit of the local currency, consumers tend to spend more because foreign currency seems to be less than what it is in normative terms. People's experience with foreign currency has a moderating effect on the face value effect (Priya and Joydeep 2002).

Analogous to this, people may treat cryptocurrency similarly. Cryptocurrency is still a young form of currency that has many facets to be studied and discovered. Much of the characteristics are akin to those of traditional currencies.

2.4. Nominal Value Characteristic of Cryptocurrencies

As for the number of different types of currencies, a plethora of different cryptocurrencies exist. The prominent cryptocurrencies are Bitcoin, Ethereum, Ripple, and BitCash (Rauchs et al. 2018). The nominal values differ, and the difference is significant. For example, at the current market price, the one Bitcoin is \$8,825, one Ethereum is \$212, one Ripple is \$0.22, and BitCash is \$253.63 (Coinbase 2020).

Similar to the exchange rate system applied for traditional currencies, exchange rates also apply for cryptocurrencies in between an individual's traditional home currency and the desired cryptocurrency. The cryptocurrency could be a multiple of the conventional currency when the traditional currency is equivalent to multiple units of the cryptocurrency. For example, 1 US dollar is 5 XRP on the Coinbase digital currency exchange (Coinbase 2020). On the other hand, the cryptocurrency could be a fraction of the traditional currency when the traditional currency equals fractional units of the cryptocurrency. For example, 1 US dollar is 0.000114 Bitcoin on the Coinbase digital currency exchange (Coinbase 2020).

Chapter 3. Research Model & Hypotheses

3.1. Hypotheses

With the knowledge of the face value effect research by Priya and Joydeep (2002) along with the other precedent studies shared above, the current research explored the cryptocurrency as a payment method and proposed the nominal value of a cryptocurrency in relation to the traditional currency may affect consumer spending. In detail, the cryptocurrency with a large nominal value – greater digit number than that of a conventional home currency – will result in lower spending, and cryptocurrency with a small nominal value will result in greater spending.

The current research developed a research model based on the literature review, which can be seen in figure 2 and the following hypotheses.

H1: The different nominal values of cryptocurrencies in relation to traditional currency will have effects on a consumer' s spending.

H1a: The greater face value of a cryptocurrency relative to the nominal value of an individual' s home currency will result in underspending.

H1b: The less the face value of a cryptocurrency relative to the nominal value of an individual' s home currency will result in overspending.

H2 : The effect of the difference in nominal values on spending will be mediated by the salience bias.

H3 : The effect of the difference in nominal values on spending will be mediated by the perceived ease of use of cryptocurrency.

H4 : The status of experience with cryptocurrency and the knowledge of cryptocurrency will moderate the effect of nominal values on the willingness to spend.

3.2. Research Model

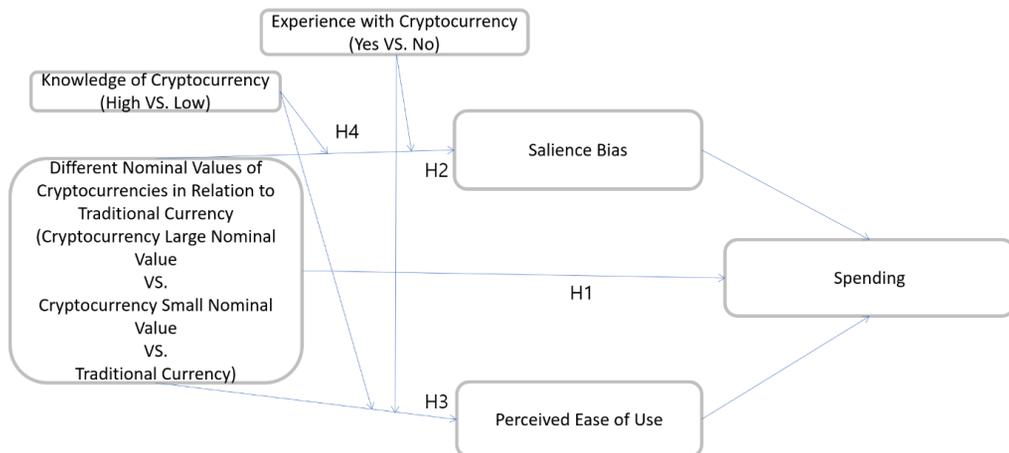


FIGURE 1. A research model for the effect of different nominal values of cryptocurrencies on spending, and the mediation effect of the salience bias and perceived ease of use on spending along with the knowledge of cryptocurrency and experience with cryptocurrency moderators.

Chapter 4. Experiment Method & Results

4.1. Method

The main experiment was conducted with a total of 588 participants, half of which were from the Amazon Mechanical Turk, and the other half were from several online communities related to cryptocurrencies. It was important for all the participants to be from the US because the selected local currency, which is an important factor in the study, was the US dollars. Amazon Mechanical Turk had its own setting for merely allowing people from the US to participate in the survey, and the answers from the online communities were manually screened in search of only the US-based completions.

The number of data used for the experiment was 351 participants (i.e., large nominal value condition = 164 participant data, small nominal value condition = 117 participant data, traditional currency condition = 70 participant data).

4.1.1. Procedure

The experiment is at large, broken into four sections and several small steps in detail. The four parts are scenario-based questions, salience bias measure questions, ease of usage questions, knowledge, and experience questions.

Participants were asked about their level of general knowledge in cryptocurrency. The question helped with differentiating the participants who are knowledgeable in cryptocurrency and who are not. The question asked, “how would you rate your level of knowledge in cryptocurrency?” (1 = Very Low; 5 = Very High).

Then a questionnaire in regard to the experience with cryptocurrencies followed. It involved a set of questions asking to change the given cryptocurrency amounts into the participants' home currency by using the provided exchange rates. Only the participants involved in the condition of experience with cryptocurrencies had the section included in their surveys. As for which cryptocurrencies, in order to discard of any preceding knowledge or experience with specific cryptocurrency coins, all of the cryptocurrencies discussed within the experiment were hypothetically created. They were named Veron, Steta, Amet, Diamru, Etdo, and Eirmov, and introduced to the participants in the questionnaires as cryptocurrency coins similar to those used in reality. As for the exchange rates, they were US\$1.00 = 9 Veron, US\$1.00 = 50 Steta, US\$1.00 = 130 Amet, US\$1.00 = 1,300 Diamru, US\$1.00 = 22,000 Etdo, US\$1.00 = 700,000 Eirmov. This was for the large nominal value condition, and the exchange rates for the small nominal value condition were in the decimals. The exchange rates were chosen as they were in order to be manageable for the participants.

After the questionnaires, the cover story was introduced, which was based on opening an online sock business, and the participants are at the stage of searching for sock producers and figuring out a price. They were told: “Imagine, you have decided to open up an online socks business, and you are looking into different sock producers. Each of the manufacturers is competitive and well regarded in the industry. There is no quality difference between the options. They are all black color, almost identical designs, 100% cotton, and manufactured using the same standardized machine. Each of the producers only takes US dollar as payment.”

Then a picture with the assorted manufacturers, product images, and exchange rates of the cryptocurrencies each of the producers desire as a means of transaction are shown next. Figures one and two were almost identical, but the exchange rates were different to differentiate figures shown to the large nominal value cryptocurrency and small nominal value cryptocurrency conditions. In addition, the cover story only covered black socks. This was to eliminate any design factors affecting the survey results. Along the same lines of eradicating possible elements that may deviate the results, the product images, and exchange rates were randomly placed under the manufacturers in the figures. As for the questionnaires pertaining to the cover story, the participants were asked to examine the socks and provide the maximum amount in the currency of the manufacturers that they would be willing to pay for each pair of socks. The exchange rates for each cryptocurrency

was provided and used later for data conversion into US dollars. Moreover, they were asked to imagine that they have decided to buy and sell all the options, and how much would they charge in US dollars for each of the socks when they are sold on their online stores. Afterward, a set of questions for measuring salience bias was asked; it consisted of items on the topics of how much effort, the extent of how much the participants rounded off the amounts for the pricing decisions, and the difficulty of the cover story questionnaire were asked (Wegener, Petty, and Dunn 1998). Each question was answered in nine-point Likert scales.

Black Socks Options						
Manufacturer	Mag	Hans	Vugo	Daor	ACBD	NHSU
Product Image						
Exchange Rate	USD \$1.00 = 9 Veron	USD \$1.00 = 50 Steta	USD \$1.00 = 130 Amet	USD \$1.00 = 1,300 Diamru	USD \$1.00 = 22,000 Etdo	USD \$1.00 = 700,000 Eirmov

FIGURE 2. Large nominal value cryptocurrency condition scenario image.

Black Socks Options						
Manufacturer	Mag	Hans	Vugo	Daor	ACBD	NHSU
Product Image						
Exchange Rate	USD \$1.00 = 0.5 Veron	USD \$1.00 = 0.07 Steta	USD \$1.00 = 0.00330 Amet	USD \$1.00 = 0.00052 Diamru	USD \$1.00 = 0.0000530 Etdo	USD \$1.00 = 0.00000759 Eirmov

FIGURE 3. Small nominal value cryptocurrency condition scenario image.

Afterward, as for the participants in the large and small nominal value cryptocurrency conditions, an animated picture of the figures from figures 2 to 15 was shown to the participants; the traditional currency condition participants could not see the animated picture. The image included images of the steps starting from setting up a cryptocurrency payment system account, acquiring a cryptocurrency, and purchasing an item using the acquired cryptocurrency. The participants were told, “the following animated image is how you would acquire and use the cryptocurrency needed to purchase socks from the manufacturer of your choice for your online store sock business. Please watch the animated image, and answer the following questions.” The participants were then asked about the user experience of purchasing using cryptocurrency as a payment method (Davis 1989). The ease of use questions were “Learning to operate cryptocurrency payment system would be easy for me”, “I would

find it easy to get cryptocurrency payment system to do what I want it to do” , “My interaction with cryptocurrency payment system would be clear and understandable” , “I would find cryptocurrency payment system to be flexible to interact with” , “It would be easy for me to become skillful at using cryptocurrency payment system” , and “I would find cryptocurrency payment system easy to use” (1 = Extremely Likely; 7 = Extremely Unlikely). In terms of the traditional currency condition, the participants were told to imagine using conventional payment methods such as cash and debit cards, and were asked of the same questions but in regard to traditional payment methods. No particular images were shown along with the questions.

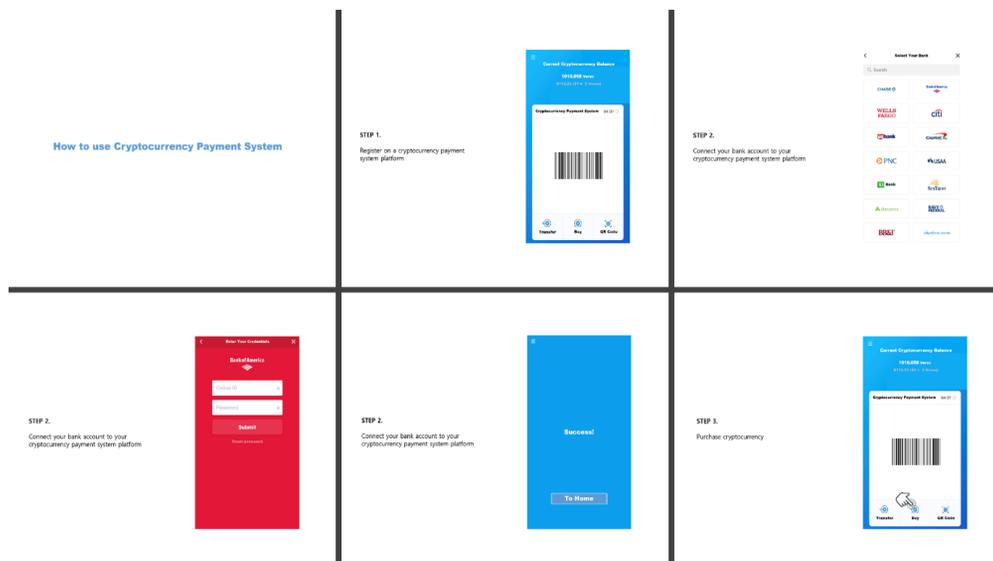


FIGURE 4. The first part of the step by step guide of using a cryptocurrency payment system for the acquisition of cryptocurrency to conducting a payment.

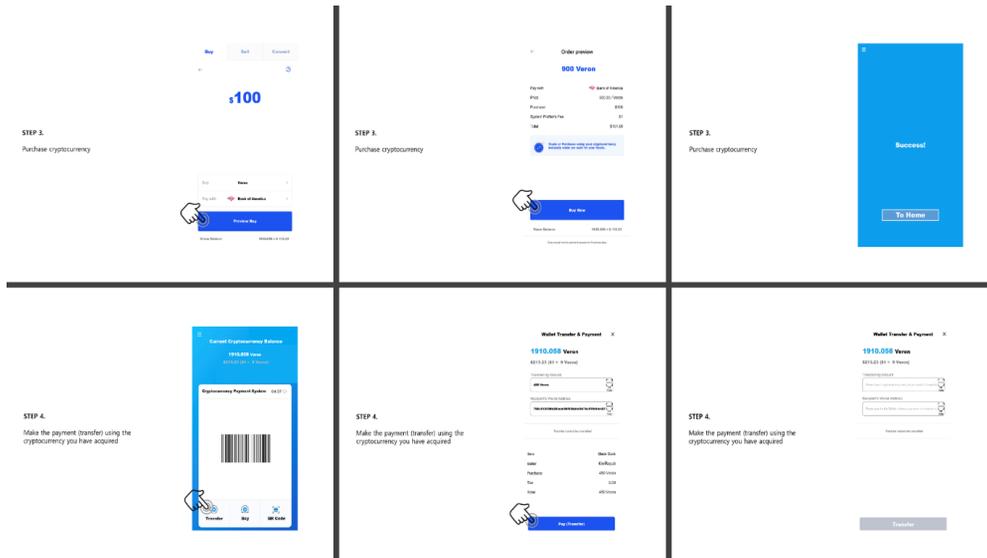


FIGURE 5. The second part of the step by step guide of using a cryptocurrency payment system for the acquisition of cryptocurrency to conducting a payment.

4.2. Results

4.2.1. Effect of Independent Variable on Dependent Variable: Two-way repeated measures ANOVA (H1, H1a & H1b)

In order to examine the H1a and H1b, the two-way repeated measures ANOVA was first conducted on the effects of the different nominal values of cryptocurrencies in relation to traditional currency on spending. The result indicated the different nominal values affected the dependent variable, spending ($F(10, 680) = 3.415; p < 0.001$).

In detail, as for the large nominal value cryptocurrency scenario ($M = 1.950$, $SD = 0.381$) Figure 6 shows the willingness to spend decreased as the nominal values of the cryptocurrencies, which were the exchange rates, became greater in digits than the home currency of the participants. The exchange rates were Veron (\$1 US = 9 Veron), Steta (\$1 US = 9 Steta), Amet (\$1 US = 130 Amet), Diamru (\$1 US = 1300 Diamru), Etdo (\$1 US = 9 Etdo), and Eirmov (\$1 US = 9 Eirmov). The mean willingness to spend in US dollar terms was \$3.984 when the socks were to be purchased in Veron. Then \$1.84 in Steta, a drastic fall followed by slight decreases: \$1.546 in Amet, \$1.473 in Diamru, \$1.446 in Etdo, and \$1.409 in Eirmov.

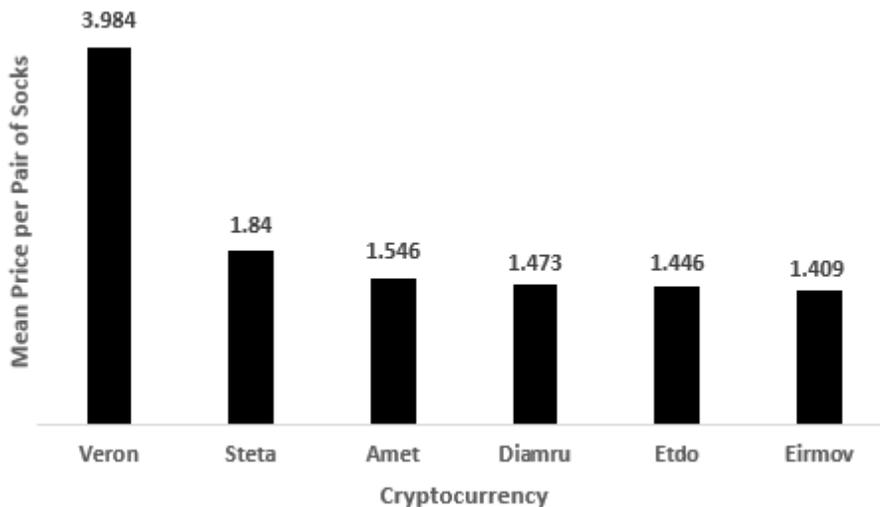


FIGURE 6. Mean price per pair of socks when purchasing from a producer. Given exchange rates for each cryptocurrency were more than one dollar, which was considered to be the home currency in this experiment.

On the other hand, in small nominal value cryptocurrency scenario ($M = 30692.174$, $SD = 15222.686$, $\gamma^2 = 0.048$), figure 7 shows the willingness to spend increased as the nominal values of the cryptocurrencies, which were in the decimals, increased in number of digits. The exchange rates were Veron ($\$1 \text{ US} = 0.5 \text{ Veron}$), Steta ($\$1 \text{ US} = 0.07 \text{ Steta}$), Amet ($\$1 \text{ US} = 0.0033 \text{ Amet}$), Diamru ($\$1 \text{ US} = 0.00052 \text{ Diamru}$), Etdo ($\$1 \text{ US} = 0.000053 \text{ Etdo}$), and Eirmov ($\$1 \text{ US} = 0.00000759 \text{ Eirmov}$). The differences in the mean price per pair of socks seem extreme.

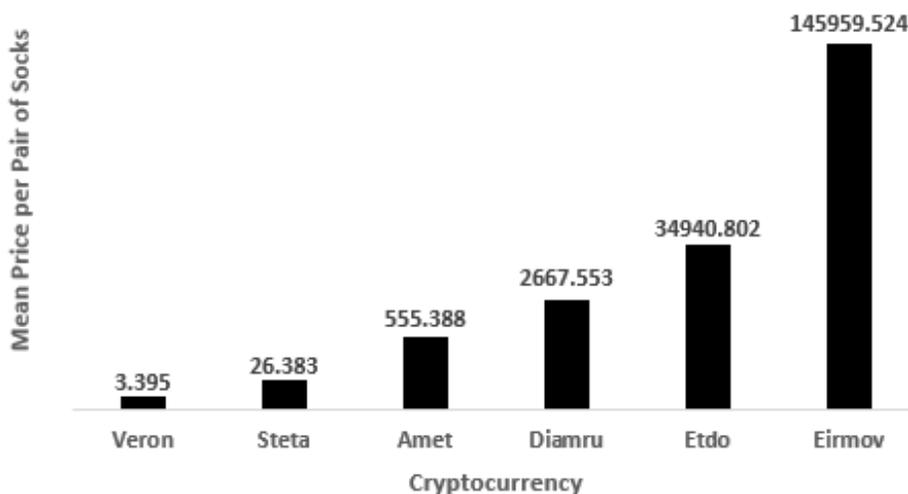


FIGURE 7. Mean price per pair of socks when purchasing from a producer. Given exchange rates for each cryptocurrency were less than one dollar, which was considered to be the home currency in this experiment, in the decimals.

As for the traditional currency scenario ($M = 5.180$, $SD = 0.628$), when the participants were asked about their willingness to spend in their traditional home currency, no particular pattern is found in the mean price per pair of socks.

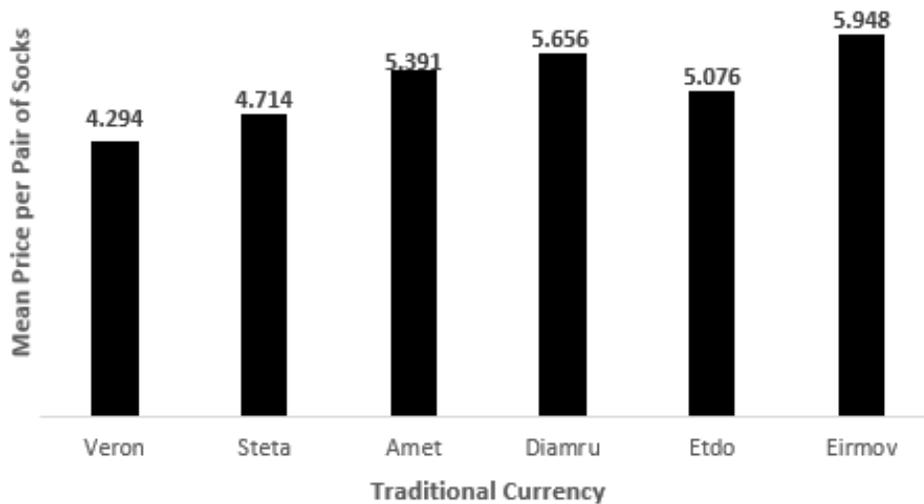


FIGURE 8. Mean price per pair of socks when purchasing from a producer. No cryptocurrency exchange rate and only manufacturer along with socks images were provided. The x-axis is as they are for easier comparison with the other figures shown above.

4.2.2. Interaction Effect of Independent Variable & Moderator on Dependent Variable: Four-way repeated measures ANOVA (H1)

Furthermore, four-way repeated measures ANOVA was conducted in order to see the interaction effects of the independent

variable, different nominal value and the moderators, experience (i.e., yes versus no), and knowledge (i.e., high versus low) in cryptocurrency, on the willingness to spend. The result showed no significant interaction; no significant interaction effect by experience in cryptocurrency ($F(10, 100) = 1.157; p = 0.329$), and no significant interaction effect by knowledge in cryptocurrency ($F(10, 100) = 1.536; p = 0.138$). Hence, no meaningful difference among the participants who had experience in the particular cryptocurrencies from the experiment and no experiment. Also, no significant difference among the participants who have high knowledge of cryptocurrency and low knowledge in cryptocurrency.

4.2.3. Reliability Test

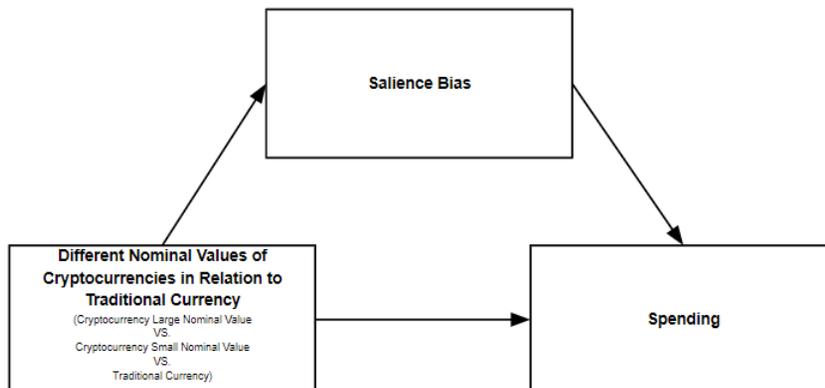
Prior to conducting tests involving mediators, a reliability test was performed for each mediator in order to ensure internal consistency between items in the scales and eliminate any items with weak correlation. The Cronbach Alpha for salience bias scale was above 0.7, and the ease of use scale was above 0.9. As for the salience bias scale, the level of interest scale item was eliminated as the correlation of it was below 0.4. As for the ease of use scale, none was discarded since all were well above 0.4.

4.2.4. Mediation Analysis (H2 & H3)

Moreover, in order to further examine the primary effect process, a mediation analysis for each mediator was conducted (Process Model 4; Hayes 2013). For ease of use, the mediation analysis with multicategorical variables was conducted on the effects between the difference in nominal values of cryptocurrency in relation to traditional currency and the willingness to spend. The multicategorical variables aspect was included in order to compare the ease of use of cryptocurrency to that of conventional currency.

In terms of the salience bias, the mediation analysis showed the effects of the difference in nominal values on willingness to spend was fully mediated by salience bias ($\beta = -1155.2812$, $SE = 825.3160$ 95% CI [-3149.6745, -63.8388]) (H2).

Indirect effect: $\beta = -1155.2812$, $SE = 825.3160$ 95% CI [-3149.6745, -63.8388]



Direct effect: $\beta = 5198.7307$, $SE = 5128.0645$ 95% CI [-4858.2142, 15255.6756]

FIGURE 9. Mediating role of salience bias on the effects between the different nominal values of cryptocurrencies in relation to traditional currency and willingness to spend.

As for the ease of use mediation analysis, figure 10 shows that inside lines refer to the X1, the comparison between large nominal value cryptocurrency and small nominal value cryptocurrency. The outer lines refer to the X2, large nominal value cryptocurrency versus traditional currency.

In terms of the path from independent variable to ease of use, the X1 indicates no difference in ease of use for large and small nominal value cryptocurrencies ($\beta = -0.0317$ $t(1988) = -0.3547$, $p = 0.7228$). On the other hand, X2 manifests difference in ease of use for large nominal value cryptocurrency and traditional currency. The ease of use of traditional currency is 0.478 less than that of the large nominal value cryptocurrency. Hence, cryptocurrency as a payment method is deemed to be easier than using traditional currency.

As for the path from the ease of use to spending, it indicates as ease of use goes up, the willingness to spend goes down ($\beta = -2471.194$, $t(1987) = -4.5688$, $p > 0.05$).

Within the path from independent variable to dependent variable, X1 reveals difference in willingness to spend in between

the large and small nominal value cryptocurrency ($\beta = 30324.3953$ $t(1987) = 3.4133$, $p = 0.0007$). On the other hand, X2 indicates no difference in willingness to spend in between small nominal value cryptocurrency and traditional currency ($\beta = -1177.5931$ $t(1987) = -0.1129$, $p = 0.9101$).

As for the overall significance of the ease of use as a mediation, zero is included in between the lower level CI and upper level CI of both X1 ($\beta = 78.8198$, $SE = 379.0268$ 95% CI [-557.1674, 1036.4292]) and X2 ($\beta = 1181.2548$, $SE = 1617.6407$ 95% CI [-1176.7493, 5148.0513]). Hence the mediator is not significant (H3).

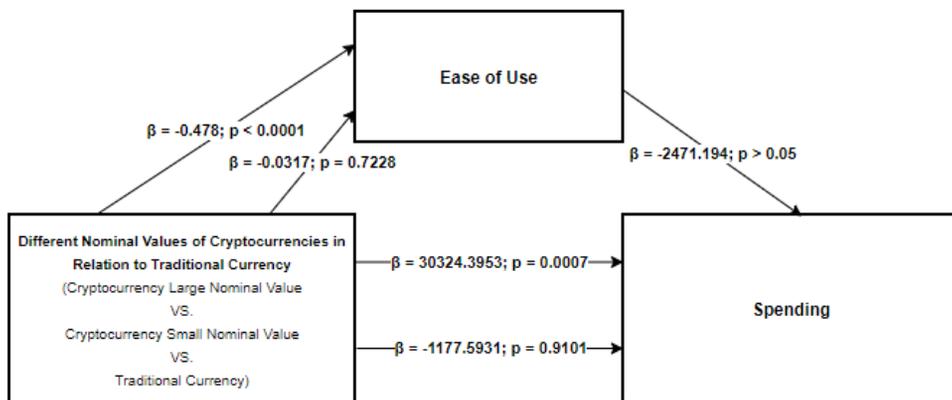


FIGURE 10. Mediation role of ease of use on the effects of the different nominal values of cryptocurrencies in relation to traditional currency on willingness to spend.

4.2.5. Moderated Mediation Effect (H4)

In addition, the moderated mediation effect was explored (Process model 8; Hayes 2013). For both moderators, experience in cryptocurrency (ease of use: 95% CI = [-1494.969, 697.551], salience bias: 95% CI = [-3542.13, 22.567]) and knowledge in cryptocurrency (ease of use: 95% CI = [-1494.969, 697.551], salience bias: 95% CI = [-3542.130, 22.567]), the indices of moderated mediation indirect effects of different nominal values of cryptocurrencies on willingness to spend were not significant. Hence, moderated mediation effects do not exist (H4).

Chapter 5. General Discussion

5.1. Review

The research paper's main objective was to investigate consumers' different willingness to spend when utilizing cryptocurrencies instead of traditional currencies. This paper proposed a predictive assumption the nominal values of cryptocurrencies in relation to conventional home currencies will have effects, decreasing or increasing a consumer's willingness to spend. The results from the study show when the nominal value of a cryptocurrency is large (greater than one) in relation to traditional home currency (e.g., \$ 1 US = 10 Cryptocurrency), consumers' willingness to spend decreases. On the other hand,

when the nominal value of a cryptocurrency is small (decimal number less than one) in relation to the conventional home currency (e.g., \$ 1 US = 0.009 Cryptocurrency), consumers' willingness to spend increases.

This was predicted to be due to the salience bias effect. It's when people overweigh nominal over real value when making a decision. Within the context of cryptocurrency, consumers would perceive cryptocurrency amount as nominal value and the exchanged amount in the home currency as real value. Another possible reason was the ease of using cryptocurrency. It was predicted consumers' willingness to spend might vary due to whether consumers perceive cryptocurrency as easy to use or not. The experiment one provided results that supported the predictions in line with salience bias and not the ease of use prediction.

5.2. Future Research

As discussed above, the ease of use reason prediction turned out to be insignificant when the four-way repeated measures ANOVA was conducted in order to see the independent variable and moderator interaction effect on the dependent variable. Hence, as an exchange of the ease of use moderator, the monopoly money effect could be a possible mediator to examine as future research.

Preceding research explores why consumers treat home currencies and foreign currencies, and one of the reasons discussed is the monopoly money effect. Consumers have anecdotes as evidence saying they treat foreign currencies like the monopoly money, toy cash, and they tend to spend more when using them. Cryptocurrency is similar to monopoly money in a way as it is still an unusual type of currency to consumers. Hence, other than the salience bias effect as mediator, it could possibly be an explanation for the effect studied in this research.

5.3. Implication

The cryptocurrency industry is on a trend of an increasing number of cryptocurrency payment systems along with novel cryptocurrency coins better suited for payment purposes (Rauchs et al. 2019). Furthermore, the number of businesses implementing these cryptocurrency payment systems and new coins is increasing.

When choosing these systems and coins, businesses may overlook the importance of the effects the systems and coins can have on their businesses. However, the proposed predicted assumption was proven to be true, and the nominal values of cryptocurrencies affect consumers' willingness to spend. Businesses should be concerned about the nominal value

characteristics of the cryptocurrency coins that are supported in cryptocurrency payment systems as the different nominal values result in greater or less willingness to spend by the business' consumers. Businesses should avoid adopting cryptocurrencies with large nominal value because as the exchange rates increase in digits and are multiples of the home currency of consumers, the willingness to spend will decrease. On the other hand, businesses could benefit from increased consumers' willingness to spend by selecting small nominal value cryptocurrencies, in which the exchange rates are in the decimals in multiple digits.

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Abstract in Korean

본 논문에서는 결제 수단으로 암호화폐를 사용할 때 다른 액면 가격을 염두한 소비자의 지출 패턴을 탐구한다. 소비자 입장에서, 소비 전의 제품 평가는 액면가격과 실제가격, 두 가지 형태로 이루어진다.

본 논문은 소비자가 암호화폐를 가격통화로 책정된 제품의 가치 평가 시에 본질적으로 자국 통화인 실가격보다 액면가격을 더욱더 고려하게 된다. 이러한 현상은 현저성 편향으로 볼 수 있다.

암호화폐의 명목가치를 실질적 가치와 비교하였을 시에 명목가치의 자릿수가 더 크고 소비자 자국 통화의 1단위(예: 1달러 US = 9암호화폐)보다 클 경우 소비자들의 소비 의향이 줄어든다. 반면에, 명목가치가 소수점이고 소비자 자국 통화의 단위가 1개 미만일 때 소비자는 지불의향이 높아진다.

주어 : 사용 편의성, 암호화폐, 전통적 통화, 현저성 편향, 액면가격, 구매의지

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