



## The Rise of Dough: Mid-Pandemic Baked Desserts Startups

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**Abstract:** Since the Philippines implemented the COVID-19 community quarantine, many Filipinos either lost their jobs or stopped going to work. Due to lack of a stable income source, many Filipinos resorted to selling various items, including baked goods, via online platforms. This study aimed to explore the phenomenon and its corresponding factors on the emergence of startups that mainly sell baked desserts on Facebook and Instagram during the quarantine period in Metro Manila. The researchers investigated whether external factors (i.e., social-cultural circumstances and economic circumstances) and internal factors (i.e., intrinsic motivations and attitudes toward baked desserts) affected the rise of baked desserts startups. The researchers also investigated the consumer's decision to establish an online baked desserts startup during the pandemic. In the end, the researchers found out that the consumers' intrinsic motivation played the most significant role in influencing consumer decision to begin an online baked dessert startup, which links to external factors. Additionally, attitudes toward baked desserts only affected the menu and business planning; but did not motivate consumers to start selling due to their love for eating baked desserts. Despite such, external and internal factors contribute to the emergence of baked desserts businesses during the pandemic. The findings of this study provide insight into the mid-pandemic state of the online baked desserts industry.

**Key Words:** baked desserts startups; online businesses; COVID-19 pandemic; consumers; entrepreneurs

### 1. INTRODUCTION

Since the onset of the COVID-19 pandemic early March 2020, the strictly imposed nationwide community quarantine forced Filipinos to stay at home and businesses to shut down. Most Filipinos lost their jobs (Department of Labor and Employment, 2020) and had to find a way to make ends meet. Meanwhile, businesses' physical closure allowed potential proprietors to enter the marketplace via online shopping sites and social media (Dannenberg et al., 2020; Gibreel et al., 2020; Zhang et al., 2020). The estimated number of registered online businesses in the Philippines grew from 1,700 in March 2020 to over 68,000 as of August 10, 2020 (Crismundo, 2020).

Furthermore, the COVID-19 pandemic resulted in consumer panic buying, thus reducing bread in groceries and supermarkets (Campos, 2020; Easterbrook-Smith, 2020). Not being able to access bread products when they craved for them caused consumers to bake the goods independently (Easterbrook-Smith, 2020; Wolf & McQuitty, 2013, as cited in Kirk & Rifkin, 2020). Some consumers showed a negative attitude toward baked desserts (Laguna et al., 2020). Others consumed sugary foods to mitigate stress and better their mood, considering the pandemic (Di Renzo et al., 2020).

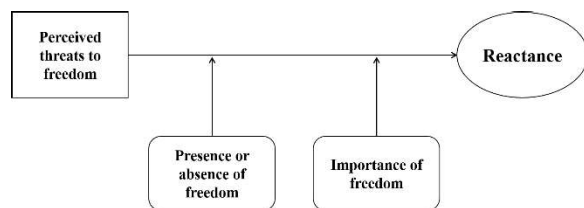
Since the consumers could not go outside, they spent more time at home and engaged in baking (Bracale & Vaccaro, 2020). Baking became their means of coping with boredom and stress; and bonding with their family (Bracale & Vaccaro, 2020; Easterbrook-Smith, 2020). As the pandemic deprived them of control toward aspects of their life, the consumers continued baking out of confidence in their capabilities (Mochon et al., 2012, Kirk et al., 2015, as cited in Kirk & Rifkin, 2020). Some even imparted their baking experiences and outputs with others because they felt happy for doing so (Belk, 2014, as cited in Kirk & Rifkin, 2020).

Eventually, those consumers became entrepreneurs to solve a consumer problem (Hamdi-Kidar & Vellera, 2018). Such is more likely to happen at life periods marked by minimal risk to one's profession (Hamdi-Kidar & Vellera, 2018). Second, they considered the current cultural conditions of COVID-19 and needed to adapt to the so-called 'new normal' (Ratten, 2020). Given the pandemic, they also wanted to provide their families with adequate funds while enjoying a lifestyle aligned with their values (Ratten, 2020).

The psychological reactance theory states that any perceived threat to freedom arouses reactance, as shown in Figure 1 (Clee & Wicklund,

1980). Hence, if an individual gives high importance to their lost liberty, it would be imperative for them to do acts that would allow them to immediately establish their lost freedom (Clee & Wicklund, 1980). Comparably, the pandemic imposed mobility restrictions among consumers of baked desserts, who then reacted by baking and selling dessert goods in an attempt to regain their freedom.

**Figure 1**  
*Psychological Reactance Theoretical Framework*



*Note.* Adapted from “Consumer Behavior and Psychological Reactance” by M. A. Clee and R. A. Wicklund, 1980, *Journal of Consumer Research*, 6(4), 389-405 (<https://www.jstor.org/stable/2488740>). Copyright 1980 by Oxford University Press.

The researchers noticed a significant rise in the number of Filipino consumers who baked and started an online baked desserts business during the pandemic (Arnaldo, 2020; Navarette, 2020; Nepomuceno, 2020). As of this writing, no present studies exactly addressed the factors that led to the given mid-pandemic phenomenon. Hence, this study aims to investigate the said factors by answering the following questions:

1. How did the pandemic-induced socio-cultural circumstances motivate the consumers to start an online baked desserts business?
2. How did the pandemic-induced economic circumstances drive the consumers to start an online baked desserts business?
3. How did one’s intrinsic motivations urge the consumers to become entrepreneurs of baked desserts during the quarantine period?
4. How did one’s attitudes toward baked desserts influence the consumers to establish a baked dessert startup amidst the pandemic?

## 2. METHODOLOGY

### 2.1. Conceptual Framework

The researchers posited different factors (independent variables) behind the emergence of baked dessert startups (dependent variables) during a health crisis. The independent variables of the study are classified into external and internal factors. External factors consist of the socio-cultural and

economic circumstances induced by the COVID-19 pandemic. On the other hand, internal factors comprise the intrinsic motivations and attitudes toward baked desserts that consumers govern in their minds. Given the conceptual framework in Figure 2, the researchers hypothesized that (1) socio-cultural circumstances, (2) economic circumstances, (3) intrinsic motivations, and (4) attitudes toward baked desserts drove the consumers to start a baked desserts business.

### 2.2. Research Design

The researchers employed an exploratory qualitative research study method to understand and uncover the reasons and factors that influenced the consumers to begin baked desserts businesses amidst the pandemic. Hence, they interviewed business owners whose menu only consisted of baked desserts from the beginning of their operations until the researchers’ data collection phase throughout the pandemic.

### 2.3. Participants

The bases of operations of the selected business-participants had to be in any city of Metro Manila. Second, they had sold their products on Facebook and Instagram, which were among the most frequently used social media applications that enabled said businesses’ information to reach more customers (Nistor, 2020). Applying Slovin’s formula, the determined number of participants was 100. However, given the circumstances arising from the pandemic, only 51 eligible respondents were interviewed.

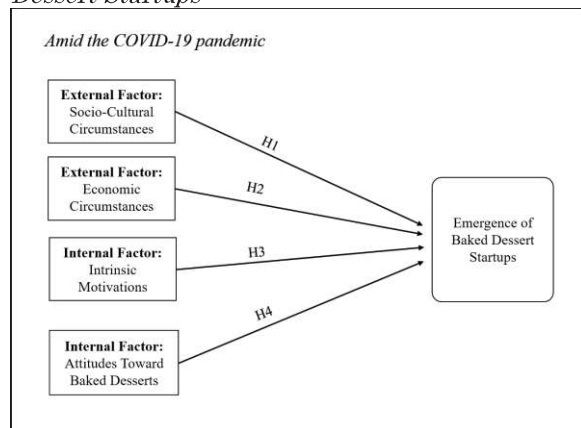
### 2.4. Data Collection Process

The interviews were held entirely online through oral and written methods. The researchers met with the participants through a video meeting via Zoom or Google Meet for the former. Meanwhile, the latter method utilized Google Docs, wherein the participants answered a Google document containing the interview questionnaire at their chosen time.

### 2.5. Data Analysis Process

The researchers used qualitative content analysis to analyze the collected data and answer the research questions. It is divided into five phases, namely, (1) reading the data intensively, (2) building the coding frame, (3) coding the data, (4) analyzing the coded data, and (5) presenting the results (Kuckartz, 2019).

**Figure 2**  
*Conceptual Framework on Mid-Pandemic Baked Dessert Startups*



*Note.* The conceptual framework shows that external factors and internal factors influence the emergence of baked dessert startups during the COVID-19 pandemic.

### 3. RESULTS AND DISCUSSIONS

#### 3.1. Socio-Cultural Circumstances

The consumers' socio-cultural circumstances entail certain events—whether online or physical—during the pandemic that involve their social networks. As it turns out, the establishment of online businesses by peers and relatives positively influences consumers in establishing businesses by challenging them to do the same and go out of their comfort zone, learn new baking or management skills, or exhibit their baking capabilities. The practice of posting pictures of baked desserts on social media, meanwhile, prompted consumers to bake as a pastime and analyze the market and its baked desserts preferences. Similarly, popular social media trends allowed consumers gain market insight and try something new, which affected the consumers' motivation and menu planning. Most consumers decided not to follow food trends to differentiate themselves from their competitors. The emergence of online businesses inspired consumers to believe that they could be successful. Lastly, getting persuaded and receiving support and advice from their social networks pushed the consumers to start selling their outputs.

*“Seeing these posts have [sic] enlightened me that baked goods are “in” during this pandemic and that a lot of people are interested in them. Personally, I spent my time baking different things and learning about its process. I realized, ‘Why not make something out of this?’”*

#### 3.2. Economic Circumstances

Economic circumstances are induced by government-imposed lockdown measures and impact the consumers' livelihood and the economy of their surroundings. Consumers saw the establishment of their online business to augment their financial needs, hence establishing their baked desserts startup. Despite this, consumers believe that having an online baked desserts business cannot guarantee a stable income. The business's profitability depends on its management strategy, advertising strategy, and popularity among customers. Some consumers who were able to go out mentioned a surplus in the supply of baked desserts or a shortage in ingredients for baking desserts; both attributed to the heavy saturation of online baked desserts businesses. This motivated the consumers to sell their baked desserts.

*“It [shortage of baked desserts] challenged us to place our brand above others, aware that the competition is saturated.”*

#### 3.3. Intrinsic Motivations

The American Psychological Association (n.d.) defines intrinsic motivation as “an incentive to engage in a specific activity that derives from pleasure in the activity itself (e.g., a genuine interest in a subject studied).” It is the consumer's internal reason as to why they sold baked desserts during the pandemic. Before the pandemic, consumers already baked desserts as their pastime and were interested in starting a baked desserts business. However, the lack of time and money restricted them from doing such. When the pandemic confined them to their homes, changed their circumstances, and gave them free time, the consumers decided to sell their baked desserts. Consumers baked desserts—whether for the first time or not—and created a business to cope with the pandemic and its socio-cultural and economic circumstances. Through such, they were able to alleviate stress, distract themselves, remain productive, ease boredom, strengthen their familial and social relationships, and learn a new hobby or leisure activity. Furthermore, it provided an opportunity to learn how to manage a business and gain income amidst the pandemic. Consumers also expressed the desire to alter their lifestyle during quarantine by modifying their prior habits, improving skills, and changing jobs with their business.

*“It [establishing a baked desserts business] really helped us put all the time we had in our hands to good use. And since there is a pandemic, we were still able to connect with friends and family who we have not seen in a while because they order from us.”*



### 3.4. Attitudes Toward Baked Desserts

Attitudes toward baked desserts involve the preferences of the consumer-turned seller and their buyers toward the product from the former's perspective. As it turns out, not all current baked dessert startup owners were regular consumers of baked desserts. Instead, they became baked dessert startup owners simply because they liked baking and were influenced by their socio-cultural circumstances, economic circumstances, and intrinsic motivations. Nonetheless, they are regarded as "consumers" in this study as they consume or try their baked products. Therefore, attitudes toward baked desserts influence consumers' motivation to establish their startup by increasing their confidence in the products they sell. Some consumers were encouraged to do so by their personal baked dessert preferences. They tend to believe that the market would also patronize their baked desserts, which they find delicious. Also, the consumers can enjoy the process of baking the desserts they love while being able to eat them afterward. In terms of menu and business planning, most consumers considered their potential customers' preferences, either alone or alongside theirs, to attract customers and appeal to a broader market. Overall, attitudes toward baked desserts only play a small part in influencing the consumers' motivation in starting a business.

*"I do not sell something that I do not like because it defeats its purpose of me enjoying it while I bake them. At the same time, in order to gain more customers, I also had to consider their preferences, and we have to adapt in an ever-changing community."*

## 4. CONCLUSION AND RECOMMENDATIONS

In the end, it was found that the consumers' intrinsic motivations, which play the most significant role in influencing consumer decision to begin a baked dessert startup, are linked to other internal factors (i.e., intrinsic motivations and attitudes toward baked desserts) and other external factors (i.e., economic circumstances and socio-cultural circumstances). The consumers' attitudes toward baked desserts, meanwhile, only have little influence on their motivation as it only influences menu and business planning; but does not precisely motivate a consumer to start selling due to their love for eating baked desserts. Despite such, it can be concluded that socio-cultural circumstances, economic circumstances, intrinsic motivations, and attitudes toward baked desserts influence the consumers' motivation in establishing a business.

Hence, combining these four factors contributes to the emergence of baked dessert goods

businesses during the pandemic. The findings of this study establish that entrepreneurship is a viable way for consumers of baked desserts to cope with the pandemic in an instance of job loss, stress, and boredom. The study also allows potential and current consumers-turned-sellers in the baked desserts industry to assess saturation and profitability.

The researchers recommend that future researchers employ a quantitative methodological approach to prove the current study's results empirically. Furthermore, they can also widen the range of participants by gathering data from online baked dessert businesses in the other regions of the Philippines and interviewing baked desserts businesses that established a physical store even before the pandemic.

For current and potential businesses, the researchers recommend the business owners to improve marketing, administrative, and financial strategies to stay profitable in the industry, given the rise in the number of competitors. They also recommend baked desserts goods business owners to consider the risks of entering the baked desserts industry and its corresponding solutions, as its market becomes more saturated and competitive.

## 5. ACKNOWLEDGMENTS

The proponents would like to acknowledge those who contributed and supported them throughout, for, without them, this paper would not have been possible. First, De La Salle University-Integrated School Manila sharpened the proponents' skills in research and taught them the value of having Faith, Service, and Communion in whatever they do. They would also like to thank their Senior High School professors for teaching them various lessons that were applied in the paper and helping them stay away from the temptations of plagiarism and dishonesty; Sir Reynaldo Mones, the researchers' thesis adviser, for sharing his knowledge and wisdom; and Ms. Candice Perez, the researchers' class adviser, for her unending support and guidance throughout their research, which was essential in the success of the project.

Furthermore, the researchers would like to acknowledge the wonderful online baked dessert business owners who sacrificed their time and effort for the interview. Without their responses, the completion of the paper would be impossible.

The researchers would also like to extend their gratitude to their peers and blockmates, ABM 12-E, who provided healthy competition, which inspired the researchers to do better and excel. In addition, they would like to thank their family for their full support and words of encouragement, despite the stressful environment.

Our creator, the Almighty God, made everything possible and became the researchers'



inspiration to continue striving and do better day by day. Hence, the researchers would like to thank Him as well.

Lastly, the researchers would like to acknowledge themselves for pushing through and producing the best paper that they can, despite the sleepless nights and stressful days.

## 6. REFERENCES

- American Psychological Association. (n.d.). *Intrinsic motivation*. APA Dictionary of Psychology. <https://dictionary.apa.org/intrinsic-motivation>
- Arnaldo, M. S. F. (2020, July 17). *The big boom in baking*. BusinessMirror. <https://businessmirror.com.ph/2020/07/17/the-big-boom-in-baking/>
- Bracale, R., & Vaccaro, C. M. (2020). Changes in food choice following restrictive measures due to Covid-19. *Nutrition, Metabolism & Cardiovascular Diseases*. <https://doi.org/10.1016/j.numecd.2020.05.027>
- Campos, O. V. (2020, April 12). *Flour millers urge consumers to avoid hoarding of bread*. Manila Standard. <https://manilastandard.net/business/biz-plus/321407/flour-millers-urge-consumers-to-avoid-hoarding-of-bread.html#:~:text=Flour%20millers%20on%20Sunday%20called,rest%20of%20the%20buying%20public.>
- Clee, M. A., & Wicklund, R. A. (1980). Consumer Behavior and Psychological Reactance. *Journal of Consumer Research*, 6(4), 389-405. <https://www.jstor.org/stable/2488740>
- Crismundo, K. (2020, August 11). *DTI prepares MSMEs to adopt e-commerce*. Philippine News Agency. <https://www.pna.gov.ph/articles/1111893>
- Dannenberg, P., Fuchs, M., Riedler, T., & Wiedemann, C. (2020). Digital Transition by COVID-19 Pandemic? The German Food Online Retail. *Journal of Economic and Human Geography*, 111(3), 543-560. <https://doi.org/10.1111/tesg.12453>
- Department of Labor and Employment. (2020, April 12). *With extended quarantine Bello to employers: Please pay workers sans job: work displacement breaches 1M mark*. <https://www.dole.gov.ph/news/with-extended-quarantine-bello-to-employers-please-pay-workers-sans-job-work-displacement-breaches-1m-mark/>
- Di Renzo, L., Gualtieri, P., Pivari, F., Soldati, L., Attina, A., Leggeri, C., Caparello, G., Barrea, L., Scerbo, F., Esposito, E., & De Lorenzo, A. (2020). Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey. *Journal of Translational Medicine*, 18(1), 1-15. <https://doi.org/10.1186/s12967-020-02399-5>
- Easterbrook-Smith, G. (2020). By Bread Alone: Baking as Leisure, Performance, Sustenance, During the COVID-19 Crisis. *Leisure Sciences*, 1-7. <https://doi.org/10.1080/01490400.2020.1773980>
- Gibreel, O., Alotaibi, D. A., & Altmann, J. (2018). Social commerce development in emerging markets. *Electronic Commerce Research and Applications*, 27, 152-162. <https://doi.org/10.1016/j.elerap.2017.12.008>
- Hamdi-Kidar, L. H., & Vellera, C. (2018). Triggers entrepreneurship among creative consumers. *Journal of Business Research*, 92, 465-473. <https://doi.org/10.1016/j.jbusres.2018.07.018>
- Kirk, C. P., & Rifkin, L. S. (2020). I'll trade your diamonds for toilet paper: Consumer reacting, coping, and adapting behaviors in the COVID-19 pandemic. *Journal of Business Research*, 117, 124-131. <https://doi.org/10.1016/j.jbusres.2020.05.028>
- Kuckartz, U. (2019). Qualitative Text Analysis: A Systematic Approach. In G. Kaiser & N. Presmeg (Eds.), *Compendium for early career researchers in Mathematics education* (pp. 181-197). Springer, Cham. [https://doi.org/10.1007/978-3-030-15636-7\\_8](https://doi.org/10.1007/978-3-030-15636-7_8)
- Laguna, L., Fiszman, S., Puerta, P., Chaya, C., & Tárrega, A. (2020). The impact of COVID-19 lockdown on food priorities. Results from a preliminary study using social media and an online survey with Spanish consumers. *Food Quality and Preference*, 86, 104028. <https://doi.org/10.1016/j.foodqual.2020.104028>
- Navarette, P. (2020, July 6). *Ready, Set, Bake!* Manila Bulletin. <https://mb.com.ph/2020/07/06/ready-set-bake/>
- Nepomuceno, P. (2020, September 1). *Baking helps family survive Covid-19 lockdown*. Philippine News Agency. <https://www.pna.gov.ph/articles/1113965>
- Nistor, A. (2020). The Economic Effects of Social Media in Online Sales. In C. Nastase (vol. ed.), *Lumen Proceedings: Vol. 13. 16th Economic International Conference NCOE 4.0, 2020* (pp. 82-92). Iasi, Romania: LUMEN Publishing House. <https://doi.org/10.18662/lumproc/ncoe4.0.2020/08>
- Ratten, V. (2020). Coronavirus (COVID-19) and entrepreneurship: changing life and work landscape. *Journal of Small Business & Entrepreneurship*, 32(5), 503-516. <https://doi.org/10.1080/08276331.2020.1790167>
- Zhang, Y., Kwark, Y., Wang, Y., & Shin, D. (2020). *Impact of COVID-19 Crisis on Social Commerce: An Empirical Analysis of E-Commerce Social Activities During the Pandemic*. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3696698](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3696698)



## Exploring the Startup Costs and Profit of Bitcoin Mining in Urban Philippines

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**Abstract:** Bitcoin and other cryptocurrencies, with their promised easy income scheme, caught the attention of many nations along with the Philippines. The starting price of bitcoin and its profitability differed from nation to nation because of varied electricity costs, internet service providers, and currency value. The study aimed to explore the initial investment and the theoretical expected profit within one year of Bitcoin mining. The researchers used an exploratory research design and data mining techniques to gather quantitative data regarding the specifications of four different ASIC models, Meralco rates from September 2020, and monthly fees from the top three (3) internet service providers in the Philippines. The study did not cover industrial-sized cryptocurrency mining but instead, focused on an independent miner. The study found that theoretically, in one year, none of the ASIC's yielded enough profit to have returned the initial investment. The Philippines' higher than average internet service prices, electrical rates and market competition have jeopardized the profit in bitcoin mining. Hence, individual miners who do not join a mining pool put their investment at risk. A profit may have been established with other cryptocurrencies such as Ethereum or cloud mining. A more sustainable and energy efficient Philippines could be the best answer to the dilemmas one could face with Bitcoin. If one could have easy access to sustainable power sources, a profit could be made stable and predictable.

**Key Words:** bitcoin; cryptocurrency; ASIC; ISP; NCR

### 1. INTRODUCTION

Cryptocurrency is defined as digital or virtual currency that is secured by cryptography; hence the name "cryptocurrency" (Frankenfield, 2020). Cryptocurrency is near impossible to counterfeit due to its use of cryptography. This security garnered the interest of many people as outside of being incredibly secure, this also exists outside the control of national governments, and otherwise involved authorities. Before Bitcoin came to life, propositions for digital money were already being proposed and explored. Eventually, Satoshi Nakamoto would create what is known today as Bitcoin (Chohan, 2017). Nakamoto's paper entitled "Bitcoin: A Peer – to – peer Electronic Cash System" explains how the system would work and how transactions would take place.

Ever since Bitcoin was first mined in 2009 (Hong, 2020); it has remained one of the most popular, and most valuable types of cryptocurrency. As more people realize that cryptocurrency can be earned passively and requires an incredibly small effort, people start investing in something called cryptocurrency mining, or more specifically, Bitcoin mining. Kenton (2020), in his article entitled "Bitcoin Mining," defines Bitcoin mining as an action performed by high specification computers to solve complex computation math problems. This means

people can earn money just by setting up computers running Bitcoin mining software.

Though, there is not much recorded history regarding when Bitcoin first reached the Philippines; virtual currency was officially acknowledged by the Banko Sentral ng Pilipinas in Circular 944, series of 2017. The circular defined cryptocurrency in the Philippines and included requirements and guidelines regarding the use of cryptocurrency. With cryptocurrencies being acknowledged and legalized, many Filipino citizens have taken an interest in cryptocurrency mining. The issue being encountered from the rise of popularity in Bitcoin is that people start investing into it without understanding its financial implications and its risks from mining. It is common to find articles and videos about Bitcoin, but these sources may only convince people to invest in sub-standard equipment. In this study, the researchers will explore the startup costs and profits of Bitcoin mining in urban Philippines. It highlights the profitability of personal Bitcoin mining in the Philippines, extending to its potential risks. Furthermore, the study also aims to fill the research gap regarding Bitcoin and other cryptocurrency mining in smaller countries like the Philippines.



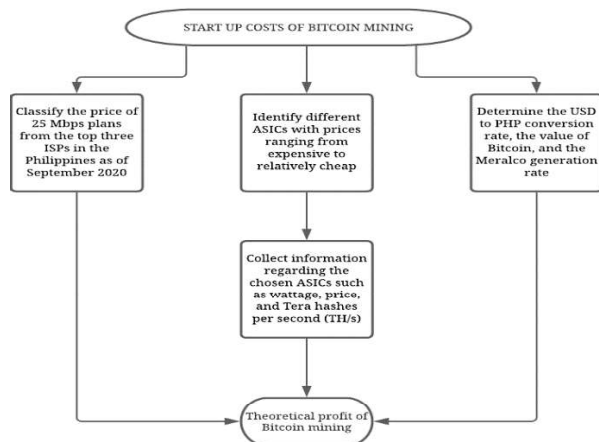
## 2. METHODOLOGY

In order to explore the costs of Bitcoin mining in the Philippines, the researchers used an exploratory research design and data mining techniques that gathered quantitative data regarding the prices of ASIC's, electrical rates, and the monthly rates from the top three (3) internet service providers (ISP) in the Philippines. The data for the ASIC's were taken from their respective seller sites, electrical rates for September 2020 were taken from Meralco's monthly breakdown, and the ISP prices were taken from an article by Pineda, (2020). Four different ASICs from different brands were considered: The Antminer S19 Pro, the EBIT E12+, the M40 410 TH/S Whatsminer, and the Strongu STU 8. The numerical data was gathered by the researchers without any intervention and manipulation in prices besides the conversion of dollar into peso.

Through classification of bitcoin startup costs and the materials to invest in, the researchers were able to predict if a miner, without joining any mining pools or organization, would profit in one year. The prediction of the possible profit in bitcoin mining and the risks one may have encounter was reflected in the various price list collected in major bitcoin sites and shops in urban Philippines.

The figure 1 below discussed the process of the data mining utilized in the study. All of the startup costs data was based on online references that classify the price of the ISP, identify the different ASIC prices and determine the USD conversion to PHP. These data were significant in the analyses of the inferred profit one may have gained in bitcoin mining investment. The simple calculation of profit was based on a generic mathematical computation published in an online article by Byju's (2019).

**Figure 1**  
*Research Process Flowchart*



*Note.* The theoretical profit of Bitcoin mining was calculated by deducting the total gained to total spent, whereas, total spent was calculated by the summation of ASIC price to energy cost.

## 3. RESULTS AND DISCUSSION

**Table 1**  
*Initial Purchase Price of an ASIC*

ASIC Model	Price in Dollar	Price in Peso
<i>M40 410<sup>TH/S</sup> WHATSMINER</i>	3,999.00	194,071.47
<i>ANTMINER S19 PRO</i>	2,387.00	115,841.11
<i>STRONGU STU 8</i>	<i>1,615.00</i>	78,375.95
<i>EBIT E12+</i>	<i>1,500.00</i>	72,795.00

*Note.* Conversion rate was adapted from X-Rates, <https://www.x-rates.com/average/?from=USD&to=PHP&amount=1&year=2020>. The conversion was based from September 2020 rates of USD to PHP.

Table one discussed the initial purchase price of the four ASIC's considered in the study. It was necessary to convert each ASIC price to Philippine Peso using standard rates before considering purchase value because certain websites and sellers were permanently set in a specific currency. Thus, if one purchased from a site using a credit or debit card set in a different currency type, they would be paying a greater or lesser value than what was indicated on the shop due to currency conversion, (Saccomanno, 2019).

**Table 2**  
*Energy and Generation Costs*

ASIC Model	ASIC-Specific Energy Usage		Yearly	
	Wattage	kWh	Consumption	Generation Cost
<i>M40 410<sup>TH/S</sup> WHATSMINER</i>	2570	2.57	22,513.20	91,988.94
<i>ANTMINER S19 PRO</i>	3250	3.25	28,470.00	116,328.42
<i>STRONGU STU 8</i>	<i>2100</i>	2.10	18,396.00	75,166.06
<i>EBIT E12+</i>	<i>2500</i>	2.50	21,900.00	89,483.40



*Note.* Generation cost was retrieved from MERALCO generation rates of September 2020. Generation Cost was in Philippine Peso. Generation cost was calculated by multiplying consumption by 4.09. Yearly energy consumption was calculated by multiplying the kWh by 8,760, the number of hours in a calendar year.

Among the ASIC's, the Antminer model was found to have the highest generation costs while the Strongu model has the lowest. Fantazzini and Kolodin (2020) discussed that an ASIC with fair generation cost must be considered by a miner for it would affect the capability of profit drastically because of its maintenance fees and other operational expenses. Generation costs wise, it was best to use the Strongu model.

**Table 3**  
*Internet Charges*

Internet Service Provider	Cost of 25 Mbps Plan	
	Monthly (Base)	Yearly
<i>Converge ICT Solutions</i>	1,500.00	18,000.00
<i>ONE SKY (Sky Fiber)</i>	1,499.00	17,988.00
PLDT	1,699.00	20,388.00

*Note.* Retrieved from Best DSL & Fiber Internet Broadband Providers & Plans in the Philippines by A. Pineda (2020). Prices were in Philippine Peso. Yearly costs were computed by multiplying monthly price by 12.

The 25 Mbps plan was considered standard for Bitcoin mining because this speed could already support most online activities, such as HD streaming, simultaneous browsing, downloading, and uploading. (Anders, 2020). This was further discussed in an online article by InternetAdvisor in 2020 that a 25 Mbps plan would be enough for Bitcoin mining. Internet stability was more important than internet speed, hence, internet speed was only needed for data syncing. Assuming that all three internet service providers were of equal caliber and offer a consistent internet connection, using ONE SKY would be the best way to make a profit because it is the cheapest among the three.

**Table 4**  
*Expenditures in One Year*

Expenditure Type	ASIC				
	<i>MAO WHATSMIN ER</i>	<i>410<sup>THS</sup> ANTMIN ER S19 PRO</i>	STRONG U STU 8	<i>EBIT E12+</i>	
<i>Initial Price</i>	194,071.47	115,841.11	78,375.95	72,795.00	
<i>Energy Cost for 1 Year</i>	91,988.94	116,328.42	75,166.06	89,483.40	
Total	286,060.41	232,169.53	153,542.01	162,278.40	

**Table 4**  
*Continued*

Internet Service Provider	Total Expenditure in One Year				
	<i>MAO WHATSMIN ER</i>	<i>410<sup>THS</sup> ANTMIN ER S19 PRO</i>	STRONG U STU 8	<i>EBIT E12+</i>	
<i>Converge ICT Solutions</i>	304,060.41	250,169.53	171,542.01	180,278.40	
<i>ONE SKY (Sky Fiber)</i>	304,048.41	250,157.53	171,530.01	180,266.40	
PLDT	306,448.41	252,557.53	173,930.01	182,666.40	

*Note.* Prices were in Philippine Peso. There were three (3) different total expenditures in one year depending on what ISP was considered. Values were computed using the values from tables 1, 2, and 3.

It was apparent from the table that it was very expensive to invest in Bitcoin mining even for just a year. With this high cost, Bitcoin mining was not just a small-time investment and it required a resourceful and constant attitude to profit from it. Hogan (2020) emphasized that in Bitcoin mining, the get-rich-quick schemes were to good to be true, whereas, the road for Bitcoin investments can be rough and risky.





**Table 5**  
*Estimated Amount Mined and Profit in a Year of Mining*

ASIC Model	Hash (TH/s)	Rate	Equivalent Peso Mined Per Year	
<i>M40 410<sup>TH/S</sup> WHATSMINER</i>	410		279,637.62	
<i>ANTMINER S19 PRO</i>	110		75,024.95	
<i>STRONGU STU 8</i>	46		31,859.46	
<i>EBIT E12+</i>	50		34,102.03	
Profit in a Year of Mining				
Internet Service Provider	<i>M40 410<sup>TH/S</sup> WHATSMINER</i>	<i>ANTMINER S19 PRO</i>	<i>STRONGU STU 8</i>	<i>EBIT E12+</i>
<i>Converge ICT Solutions</i>	-24,422.79	-	139,682.55	146,176.37
<i>ONE SKY (Sky Fiber)</i>	-24,410.79	-	139,670.55	146,164.37
PLDT	-26,810.79	-	142,070.55	148,564.37

*Note.* The value of Bitcoin was retrieved from YCharts (2020). All values were in Philippine Peso. The value of one Bitcoin considered was 10,622.79. Negative values signified a loss instead of a profit.

The losses in one year would be large among the listed ASICs except for the Whatsminer which would be close to being able to at least break even. This showed that theoretically, no matter what ASIC or ISP one might use, there was little to no profit expected after one year. The reasoning behind this was because of the inability of the Philippines to compete with giants such as China and Iceland whose computing power was much greater among developing countries, (Adalbjornsson, 2019). Energy in the Philippines was one of the most expensive in Asia, in which an article by Uy (2018) was cited; the maintenance fees became too high to make a profit. When compared to the aforementioned Cryptocurrency giants who have access to cheaper electricity and were also able to efficiently use secondary power sources such as hydropower and geothermal power. Bitcoin miners in the Philippines would be hemorrhaging a lot of their potential profit just to pay for the bills according to Padilla (2020),

through personal communication with the researchers.

#### 4. CONCLUSION AND RECOMMENDATION

The exploration of the startup costs and profit of bitcoin mining in urban Philippines suggested that theoretically, the costs of investment in Bitcoin mining would require big monetary values and could be risky because none of the four identified ASIC's were able to profit after one year in the Philippines, regardless of the ISP used. Even the M40 410 TH/s WhatsMiner, the most expensive and efficient unit considered in this study, was unable to output a profit. The researchers have speculated that the inability of the four ASICs to profit in the Philippines was due to the expensive electricity costs of the country compared to other nations. Hence, the researchers concluded that the expensive startup costs would have generated no profit in personal bitcoin mining in the urban Philippines.

Bitcoin mining in the Philippines could not be recommended for an individual who do not have the monetary capacity, resourcefulness, and social network because the electricity costs, maintenance costs and other operational expenses of running an ASIC in the country would not guarantee a profit. The researchers would have suggested other types of mining cryptocurrency or trading, whereas a miner would be able to profit if they could have ventured to other cryptocurrencies such as Ethereum or with cloud mining. Careful decision making for this kind of service should be applied because many cloud mining services are not registered under the Security and Exchange commission and are considered illegal.

Lastly, a more sustainable and energy efficient Philippines could be the answer to the dilemmas one could face with Bitcoin. If a starting individual or a large-scale cryptocurrency miner could have an easy access to sustainable power sources such as geothermal energy, wind energy and solar energy, a profit could be made stable and predictable, boosting the country's economic prosperity.

#### 5. ACKNOWLEDGEMENTS

First and foremost, our deepest gratitude goes to Mr. Dominador Callo Jr, LPT for acting as our research advisor. Without his insight, guidance, feedback, and assistance; none of this would be possible.

We are grateful to the San Beda College Alabang Principal, Dr. Jeana A. Ariola and STEM Faculty for their guidance throughout the whole research procedure.



Our appreciation also extends to our colleagues and advisors, specifically Mr. Marvin Vivar, from the Bedan Mathematics and Sciences Circle for allowing us the opportunity to represent the school as part of the academic community.

Lastly, we would like to thank our family and friends for their continuous and unending support through all our endeavors.

## 6. REFERENCES

Sbtc, & Ogundeji, O. (2019, August 2). 85 Percent of Bitcoin Has Been Mined. Implications? Bitcoin Magazine. <https://bitcoinmagazine.com/articles/implications-for-bitcoin-now-that-85-percent-of-supply-has-been-mined>

Adalbjornsson, T. (2019). Iceland's data centers are booming—here's why that's a problem. <https://www.technologyreview.com/2019/06/18/134902/icelands-data-centers-are-booming-heres-why-thats-a-problem/>

Anders, D. (2020). Internet speed classifications: What's fast, what's slow and what's a good internet speed? <https://www.allconnect.com/blog/internet-speed-classifications-what-is-fastinternet#:~:text=speeds%20seem%20slow.,What%20is%20a%20good%20internet%20speed%3F,web%20browsing%20and%20downloading%20music.>

BitcoinCore. (2020). Requirements and Warnings - Bitcoin Core. Bitcoin.org. [https://bitcoin.org/en/bitcoincore/features/requirements?fbclid=IwAR01kFJJCM9wYbQSQSBL0MZZTnq\\_INFR05i-feu4kE0fkgN15a8yTDLTI](https://bitcoin.org/en/bitcoincore/features/requirements?fbclid=IwAR01kFJJCM9wYbQSQSBL0MZZTnq_INFR05i-feu4kE0fkgN15a8yTDLTI)

Bitmain. (2020). Bitmain. Bitmain.com. [https://shop.bitmain.com/promote/antminer\\_s9i\\_asic\\_bitcoin\\_miner/specification](https://shop.bitmain.com/promote/antminer_s9i_asic_bitcoin_miner/specification)

Buy Bitcoin Worldwide. (2020). Bitcoin Mining Profit Calculator Updated. <https://www.buybitcoinworldwide.com/mining/calculator/>

Byju's. (2019, February 28). Profit Formula - Profit Percentage Formula and Gross Profit Formula. BYJUS; BYJU'S. <https://byjus.com/profit-formula/>

Chiu, J., & Koeppl, T. V. (2017). The Economics of Cryptocurrencies Bitcoin and Beyond. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3048124>

Chohan, U. W. (2017). A History of Bitcoin. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3047875>

Creasy, J. (2017, August 29). The Top 10 Mistakes Crypto Newcomers Make - BlockChannel - Medium. Medium; BlockChannel. <https://medium.com/blockchannel/the-top-10-mistakes-crypto-newcomers-make-d3b75203dd6f>

Fantazzini, D. & Kolodin, K. (2020). Does the Hashrate Affect the Bitcoin Price? <https://doi:10.3390/jrfm13110263>

Fortney, L. (2020). Bitcoin Mining Definition. Investopedia. <https://www.investopedia.com/terms/b/bitcoin-mining.asp>

Frankenfield, J. (2020a). Cloud Mining. Investopedia. <https://www.investopedia.com/terms/c/cloud-mining.asp>

Frankenfield, J. (2020b). Cryptocurrency. Investopedia. <https://www.investopedia.com/terms/c/cryptocurrency.asp>

Frankenfield, J. (2020c). Mining Pool Definition. Investopedia. <https://www.investopedia.com/terms/m/mining-pool.asp>

Fuller, A. (2017, December 5). Bitcoin mining - can it be profitable? | Finder Philippines. Finder Philippines; finder. <https://www.finder.com/ph/bitcoin-mining>

Hay, S. (2019, July 11). 5 Most Important Cryptocurrencies (Besides Bitcoin) - Coinmama. <https://www.coinmama.com/blog/5-most-important-cryptocurrencies-besides-bitcoin/>

Helms, K. (2020, July 23). Philippines Now Has 16 Cryptocurrency Exchanges Approved by Central Bank | Exchanges Bitcoin News. Bitcoin News. <https://news.bitcoin.com/philippines-16-cryptocurrency-exchanges-approved-central-bank/>

Hogan, C. (2020). 4 Things to Know Before Investing in Cryptocurrency <https://www.chrishogan360.com/investing/investing-in-cryptocurrency>

Hong, E. (2020). How Does Bitcoin Mining Work? Investopedia. [https://www.investopedia.com/tech/how-does-bitcoin-mining-work#:~:text=As%20of%20the%20time%20of,9%2C300\)%20for%20completing%20a%20block.](https://www.investopedia.com/tech/how-does-bitcoin-mining-work#:~:text=As%20of%20the%20time%20of,9%2C300)%20for%20completing%20a%20block.)

InternetAdvisor. (2020). How Much Internet Speed Do You Need To Mine Bitcoin? InternetAdvisor.com. <https://www.internetadvisor.com/how-much-internet-speed-do-you-need-to-mine-bitcoin#:~:text=There%20have%20been%20instances%20in,need%20more%20than%2015%20Mbps.>

Karamat, S. (2018). What is Hash Rate? Coin Rivet. <https://coinrivet.com/guides/what-is-cryptocurrency-mining/what-is-hash-rate/>

Meralco. (2020). BREAKDOWN OF GENERATION CHARGE. [https://meralco.main.s3.ap-southeast-1.amazonaws.com/2020-09/09-2020\\_gc\\_table.pdf](https://meralco.main.s3.ap-southeast-1.amazonaws.com/2020-09/09-2020_gc_table.pdf)

Murray, M. (2018, January 2). Mining Bitcoin with a GPU in 2018 - The Geek Pub. The Geek Pub. <https://www.thegeekpub.com/11407/mining-bitcoin-gpu-2018/>

Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. <https://bitcoin.org/bitcoin.pdf>

Paul, J. (2020). Lowering The Electricity Costs Of Mining Bitcoin [A How-To Guide] | Hacker Noon. Hackernoon.com. <https://hackernoon.com/lowering-the-electricity-costs-of-mining-bitcoin-a-how-to-guide-0o7732s4>

Pineda, A. (2020, September 22). Best DSL & Fiber Internet Broadband Providers & Plans in the Philippines. Grit PH; Grit PH. <https://grit.ph/internet-plans/>

Redman, J. (2019, May 31). Bitcoin Mining With Solar: Less Risky and More Profitable Than Selling to the Grid | Mining Bitcoin News. Bitcoin News. <https://news.bitcoin.com/bitcoin-mining-with-solar-is-less-risky-and-more-profitable-than-selling-to-the-grid/>

Riddett, J. (2020, May 17). Do You Need A Fast Internet Connection To Mine Cryptocurrency? - Easy Crypto Hunter. Easy Crypto Hunter. <https://easycrypto.codegalaxy.co.uk/do-you-need-a-fast-internet-connection-to-mine-cryptocurrency/>

Saccomanno, S. (2019, August 8). The Importance of Integrated Currency Conversion - The Startup - Medium. Medium; The Startup. <https://medium.com/swlh/the-importance-of-integrated-currency-conversion-bed96be1da4e>

Securities and Exchange Commission Philippines. (2018, April 10). Advisory on Cloud Mining Contracts - Securities and Exchange Commission. Securities and Exchange Commission. <https://www.sec.gov.ph/advisories-2018/advisory-on-cloud-mining-contracts/>

Security and Exchange Commission Philippines. (2018, August 2). SEC RELEASES PROPOSED RULES ON INITIAL COIN OFFERINGS. <http://www.sec.gov.ph>. <https://perma.cc/A3BQ-SZ8H>

Senfuma, S. (2017). » Cryptocurrencies – Pros, Cons, Feasibility and Regulation. Atlascorp.org. <https://atlascorp.org/cryptocurrencies-pros-cons-feasibility-regulation/>

Sharma, R. (2020). Do Bitcoin Mining Energy Costs Influence Its Price? Investopedia. <https://www.investopedia.com/news/do-bitcoin-mining-energy-costs-influence-its-price/>

Uy, F. (2016). Energy Pricing in the Philippines and its Effect on Economic Growth. <https://academiccommons.columbia.edu/doi/10.7916/D8NP2C4X/download>

Walton, J. (2017, December 14). What you need to know about cryptocurrency mining. Pcgamer; PC Gamer. <https://www.pcgamer.com/what-you-need-to-know-about-cryptocurrency-mining/>

Weiss, R. (2019). How much electricity (kWh) does an Antminer S9 consume in a day? - Quora. Quora.com. <https://www.quora.com/How-much-electricity-kWh-does-an-Antminer-S9-consume-in-a-day#:~:text=rate%2C%20etc.,Based%20upon%20our%20experiences%2C%20on%20average%2C%20Antminer%20S9s%20actually%20draw,will%20draw%20about%201%2C080%20kWh.>

X-Rates. (2020a). Exchange Rate Average (US Dollar, Philippine Peso) - X-Rates. <https://www.xrates.com/average/?from=USD&to=PHP&amount=1&year=2020>

X-Rates. (2020b). Exchange Rates Graph (US Dollar, Philippine Peso) - X-Rates. <https://www.x-rates.com/graph/?from=USD&to=PHP&amount=1>

YCharts. (2020). Bitcoin Price. Ycharts.com; YCharts. [https://ycharts.com/indicators/bitcoin\\_price](https://ycharts.com/indicators/bitcoin_price)

Zhu, N., & Yan, M. (2019). Feasibility Analysis of Digital Currency Market - Taking Bitcoin as an Example. In Research Gate. [https://www.researchgate.net/publication/333721586\\_Feasibility\\_Analysis\\_of\\_Digital\\_Currency\\_Market\\_-\\_Taking\\_Bitcoin\\_as\\_an\\_Example](https://www.researchgate.net/publication/333721586_Feasibility_Analysis_of_Digital_Currency_Market_-_Taking_Bitcoin_as_an_Example)



## Karanasan ng mga Piling Negosyante ng Produktong Damit Pambabae sa Paggamit ng Estratehiyang Green Marketing

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**Abstrak:** Ang pag-aaral na ito ay naglalayong masuri ang karanasan ng mga negosyante na nagbebenta ng produktong damit pambabae na gumagamit ng estratehiyang green marketing. Ang instrumentong ginamit sa pangangalap ng datos ay Patnubay na Talatanungan na may labing pitong tanong tungkol sa mga temang green design, green pricing, at green disposal. May walong (8) kalahok na negosyante ng damit galing sa Metro Manila na pinili gamit ang purposive sampling teknik. Isinagawa ang pangangalap ng datos simula sa pagbubuo ng gabay na tanong pagkatapos ay ipinakita at inaprubahan ng dalubguro bago ito ipinadala sa e-mail ng mga tinarang na kalahok hanggang sa isagawa ang video call sa napagkasunduang petsa at oras. Nakita sa isinagawang pananaliksik na ang mga negosyanteng ay gumagamit ng green design sa paraan ng paggamit ng mga sustainable fibers, at ito ay nakakatulong sa kalikasan dahil sa paggamit ng mga natural na mapagkukunan. Lumitaw rin na ginagamit ang green pricing sa paraan ng pagpepresyo ayon sa kanilang gastos. Sa huli, nakita sa pananaliksik na papel na ang paggamit ng mga negosyante sa green disposal ay sa paraan ng pagdo-donate o pagre-recycle ng kanilang retaso at iba pang basura. Sa ganitong paraan nakatutulong sa pagliligtas ng kalikasan. Nirekomenda ng mananaliksik sa mga grupo na maaaring magsagawa ng pag-aaral na gaya nito na mas mapalawig pa ang kaalaman tungkol dito at sa iba pang mga negosyante ng damit pambabae na makita nila ang kahalagahan ng pagsuporta sa green marketing at ang epekto nito sa kinabukasan ng kalikasan ng mundo.

**Key Words:** green marketing; green design; green pricing; green disposal

### 1. INTRODUKSIYON

Tumataas ang pagdami ng mga negosyo na sumusunod sa estratehiyang *Green Marketing*. Ayon sa artikulo na isinulat nina Arseculeratne at Yazdanifard (2014), ang ideya ng *Green Marketing* ay umiikot sa pagiging makalikasan ng mga negosyo. Kinakailangan ang pag-aaral na ito upang magkaroon ng mas malalim na pag-unawa tungkol sa mga estratehiya na ginagamit ng mga negosyante na nagbebenta ng damit pambabae sa *Green Marketing*. Base kina Workman at Lee (2011), ang mga babae ang kasangkot sa pamimili ng mga damit sa industriya ng *fashion*. Ayon sa pag-aaral nina Mishra at Sharma (2010) nagbigay ng oportunidad at hamon ang paggamit ng *Green Marketing* sa India. Gayundin ang pag-aaral na isinulat nina Cherian at Jacob (2012), tungkol naman sa mga saloobin ng mga mamimili sa mga produktong gumagamit ng *Green Marketing*. Dahil sa mga pag-aaral na ito, nakita ang kakulangan sa pag-aaral ng mga negosyante sa damit pambabae sa Pilipinas. Base sa isang artikulo na isinulat nina Bick, Halsey, at Ekenga (2018), limang porsyento (5%) ng tambakan ng basura ay puno ng mga damit na tinapon lamang. Mahalaga na malaman ng mga negosyante ang mga posibleng

paraan sa pagnenegosyo na makabubuti sa kalikasan.

### 2. KAUGNAY NA LITERATURA AT PAG-AARAL

Mas lalong magiging malinaw ang pagkakaunawa sa pag-aaral at pagsisiyasat sa paksang sinasaliksik dahil matutunghayan sa bahaging ito ang mga kaugnayan na pag-aaral at literatura na ginagamit ng mananaliksik.

#### ***Green Marketing***

Ayon sa isang artikulo mula kay Sarkar (2012), ang *green marketing* ay tumutukoy sa pagtaguyod ng mga produktong makalikasan. Dahil dito, mas pinipili ng maraming mamimili sa mga negosyo na gumagamit ng *green marketing*. Bukod pa rito, ayon kay Bukhari (2011), mayroong ebidensya na nagpapahiwatig na nagbabago ang kaugalian ng mga tao dahil sa kanilang pagmamalasakit sa kalikasan.

#### ***Damit Pambabae***

Ang disenyo ng mga damit na gumagamit ng *green marketing* ay nakadugtong sa makalikasan na pagsasanay ng negosyo (Kim & Hall, 2015). Bagaman, ayon kina Cervellon at Carey (2011), mayroong tatlong grupo ng mga mamimili tungkol sa kanilang



mga motibasyon at mga inaasahan sa mga *green fashion* at *beauty products*:

1. *Health benefits, 'health-conscious consumers'*
2. *Environmentalists*
3. *Quality hunters*

Samakatuwid, mas nagkaroon ng kamalayan ang mga mamimili tungkol sa mga problemang nararanasan ng kalikasan, at dahil dito, mas pinipili nila ang pagbabawas ng basura sa mundo at ang pagsuporta ng mga *green* na negosyo (Cherian & Jacob, 2012).

### **Paraan ng Paggamit**

Ang unang uri ng *green marketing* ay ang *green design*, ayon kay Koszewska (2015) na inayunan nina Thilak & Saravanan (2015), mahalaga na sumunod ang mga negosyo na nagbebenta ng mga damit ang pagpapanatili ng prinsipyo ng disenyo (*sustainable design principles*). Ilan sa mga nabanggit na halimbawa ay ang paggamit ng "*sustainable fibers, low-impact materials*, at marami pang iba. Dahil sa *green design* nakikinabang dito ang kalikasan. Ayon kay Kumar (2017), ang "*ecological organic cotton, bamboo fiber, color natural silk, at corn fiber*" ay ilan sa mga hinabi na ginagamit ngayon sa mga makalikasan na negosyo.

Ang pangalawang uri ng *green marketing* ay ang *green pricing*. Ito ay ang pagpre-presyo ng mga produkto (Sohail, 2017). Ngunit, ayon kay Epstein (2018), naaapektuhan rin ang mga presyo ng mga produkto at serbisyo na umaasa sa enerhiya, dahil sa pagkontrol ng *greenhouse gases*. Ayon kay Yenipazarli at Vakharia (2015), kahit anong stratehiya ng pagpepresyo ang gagamitin ng isang negosyo, may ugali ang mga mamimili na pipiliin nila ang mga *green* na produkto liban sa mga produkto na hindi nakakatulong sa kalikasan.

Ang huli ay ang *green disposal*. Maaaring mabawasan ang gastos ng mga negosyo dahil sa pagbabawas ng nakakapinsala na pagtatapon (Saini, 2013). Ayon kina Bianchi at Birtwistle (2010), ang kamalayan ng mga mamimili tungo sa mga problemang nararanasan ng kalikasan ay dahil sa pagkakaroon ng mga donasyon ng damit at pagbebenta ng *second-hand* na damit, maliban sa mga naitatapon.

### **3. KONSEPTWAL NA BALANGKAS**

Nagsimula ang balangkas sa stratehiya ng *Green Marketing*. Sa ilalim nito bibigyang pokus ang kasuotang pambabae at sa ilalim ng kasuotang pambabae ang tatlong paksang tatalakayin sa stratehiya ng *Green Marketing*, ang *Green Design*, ang *Green Pricing*, at ang huling bahagi ay ang *Green Disposal*.

### **4. MGA LAYUNIN NG PAG-AARAL**

Ang pananaliksik na ito ay nakatuon sa karanasan ng mga piling negosyante ng produktong damit pambabae sa paggamit ng estratehiyang *Green Marketing*.

Nais ng mga mananaliksik na masagot ang mga sumusunod na katanungan:

1. Ano ang mga karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green design* ng estratehiyang *Green Marketing*?
2. Ano ang mga karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green pricing* ng estratehiyang *Green Marketing*?
3. Ano ang mga karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green disposal* ng estratehiyang *Green Marketing*?

### **5. SAKLAW AT LIMITASYON**

Sakop ng pananaliksik na ito ang mga karanasan ng mga piling negosyante ng damit pambabae sa paggamit ng estratehiyang *Green Marketing*. Ngunit, ang pokus lamang ng mananaliksik ay ang *Green Design, Green Pricing, at Green Disposal*. Nilimitahan ng mananaliksik ang pag-aaral na ito sa mga negosyanteng gumagamit ng estratehiyang *Green Marketing* na nasa Metro Manila lamang. Walang naganap na paglilimita sa edad ng mga piling negosyante basta't sila ay gumagamit ng mga estratehiyang *Green Marketing*.

### **6. KAHALAGAHAN NG PAG-AARAL**

Ang pananaliksik na ito ay magsisilbing tulong para sa mga negosyante na hindi pa gumagamit ng mga estratehiyang *Green Marketing*.

Kaya mahalaga ang pag-aaral na ito sa mga sumusunod:

**Mga negosyante na hindi gumagamit ng *Green Marketing*.** Upang malaman ang mga karanasan ng mga piling negosyante sa paggamit ng mga estratehiya ng *Green Marketing: Green Design, Green Pricing, at Green Disposal*.

**Mga mamimili na bumibili ng damit pambabae.** Upang malaman ng mga mamimili ang tunay na kahalagahan at ang mga dahilan kung bakit gumagamit ang mga negosyo ng mga estratehiyang *Green Marketing*.

**Mga negosyante na gumagamit ng *Green Marketing*.** Upang malaman ng mga negosyante ang mga



karanasan ng mga piling negosyante sa paggamit nila sa mga estratehiyang *Green Marketing*.

## 7. METODOLOHIYA

Tatalakayin sa kabanatang ito ang disenyo ng pananaliksik na ginagamit gayundin ang pamantayan sa pagpili sa mga kalahok, ang mga instrumentong ginamit at mga hakbang na isinasagawa ng mga mananaliksik upang makakalap ng mga datos at ang paraan ng pagsusuri ng datos.

### ***Disenyo ng Pananaliksik***

Ang pag-aaral na ito ay tungkol sa karanasan ng mga piling negosyante ng produktong damit pambabae sa paggamit ng estratehiyang *Green Marketing*. Ito ay isasagawa gamit ang penomenolohikal na disenyo. Tatangkain nitong ilarawan ang pag-uugali ng mga piling negosyante sa paggamit ng estratehiya ng *Green Marketing*.

### ***Mga Respondente at Sampling Teknik***

Ang mga kalahok ay binubuo ng walong respondente na pawang mga babae na nasa pangkat ng mga *Millenials*. Sila ay pinili mula sa mga negosyante na gumagamit ng mga estratehiyang *Green Marketing* ng Metro Manila. Pipiliin ang mga kalahok gamit ang *purposive sampling* teknik. Kinakailangan na ang mga kalahok ay gumagamit ng mga estratehiyang *Green Marketing*

### ***Instrumento ng Pag-aaral***

Ang instrumento ng pananaliksik na ginamit sa pangangalap ng mga datos ay ang Patnubay na Talatanungan. Mayroong tatlong (3) tiyak na layunin na nais masagot ng mananaliksik. Ang unang anim na tanong ay sasagot sa unang tiyak na layunin tungkol sa *green design*, ang susunod na anim na tanong naman ay tungkol sa pangalawang tiyak na layunin tungkol sa *green pricing*, at ang huling limang tanong ay sasagot sa pangatlong tiyak na layunin tungkol sa *green disposal*.

### ***Paraan ng Pagkalap ng mga Datos***

Ang mga sumusunod na hakbang ang isinagawa ng mga mananaliksik upang matiyak na maayos at sistematiko ang pagkalap ng mga datos.

Nag-umpisa ang mananaliksik sa pagbuo ng gabay na tanong na gagamitin para sa interbyu na magsisilbing instrumento sa pangangalap ng datos. Ipinakita at ipinaaprobahan ito sa dalubguro na si: Gng. Imelda E. Bitancor. Inedit at nirebisa ang gabay na tanong para sa interbyu ayon sa mga komento at mungkahi ng mga dalubguro. Bumuo ng Liham ng Pahintulot na ibinigay gamit ang *e-mail* o *private message*. Matapos maaprobahan ng guro ay agad na nagpaskedyul ng oras at araw ng pakikipanayam o interbyu. Ang aktwal na interbyu ay ginanap noong

Marso 16 hanggang Marso 22, sa paraan ng pagtawag o *video call*. Matapos maisagawa ang interbyu ay agad na binuo ang transkripsyon ng pakikipanayam sa bawat respondente.

### ***Pagsusuri ng mga Datos***

Mula sa isinagawang pakikipanayam, sinuri ng mananaliksik ang mga sagot ng mga respondenteng negosyante na gumagamit ng *Green Marketing* batay sa mga nangingibabaw na tema.

## 8. RESULTA

Batay sa makikita sa unang talahanayan, ang mga karanasan ng mga piling negosyante sa produktong damit pambabae sa paggamit ng green design ay pinangunahan ng hindi pa paggamit ng renewable energy sa mga negosyo. Sapagkat, inaalagaan nila ang enerhiya na ginagamit nila sa produksyon ng kanilang mga produkto. Bukod pa rito, ginagamit rin nila ang mga sustainable fibers sa mga disenyo ng kanilang mga produkto. Gumagamit sila ng mga tela tulad ng linen at katsa, sapagkat ang ilan sa mga respondente ang nagsabi na sila ay gumagamit ng mga luma o retasong tela na maaari pang mapakinabangan upang maiwasan ang pagdami ng dumi sa paligid.

**Talahanayan 1.** Karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green design* ng estratehiyang *Green Marketing*

<b>Tema</b>	<b>f</b>	<b>Verbatim</b>
<i>Renewable Energy</i>	8	“Well, right now we don’t really use any renewable energy, but what we do is that we try to avoid energy consumption.”
<i>Sustianable fibers</i>	6	“...we use uh all natural fabrics. Uh when I say all-natural, that means it’s biodegradable.”

Note. n=8 piling negosyante; para sa tanong 1, 2, 4, 6, 10

Batay naman sa makikita sa talahanayan 2, ang mga karanasan ng mga piling negosyante sa paggamit ng green pricing na ang pinagbasihan ay ang gastusin ng mga negosyante tulad ng gastos ng mga materyales, suweldo ng mga manggagawa, at presyo ng kanilang kakumpitensya. Gayunpaman, tinitignan ng mga negosyante ang kakayahan ng kanilang mga mamimili. Gusto ng mga negosyante na ang presyo ng kanilang mga produkto ay kayang bilhin ng kanilang mga mamimili. Bukod pa rito, positibong nakakaapekto ang *packaging* na ginagamit sa negosyo, ang mga materyales nito ay mga ni-recycle



lamang at mga murang materyales na hindi gaano nakakaapekto sa mga presyo ng kanilang produkto.

**Talahanayan 2.** Karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green pricing* ng estratehiyang *Green Marketing*

Tema	f	Verbatim
<i>Gastusin</i>	5	"...so there are cost of um goods or cost of manufacturing, cost of labor, cost of fabrics, marketing, advertising..."
<i>Kakayahan</i>	4	"...the main rule that we had when deciding our prices was that it had to be affordable..."
<i>Packaging</i>	3	"we just use recycled materials so there's no cost."

Note. n=8 piling negosyante; para sa tanong 6, 7, 8, 9

At para sa huling talahanayan, ang mga karanasan ng mga piling negosyante sa paggamit ng *green disposal* ay mahalaga para sa kalikasan ng mundo. Ito rin ay nakakatulong sa pagtataguyod ng mga negosyo na may layunin na makatulong sa kalikasan. Bukod pa rito, nakikita sa *green disposal* ang pag-recycle ng basura. Ang mga retaso na tela at iba pang mga materyales ay ginagamit para sa mga bagong produkto, dahil may mga negosyante na nagdo-donate rin ng kanilang mga retasong tela na kinakailangan ng ibang grupo.

**Talahanayan 3.** Karanasan ng mga piling negosyante ng produktong damit pambabae sa paraang *green disposal* ng estratehiyang *Green Marketing*

Tema	f	Verbatim
Kahalagahan	8	"...we do our part as good stewards of this world um good role models and a positive example to the next generations,"
Donasyon	4	"um donate them to small cooperatives that make rags ..."

## KABANATA 4

### Diskusyon

Tatalakayin ng mananaliksik sa kabanatang ito ang lagom ng mga resulta, implikasyon, limitasyon, gayundin ang rekomendasyon para sa

mga susunod pang mananaliksik na may interes sa paksang pinag-aaralan.

## 9. LAGOM

Matapos masuri at mailahad ang resulta, natuklasan ng mananaliksik ang mga sumusunod:

1. Ang *green design* ng estratehiyang *Green Marketing* ay gumagamit ng *sustainable fibers, recyclable packaging* o *packaging* na makalikasan, at gumagamit ng *renewable energy*.
2. Ang *green pricing* ng estratehiyang *Green Marketing* ay binabase ang presyo ayon sa gastos ng negosyo, at ang *packaging* na ginagamit nila.
3. Ang *green disposal* ng estratehiyang *Green Marketing* ay sa paraan ng pagre-*recycle* ng basura, pag-*donate* ng basura, at sa pagsusulong sa kanilang mga mamimili tungkol sa kahalagahan ng *green disposal*.

Ipinapakita sa resulta na isang paraan ng paggamit ng *green design* na ginagamit ng mga negosyante ay ang paggamit ng mga *sustainable fibers*. Ayon kina Niinimaki at Hassi (2011), ang paggamit ng makalikasan na tela sa industriya ng damit ay nag-aambag ng magandang epekto sa kalikasan, ngunit ito ay hindi nagpapakita ng malaking pagbabago dahil hindi pa handa ang lahat ng negosyo sa paglipat sa paggamit ng mga telang makalikasan. Nakikita rin sa resulta ang isang paraan ng paggamit ng *green pricing*, kung saan isinaalang-alang ng mga negosyante ang gastusin nila sa *packaging*. Ngunit, maaari na hindi mapapabili ang mga mamimili dahil sa mga pisikal na hitsura ng *packaging* na ginagamit (Magnier & Schoormans, 2015). Maaari na ito ay dahil sa paggamit ng mga negosyante sa mga lumang *paper bags* galing sa ibang mga tindahan upang magamit muli ang bagay na hindi na magagamit. Gayunpaman, ang *green disposal*, huling estratehiya ng *green marketing* ay nakikitang ginagamit ng mga negosyante sa paraan ng pagre-*recycle* o pagdo-*donate* ng basura. Sa panahon na ayaw na ng mga mamimili ang kanilang mga damit, pinipili nila kung ang mga damit ay itatapon sa basura, ibebenta, o ipamimigay sa nangongolekta ng mga telang gamit na (Zamani, 2014).

## 10. IMPLIKASYON

Batay sa mga resulta, lahat ng mga produktong pambabae na binebenta ng mga negosyante ay may layunin sa makatulong at buhayin ang kalikasan. May ilang negosyante na nagbigay pagpapahalaga sa pagliligtas ng kalikasan dahil sa paggamit ng estratehiyang *Green Marketing*. Gayundin, hindi lang nababawasan ang kanilang



basura na naiipon, ngunit, nababawasan rin ang kanilang gastusin dahil karamihan sa kanila ay gumagamit ng mga likas na yaman at *pagre-recycle ng materials* para sa kanilang *packaging*. At sa kabuuan ng pag-aaral na ito, may mas positibong dating ang green marketing sa kalikasan at sa mga negosyante.

### 11. LIMITASYON

Isa sa naging limitasyon ng pananaliksik na ito ay ang proseso ng pagkakaroon ng pakikipanayam. Dahil sa naganap ng mahigpit na *quarantine* o *lockdown* sa Pilipinas, ang pakikipanayam na isinagawa ng mananaliksik ay naganap sa pamamagitan ng pagtawag at *e-mail*. Naging hamon rin sa mananaliksik ang paputol-putol na *signal* o linya ng telepono sa oras ng pagtawag, kaya ang oras ng pakikipanayam ay lumampas sa orihinal na oras na binanggit bago ang pakikipanayam.

### 12. REKOMENDASYON

Kaugnay ng isinagawang pag-aaral, buong pagpapakumbabang iminumungkahi ng mananaliksik sa mga sumusunod:

**Para sa mga mananaliksik sa hinaharap** na mapalawak pa sana ang magiging saklaw ng mga piniling respondente dahil maaaring makatulong itong matukoy ng mas malawak ang pananaliksik kung madadagdagan ang bilang ng mga kalahok.

**Para sa mga negosyante ng damit pambabae** na ang paggamit ng *green marketing* ay makatutulong sa kalikasan.

**Para sa mga mamimili ng damit pambabae** upang makita nila ang kahalagahan ng pagsuporta sa mga produkto na gumagamit ng *green marketing*, ay may epekto sa kinabukasan ng kalikasan ng mundo.

### 13. PASASALAMAT

Taus-pusong pasasalamat ang aming ipinaabot sa mga sumusunod na indibidwal at tanggapan dahil sa mahahalagang tulong, kontribusyon, at.o suporta, tungo sa matagumpay na reyalisasyon ng pananaliksik na papel na ito:

1. Ang mga naging kalahok/respondente ng pananaliksik na papel na ito, sa paglalaan ng panahon at sa matapat na pagsagot sa aming inihandang kwestyuner,
2. Kay Danii Fajardo na naglaan ng oras upang maging tulong sa pagsusulat at pag-*proofread* sa pananaliksik na papel
3. Sa mga awtor, editor at mga mananaliksik ng mga akdang pinaghanguan naming ng mahahalagang impormasyong aming

- ginagamit sa pagsulat ng una at ikalawang kabanata ng pananaliksik na papel,
4. Kay Gng. Bitancor (Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik), ang masisigasig naming dalubguro na gumabay sa amin sa tamang bakbangan sa pagsulat at paggawa ng isang pananaliksik na papel,
5. Sa aking mga magulang at pamilya, sa kanilang inilaan na suporta at tulong sa paghahanap ng respondente at tulong sa pagsusulat ng pananaliksik na papel, at higit sa lahat,
6. Sa Poong Maykapal, sa pagdinig sa aming mga dalangin lalung-lalo na sa sandaling kami ay pinanghihinaan na ng pag-asang matapos naming ito.

Muli, maraming-maraming salamat po.

### 14. MGA SANGGUNIAN

Arsuleratne, D., & Yazdanifard, R. (2013). How Green Marketing Can Create a Sustainable Competitive Advantage for a Business. *International Business Research*, 7(1). doi: 10.5539/ibr.v7n1p130

Alhamad, A. M., Junoh, M. Z. B. M., & Eneizan, B. (2019). Green Marketing Strategies: Theoretical Approach. *American Journal of Economics and Business Management*, 2(2), 77-94.

Bianchi, C., & Birtwistle, G. (2010). Sell, give away, or donate: an exploratory study of fashion clothing disposal behaviour in two countries. *The International Review of Retail, Distribution and Consumer Research*, 20(3), 353-368.

Bick, R., Halsey, E., & Ekenga, C. C. (2018). The global environmental injustice of fast fashion. *Environmental Health*, 17(1). doi: 10.1186/s12940-018-0433-7

Bukhari, S. S. (2011). Green Marketing and its impact on consumer behavior. *European Journal of Business and Management*, 3(4), 375-383.

Cervellon, M.-C., & Carey, L. (2011). *Critical Studies in Fashion & Beauty*, 2(1), 117-138. doi:10.1386/csfb.2.1-2.117\_1

Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers' attitude towards environment friendly products. *Asian social science*, 8(12), 117.

Dickenbrok, C., & Martinez, L. F. (2018). Communicating green fashion across different cultures and geographical regions. *International Review on Public and Nonprofit Marketing*, 15(2), 127-141. doi: 10.1007/s12208-018-0194-6

Epstein, M. J. (2018). Making sustainability work: Best practices in managing and measuring corporate social, environmental and economic impacts. Routledge.

Gam, H. J., & Banning, J. (2011). Addressing sustainable apparel design challenges with problem-based learning. *Clothing and Textiles Research Journal*, 29(3), 202-215.

Gardetti, M. A., & Muthu, S. S. (Eds.). (2020). *The UN Sustainable Development Goals for the Textile and Fashion Industry*. Springer.



- Iannuzzi, A. (2017). *Greener Products: The Making and Marketing of Sustainable Brands*. CRC Press.
- Kim, H.-S., & Hall, M. L. (2015). Green Brand Strategies in the Fashion Industry: Leveraging Connections of the Consumer, Brand, and Environmental Sustainability. *Sustainable Fashion Supply Chain Management*, 31–45. doi:10.1007/978-3-319-12703-3\_2
- Koszewska, M. (2015). Understanding Consumer Behavior in the Sustainable Clothing Market: Model Development and Verification. *Environmental Footprints and Eco-Design of Products and Processes*, 43–94. doi:10.1007/978-981-10-0111-6\_3
- Kumar, R. (2017). Prospects of Sustainable Fashion Design Innovation. *International Journal of Textile and Fashion Technology (IJTFT)*, 7 (6), 5, 14.
- Larashati, H., Hudrasyah, H., & Chandra, N. (2012). 7Ps of green marketing as factors influencing willingness to buy towards environmentally friendly beauty products. In *Proceedings of International Conference on Business Management & IS (Vol. 1, No. 1)*.
- Lee, S. (2011). Consumers' Value, Environmental Consciousness, and Willingness to Pay more toward Green-Apparel Products. *Journal of Global Fashion Marketing*, 2(3), 161–169. doi: 10.1080/20932685.2011.10593094
- Magnier, L., & Schoormans, J. (2015). Consumer reactions to sustainable packaging: The interplay of visual appearance, verbal claim and environmental concern. *Journal of Environmental Psychology*, 44, 53e62.
- Mishra, P., & Sharma, P. (2014). Green marketing: Challenges and opportunities for business. *BVIMR Management Edge*, 7(1).
- Niinimäki, K., & Hassi, L. (2011). Emerging design strategies in sustainable production and consumption of textiles and clothing. *Journal of cleaner production*, 19(16), 1876-1883.
- Ottman, J. (2017). *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding*. Routledge.
- Polonsky, M. J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of Business Research*, 64(12), 1311-1319.
- Saini, B. (2013). Green marketing and its impact on consumer buying behavior. *International Journal of Engineering Science Invention*, 2(12), 61-64.
- Sarkar, A. N. (2012). Green branding and eco-innovations for evolving a sustainable green marketing strategy. *Asia-Pacific Journal of Management Research and Innovation*, 8(1), 39-58.
- Smith, K. T., & Brower, T. R. (2012). Longitudinal study of green marketing strategies that influence Millennials. *Journal of Strategic Marketing*, 20(6), 535–551. doi: 10.1080/0965254x.2012.711345
- Sohail, M. S. (2017). Green marketing strategies: how do they influence consumer-based brand equity?. *Journal for Global Business Advancement*, 10(3), 229-243.
- Workman, J. E., & Lee, S.-H. (2010). Materialism, fashion consumers and gender: a cross-cultural study. *International Journal of Consumer Studies*, 35(1), 50–57. doi: 10.1111/j.1470-6431.2010.00935.x
- Yenipazarli, A., & Vakharia, A. (2015). Pricing, market coverage and capacity: Can green and brown products co-exist?. *European Journal of Operational Research*, 242(1), 304-315.
- Zamani, B. (2014). Towards understanding sustainable textile waste management: Environmental impacts and social indicators.