Analysis on the Payment FinTech Business Model of PESONet in the Philippines Using Business Model Canvas Approach

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Abstract:

This paper aims to provide an analysis on the payment FinTech (Financial Technology) business model of PESONet in the Philippines. The Business Model Canvas (BMC) which is a strategic management tool is utilized to analyze the overall state of PESONet. The BMC analysis reveals that as a FinTech payment service, PESONet is primarily focused on strengthening its Key Partners, Key Activities, Value Propositions, Key Resources and Cost Structure. This article provides valuable insights on how to analyze the business model of a FinTech service or FinTech startup. Theoretical and managerial implications are drawn from the analysis.

Key Words: PESONet, Payment FinTech Business Model, Business Model Canvas

DISCLAIMER:

"All views expressed on this paper are my own and do not represent the opinions of any entity whatsoever with which I have been, am now or will be affiliated".

Introduction:

Pursuant to the National Retail Payment System (NRPS) by the Bangko Sentral ng Pilipinas (BSP), the PESONet which refers to Philippine Electronic Fund Transfer & Systems Operation Networks was launched last November 2017 and operated by the Philippine Clearing House Corporation (PCHC) in partnership with the bank merchants (*Payments and Settlements - National Retail Payment System*, n.d.-a).

PESONet is a payment gateway of electronic funds transfer that is very convenient, affordable, reliable and secured. Through this system, different levels of transactions can be done by government, businesses and individuals. Examples of these transactions are government to government, government to business, government to individual, business to government, business to business and business to individual. Moreover, PESOENet is the most economical method for individuals to pay, remit, or send money to other individuals particularly for bulk disbursements and not urgent transactions. The PESONet ACH sets the clearing and settlement rules to facilitate fund transfer from one account of the payer to one or several payees' accounts that are maintained in different Bangko Sentral ng Pilipinas Supervised Financial Institutions (BSFIs) (*Payments and Settlements - National Retail Payment System*, n.d.-b).

PESONet is the ideal option to the still generally used paper-based check system (*PESONet*, n.d.). This electronic fund transfer facility was introduced prior to the COVID-19 pandemic and has shown that the volume of e-payment transactions surged by 10,802%, in 2020 given the community quarantines implemented during most of the year to curb the spread of the COVID-19. In a virtual briefing, BSP Governor Benjamin

Diokno said the combined value of InstaPay and PESONet transactions for 2020 likewise jumped by 929%. The volume of PESONet transfers alone rose to 15.3 million in 2020 to reflect a 376% growth, while the value of transactions grew 188% to P951.6 billion (Cabuenas & GMA News, 2021).

The pandemic has forced Filipinos to embrace digital transformation in the Financial industry. Even before the crisis, BSP had already been pushing for a digital shift in the country's financial services in view of the fact that it aims to achieve financial inclusion by promoting financial technology and digitization (Diokno, 2020b).

In line with this, promoting the usage of digitization in financial services highlights the importance of analyzing the overall state of a FinTech business model of PESONet. Analyzing the FinTech business model is quite complex since it has various models such as payment, wealth management, lending, crowdfunding, insurance services and capital market ("Fintech: Ecosystem, Business Models, Investment Decisions, and Challenges," 2018).

Consistent with the FinTech map of the Philippines, the electronic fund transfer of PESONet is under the category of the payment FinTech business model (Fintech News Philippines, 2020). This paper intends to analyze the payment FinTech business model of PESONet through an innovative Business Model Canvas (BMC) framework established by Osterwalder & Pigneur (2010) (Johnson, 2012; Osterwalder & Pigneur, 2013) to provide a snapshot of the status of this electronic facility transfer and to present invaluable insights on which key element has to focus on of the PESONet operator, the PCHC. In addition, this paper aims to match if the suggested BMC Focus of each element on the FinTech case is consistent with the PESONet in the Philippine context.

With this innovative approach of analyzing a business model, this study can contribute both significant theoretical and managerial implications to its operator, to the bank managers and to the entrepreneurs of FinTech related startups and more importantly to BSP.

Literature Review:

Osterwalder and Pigneur (2010) Business Model Canvas BMC demonstrated to be beneficial in intuitively offering business innovation (Abraham, 2013). This is the business model that presents how a firm generates, provides and captures value. Everyone has their exceptional way of viewing and discussing the business model canvas. The BMC with 9 blocks is argued to be appropriate to new and even already existing or old firms alike, across different industries (*Business Model Canvas: A Complete Guide*, 2015).

Bernardo Nicoletti (2017) has argued that Business Model Canvas can be employed in analyzing and understanding the FinTech business model. It was claimed that the FinTech industry has a specific focus in each part of the BMC.

The customer segment section, focusing on targets, enumerates the customers who are going to receive the business' value proposition. The value proposition's section, emphasizing on value-added, describes the products and/or services that the business offers and the needs of the customers that are important to be satisfied. The customer relationship's section, concentrating on a customer-centric approach, describes how the company will build, maintain, and improve its services to the customer's delight. The channel's section, focusing on social and omnichannel, illustrates how the company intends to reach its customers and determines if the company has different channels integrated with an omnichannel approach. The revenue stream's section, centering on customer lifetime value, shows how the customers reward the business for the services it offers. Key activities' section, directing on marketing, depicts the activities that the company performs to create and deliver its value proposition. The key resources' section, focusing on technology, shows the resources that the company needs to maintain its value proposition. Key partners' section, highlighting financial institutions, describes the key partners and vendors of the company. Cost structure section, emphasizing on risks, lists the main cost drivers and risks that the company considers. The figure below shows the summary of each element focused on the FinTech case.



Figure 1<BMC Focus Based on the FinTech case>

In light of this, the present study seeks to analyze the payment FinTech business model of one of the well-known gateway payments in the Philippines, the PESONet. The BMC approach is employed to analyze the nine key elements of the FinTech payment service of PESONet. The focus of each part is assessed to determine if this also applies in the Philippine FinTech industry context.

Research Methodology

This paper has employed the strategic management tool originally invented by Osterwalder and Pigneur(2010). The BMC is a powerful visual framework for evaluating a business model. It describes the reasoning of why, how, and through which tools a company generates, delivers, and captures value. From a visual point of view, the BMC is a poster format chart or a canvas that portrays nine elements of a business model and permits a discussion on them by a group of people working together. Nine elements or blocks are the following:

- Customer segments these are individuals or groups/organizations that the firm/business/company aims to serve or provide value to
- Value propositions these are how the firm/business/company solves customer problems and satisfies customers needs
- Channels these are the avenues that the firm/business/company uses to communicate and deliver their value propositions; includes communication, distribution and sales channels

- Customer relationships these are the relationships that are established and maintained with each customer segment such as self-service, automated services, personal assistance, etc.
- Revenue streams these are the ways that the firm/business/company makes money when they have successfully offered and delivered their value proposition to their customers through subscription fees, service fees, etc.
- Key resources these are the assets that the firm/business/company requires in order to offer and deliver the value propositions through customer relationships and channels.
- Key activities these are the processes and tasks that the firm/business/company needs to execute in order to deliver the value propositions to customer segments.
- Key partnerships these are external organizations that help the firm/business/company deliver their value propositions. These include suppliers and other partners to whom some activities are outsourced to.
- 9. Cost structure this portion lists the costs that are required to offer and deliver value to consumers. It involves the cost of goods and services, overheads for maintaining the operations of the firm/business/company, advertising, research and development, etc.

With the above-mentioned elements, the BMC of PESONet is analyzed and identified if its focus in the FinTech Industry is consistent with the Philippine context.

Business Model Canvas Analysis

The summary of the BMC analysis of PESONet is presented in the following:

Key Partners	Key Activities	Value Prop	ositions	Customer Relationships	Customer Segments
 BSP 42 Universal and Commercial Banks 16 Thrift Banks 21 Rural Banks 3 Electronic Money Issuers (EMI) Philippine Payments Management, Inc. (PPMI) 	 Domestic Transactions Batch Transfer Flexible Transaction Amount Same-day Full Value Transfer Key Resources Technology & Innovations IT Team Research Team Marketing & Customer Support Team Admin Team 	 businesse Solution to needs; bul No deduct payee's ac Same-day Transfer 	ts) ansaction revenue for s o all payment k payments ions on the counts	 Some banks waived fees until Dec 31,2021 Business support Most convenient, affordable, reliable, and secured electronic fund transfer service Channels e-channels (internet, mobile); Social media sites Bank announcements News articles; Posters 	 Individuals, businesses, and government agencies with HIGH VALUE of transactions Transfer funds from their account to one or multiple recipient accounts in other financial institutions Engage to: (1) supplier payments, (2) payroll, (3) loan and dividend payouts, (4) government payments
Cost Structure			Revenue S	treams	
 24/7 availability System downtime Platform enhancements Security upgrade Incorrect data Service fees and transaction costs 			 Clearing fees, return item fees and penalties (PESONet Steering Committee) Demand Deposit Account (DDA) 		

Figure 2 < Business Model Canvas Analysis of PESONet>

Customer Segments:

PESONet focuses on their target customers who have high value of transactions. They are individuals, businesses and government agencies. Users of its service can transfer funds from their account to one or multiple recipient accounts to other financial establishments.Also, they target clients who are mainly engaged in supplier payments, a loan, payroll and dividend payments and government payments (*Payments and Settlements - National Retail Payment System*, n.d.-a, *PESONet*, n.d.).

Value Propositions:

As the integration of Finance and Technology is becoming more prevalent, the value propositions of the PESONet are providing improved efficiency or lower

transaction costs, flexible transaction amounts and increased revenue for businesses. Additionally, this FinTech firm offers solutions to all payment needs such as the ability to process bulk payments and with no deduction on the payee's accounts and same-day value full value transfer (Diokno, 2020a; dofweb, 2019; *Payments and Settlements -National Retail Payment System*, n.d.-a).

Moreover, with the current pandemic, PESONet has significantly contributed in promoting contactless transactions to mitigate the spread of COVID-19 virus. BSP has been encouraging the public to stay at home to be safe and use the e-payment system like PESONet (manilabulletin_admin, 2020).

Channels:

The e-channel of PESONet is through the internet and mobile and pursuant to BSP Circular No. 980, customers can make electronic fund transfers (EFTs) throughout banks in the Philippines (Geniusto, 2019).

Moreover, it is undeniable that most of the fintech firms like PESONet, one of the largest marketing channels, are social media sites such as FB (Facebook) and its instagram. Apart from these, PESONet is using the bank announcements, news articles and posters to reach their customers. In addition, the creation of a catch all landing page for PESONet has funneled inquiries to Facebook Page and has enabled visibility and searchability on the search engines of PESONet and electronic fund transfers (*[PESONet Campaign Final Consultant Report]*, n.d.-a).

Customer Relationships:

With the current COVID pandemic, PESONet has strengthened its relationship with their customers and partners by waiving their transaction fees, some participating banks have waived until the end of 2021 (Maala, 2021). Furthermore, PESONet promotes relationships with its customers by providing most convenient, affordable, reliable and secured electronic fund transfer services (Bam-Adobotech, 2018).

Revenue Streams:

PESONet revenue comes from the fees of clearing, a return item and penalties that are required by the PESONet Steering Committee after the end of each calendar month. This fee shall be decided by a pricing framework to be accepted or changed by the same committee.

Fees and penalties will be charged from each Participants or Sponsoring Participant's Demand Deposit Account (DDA) account based on a timetable to be resolved by the PESONet Steering Committee. All fees and penalties due from or due to a sponsored Participant shall be settled through the DDA of the Sponsoring Participant. It is up to the Sponsoring Participant and the sponsored Participant to settle such fees and penalties among themselves.

Participants should inform the Clearing Switch Operator (CSO) right away on any arguments on each Participant's evaluated fees and penalties, based on a cutoff schedule to be determined by the PESONet Steering Committee (webadmin, 2020).

Key Activities:

PESONet has four relevant activities that can be categorized into domestic transactions, batch transfer, flexible transaction amount and same-day full value transfer.

Domestic transaction refers to the transfer of funds from the Philippine account to other Philippine accounts in involved financial organizations. Batch transfer indicates the capacity to allow volume/bulk transactions from the involved financial organizations for credit to multiple accounts in other financial organizations. Flexible transaction amount refers to the amount that can be transferred per transaction. The same-day full transfer means the full values of the funds are transferred to the beneficiaries on the same day but this is subject to bank financial cut-off.

Moreover, this electronic transfer can be used for government payments, loan and dividend payments, the payroll and supplier payments.

Since its services are mainly partnered with financial institutions, the key activities are more on securing payment platforms to have greater transparency. It focuses on its product features as a platform for perfect alternatives to paper check systems (*Electronic Payments*, n.d., *Payments and Settlements - National Retail Payment System*, n.d.-a, *PESONet*, n.d.).

Key Resources:

Technology plays an important role as one of the key resources of the PESONet with its nature for electronic fund transfer. PESONet is under the National Retail Payment System (NRPS) which is placed to assist and promote the transition of the financial industry from cash-heavy to cash-lite, benefiting different stakeholders by offering quicker and better financial services in the Philippine market (*Payments and Settlements - National Retail Payment System*, n.d.-a).

Their technological and innovation know-how, technological team, researchers, customer support team, marketing team and administration are also the relevant resources of the PESONet.

Key Partners:

Its major partner is the regulatory body which is the Bangko Sentral ng Pilipinas. As of April 30, 2021, it has also partnered with 42 universal and commercial banks, 16 Thrift banks, 21 Rural Banks, and 3 Electronic Issuers (EMI). Table below shows the list of its partnered-institutions(*[PESONet Participants]*, n.d.-b).

Universal and Comn	nercial Banks (U/KBs)	Thrift Banks (TBs)	Rural Banks (RBs)
Al-Amanah Islamic Investment Bank of the	22. KEB Hana Bank – Manila Branch	1. AllBank, Inc.	1. Bangko Mabuhay, Inc.
Philippines	23. Land Bank of the Philippines	2. Bangko Kabayan, Inc.	2. Bangko Nuestra Señora del Pilar, In
2. Asia United Bank Corporation	24. Maybank Philippines, Inc.	3. Bank of Makati, Inc.	3. Bank of Florida, Inc.
Australia and New Zealand Banking Group Ltd.	25. Mega International Commercial Bank Co., Ltd.	4. China Bank Savings, Inc.	4. BDO Network Bank, Inc.
Bangkok Bank Public Co. Ltd.	26. Metropolitan Bank and Trust Company	5. Dumaguete City Development Bank, Inc.	5. Camalig Bank, Inc.
. Bank of America, N.A	27. Mizuho Bank, Ltd. – Manila Branch	6. Equicom Savings Bank, Inc.	 Cantilan Bank, Inc. Cebuana Lhuillier Rural Bank, Inc.
5. Bank of China Ltd. – Manila Branch	28. MUFG Bank, Ltd.		
7. Bank of Commerce	29. Philippine Bank of Communications	8. HSBC Savings Bank, Inc.	8. Community Rural Bank of Romblor
Bank of the Philippine Islands	30. Philippine National Bank	9. Malayan Bank Savings and Mortgage Bank	9. Country Builders Bank, Inc.
9. BDO Unibank, Inc.	31. Philippine Trust Company	10. Philippine Business Bank, Inc.	10. Dungganon Bank, Inc.
Cathay United Bank Co., Ltd.	32. Philippine Veterans Bank	11. Philippine Savings Bank	11. East West Rural Bank, Inc.
 China Banking Corporation 	33. Rizal Commercial Banking Corporation	12. Producers Savings Bank Corporation	12. Guagua Rural Bank, Inc.
CIMB Bank Philippines, Inc.	34. Robinsons Bank Corporation	13. Queen City Development Bank	Innovative Rural Bank, Inc.
13. Citibank, N.A.	35. Security Bank Corporation	14. Sterling Bank of Asia, Inc.	14. Laguna Prestige Banking Corporation
CTBC Bank (Philippines) Corporation	36. Shinhan Bank – Manila Branch	15. Wealth Development Bank Corporation	15. MVSM Bank (Rural Bank), Inc.
15. Deutsche Bank AG	37. Standard Chartered Bank	16. Yuanta Savings Bank Philippines, Inc.	16. Rang-Ay Bank, Inc.
Development Bank of the Philippines	 Sumitomo Mitsui Banking Corporation – Manila 	Electronic Money Issuers	17. RBT Bank, Inc.
 East West Banking Corporation 	Branch	(EMI) - Others	Rural Bank of Digos, Inc.
 Industrial and Commercial Bank of China, Ltd. – 	39. The Hongkong & Shanghai Banking Corporation	1. DCPay Philippines, Inc.	19. Rural Bank of Guinobatan, Inc.
Manila Branch	40. Union Bank of the Philippines	2. G-Xchange, Inc. (GXI)	20. Rural Bank of Rosario (L.U.), Inc.
Industrial Bank of Korea Manila Branch	41. United Coconut Planters Bank	3. PayMaya Philippines, Inc.	21. Tonik Digital Bank, Inc.
20. ING Bank N.V	42. United Overseas Bank Limited, Manila Branch	DECONIET Destisionets	
21. JP Morgan Chase Bank, N.A		PESONET Participants	
		(As of 30 April 2021) TOTAL	82
		U/KBs	42
		TBs	16
		RBs	21
Source: Philippine Clearing House Corporation		EMI - Others	3 PSOD-202105-085-E

Moreover, Philippine Payments Management, Inc. (PPMI) is also one of the key partners of PESONet as this is acknowledged as the official Payment System Management Body (PSMB) of the Philippines under the National Retail Payment System (NRPS) Framework.

PPMI Board is composed of delegates from the universal and commercial banks, thrift banks, rural banks, and non-bank e-money issuers (NB-EMIs), along with independent executives that exemplify broader public interests (*About Us*, n.d.).

Cost Structure:

The cost lies on the 24/7 service availability, system downtime and platform enhancements. Most importantly, PESONet focuses on risk management, such as upgrading the security and monitoring incorrect data. The PESONet Steering Committee, in cooperation with the Clearing Switch Operator (CSO) and the BSP, shall set up internal controls, guidelines, policies, and processes persistent with industry the best practices to guarantee the virtue of processing, data privacy, records retention and cybersecurity within each party's corresponding areas of operation (webadmin, 2020). **Business Model Canvas Matching Summary**



Figure 3 <PESONet BMC Matching with FinTech BMC Focus>

Figure 3 shows that PESONet BMC's each element is consistent with the claimed focus of each element of the FinTech's BMC of Nicoletti (2017). This has been evaluated based on the gathered information from the multiple websites related to PESONet.

Each block of the BMC plays an important role, but based on the PESONet BMC, it can be analyzed that key partners, key activities, value propositions, key resources and cost structure have strong evidence to support the consistency with the general FinTech BMC. The other elements such as the customer segments, customer relationships, channels and revenue streams are somewhat consistent also with the FinTech BMC.

Conclusion:

This research article reveals that the payment FinTech business paradigm of PESONet can be analyzed through the utilization of Business Model Canvas of Osterwalder and Pigneur(2010) (Johnson, 2012; *[No Title]*, n.d.-c). This provides valuable insights that entrepreneurs and FinTech startups could use this model to have a snapshot of their business model.

PESONet BMC analysis also presents that it has been strengthening its key partners with financial institutions. This is consistent with the suggestion of (Nicoletti, 2017) claiming that fintech should focus on having strong partnerships with financial institutions/ regulatory bodies to sustain in the business. Moreover, based on the information gathered in the BMC, it shows that apart from the key partners, the PESONet is proven to have the value-added to customers as it focuses on providing a more convenient way of transferring funds. The part of Key activities has also signified to be prevalent in the payment system as it is clear to have four relevant features. It is also important to note that some parts of the key activities and value propositions are the same which indicates that those can fall both under these two elements. Technology is found out to be the key resource while risk management is the main component of the cost structure.

With the above findings, this confirms the applicability of this model in the FinTech industry in the Philippines.

Theoretical implications:

The current paper provides some theoretical implications in the review of related literature in the FinTech industry. The utilization of the BMC model in the Philippines context is also deemed suitable. Based on this study, the framework could provide more insights into the rapid development of the digital banking and FinTech ecosystem by carefully capturing each key part of the model and it has been revealed that for the nature of the FinTech industry, the crucial parts that need more weight of attention are the key partners, key activities, value propositions, key resources and cost structure since these are the parts that have shown to have high availability of credible and valuable information.

Managerial Implications:

This study provides managerial implications for the managers of FinTech related companies and startups, to the Philippine Clearing House Corporation (PCHC) and more importantly for the Bangko Sentral ng Pilipinas (BSP).

For the FinTech related company managers, it provides a strategic framework to adapt this BMC model to evaluate the current status of their company to make an appropriate action which among the key parts could have been further improved to achieve company goals.

For the FinTech startups' managers, the proposed utilization of the BMC model could be an important starting point for them to see the overall picture of the key areas that they have to focus on and ensure that all of these are carefully thought out and planned. Each block of the model is important and needs to be addressed. For the Philippine Clearing House Corporation (PCHC), this study suggests to focus on technology as the key resources, and focus on financial institutions as key partners. PCHC could further improve their PESONet e-fund transfer service by strengthening its partnerships with more financial merchants. These are all consistent with the findings of Nicoletti (2017) laying out the different focus per each block in the FinTech industry.

For the Bangko Sentral ng Pilipinas, the bank officers can use this BMC model for their assessing and evaluation process of companies seeking licenses to operate. This model could provide valuable information on each key part of the firms needed to be evaluated. Each part could be a category/part to be rigorously investigated. Although each key part of the model is relevant, the BSP may focus more attention on the Key Partners section of the model since PESOnet has shown a huge success specifically due to strong relationships with the relevant Financial institutions. It is also important to note that it suggests that success of FinTech firms would depend on the strong relation with the Central Bank. Moreover, with the nature of the FinTech industry, having the need for financial service value added, sustainable technology and cost management, focusing on the key activities, key resources are very important.

Limitations:

Despite the implications discussed above, this study has certain limitations that suggest directions for future research studies.

First, Business Model Canvas has also further developed for the past years, for sustainability-oriented institutions, new ingenious business models and tools are

probably essential (*Website*, n.d.). As many institutions embrace circular from a linear economy, this demands looking at business models and ecosystems with sustainability purpose at circularity. Including sustainability components in the business model suggests going beyond economic measures and integrating conservation and revival of all resources. Thus, sustainable business models (SBM) serve as an integrative map of social and technological innovations with sustainability in the ecosystem (Bocken et al., 2014). SBM is described as a model that shows, evaluates, manages, and communicates an organization's sustainable value proposition, creates and delivers this value, and captures economic value while rejuvenating natural, social, and economic capital above organizational limits (Schaltegger et al., 2016). Current study has only used the original BMC, an exploration to investigate the sustainable business model canvas could also provide relevant insights for the banking sector and the private sector.

Second, since this paper has only investigated the PESONet business model ,InstaPay, Gcash, Coins.ph, and other FinTech related companies or financial services could be also studied using the established framework of BMC.

Lastly, the methodology employed in this study is also one of the limitations. For the purpose of providing a framework for evaluating the FinTech related company payment service or startup, this study has purely used a qualitative approach which has extensively reviewed all the key parts of the company with the framework. Future researchers can further elaborate this study with a mixed method of quantitative data analysis, and may consider conducting an in-depth interview with one of the management members of the PESONet operator, PCHC to gather more credible and reliable information.

APPENDIX



References

About Us. (n.d.). Retrieved May 29, 2021, from

https://www.philpayments.org.ph/aboutus

Abraham, S. (2013). Will business model innovation replace strategic analysis? In

Strategy & Leadership (Vol. 41, Issue 2, pp. 31–38).

https://doi.org/10.1108/10878571311318222

Bam-Adobotech. (2018, August 22). PESONet - Affordable, Reliable and Secure

Electronic Funds Transfer Service.

http://www.adobotech.net/pesonet-secure-electronic-funds-transfer-service/

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. In *Journal of Cleaner Production* (Vol. 65, pp. 42–56). https://doi.org/10.1016/j.jclepro.2013.11.039

Business Model Canvas: A Complete Guide. (2015, February 9).

https://www.cleverism.com/business-model-canvas-complete-guide/

Cabuenas, J. V. D., & GMA News. (2021, February 4). *E-payments surge 10,802%, coin demand down 60% in 2020 —BSP*. GMA News Online.
https://www.gmanetwork.com/news/money/economy/774548/e-payments-surge-10-802-coin-demand-down-60-in-2020-bsp/story/

Diokno, B. E. (2020a). *Benjamin E Diokno: Digitization developments and initiatives*. https://www.bis.org/review/r201005b.htm

Diokno, B. E. (2020b). Benjamin E Diokno: Accelerating digital transformation in the COVID-19 era; digital transformation in the financial services and navigating through the pandemic. https://www.bis.org/review/r201210f.htm

dofweb. (2019, August 20). *Taxpayers can now pay online via PESOnet - DOF - Department of Finance*.

https://www.dof.gov.ph/taxpayers-can-now-pay-online-via-pesonet-dof/

Electronic Payments. (n.d.). Retrieved May 28, 2021, from

https://www.philpayments.org.ph

- Fintech: Ecosystem, business models, investment decisions, and challenges. (2018). *Business Horizons*, *61*(1), 35–46.
- Fintech News Philippines. (2020, September 4). *Fintech Report Philippines 2020: Mapping out the Fintech Philippines Ecosystem*.

https://fintechnews.ph/41725/fintech/fintech-report-philippines-2020/

Geniusto. (2019, September 21). *BSP requires banks to implement PESONet, InstaPay by November 2018.*

https://geniusto.com/bsp-requires-banks-to-implement-pesonet-instapay-by-novemb er-2018/

Johnson, E. A. J. (2012). Business Model Generation: A Handbook for Visionaries,
Game Changers, and Challengers by Alexander Osterwalder and Yves Pigneur.
Hoboken, NJ: John Wiley & Sons, 2010. 281 iv pages. US\$34.95. In *Journal of Product Innovation Management* (Vol. 29, Issue 6, pp. 1099–1100).
https://doi.org/10.1111/j.1540-5885.2012.00977 2.x

Maala, G. (2021, April 1). BSP updates list of banks with waived PESONet, InstaPay fees.

https://www.yugatech.com/news/bsp-updates-list-of-banks-with-waived-pesonet-inst apay-fees/

manilabulletin_admin. (2020, April 22). BSP head advice: Stay at home, use e-payments.

https://mb.com.ph/2020/04/22/bsp-head-advice-stay-at-home-use-e-payments/

- Nicoletti, B. (2017). *The Future of FinTech: Integrating Finance and Technology in Financial Services*. Springer.
- Osterwalder, A., & Pigneur, Y. (2013). *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. John Wiley & Sons.
- Payments and Settlements National Retail Payment System. (n.d.-a). Retrieved May 21, 2021, from

https://www.bsp.gov.ph/Pages/PAYMENTS%20AND%20SETTLEMENTS/National%

20Retail%20Payment%20System/The-Regulatory-Framework.aspx

Payments and Settlements - National Retail Payment System. (n.d.-b). Retrieved May

21, 2021, from

https://www.bsp.gov.ph/Pages/PAYMENTS%20AND%20SETTLEMENTS/National%

20Retail%20Payment%20System/Empowering-Every-Juan-and-Maria.aspx

PESONet. (n.d.). Retrieved May 21, 2021, from https://www.pchc.com.ph/pesonet

[PESONet Campaign, Final Consultant Report]. (n.d.-a). Retrieved May 28, 2021, from https://pdf.usaid.gov/pdf_docs/PA00TP7B.pdf

[PESONet Participants]. (n.d.-b). Retrieved May 21, 2021, from

https://www.bsp.gov.ph/PaymentAndSettlement/PESONet%20Participants.pdf

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business Models for Sustainability. In Organization & Environment (Vol. 29, Issue 3, pp. 264–289). https://doi.org/10.1177/1086026616633272

webadmin. (2020, November 3). *PESONet Rules & Regulations*. https://www.pchc.com.ph/post/pesonet-rules-regulations

- Website. (n.d.). Retrieved May 21, 2021, from Lozano, R. (2014). Creativity and organizational learning as means to foster sustainability. Sustainable Development, 22(3), 205–216. https://doi.org/10.1002/sd.540
- Osterwalder, A., Pigneur, Y., Smith, A., & 470 practitioners from 45 countries.(2010). *Business model generation*. Self-published.