



LOCAL GOVERNMENT UNITS' (LGUs) SERVICES LINK TO GOVERNMENT FINANCIAL INSTITUTIONS' (GFIs) ONLINE AND CUSTOMER TOUCHPOINTS IN SELECTED MUNICIPALITIES OF FOURTH DISTRICT OF LAGUNA PROVINCE: FOR DIGITAL TRANSFORMATION

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ABSTRACT

This study aimed to compare service quality and challenges faced by Local Government Units (LGUs) linked with Government Financial Institutions (GFIs) and those that are not. One hundred seventy-nine (179) LGU employees from the Fourth District of Laguna Province, were surveyed via purposive sampling. Results showed that out of the 14 municipalities included, five had linked up with LANDBANK, a GFI, while the remaining nine still needed to start linking up with GFIs, representing 64.29% of the total municipalities. The study's results found that the lack of funding for ICT infrastructure, absence of an IT officer, poor internet connectivity, and lack of knowledge in digitalization were significant challenges encountered in implementing e-payment touchpoints. The study also found that the linked LGUs scored significantly higher in the efficiency of services, fiscal benefits, process improvement, and business-friendliness than non-linked LGUs, suggesting that linking up with GFIs positively impacts service quality perceptions. The study provides insights for the GFIs sector and LGUs in improving their e-payment services and overall service quality.

KEYWORDS: *Government Financial Institutions, Digital Transformation, Local Government Units, Online Touchpoints, Service Quality*

INTRODUCTION

Amidst the pandemic in 2020, the Philippines rapidly adopted digital payments, which is expected to continue even as in-person transactions become more common. With the closure of businesses, online transactions rose significantly, leading to an increase in contactless payment methods. To help Filipinos adjust to this new reality, Senator Win Gatchalian sponsored a bill, Senate Bill No. 1793, which aims to provide access to integrated e-Government services by the end of 2022. This bill requires all government agencies, GOCCs, instrumentalities, and LGUs to implement a digitization strategy that is compatible with the Philippine Digital Transformation Strategy 2022. The bill is also known as the "Full Digital Transformation Act of 2020."

The Executive Order No.170 promotes financial inclusion through the adoption of digital payments for government transactions. The government servicing bank facilitates electronic fund transfers, while GFIs like LANDBANK and DBP offer fintech solutions to aid LGUs. LGUs are encouraged to utilize online payment facilities and electronic services for business registration, renewal, and tax collection. This integration of LGU services with GFIs' internet payment gateway sets a safe, efficient, and convenient transaction model for the new normal, as mandated by Department of Finance Circular No. 001-2015. While the national government is pushing for digital transformation in local government units (LGUs), not all LGUs have the necessary infrastructure and investment to link up with government financial institutions (GFIs), leading to inefficiencies in their services. Challenges such as high costs, poor internet connectivity, and lack of acceptance to online payment modes also hinder LGUs from adopting digital payment systems, which may result in missed opportunities for economic growth and development.



OBJECTIVE OF THE STUDY

This study holds great timeliness and relevance, aligning with the continuous efforts of both past and present administrations to digitalize government processes. Moreover, it bears significant implications in light of the Mandanas Ruling, particularly with regard to the low-income municipalities situated within the Laguna Province. The researcher firmly believes that this study is essential for comprehending the challenges faced by local government units (LGUs) when it comes to integrating with Government Financial Institutions (GFIs). By conducting this study, valuable insights can be gained regarding the service quality provided by both linked and non-linked LGUs to the local business sector. As a result, the study furnishes evidence-based data that can be effectively utilized in crafting a well-designed action plan aimed at enhancing linking up of LGUs. Furthermore, it offers an opportunity to address the specific needs of low-income municipalities within the Laguna Province, contributing to their socioeconomic development.

MATERIALS AND METHODS

This study utilized the Descriptive Quantitative Research Method to gather data from respondents using a survey questionnaire. The Descriptive Quantitative Research method is a type of research that focuses on describing and analyzing a population or phenomenon using numerical data. It involves collecting and analyzing data using statistical techniques to identify patterns, trends, and relationships. Using descriptive research, the researcher can design pre-structured questionnaires tailored to the specific research questions. This method is associated with describing, maintaining, questioning, and interpreting existing states, emphasizing exploring and testing relationships between variables. The overall procedures for this research involved data gathering through a survey questionnaire, classification, interpretation, and assessment of the data gathered.

Population and Sampling Technique

This study aimed to statistically determine whether the Fourth District of Laguna municipalities have adopted or plan to adopt linking up with GFIs. The required data was gathered from a sample of one hundred seventy-nine (179) LGU employees from selected departments. To collect the required data, the researcher used the purposive sampling method for the LGU employees regarding the nature of their work.

Data Collection Procedure

In this study, the researcher used a self-formulated questionnaire to gather information and achieve the study's objectives. The questionnaire was divided into three sections. Section A gathered demographic information about the LGU. Section B assessed the LGU's status regarding its connection with GFIs. Section C evaluated the perceptions of LGU employees regarding service quality indicators like efficiency, fiscal matters, process improvement, and business-friendliness. The questionnaire utilized a five-point rating scale, allowing participants to provide their responses and opinions on specific criteria or variables. The collected data was then analyzed using various statistical tools such as frequency, weighted mean, and independent t-test to establish relationships among the data and obtain research results.

RESULTS AND DISCUSSION

Demographic Profile of the respondents

Table 1.: Frequency Distribution of LGU Respondents According to Assigned Department

Department	f	%
Others	71	39.66%
Treasury	70	39.11%
Accounting	34	18.99%
Cashiering	2	1.12%
Bookkeeping	2	1.12%
Total	179	100.00%

Table 1 provides information on the departments to which the LGU respondents belong. Of the 179 respondents, 39.11% belonged to the Treasury Department, 18.99% belonged to the Accounting Department, and only 1.12% belonged to the Cashiering or Bookkeeping Departments. At 39.66%, most respondents belonged to other departments, such as the Administrative Office, Assessors Office, or Budget. This aligns with previous research conducted by Dela Cruz, J. et al. (2021)[1] on the Cabanatuan City Treasurers Office, where a similar study was conducted focusing on digital payments for business-related taxes.



Table 2: Frequency Distribution of LGU Respondents According to Municipality

Municipality	<i>f</i>	%
Paete	21	11.73%
Siniloan	19	10.61%
Kalayaan	17	9.50%
Luisiana	17	9.50%
Famy	16	8.94%
Sta. Maria	16	8.94%
Magdalena	12	6.70%
Majayjay	11	6.15%
Pakil	11	6.15%
Mabitac	11	6.15%
Lumban	10	5.59%
Pangil	7	3.91%
Pagsanjan	6	3.35%
Pila	5	2.79%
Sta. Cruz	0	0.00%
Cavinti	0	0.00%
Total	179	100.00%

Table 2 provides the distribution of respondents across different cities. The table indicates that the municipality with the highest number of respondents is Paete, with 21 respondents representing 11.73% of the total number of respondents. Siniloan, Kalayaan and Luisiana have the second and third highest number of respondents, respectively, with 19 for Siniloan and 17 respondents each for Kalayaan and Luisiana. Famy and Sta follow this Santa Maria with 16 respondents each. Most of the LGUs in the study are from lower-class municipalities, which indicates insufficient funding for the ICT infrastructure due, which is a common obstacle in developing nations (Pedersen, K., 2018)[2].

Table 3: Frequency Distribution of LGU Respondents According to Municipality Income Class

Income Class	<i>f</i>	%
Fourth Class (P25,000,000 to P35,000,000)	84	46.93%
Third Class (P35,000,000 to P45,000,000)	38	21.23%
Fifth Class (P15,000,000 to P25,000,000)	38	21.23%
Second Class (P45,000,000 to P55,000,000)	19	10.61%
First Class (at least P55,000,000 above)	0	0.00%
Total	179	100.00%

Based on Table 3, out of the 179 respondents, the 84 respondents or 46.93% belonged to the fourth income class, with a range of P25,000,000 to P35,000,000. The third- and fifth-income classes had similar numbers of respondents, with 38 or 21.23% of respondents in each group. The second income class, with a range of P45,000,000 to P55,000,000, had 19 or 10.61% of respondents. The findings that most of the respondents are from the fourth- and third-class municipalities are indicative of the capacity of the LGUs to fund or invest in Information and Communication Technology (ICT) infrastructure which is a common challenge in developing countries (Ngulube, M., & Herselman, M., 2014[3]; Sultana et al., 2019)[4].

Table 4: Frequency Distribution of LGU Respondents According to Local Economy Sector

Sector	<i>f</i>	%
Agricultural Crops	174	97.21%
Livestock and Poultry	73	40.78%
Personal Services	65	36.31%
Fisheries	51	28.49%
Wholesale and Retail Trade	49	27.37%
Electricity, Water and Mining	34	18.99%
Manufacturing	29	16.20%
Construction	26	14.53%

Note. Percentage calculated based on N=179.



Of the 179 respondents, 174, or 97.21%, belonged to the Agricultural Crops sector. Other significant industries included Livestock and Poultry with 73 or 40.78%, Personal Services with 65 or 36.31%, Fisheries with 51 or 28.49%, Wholesale and Retail Trade with 49 or 27.37%, and Electricity, Water and Mining with 34 or 18.99%. Construction and Manufacturing had lower response rates, with 26 or 14.53%, and 29 or 16.20% respondents, respectively. One specific issue mentioned in the study of Vibora, E., & Mandigma, B. S. (2022)[5] is the unavailability of physical payment facilities. These difficulties in payment facilities and delays in reflecting payments can impact both taxpayers and the LGUs.

Table 5: Frequency Distribution of LGU Respondents According to Revenue Collected from Business Registration Fees

Revenue Collected	<i>f</i>	%
₱1,000,000 and above annually	120	67.04%
₱500,000 to ₱1,000,000 annually	26	14.53%
₱300,000 to ₱500,000 annually	18	10.06%
₱ 100,000 and below annually	15	8.38%
Total	179	100.00%

Based on Table 5, out of the 179 respondents, 120 or 67.04% answered collecting ₱1,000,000 and above annually. The second largest group of respondents, 26 or 14.53%, answered collecting between ₱500,000 to ₱1,000,000 annually. Smaller percentages of respondents responded, collecting between ₱300,000 to ₱500,000 annually with 18 or 10.06%, and ₱100,000 and below annually with 15 or 8.38%. This finding highlights the need for LGUs to support small and medium-sized enterprises (SMEs) in their jurisdictions, as they play a crucial role in the economy (Goel, R. K., and Mazzanti, M.,2019)[6].

Table 6: Frequency Distribution of LGU Respondents According to Availability of Telecommunication Facilities

Telecommunication Facility	<i>f</i>	%
Landline telephone service	142	79.33%
Mobile phone network coverage	116	64.80%
High-speed internet services	115	64.25%
Cable Television	51	28.49%
Website Platforms	25	13.97%
Satellite equipment	15	8.38%
Point of Sale (POS) machines	4	2.23%
Tap card machine	4	2.23%

Note. Percentage calculated based on $N=179$.

The 142 or 79.33% of the respondents responded that having access to landline telephone service. A slightly lower percentage of respondents responded that having access to mobile phone network coverage with 116 or 64.80% responses and high-speed internet services with 115 responses or 64.25%. A smaller percentage of respondents, precisely 28.49% (51 respondents), reported having access to cable television, while an even lower percentage, 8.38% (15 respondents), mentioned having access to satellite equipment. Moreover, only a limited number of respondents, 2.23% (4 respondents) each, indicated access to the point of sale (POS) and tap card machines. These findings align with previous studies conducted by Chen and Liang (2018)[7] and Kesharwani and Bisht (2020)[8], highlighting the correlation between lower income or limited funding from the national government and reduced access to computers and poor internet connectivity among LGUs.

Status of the LGU

Table 15: List of municipalities which are already linking up with GFIs

List of Municipalities Which are Already Linking Up with GFIs specifically LANDBANK ($n=5$, 35.71%)	List of Municipalities Which are Not Yet Linked Up with GFIs ($n=9$, 64.29%)
Pagsanjan	Famy
Majayjay	Kalayaan
Pila	Pangil
Luisiana	Pakil
Paete	Lumban
	Mabitac
	Sta.Maria
	Siniloan



Table 15 shows the number of municipalities already linking up with Government Financial Institutions (GFIs), specifically LANDBANK, with a sample size of 5 or 42%. The municipalities that have already linked up with LANDBANK are Pagsanjan, Majayjay, Pila, Luisiana, and Paete. The United States Agency for International Development (RCC, 2022)[9] conducted a study supporting the slow adoption of online or digital payments in the Fourth District of Laguna. Meanwhile, municipalities that have yet to start linking up with GFIs, which is 9 out of the total 14 municipalities in the study. These municipalities are Famy, Kalayaan, Pangil, Pakil, Lumban, Magdalena, Mabitac, and Sta. Maria and Siniloan. The percentage of municipalities that have yet to start linking up with GFIs is 64.29% (9 out of the 14). Despite the numerous studies that e-government helps improve the quality of services to citizens, the study by Luciano E. M. et al. (2018)[10] cited a limited government initiative about adopting digital payments.

Table 16: Frequency of Distribution of Challenges encountered by the non-linked LGUs on linking up with the GFIs

Challenges	<i>f</i>	%
Lack of funding for acquisition of Information and Communication Technology (ICT) infrastructure	54	45.38%
No available Information Technology Officer to handle the maintenance and daily operations of the e-payment touchpoints	45	37.82%
Poor internet connection and lack of knowledge in digitalization	20	16.81%
Total	119	100.00%

The findings presented in Table 16 shows that 45.38% of the respondents responded that more funding for acquiring Information and Communication Technology (ICT) infrastructure is a major challenge. This finding is consistent with the studies showing that more funding for ICT infrastructure is a common challenge in developing countries (e.g., Ngulube, M. & Herselman, M., 2014)[11]; Sultana et al., 2019)[12]. Another critical factor influencing the success of e-payment touchpoints is the availability of dedicated personnel to handle ICT infrastructure and maintenance, which 37.82% of respondents answered as a major challenge. This finding is supported by previous research emphasizing the importance of having trained personnel to manage and maintain ICT systems (Norouzi et al., 2019)[13]; Rashid & Ahsan, 2016)[14]. Similarly, 16.81% of the respondents responded that a lack of digital literacy and knowledge could limit the adoption of e-payment systems, especially among users who are less familiar with the technology. These findings are consistent with previous studies highlighting the importance of reliable internet connectivity and digital literacy in promoting the adoption of e-payment systems (Chen & Liang, 2018)[15]; Kesharwani & Bisht, 2020)[16].

Service Quality of Linked LGU on Four Service Quality Indicators

Table 17: Level of Efficiency of Service of Linked LGUs

Efficiency of Services	<i>M</i>	<i>SD</i>	Interpretation
1. How well your LGU administration support the adoption of technology specifically on the digital payment link up with the GFIs.	4.32	0.65	Very Highly Efficient
2. The inefficiencies were reduced in the process when the LGU adopted the linking up of online payments with the GFIs.	4.23	0.77	Very Highly Efficient
3. The LGU has benefited from the streamlining of the business registration and renewal fees payments processes.	4.23	0.67	Very Highly Efficient
4. The linking up with GFIs significantly improved the overall productivity of the employees.	4.32	0.68	Very Highly Efficient
5. The time spent on the administrative tasks related to the collection of business registration and fees significantly decreased.	4.32	0.68	Very Highly Efficient
Overall	4.28	0.62	Very Highly Efficient

Note. *N*=60. The mean is interpreted as follows: 4.21-5.00=Very Highly Efficient (VHE), 3.41-4.20=Highly Efficient, 2.61-3.40=Moderately Efficient, 1.81-2.60=Low Efficiency, 1.00-1.80=Very Low Efficiency.

The results in Table 17 suggest that the respondents positively perceive the Efficiency of the LGU's services in implementing e-payment touchpoints. The responses to the first statement, "How well your LGU administration supports the adoption of technology specifically on the digital payment link up with the GFIs", indicate a very high efficiency ($M=4.32$, $SD=0.65$). For the second statement, "The inefficiencies were reduced in the process when the LGU adopted the linking up of online payments with the GFIs", the response



shows a very high efficiency ($M=4.23$, $SD=0.77$). The third statement, "The LGU has benefited from the streamlining of the business registration and renewal fees payments processes, " indicates a very high efficiency ($M=4.23$, $SD=0.67$). Similarly, the statement "The linking up with GFIs significantly improved the overall productivity of the employees" shows a very high efficiency ($M=4.32$, $SD=0.68$). Lastly, the statement "The time spent on the administrative tasks related to the collection of business registration and fees significantly decreased" also signifies a very high efficiency ($M=4.32$, $SD=0.68$). Generally, there is a very high-efficiency rating for the Efficiency of LGU's services ($M=4.28$, $SD=0.62$). For example, a study by Cruz and De Vera (2020)[17] found that e-payment systems improved the Efficiency and accuracy of financial transactions in LGUs.

Table 18: Level of Local revenue generation and savings on operational cost (Fiscal) of Linked LGUs

Local revenue generation and savings on operational cost (Fiscal)	<i>M</i>	<i>SD</i>	Interpretation
1. With significant increase in the collection of business tax and fees since the start of linking up	4.12	0.74	High Profitability
2. The LGU's savings increase in terms of operational cost (decrease defrayal of expenses from in-person transactions)	4.17	0.76	High Profitability
3. The LGU is able to improve its annual total revenue.	4.20	0.71	High Profitability
4. The LGU has been awarded with Seal of Good Financial Housekeeping.	4.42	0.74	Very High Profitability
5. The LGU has been awarded with Seal of Good Local Governance.	4.32	0.83	Very High Profitability
Overall	4.24	0.64	Very High Profitability

Note. $N=60$. The mean is interpreted as follows: 4.21-5:00=Very High Profitability, 3.41-4.20=High Profitability, 2.61-3.40=Moderately Profitable, 1.81-2.60=Low Profitability, 1.00-1.80=Very Low Profitability.

The first statement, "With the significant increase in the collection of business tax and fees since the start of linking up", indicates high Profitability ($M=4.12$, $SD=0.74$). The second statement, "The LGU's savings increase in terms of operational cost (decrease defrayal of expenses from in-person transactions)", also shows high Profitability ($M=4.17$, $SD=0.76$). Similarly, the third statement, "The LGU is able to improve its annual total revenue", indicates high Profitability ($M=4.20$, $SD=0.71$). The fourth statement, "The LGU has been awarded Seal of Good Financial Housekeeping", shows very high Profitability ($M=4.42$, $SD=0.74$). Lastly, "The LGU has been awarded Seal of Good Local Governance" indicates high Profitability ($M=4.32$, $SD=0.83$). The LGU's receipt of the Seal of Good Financial Housekeeping and the Seal of Good Local Governance suggests that using e-payment systems has also contributed to improved financial management and governance practices (Al-Tarawneh et al., 2019)[18]. Overall, the LGU's fiscal matters, specifically local revenue generation and savings on operational costs, show very high Profitability ($M=4.24$, $SD=0.64$).

Table 19: Level of In-person transactions and more streamlined process (Process Improvement) of Linked LGUs

In-person transactions and more streamlined process (Process Improvement)	<i>M</i>	<i>SD</i>	Interpretation
1. Decrease in foot traffic, daily walk-ins and face-to-face transactions	4.15	0.71	High Improvement
2. Decrease in inquiries on the payment process of business tax and fees	4.12	0.76	High Improvement
3. The LGU's process on the payment of business registration and renewal and collections has simplified.	4.25	0.65	Very High Improvement
4. The LGU staff spends lesser time on tasks that involves payment and collection of business tax and fees.	4.25	0.70	Very High Improvement
5. The LGU finds it easier to comply with the reporting guidelines of the Commission of Audit and declared its financial reports online.	4.15	0.68	High Improvement
Overall	4.18	0.62	High Improvement

Note. $N=60$. The mean is interpreted as follows: 4.21-5:00=Very High Improvement, 3.41-4.20=High Improvement, 2.61-3.40=Moderate Improvement, 1.81-2.60=Low Improvement, 1.00-1.80=Very Low Improvement.

The responses to the first statement, "Decrease in foot traffic, daily walk-ins and face-to-face transactions", specifies significant Improvement ($M=4.15$, $SD=0.71$). It is consistent with the findings of Storper and Venables (2004)[19], who noted that adopting digital technologies by government agencies has led to a decrease in in-person transactions, as electronic communication can reduce the fixed costs associated with face-to-face interactions. Similarly, the second statement, "Decrease in inquiries on the payment process of business tax and fees", indicates the same high Improvement ($M=4.12$, $SD=0.76$). Meanwhile, the third statement, "The LGU's process on the payment of business registration and renewal and collections has simplified", shows a very high improvement ($M=4.25$, $SD=0.65$). Likewise, the fourth statement, "The LGU staff spends less time on tasks that involve payment and collection of business tax and fees,



" also shows a significant improvement ($M=4.25$, $SD=0.70$). Lastly, the fifth statement, "The LGU finds it easier to comply with the reporting guidelines of the Commission of Audit and declared its financial reports online", stipulates a high improvement ($M=4.15$, $SD=0.68$). Overall, Process Improvement indicates a significant improvement in in-person transactions and more streamlined processes ($M=4.18$, $SD=0.62$).

Table 20: Level of Business registration/renewal (Business-friendliness) of Linked LGUs

Business registration/renewal (Business-friendliness)		<i>M</i>	<i>SD</i>	Interpretation	
1.	Increase in businesses that pay tax and business registration/renewal fees on time.	4.08	0.74	High	Business-friendliness
2.	Increase in the number of businesses which transacts (register and renew) online.	4.03	0.78	High	Business-friendliness
3.	Encourages new businesses to register.	4.22	0.72	Very High	Business-friendliness
4.	Increase in the number of businesses which are compliant in paying their taxes on time.	4.07	0.76	High	Business-friendliness
5.	Improve LGU's business friendliness and competitiveness.	4.27	0.76	Very High	Business-friendliness
Overall		4.13	0.68	High	Business-friendliness

Note. $N=60$. The mean is interpreted as follows: 4.21-5.00=Very High Business-friendliness, 3.41-4.20=High Business-friendliness, 2.61-3.40=Moderate Business-friendliness, 1.81-2.60=Low Business-friendliness, 1.00-1.80=Very Low Business-friendliness.

The first statement regarding the increase in businesses paying taxes and registration/renewal fees on time shows high business-friendliness ($M=4.08$, $SD=0.74$). Similarly, the second statement on the increase in businesses transacting online also signifies high business-friendliness ($M=4.03$, $SD=0.748$). The third statement, which encourages new businesses to register, reflects high business-friendliness ($M=4.22$, $SD=0.72$). The fourth statement, related to the increase in businesses compliant with tax payments, shows high business-friendliness ($M=4.07$, $SD=0.76$). These findings are consistent with the study of Abdulwahab et al. (2020)[20], which found that adopting online tax payment systems resulted in increased timely tax payments and reduced time and cost associated with tax compliance. Lastly, the fifth statement on improving LGU's business friendliness and competitiveness indicates very high business-friendliness ($M=4.27$, $SD=0.76$). Overall, the business registration/renewal process, reflecting LGU's business-friendliness, shows high business-friendliness ($M=4.13$, $SD=0.68$).

Service Quality of the Non-Linked LGUs on Four Service Quality Indicators

Table 21: Level of Efficiency of Service of Non-Linked LGUs

Efficiency of Services		<i>M</i>	<i>SD</i>	Interpretation	
1.	I believe that linking up with GFIs support the adoption of technology specifically on the digital payment.	4.03	0.74	Highly Efficient	
2.	I believe that inefficiencies will be reduced in the process if the LGU adopts the linking up of online payments with the GFIs.	3.82	0.76	Highly Efficient	
3.	I believe that the LGU will benefit from the streamlining of the business registration and renewal fees payments processes.	3.92	0.79	Highly Efficient	
4.	I believe that the linking up with GFIs will significantly improve the overall productivity of the employees.	3.91	0.72	Highly Efficient	
5.	I believe that the time spent on the administrative tasks related to the collection of business registration and fees will significantly decrease.	3.90	0.76	Highly Efficient	
Overall		3.91	0.65	Highly Efficient	

Note. $N=119$. The mean is interpreted as follows: 4.21-5.00=Very Highly Efficient (VHE), 3.41-4.20=Highly Efficient, 2.61-3.40=Moderately Efficient, 1.81-2.60=Low Efficiency, 1.00-1.80=Very Low Efficiency.

Table 22 displays the responses of LGU respondents from the non-linked LGUs. The first statement, "I believe that linking up with GFIs supports the adoption of technology specifically on the digital payment", indicates highly efficient ($M=4.03$, $SD=0.74$). This finding aligns with the Digital Payments Transformation Roadmap for 2020 to 2023 (BSP, 2020)[21], in which the GFIs are tasked to aid in the realization of a cash-lite society. The second statement, "I believe that inefficiencies will be reduced in the process if the LGU adopts the linking up of online payments with the GFIs, " indicates highly efficient ($M=3.82$, $SD=0.76$). Likewise, the third statement, "I believe that the LGU will benefit from the streamlining of the business registration and renewal fees payments processes", shows



highly efficient ($M=3.92$, $SD=0.79$). The fourth statement, "I believe that the linking up with GFIs will significantly improve the overall productivity of the employees", also shows highly efficient perception ($M=3.91$, $SD=0.72$). Lastly, "I believe that the time spent on the administrative tasks related to the collection of business registration and fees will significantly decrease", indicates a highly efficient perception ($M=3.90$, $SD=0.76$). Overall, the perception of the respondents about the Efficiency of services offered is highly efficient ($M=3.91$, $SD=0.65$).

Table 22: Level of Local revenue generation and savings on operational cost (Fiscal) of Non-Linked LGUs

Local revenue generation and savings on operational cost (Fiscal)		<i>M</i>	<i>SD</i>	Interpretation
1.	I believe that linking up with GFIs will bring a significant increase in the collection of business tax and fees since the start of linking up.	3.82	0.71	High Profitability
2.	I believe that the LGU's savings will increase in terms of operational cost (decrease defrayal of expenses from in-person transactions).	3.80	0.71	High Profitability
3.	I believe that the LGU will be able to improve its annual total revenue.	3.82	0.77	High Profitability
4.	I believe that the LGU will pass or will be awarded with Seal of Good Financial Housekeeping	3.94	0.73	High Profitability
5.	I believe that the LGU will be awarded with Seal of Good Local Governance.	3.88	0.80	High Profitability
Overall		3.85	0.64	High Profitability

Note. $N=119$. The mean is interpreted as follows: 4.21-5.00=Very High Profitability, 3.41-4.20=High Profitability, 2.61-3.40=Moderately Profitable, 1.81-2.60=Low Profitability, 1.00-1.80=Very Low Profitability.

The responses to the first statement, "I believe that linking up with GFIs will bring a significant increase in the collection of business tax and fees since the start of linking up", show high Profitability ($M=3.82$, $SD=0.71$). As same with the second statement, "I believe that the LGU's savings will increase in terms of operational cost (decrease defrayal of expenses from in-person transactions)", signifies a high profitability perception ($M=3.80$, $SD=0.71$). The first and second findings are supported by the study of Ramos, T. (2021)[22], in which it was found that using mobile platforms provides a new source of revenue and facilitates the settlement of government transactions. The third statement, "I believe that the LGU will be able to improve its annual total revenue", indicates high Profitability ($M=3.82$, $SD=0.77$). The fourth statement, "I believe that the LGU will pass or will be awarded Seal of Good Financial Housekeeping", also signifies high Profitability ($M=3.94$, $SD=0.73$). Lastly, the fifth statement, "I believe that the LGU will be awarded Seal of Good Local Governance", also indicates ($M=3.88$, $SD=0.80$). Overall, the perceived responses of respondents from the non-linked LGUs indicate high Profitability ($M=3.85$, $SD=0.64$).

Table 23: Level of In-person transactions and more streamlined process (Process Improvement) of Non-Linked LGUs

In-person transactions and more streamlined process (Process Improvement)		<i>M</i>	<i>SD</i>	Interpretation
1.	I trust that there will be a decrease in foot traffic, daily walk-ins and face-to-face transactions.	3.89	0.73	High Improvement
2.	I trust that there will be a decrease in inquiries on the payment process of business tax and fees.	3.66	0.68	High Improvement
3.	I trust that the LGU's process on payments and tax collections will be simplified.	3.91	0.74	High Improvement
4.	I trust that the LGU staff will spend lesser time on tasks that involves payment and collection of business tax and fees.	3.92	0.73	High Improvement
5.	I trust that the LGU will find it easier to comply with the reporting guidelines of the Commission of Audit and declared its financial reports online.	3.95	0.65	High Improvement
Overall		3.87	0.59	High Improvement

Note. $N=119$. The mean is interpreted as follows: 4.21-5.00=Very High Improvement, 3.41-4.20=High Improvement, 2.61-3.40=Moderate Improvement, 1.81-2.60=Low Improvement, 1.00-1.80=Very Low Improvement.

The first statement, "I trust that there will be a decrease in foot traffic, daily walk-ins and face-to-face transactions", indicates a high improvement ($M=3.89$, $SD=0.73$). The second statement, "I trust that there will be a decrease in inquiries on the payment process of business tax and fees", also shows a significant improvement result ($M=3.66$, $SD=0.68$). The third statement, "I trust that the LGU's process on payments and tax collections will be simplified, " also shows a significant improvement report ($M=3.91$, $SD=0.74$). The fourth statement, "I trust that the LGU staff will spend less time on tasks that involve payment and collection of business tax and fees,



" shows a significant improvement result ($M=3.92$, $SD=0.73$). The fifth statement, "I trust that the LGU will find it easier to comply with the reporting guidelines of the Commission of Audit and declare its financial reports online", shows a considerable improvement result ($M=3.95$, $SD=0.65$). Generally, the survey resulted in a high improvement ($M=3.87$, $SD=0.59$), linking up with GFIs drives economic growth (DICT, 2019)[23].

Table 24: Level of Business registration/renewal (Business-friendliness) of Non-Linked LGUs

Business registration/renewal		<i>M</i>	<i>SD</i>	Interpretation	
1.	I believe that there will be an increase in businesses that pay tax and business registration/renewal fees on time.	3.82	0.71	High friendliness	Business-
2.	I believe that there will be an increase in the number of businesses which transacts (register and renew) online.	3.76	0.74	High friendliness	Business-
3.	I believe that it will encourage new businesses to register.	3.75	0.74	High friendliness	Business-
4.	I believe that it will increase the number of businesses which are compliant in paying their taxes on time.	3.82	0.77	High friendliness	Business-
5.	I believe that it will improve LGU's business friendliness and competitiveness.	3.84	0.75	High friendliness	Business-
Overall		3.79	0.66	High friendliness	Business-

Note. $N=119$. The mean is interpreted as follows: 4.21-5.00=Very High Business-friendliness, 3.41-4.20=High Business-friendliness, 2.61-3.40=Moderate Business-friendliness, 1.81-2.60=Low Business-friendliness, 1.00-1.80=Very Low Business-friendliness.

Table 24 shows the perception of LGU respondents on the business-friendliness of those from the non-linked LGUs. The first statement, "I believe that there will be an increase in businesses that pay tax and business registration/renewal fees on time", indicates a high business-friendliness ($M=3.82$, $SD=0.71$). The second statement, "I believe that there will be an increase in the number of businesses which transact (register and renew) online", also shows a high business-friendliness result ($M=3.76$, $SD=0.74$). Likewise, the third statement, "I believe that it will encourage new businesses to register", also yielded a high business-friendliness ($M=3.75$, $SD=0.74$). This finding is in line with the study of Škorić (2020)[24], in which online payment encourages businesses to register. The fourth statement, "I believe that it will increase the number of businesses which are compliant in paying their taxes on time", also resulted in a high business-friendliness ($M=3.82$, $SD=0.77$). The fifth statement, "I believe that it will improve LGU's business-friendliness and competitiveness", also produced a high business-friendliness result ($M=3.84$, $SD=0.75$). Overall, the responses of the LGU respondents from the non-linked LGUs yielded high business-friendliness ($M=3.79$, $SD=0.66$).

Table 25. Differences Between Linked and Non-Linked LGUs on Four Service Quality Indicators

	Linked		Non-linked		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Efficiency of services	4.28	0.62	3.91	0.65	177	3.69	<.001	0.58
Local revenue generation and savings on operational cost (Fiscal)	4.24	0.64	3.85	0.64	177	3.84	<.001	0.61
In-person transactions and more streamlined process (Process Improvement)	4.18	0.62	3.87	0.59	177	3.34	.001	0.53
Business registration/renewal (Business-friendliness)	4.13	0.68	3.79	0.66	177	3.20	.002	0.51

Note. This table shows the mean (*M*) and standard deviation (*SD*) for the responses of LGU respondents from both linked and non-linked LGUs in four service quality indicators: efficiency of services, local revenue generation and savings on operational cost (fiscal), in-person transactions and more streamlined process (process improvement), and business registration/renewal (business-friendliness). The table also includes the results of an independent-samples *t-test*, which compares the means of the two groups and calculates a *p*-value. The table also contains *Cohen's d*, a measure of effect size, which is interpreted as small ($d=0.2$), medium ($d=0.5$), and large ($d=0.8$).

These findings suggest that linking up with GFIs positively impacts the perceptions of LGU respondents in terms of Efficiency of services, fiscal benefits, process improvement, and business-friendliness. The results of the independent-sample *t-tests* indicate that



these differences are statistically significant, with *p-values* of less than .01, which suggests that the differences are unlikely to be due to chance. Further, the moderate effect size (*Cohen's d*=0.51 to 0.61) confirms a significant difference between the perceptions of the linked and non-linked LGUs regarding the benefits of linking up with GFIs. Overall, the results of the present study align with the research of Casinillo and Abad (2019)[25], highlighting the potential benefits of electronic payment systems in government transactions and services. In conclusion, these findings suggest that the study is relevant and essential for understanding the potential benefits of linking up LGUs with GFIs.

CONCLUSION AND RECOMMENDATION

The study showed that five (5) out of 14 municipalities linked up with LANDBANK. In contrast, nine had yet to link up due to a lack of funds, no IT officer, and unfamiliarity with digitalization. The study examined the differences between linked and non-linked LGUs on four service quality indicators: efficiency of services, local revenue generation and savings on operational cost (fiscal), in-person transactions and more streamlined process (process improvement), and business registration/renewal (business-friendliness). The results showed that linked LGUs had significantly higher mean scores for all four indicators than non-linked LGUs. Based on these conclusions, it was inferred that linking up with GFIs has a positive impact in terms of service quality. Hence, the findings rejected the hypothesis and denied that there is no significant difference in the service quality indicators of linked LGUs compared to the non-linked LGUs. In conclusion, there is a significant difference in the four service quality indicators of linked LGUs compared to that non-linked LGUs.

For the future researchers, they may conduct larger-scale research with more diverse municipalities, including 1st class municipalities and cities in Laguna, and large corporations in outer cities' industrial parks to better compare small businesses. Lastly, the future researchers may also conduct a follow-up study that may explore the reasons behind the hesitations and concerns of LGUs in adopting new payment systems and the measures that can be taken to address them.

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