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Impact of The Bureau of Internal Revenue's Digital Tax Payment Systems to Baguio City Taxpayers

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Abstract— This study examined the impact of the Bureau of Internal Revenue's (BIR) digital tax payment systems on taxpayers in Baguio City, focusing on their knowledge, awareness, and proficiency with these systems. The research evaluated the perceived benefits and challenges associated with digital tax services and investigates whether these systems have improved compliance levels among local taxpayers. Using a quantitative approach, data was collected through structured surveys from 80 respondents and analyzed using descriptive and inferential statistics. The findings revealed a high level of taxpayer understanding and adaptability, highlighting the effectiveness of the bureau's outreach and the convenience of digital tax services. However, areas for improvement include the adequacy of orientation and educational support for users. The study's result shows significant but limited relationships between taxpayer proficiency and perceptions of system benefits and challenges, suggesting that additional factors, such as system reliability and user support, influence overall experiences. The study concluded that while the digital tax payment systems are well-received, enhanced educational initiatives and continuous improvements are essential. Recommendations include expanding communication strategies, establishing dedicated support services, and conducting regular feedback assessments. Future research should further explore other factors affecting user experiences to enhance the system's effectiveness and taxpayer compliance.

Keywords— Bureau of Internal Revenue, digital tax payment systems, taxpayers, taxpayer compliance.

I. INTRODUCTION

According to the World Bank (2020), the importance of digital transformation in tax systems has risen and was highlighted during the past COVID-19 pandemic. Key benefits include increased tax compliance, transparency, and efficiency, as well as better data-driven policy-making. Digital tax systems help broaden tax bases, reduce compliance burdens, and support economic policy goals. Partnerships, such as the Prosperity Collaborative, aim to advance these benefits globally by aiding countries in implementing robust digital tax infrastructures. Taxes are immensely vital instruments and primary sources of revenue for the government (Mbise, 2022). The Bureau of Internal Revenue (BIR) is responsible for assessing and collecting all federal internal revenue taxes, fees, and charges in the Philippines. It also enforces all forfeitures, penalties, and associated fines. The BIR is also mandated by law to enforce tax collection. As a result, this organization controls the nation's monetary, fiscal, and financial policies in an effort to enhance Filipinos' quality of life and strengthen our sense of national identity. Over half of the Philippine government's overall revenue is collected by the Bureau of Internal Revenue. Additionally, the agency must implement the policing and supervisory authority granted by particular laws and the National Internal Revenue Code.

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According to Barreix (2018), the technological developments of recent decades are changing the management practices of governments around the world. On the other hand, Gupta (2017) emphasizes that Digitization has the potential to drastically alter fiscal policy by changing the way governments gather, use, distribute, and act upon data, especially that related to tax management. The BIR has recently started upgrading some of its traditional processes into more convenient ones with the help of the latest technological features. With the recent enactment of Republic Act No. 8792, often known as the E-Commerce Law, which establishes the legal acceptance and usage of electronic commercial and non-commercial transactions, the BIR must incorporate this notion into its existing tax administration system. Section 27 of the Act mandates that all government offices recognize electronic transactions and use electronic data communications or documents to conduct government business and fulfill governmental tasks. The same paragraph also requires all government agencies to make regulations to carry out this goal within two (2) years of implementing the E-Commerce Law. A contemporary work in progress, the BIR is redesigning its current tax administration system within the specified time frame to comply with this directive. Processing of tax returns, digital payment of taxes, and issuance of tax clearances, permits, and licenses are among the essential aspects of tax administration that may be tailored to allow transactions via electronic medium. According to research conducted in Malaysia by Azmi and Bee (2010), the Malaysian Inland Revenue Board (IRB) could benefit from e-filing, but only if local taxpayers actually use it. In the Philippines, the same is also anticipated.

The study of Bellon (2022) shows that electronic tax processes enhance compliance by mitigating costs and strengthening discouragements associated with taxes. The digitalization of tax payment systems, which will replace more cumbersome paper-based processes, offers several advantages to both taxpayers and the Internal Revenue Bureau. These advantages include reduced costs associated with administration and compliance, enhanced billing and payment system integration, enhanced accuracy and information security, and simpler access to taxpayer data. For the Bureau of Internal Revenue, the digitalization of tax payment systems also delivers real-time information that could be used to strengthen and automate compliance checks. However, despite its widespread adoption, there is still limited empirical evidence on how the digitalization of tax payment systems affects taxpayer's compliance and adherence. It's essential to comprehend the adoption of the digital tax filing system's users and pinpoint the variables that may impact their choice of whether or not to utilize these digital tax payment systems. This problem is crucial because the response could assist the administration in conceiving and advancing novel approaches to computerized tax filing systems that will exist afterward (Wang, 2005).

This paper addresses this gap by using the local taxpayer's compliance data and feedback variation in their usage of the current digital tax payment systems in Baguio City. The researcher's primary motivation for looking into the matter was her perception of Filipino society's demands concerning the structure between BIR and the taxpayers. According to Hesami (2024), Tax evasion and reporting errors can be minimized by utilizing information and communication technology (ICT) to improve tax collection efficiency. The news has stories of tax evasion, taxpayer noncompliance, and corruption. As a result, the researcher committed to investigating the issue at hand and contributing to the system's improvement. Additionally, the researcher feels compelled to assist Baguio City business owners in lowering the cost of taxpayer compliance with BIR, increasing tax collection, achieving compliance, eliminating inefficiencies related to the costs of taxpayers' transportation to BIR offices for business

purposes, and presenting taxpayers with a system that lowers their cost of compliance. Supporting the Bureau of Internal Revenue's most recent technological endeavor could persuade the government to enhance its other services and corporate entities to adopt electronic filing procedures as standards.

The current study targets to check the impact of the Bureau of Internal Revenue's digital tax payment systems on taxpayers' compliance in Baguio City. It specifically aims to evaluate taxpayers' knowledge, awareness, and proficiency concerning these systems, explore local taxpayers' perceptions of the BIR's digital payment systems, and identify benefits and challenges they face. Additionally, it seeks to determine whether there has been a significant improvement in taxpayers' adherence and compliance levels in Baguio City following the implementation of these digital systems.

Everett Rogers' idea of Diffusion of Innovation (DOI) is a highly significant theory about taxpayers' adoption of the BIR's digital payment systems platforms. It was underlined that adopters typically work to reduce uncertainty around them to a manageable degree before embracing innovations. Adoption is more likely to happen when innovation-evaluation data surpasses a particular point because self-generated network pressures to adopt grow. The five characteristics of innovation impact its adoption: trialability—the belief that the innovation can be tested before adoption—observability—whether the innovation's results are visible to others—complexity, which is the idea that an invention is hard to use; compatibility, the idea that an innovation fits in with requirements, experiences, and values; and relative advantage, the idea that an innovation is better than its predecessor (Rogers, 2003).

Based on the study of Coolidge and Yilmaz (2014), the use of digital tax returns systems has spread from developed to developing countries. In an effort to modernize and enhance tax administrations, the international tax community has been pushing for the implementation of electronic filing. This is backed by Nose (2023), who emphasized that tax administration and tax collection have improved because to digital services and technologies. The awareness and knowledge of the process and benefits, compliance costs, and poor cyber security undermine the level of compliance. The BIR requires taxpayers to use the online payment and e-filing systems made available to them. The system's efficacy must be closely examined because it influences taxpayer adoption and total compliance.

This study aims to examine how the taxpayers of Baguio City perceive the Bureau of Internal Revenue's (BIR) digital tax payment systems and how these perceptions influence their level of tax compliance. Specifically, the study seeks to determine the extent to which taxpayers are knowledgeable, aware, and proficient in using the digital tax payment systems implemented by the BIR. It also aims to identify the perceived benefits experienced by taxpayers as a result of the implementation of these digital systems. Furthermore, the study seeks to explore the perceived challenges faced by taxpayers in utilizing the digital tax payment systems provided by the BIR.

II. METHODOLOGY

This study utilized a quantitative research design to systematically measure and analyze taxpayers' perceptions of the BIR's digital tax payment systems in Baguio City. A modified questionnaire was the primary data-gathering tool, focusing on taxpayers' knowledge, awareness, perceived benefits, and challenges regarding the digital system.

The target population consisted of 100 randomly selected taxpayers who physically processed their tax transactions at BIR Revenue District Office 08 – Baguio City, with a final sample size of 80 determined using Slovin's formula. Questionnaires were distributed and collected immediately after respondents completed their transactions to ensure accuracy. Data were organized, coded, and analyzed using descriptive statistics and simple linear regression, with the assistance of SPSS software and a statistics expert. Ethical considerations were strictly observed, with participants' consent obtained and confidentiality of personal information maintained throughout the study.

III. RESULTS AND DISCUSSION

Taxpayers' Knowledge, Awareness, and Proficiency in BIR's Digital Tax Payment Systems

Table 1. Level of knowledge, awareness, and proficiency of taxpayers on the digital tax payment systems implemented by the Bureau of Internal Revenue

	Mean	t value	significance (p-value)	Descriptive Equivalent
I. Taxpayers' level of knowledge, awareness, and proficiency regarding BIR's digital tax payment systems				
1. BIR did a great job in introducing and informing all the taxpayers regarding their implementation of their Digital Payment Systems.	4.93	9.89	0.000	Strongly Agree
2. BIR strictly mandated all taxpayers wishing to do business in the Philippines to use paperless mode of their Digital Payment Systems.	4.41	64.71	0.000	Strongly Agree
3. Taxpayers were given proper orientation and education on the procedures on how to use BIR's Digital Payment Systems.	4.31	54.77	0.000	Strongly Agree
4. Taxpayers can file and pay for their taxes anytime and anywhere as long as they are using a computer with an internet connection.	4.61	65.87	0.000	Strongly Agree
5. BIR's Digital Payment Systems are user friendly and requires minimum technical skills to use.	4.40	55.87	0.000	Strongly Agree
6. BIR's Digital Payment Systems are accessible 24 hours a day, 7 days a week including holidays.	4.51	67.81	0.000	Strongly Agree
Average	4.53	47.52	0.000	Strongly Agree

Legend: 1.00 - 1.80 – Strongly Disagree/No Benefits/Least Serious

1.81 - 2.60 – Somewhat Disagree/Rarely Beneficial/Slightly Serious

2.61 - 3.40 – Neither Agree nor Disagree/Neutral//Moderately Serious

3.41 – 4.20 – Somewhat Agree/Beneficial/Highly Serious

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4.21 – 5.00 – Strongly Agree/Highly Beneficial/Very Highly Serious

Table 1 presents an overview of taxpayers' knowledge, awareness, and proficiency concerning the Bureau of Internal Revenue's (BIR) digital tax payment systems. The results indicate a generally high level of understanding, awareness, and competency among the respondents, with an overall proficiency score of (μ = 4.53).

This suggests that taxpayers are well-acquainted with the digital payment systems and have effectively adapted to using them.

Specifically, respondents strongly agreed that BIR has done an excellent job in introducing and informing the public about the digital tax payment systems (μ = 4.93). The high rating emphasizes the effectiveness of BIR's outreach strategies, which have likely contributed to the smooth adoption of the system.

Additionally, respondents positively evaluated the convenience of the digital tax payment systems, agreeing that taxpayers can file and pay taxes anytime and anywhere, provided they have access to a computer and an internet connection (μ = 4.53).

This reflects a strong recognition of the flexibility and accessibility offered by the system, aligning with the growing trend of online solutions in public services.

However, the statement with the lowest mean score (μ = 4.31) pertains to taxpayers' perceptions of the adequacy of orientation and education provided on the use of the BIR's digital payment systems.

Taxpayers' Level of Knowledge, Perceived Benefits, and Challenges in Using Digital Tax Systems

Table 2. Regression coefficients on the level of knowledge and the perceived benefits and problems encountered by taxpayers

Level of perceived benefits in using the Bureau of Internal Revenue's digital tax payment systems.				
1. BIR's Digital Payment Systems offers more conveniences in general than traditional tax systems.	4.23750	57.364	0.000	Highly Beneficial
2. BIR's Digital Payment Systems makes tax transactions faster – including acknowledgement of receipts and responses from BIR employees.	4.20000	49.885	0.000	Beneficial
3. BIR's Digital Payment Systems makes tax transactions more accurate since they are processed online.	4.36250	67.387	0.000	Highly Beneficial
4. BIR's Digital Payment Systems reduces costs of resources such as paper and ink since they are processed electronically.	4.33750	56.021	0.000	Highly Beneficial
5. BIR's Digital Payment Systems makes the taxpayers more confident and secured in paying taxes since it accepts online payments and bank transfers.	4.37500	62.721	0.000	Highly Beneficial

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Degree of seriousness on the problems encountered by the taxpayers regarding the Bureau of Internal Revenue's digital tax systems				
1. BIR's Digital Payment Systems offers more complications in general than the traditional tax systems.	2.07500	23.922	0.000	Slightly Serious
2. BIR's Digital Payment Systems makes the taxpayers demotivated in understanding the tax code and its corresponding processes.	1.90000	20.330	0.000	Slightly Serious
3. BIR's Digital Payment Systems are reliant in the availability of computer devices and the internet.	2.03750	18.237	0.000	Slightly Serious
4. BIR's Digital Payment Systems requires taxpayers to have a basic understanding in general concepts of Information Technology.	2.15000	18.852	0.000	Slightly Serious
5. BIR's Digital Payment Systems makes the taxpayers feel unsecured because of the possibility of cybercrime related events such as data breach.	1.88750	18.198	0.000	Slightly Serious

Table 2. Regression coefficients on the level of knowledge and the perceived benefits and problems encountered by taxpayers

	Unstandardized Coefficients		**Standardized Coeff.**	**t**	**Sig.**
	B	Std. Error	Beta		
Constant	3.782	0.265		14.257	0.000
Perceived Benefits	0.115	0.058	0.220	1.996	0.049*
Dependent Variable: Perceived Benefits					
Constant	2.938	0.439		6.688	0.000
Problems Encountered	-0.205	0.095	-0.236	-2.149	0.035*
Dependent Variable: Problems Encountered					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	0.220	0.049	0.036	0.436	
2	0.236	0.056	0.044	0.722	
Predictor: Level of knowledge, awareness, and proficiency					

The coefficient of determination (R^2) represents the proportion of variance in the dependent variables—perceived benefits of digital tax payment systems and problems encountered by taxpayers—that can be explained by the independent variable - level of knowledge, awareness, and proficiency of taxpayers.

Relationship Between the Taxpayers' Level of Knowledge, Awareness, And Proficiency to The Perceived Benefits of Digital Tax Payment System

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Table 3. ANOVA table on the relationship between the taxpayers' level of knowledge, awareness, and proficiency to the perceived benefits of digital tax payment system

	Sum of Squares	df	Mean Square	F	Significance
Regression	0.758	1	0.758	3.983	0.049b
Residual	14.842	78	0.190		
Total	15.599	79			
Dependent Variable: Financial Performance and Decision-Making Influence					
Predictor: Behavioral Cost-Effectiveness					

Table 4. ANOVA table on the relationship between the taxpayers' level of knowledge, awareness, and proficiency to the problems encountered by taxpayers on the digital tax payment system

	Sum of Squares	df	Mean Square	F	Significance
Regression	2.411	1	2.411	4.620	0.035b
Residual	40.701	78	0.522		
Total	43.112	79			
Dependent Variable: Financial Performance and Decision-Making Influence					
Predictor: Behavioral Cost-Effectiveness					

Table 5. Summary table

	Mean	t value	significance (p-value)	Descriptive Equivalent
Level of knowledge, awareness, proficiency	4.53	47.522	0.000	Strongly Agree
Perceived Benefits	4.30	86.601	0.000	Highly Beneficial
Perceived Challenges Encountered	2.01	24.336	0.000	Slightly Serious

The regression analysis of the perceived benefits of digital tax payment systems, as indicated by the ANOVA table, revealed a statistically significant relationship between the dependent and independent variables, with an F-value of 3.983 and a p-value of 0.049. This suggests that the level of knowledge, awareness, and proficiency of taxpayers is significantly related to their perception of the benefits of digital tax payment systems. Similarly, the analysis of the problems encountered by taxpayers also yielded a statistically significant result, with an F-value of 4.620 and a p-value of 0.035, indicating that taxpayers' knowledge, awareness, and proficiency are linked to the issues they face with the system.

However, the analysis also revealed relatively low R^2 values of 4.9% and 5.6% for the two dependent variables, respectively. These low values suggest that while there is a correlation between the independent and dependent variables, the independent variables (knowledge, awareness, and proficiency) explain only a small portion of the variability in the perceived benefits and problems encountered by taxpayers. In other words, the perceived benefits and challenges associated with BIR's digital tax payment systems cannot be fully explained by taxpayers'

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knowledge, awareness, and proficiency alone. Other factors, not captured by this model, likely play a significant role in shaping taxpayers' experiences with the system.

IV. CONCLUSIONS

This study explored taxpayers' knowledge, awareness, and proficiency regarding the Bureau of Internal Revenue's (BIR) digital tax payment systems, focusing on their relationship with perceived benefits and challenges. The findings revealed a high overall level of understanding and competency among taxpayers, indicating that they are generally well-acquainted with the digital systems and have effectively adapted to their use. Respondents particularly commended the BIR's effective outreach initiatives, highlighting the success of its communication strategies in raising public awareness and facilitating a smooth transition to digital platforms. Moreover, taxpayers praised the system's convenience and flexibility, appreciating the ability to file and pay taxes at their convenience, regardless of time and location.

However, the study identified areas needing improvement, particularly regarding the adequacy of orientation and educational support for users. This underscores the need for more robust training programs and educational resources to ensure that all taxpayers, including those with limited technical skills, can fully utilize the system's capabilities.

Statistical analysis confirmed significant relationships between taxpayers' knowledge, awareness, proficiency, and perceptions of the system's benefits and challenges. While these relationships are meaningful, the analysis revealed that these factors explain only a small portion of the variability in taxpayer perceptions. This suggests that other elements, such as system reliability, user experience, and customer support, may be crucial in shaping overall satisfaction and compliance levels.

In conclusion, while the BIR's digital tax payment systems are generally well-received and effectively implemented, there is room for improvement. Enhanced educational initiatives, continuous system evaluation, and a deeper understanding of additional influencing factors are essential for further improving taxpayer satisfaction and addressing challenges comprehensively. Future research should investigate these additional variables to create a more holistic approach to enhancing the digital tax payment experience and fostering higher compliance rates.

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