Divine Word International Journal of Management and Humanities 5(2)(2026) 3807-3826

Research in Management and Humanities

DWIJMH VOL. 5 NO. 2 (2026) ISSN: 2980-4817

Available online at www.dwijmh.org
Journal homepage: http://www.dwijmh.org
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Exploring the effect of system quality, information quality, and service quality on the taxpayer satisfaction in the eBIRForms System in RDO 008, Baguio City, Philippines

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A R T I C L E I N F O

Article history:
Received: March 30, 2026
Received in rev. form. April 25, 2026
Accepted: May 26, 2026
Published: June 10, 2016

Keywords: ***eBIRForms, system quality, information quality, service quality, taxpayer satisfaction, e-government***

JEL Classification: M11

A B S T R A C T

This study examined how system quality, information quality, and service quality affect taxpayers' satisfaction with the eBIR Forms system at BIR RDO 008 in Baguio City. Guided by the DeLone and McLean Information Systems Success Model, a quantitative descriptive-correlational design was employed involving 163 individual taxpayers. Data were analyzed using mean, Pearson correlation, and multiple regression.

Findings showed that taxpayers generally perceived system, information, and service quality as acceptable, with service quality obtaining the highest rating. Overall satisfaction was interpreted as moderate. Correlation analysis revealed very strong positive relationships between all three quality dimensions and taxpayers' satisfaction. However, regression results indicated that only service quality and information quality significantly predict satisfaction, whereas system quality does not have a significant independent effect once other variables are controlled for.

Based on these findings, the study suggests that BIR RDO 008 should prioritize strengthening service quality by improving support systems, ensuring timely responses, and allocating adequate personnel during peak filing periods. Information quality should also be enhanced by simplifying taxpayer guidelines and ensuring consistency and clarity across all platforms. Additionally, improvements in system reliability may be achieved through infrastructure upgrades, better resource planning, and the inclusion of features such as auto-save and real-time updates. The study further recommends enhancing confirmation mechanisms through instant downloadable receipts, SMS notifications, and accessible transaction tracking. Regular feedback collection and performance monitoring are also encouraged to support continuous system improvement. Future research may consider additional variables and broader comparative settings to further validate the findings.

Overall, the findings indicate that in a mandatory digital tax environment, taxpayer satisfaction is shaped not only by technical system features but more strongly by responsive support services and reliable, accurate information. This underscores the importance of strengthening both service delivery and information systems to enhance the overall user experience.

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Introduction

Digital transformation is now a key strategy in public administration, helping governments run more

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efficiently and deliver better services. Many governments use e-government systems to simplify processes and connect with citizens. The United Nations Department of Economic and Social Affairs (UNDESA) and the Organization for Economic Co-operation and Development (OECD) report that well-managed digital systems make governance more accountable, transparent, accessible, and trustworthy.

In the Philippines, digitalization is a national priority, as stated in the Philippine Development Plan (PDP) 2023–2028 (NEDA, 2023). The Bureau of Internal Revenue (BIR), the main revenue agency, supports this goal. One of its main digital projects is the electronic BIR Forms (eBIRForms) system, which lets taxpayers prepare and file tax returns online. Starting in 2024, BIR Revenue regulation (RR) No. 4-2024 made eBIRForms mandatory, helping the BIR move toward its Aspiration 2028 goal of becoming a fully digital, service-oriented organization.

Electronic filing systems are designed to lower compliance costs, reduce errors, speed up processing, and make tax filing easier for taxpayers. However, the real success of digital tax services depends on how taxpayers experience and assess them, not just on their availability or requirement. Reports show that taxpayers often face technical problems, system downtime, and delayed confirmations, and often need help during tax season. These issues reveal a gap between digital tax policies and actual user experience.

Several local studies found that system quality, information quality, and service quality have a strong impact on taxpayer satisfaction. However, these studies were conducted before eBIRForms became fully mandatory and focused only on certain areas. There is still little evidence about taxpayer satisfaction now that digital compliance is required.

No study has yet examined how satisfied taxpayers are with eBIRForms in Revenue District Office (RDO) 008, Baguio City, since Baguio is a major urban center in Northern Luzon with a diverse group of taxpayers; a local evaluation is needed.

This study uses the DeLone and McLean Information Systems Success Model (2003) to examine how system quality, information quality, and service quality affect taxpayers' satisfaction with eBIRForms, given that compliance is now required. By focusing on satisfaction, the study offers practical, local evidence to help modernize digital tax services in RDO 008, Baguio City.

Where digital compliance is mandatory, it is essential to determine whether service support and information reliability exert a greater influence on taxpayer satisfaction than the system's technical features within RDO 008, Baguio City. This study generates timely and context-specific evidence that may inform policy refinement, enhance service delivery, and support the ongoing digital transformation of tax administration. Specifically, the findings are expected to assist the BIR, RDO 008, Baguio City, in identifying the key determinants of taxpayer satisfaction, thereby guiding efforts to strengthen system performance, improve the reliability and accuracy of information, and enhance service support mechanisms. Moreover, this study contributes to the limited empirical literature on mandatory digital government systems. It offers insights that may be relevant to other public sector agencies undertaking

similar digital transformation initiatives.

Literature review

The purpose of this literature review is to examine existing studies and theories on digital tax systems, with a particular focus on system, information, and service quality as key factors influencing taxpayer satisfaction.

Digital transformation in tax administration and the evaluation of digital tax systems

Tax administrations around the world are shifting from paper-based processes to digital systems. According to the OECD (2023), many jurisdictions now mandate electronic filing to enhance efficiency, transparency, and audit capabilities. Likewise, UN DESA (2022) emphasizes that the success of digital government should be measured not just by the adoption of new technology, but also by how well it meets users' needs, including service quality and overall user satisfaction.

The DeLone and McLean Information Systems Success Model is often used to evaluate digital systems. It examines system, information, and service quality, all of which affect user satisfaction. In required digital settings, satisfaction is a better measure of success than usage, since people may use the system because they have to, not because they want to (Petter et al., 2013).

Recent studies indicate that digital government systems perform best when system, information, and service quality are all robust. Kaban et al. (2023) found that users feel more satisfied with e-government services when systems are reliable, the information is accurate, and support services are responsive. Likewise, the OECD (2023) highlights that stable systems, clear guidance, and timely assistance are crucial for building and sustaining users' trust in digital tax platforms.

Even with these findings, most research examines these factors separately or focuses on the systems people choose to use. As a result, we still do not fully understand how system, information, and service quality together affect taxpayer satisfaction in required digital tax systems, where users have no choice.

In a mandatory e-filing system, the system's performance plays a key role in shaping whether taxpayers can complete their compliance tasks smoothly and efficiently. It is important to consider all three qualities together, since a good technical system is not enough if the instructions are unclear or support is lacking.

System quality

System quality underpins digital tax systems and strongly influences their ease of use. Important parts of system quality are reliability, usability, speed, accessibility, and security (DeLone & McLean, 2003). Since taxpayers must use these systems for required filings, reliability is especially important.

Studies show that system quality directly affects user satisfaction. Kaban et al. (2023) found that stable and responsive digital systems make users more satisfied. Rahmatullah et al. (2025) also found that system quality is a key factor in how people perceive government digital services.

Local studies support these findings. In Pampanga, reliable digital tax services had a significant impact on taxpayer satisfaction, and Katigbak (2023) noted that improved system stability improved the user experience on the eONETT platform. These studies suggest that while clear information and strong support help, system quality remains the technical backbone of digital tax systems.

Information quality

System quality provides the technical foundation for digital services, while information quality helps users understand and complete their tasks. Wixom & Todd (2005) say information quality means being accurate, clear, complete, and timely. Good information helps taxpayers follow filing rules, reducing mistakes and confusion.

Research indicates that high-quality information plays a key role in building users' trust and confidence in digital services. Pham et al. (2023) found that the trustworthiness and quality of information in e-government systems significantly enhance user satisfaction and perceived value, which, in turn, strengthen trust. Similarly, Taufiqurokhman et al. (2024) showed that providing accurate, clear, and helpful information in government digital services fosters both public trust and user satisfaction. Lin and Hung (2025) also highlighted that information quality is critical for ensuring user satisfaction and overall system effectiveness. Supporting these findings, the OECD (2023) emphasizes that clear digital guidance increases taxpayers' confidence in e-filing systems.

Also, Roda et al. (2023) showed that clear, complete tax information reduces filing errors and increases taxpayer satisfaction. Reliable information is especially important in required e-filing, where users usually have no other way to file.

Service quality

Parasuraman et al. (1988) define service quality as the support services in digital tax systems, such as responsiveness, reliability, and helpfulness of staff. Even though digital systems are automated, users often need help with technical or process issues.

Studies show that responsive support services greatly improve satisfaction with digital government platforms. Mo and Beh (2025) found that prompt, effective help for users leads people to perceive service quality as higher, thereby increasing satisfaction with digital public services.

Asuncion and Lacap (2021) found that assistance from BIR staff remains a key factor in taxpayer satisfaction with digital tax systems, especially in areas with varying levels of digital skills. These findings show that service quality, along with system and information quality, is crucial to ensuring users receive sufficient support when using digital platforms.

Taxpayers' satisfaction

Taxpayer satisfaction is a main sign of how well digital tax services work. In required digital systems, people must use them, so merely checking compliance does not indicate whether the system is successful. Satisfaction shows if users think the system is efficient, reliable, and helpful.

Petter et al. (2013) argue that satisfaction is a better measure of information system success in the required settings. Mo and Beh (2025) also found that satisfaction affects trust in public institutions and influences taxpayers' willingness to meet their tax obligations.

The requirement to use eBIRForms under Revenue Regulation No. 4-2024 underscores the importance of measuring taxpayer satisfaction. This measurement is essential for assessing how well digital tax modernization efforts are working.

Conceptual framework

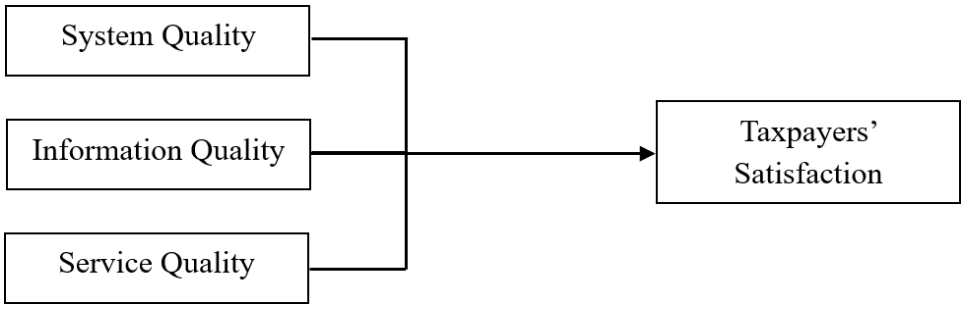

Figure 1. Conceptual framework illustrating that System Quality, Information Quality, and Service Quality directly influence Taxpayers' satisfaction in the context of BIR eBIRForms.

This study uses the DeLone and McLean Information Systems (IS) Success Model (2003), a widely used framework for measuring the effectiveness of information systems across different fields. The model has six parts: System Quality, Information Quality, Service Quality, Use, User Satisfaction, and Net Benefits (Delone et al, 2003). This study focuses on System Quality, Information Quality, and Service Quality as independent variables, as these are the main factors directly affecting user satisfaction. In this study, User Satisfaction, or Taxpayers' Satisfaction, is the dependent variable and reflects how taxpayers rate the eBIRForms system and its ability to provide digital tax services in RDO 008, Baguio City.

The variables "Use" and "Net Benefits" from the DeLone and McLean Information Systems Success Model were excluded from this study to maintain alignment with its specific objective. The study focuses solely on measuring system, information, and service quality as determinants of taxpayers' satisfaction. Including "Use" and "Net Benefits" would extend the analysis beyond the intended scope, which is limited to evaluating the direct influence of these three quality dimensions.

- System Quality assesses the technical performance, reliability, stability, usability, and responsiveness of the eBIRForms system.

- Information Quality measures how accurate, complete, clear, relevant, and timely the information from eBIRForms is for taxpayers in Baguio City.

- Service Quality refers to how responsive, reliable, and supportive the BIR RDO 008, Baguio City

staff are when assisting taxpayers.

Previous studies have validated these dimensions (Maglaqui & Lacap, 2021; Asuncion & Lacap, 2021; Kaban et al., 2023), confirming their appropriateness for evaluating digital government services such as eBIRForms.

Statement of the problem

This study aims to assess taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City. In particular, the study aims to answer the following questions:

1. What is the level of (a) system quality, (b) information quality, and (c) service quality as perceived by taxpayers using the eBIRForms system in RDO 008, Baguio City?

2. What is the level of taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City?

3. Is there a significant relationship between taxpayers' perceived (a) system quality, (b) information quality, and (c) service quality, and taxpayers' satisfaction with eBIRForms in RDO 008, Baguio City?

4. Do system quality, information quality, and service quality significantly predict taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City?

Hypothesis

The study tests the following null hypotheses:

H_{01}: There is no significant relationship between (a) system quality and taxpayers' satisfaction, (b) information quality and taxpayers' satisfaction, and (c) service quality and taxpayers' satisfaction.

H_{02}: The levels of taxpayers' perception of (a) system quality, (b) information quality, and (c) service quality do not significantly predict the level of taxpayers' satisfaction.

Research methodology

This chapter explains the research design, where the study took place, who participated, how data were collected, which tools were used, how the data were analyzed, and the ethical steps taken.

Research design

A quantitative predictive correlational design was employed in this study to examine the extent to which system quality, information quality, and service quality predict taxpayers' satisfaction with the eBIRForms system. Descriptive statistics were first used to determine the perceived levels of the three quality dimensions and overall satisfaction.

Subsequently, correlational analysis was conducted to assess the strength and direction of the relationships between system quality, information quality, service quality, and taxpayers' satisfaction. To address the predictive aspect of the study, multiple regression analysis was utilized to identify which of these quality dimensions significantly contribute to explaining variations in taxpayers' satisfaction.

This design enables the systematic measurement and statistical analysis of naturally occurring variables without manipulation of experimental conditions. Using real-world survey data from taxpayers, the study identifies significant associations and predictive relationships between perceived quality of eBIRForms and satisfaction.

Locale of the study

The study was conducted in Baguio City, under BIR Revenue District Office (RDO) 008. As of October 2025, RDO 008 had about 19,532 registered individual taxpayers. This location was chosen for several reasons:

- Baguio is a highly urbanized area with residents actively using digital services.
- RDO 008 has fully implemented eBIRForms, especially after the 2024 mandatory adoption, ensuring that most taxpayers are familiar with the system.
- Numerous taxpayers' concerns are specific to the area, such as system errors, delayed email confirmations, and high demand for assistance, especially on tax filing deadlines.
- There is no existing research assessing eBIRForms satisfaction in this district, making the locale both relevant and different for the study.

Respondents of the study

The study's respondents were individual taxpayers registered with RDO 008 who had used eBIRForms to file their taxes. Of the 180 questionnaires distributed, 171 people responded, and 163 responses were valid and included in the analysis. All respondents were confirmed to be individual (not corporate) taxpayers doing business in Baguio City under RDO 008, and they had experience using eBIRForms as of November 2025.

Sampling technique

The study used convenience sampling within an accessible group, a non-probability approach suitable for on-site data collection. Data was collected at BIR RDO 008 in Baguio City during the set period. The accessible group included taxpayers who were physically present in the e-lounge and waiting areas for tax transactions.

During sampling, taxpayers in the accessible group were invited to participate in the survey without any predetermined selection criteria or researcher bias. This helped reduce selection bias and made the process as random as possible given the field conditions.

Before distributing the questionnaire, a screening was conducted to ensure respondents were eligible. Respondents had to confirm that they:

(a) are individual taxpayers registered under RDO 008; and
(b) have previously used the eBIRForms system.

Only those who met both criteria received the survey. This screening ensured that respondents had direct experience with the digital tax platform, thereby improving the quality and relevance of the data. While a random invitation to an accessible group may limit the extent to which the results apply, the eligibility checks and the high response rate help strengthen the study's validity.

Sample size determination

The sample size was calculated using Slovin's formula to reach a 95% confidence level and an 8% margin of error. The estimated population was about 19,532 individual taxpayers in RDO 008:

$$n = \frac{N}{1 + N(e)^2}$$

Using $e = 0.08$ (8% margin of error):

$$n = \frac{19{,}532}{1 + 19{,}532(0.08)^2} \approx 155.$$

Thus, at least 155 respondents were needed. To account for potential non-responses or unusable responses, approximately 180 questionnaires were distributed. This way, even if some were not returned or were invalid, the study would still have enough valid responses for reliable analysis.

Data gathering instrument

The main tool for gathering data was a structured survey questionnaire. It had four sections, each matching one of the main variables:

- System Quality: Items assessing reliability, usability, responsiveness, and stability of the eBIRForms system.
- Information Quality: Items assessing clarity, completeness, accuracy, and timeliness of information provided by eBIRForms.
- Service Quality: Items assessing responsiveness, assurance, empathy, and availability of support from BIR (e.g., helpdesk, personnel assistance).
- Taxpayers' satisfaction: Items assessing overall satisfaction, confidence in the system, and the degree to which expectations are met.

Each item was measured on a 4-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree). A 4-point scale (with no neutral option) was chosen intentionally; the absence of a neutral midpoint was intended to reduce central tendency bias and to elicit clearer evaluative judgments

in a mandatory compliance context.

To ensure the questionnaire's validity and clarity, a pilot test was conducted, and the scales' reliability was subsequently assessed. Reliability analysis using Cronbach's alpha coefficient was performed on the pilot responses, yielding a value above 0.90, which indicates excellent internal consistency of the instrument.

Data gathering procedure

Before data collection, formal approval was secured from the BIR RDO 008 in Baguio City. An authorization letter outlining the research objectives, scope, and data confidentiality measures was submitted to the office to ensure institutional compliance and ethical clearance. Also, to establish content validity, the research instrument was reviewed by industry and academic experts using the university's official validation form. Revisions were made based on their recommendations to enhance clarity, relevance, and alignment with the study variables.

A pilot test was then done with fifteen (15) individual taxpayers from a nearby revenue district to keep the main sample unaffected. The pilot checked if the questions were clear and well-structured. After making small improvements, the final questionnaire was ready for use.

Data was collected in person at BIR RDO 008 over about two to three weeks in November 2025. With help from the BIR office, questionnaires were distributed on-site in the e-lounge and waiting areas—taxpayers were randomly invited to participate. Participation was voluntary, and everyone was assured of anonymity and confidentiality. No personal information was collected, and respondents were told their responses would be used only for academic research.

After data collection, all returned questionnaires were reviewed for completeness and consistency. Responses with substantial missing data were excluded from analysis, and obvious inconsistencies were examined. After data cleaning, 163 valid responses were retained for statistical analysis.

Statistical treatment of data

The following statistical tools were used to analyze the data:

1. Mean

The mean (average) was computed for each survey item and for each construct. This measure provided a measure of central tendency, indicating the overall level of agreement among respondents. The mean scores were interpreted using a four-point Likert scale to determine the level of respondents' agreement. As shown in Table 1, mean values ranging from 3.26 to 4.00 were interpreted as High, indicating strong agreement; 2.51 to 3.25 as Moderate, indicating agreement; 1.76 to 2.50 as Low, indicating disagreement; and 1.00 to 1.75 as Very Low, indicating strong disagreement.

Table 1: Interpretation of mean scores

Mean Range	Verbal Interpretation
3.26–4.00	Strongly Agree/ High
2.51–3.25	Agree/ Moderate
1.76–2.50	Disagree/ Low
1.00–1.75	Strongly Disagree/ Very Low

Source: Imsa-ard (2020)

In this study, the mean was used to assess taxpayers' general perceptions of each dimension of the eBIRForms system. Specifically, to identify which aspects of system quality, information quality, and service quality were rated more favorably and which areas may require improvement. The computed mean scores also provided descriptive evidence supporting the interpretation of the relationships tested in the inferential analysis (e.g., correlation and regression). By summarizing respondents' evaluations numerically, the mean provided a basis for assessing the overall level of taxpayers' satisfaction in RDO 008, Baguio City.

2. Pearson's Correlation (r)

Pearson's r was used to measure the strength and direction of the linear relationship between each quality dimension (system quality, information quality, service quality) and taxpayers' satisfaction.

Table 2: Interpretation of Pearson's correlation (r-value)

r-value Range	Interpretation
0.80–1.00	Very Strong Positive
0.60-0.799	Strong Positive
0.40–0.599	Moderate Positive
0.20–0.39	Weak Positive
0.00-0.199	Very Weak

Significance level: $p < 0.05$

Source: Abu Bakar, N., Rosbi, S., Hashim, H., & Che Arshad, N. (2021)

3. Regression Analysis

Multiple linear regression was used to find out how system quality, information quality, and service quality predict taxpayers' satisfaction. Unstandardized coefficients (B) estimated the expected change in satisfaction for each one-unit increase in a predictor, while controlling for the others. Statistical significance was checked using p-values ($p < .05$). This analysis complements the correlation results by showing which quality dimensions are influential predictors of satisfaction when considered together.

Ethical considerations

This study was conducted in accordance with ethical standards and institutional guidelines for research involving human participants. Prior to data collection, informed consent was obtained from all respondents. Each questionnaire included a clear statement outlining the study's purpose, the voluntary nature of participation, and assurances of confidentiality and anonymity. Consent was implied by

completing the survey, and respondents were free to withdraw at any time without consequence.

To protect privacy, no personally identifiable information was required. Although a name field was optional, most respondents did not provide it. All data were treated as confidential and reported only in aggregate form. Approval to conduct the study was secured from the BIR Revenue District Office 008 in Baguio City, and the research proposal was reviewed and approved by the institution's research ethics committee prior to implementation.

Respondents were also informed that they could skip any questions they were uncomfortable answering. No incentives were provided that could influence participation. All data were securely stored, and the researcher ensured accurate and honest reporting of findings, including acknowledgment of any limitations or potential sources of bias.

Data presentation and analysis

This chapter presents statistical findings on system quality, information quality, service quality, and taxpayers' satisfaction with the eBIRForms system at BIR RDO 008 in Baguio City. The results are interpreted in relation to existing theories and empirical studies on digital government systems, particularly the DeLone and McLean Information Systems Success Model (2003) and recent e-government literature.

Response rate and data reliability

Of the 180 questionnaires given out, 171 were returned, and 163 were valid and complete. This results in a response rate of about 91%, which exceeds the minimum recommended for social science research and indicates that the dataset is suitable for further analysis.

Cronbach's Alpha was used to assess internal consistency, yielding $\alpha = 0.912$, indicating excellent reliability. This means the survey items consistently measure what they are intended to measure, supporting the validity of the statistical results.

Problem 1: **What is the level of (a) system quality, (b) information quality, and (c) service quality as perceived by taxpayers using the eBIRForms system in RDO 008, Baguio City?**

Table 3. Level of Perceived System Quality of eBIRForms

Indicators	Mean	Interpretation
System Quality:		
1. The eBIRForms system is reliable and functions as expected.	3.061	Agree
2. The system is easy to use and user-friendly.	3.086	Agree
3. The system responds quickly to my inputs and commands.	3.025	Agree
4. The system remains stable during use without unexpected crashes.	2.147	Disagree
5. The system performs operations without errors.	2.319	Disagree
Overall Mean	2.728	Agree

Source: Imsa-ard (2020)

System Quality had an overall mean of 2.728, indicating Agree. This indicates that taxpayers mostly view the technical performance of the eBIRForms system positively. The results reveal that the system meets basic functional needs. Recent studies find that usability is a key factor in the adoption of e-government (Jeilani et al., 2025).

Among the indicators, ease of use obtained the highest mean score (M = 3.086), followed by system reliability (M = 3.061) and system responsiveness (M = 3.025). These results suggest that respondents generally perceive the system as user-friendly and accessible. This may help facilitate navigation of the filing process with minimal difficulty. Overall, the findings indicate the perceived importance of system design in digital public services, where usability may help reduce user burden and support efficient compliance.

However, two indicators received lower ratings. System stability (M = 2.147) and error-free operation (M = 2.319) were seen as Disagree. This indicates that taxpayers experience technical disruptions or system errors when using the service. This finding points out a serious issue between usability and reliability. According to reports from the OECD (2020) and the World Bank (2022), system instability, especially during peak filing periods, can significantly erode user trust and heighten perceived risks on digital platforms.

These technical disruptions are important because tax filing is mandatory and time-sensitive. These issues matter since taxpayers cannot delay using the system. Failures can cause delays, require multiple attempts, or raise concerns about meeting deadlines. This shows that while the system is usable, its reliability during busy times needs improvement.

Overall, the results show that taxpayers recognize how usable the eBIRForms system is, but they also note technical issues that could undermine their filing experience. This supports the view that system quality is a basic requirement rather than the main factor influencing satisfaction.

Table 4. Level of perceived information quality of eBIRForms

Indicators	Mean	Interpretation
Information Quality:		
1. The BIR provides adequate and accessible information regarding the use of the eBIRForms system (e.g., guidelines, advisories, instructions).	2.840	Agree
2. The BIR has sufficient communication channels (website, social media, helpdesk) to disseminate timely information about updates or issues concerning eBIRForms.	2.914	Agree
3. The email confirmation I receive from eBIRForms is sent immediately and accurately reflects the details of my tax return.	2.387	Disagree
Overall Mean	2.714	Agree

Source: Imsa-ard (2020)

Information Quality had an overall mean of 2.714, showing that taxpayers generally find the information from the eBIRForms system adequate and easy to access. This aligns with UNDESA (2022, 2024), which

states that effective communication channels improve transparency and usability in digital government systems.

Among the items, the availability of communication channels for system updates obtained the highest mean score (M = 2.914), followed by the availability of guidelines and instructions (M = 2.840). These results suggest that respondents perceived the Bureau of Internal Revenue, Revenue District Office 008, as providing information on system usage and updates. The availability of timely, accessible information may help reduce uncertainty and enable taxpayers to fulfill their tax obligations more efficiently.

However, the timeliness and accuracy of email confirmation (M = 2.387) was rated as Disagree. This is a key weakness because confirmation emails are official proof of filing. As Rahmatullah et al. (2025) found, delays or mistakes in these confirmations can reduce user trust and confidence in digital systems.

This problem may leave taxpayers unsure whether their submissions went through, leading to duplicate filings, additional follow-ups, or more visits to BIR offices or e-lounges. While general information is shared well, weak confirmation processes can erode trust in the system.

The findings show that taxpayers appreciate guidance and communication channels, but better confirmation processes are needed to make digital transactions fully reliable and trustworthy.

Table 5. Level of perceived service quality of eBIRForms

Indicators	Mean	Interpretation
Service Quality:		
1. Assistance related to the system is responsive to my needs.	3.067	Agree
2. Support staff provide assurance and confidence in addressing my concerns.	3.006	Agree
3. Support services show empathy and consideration for taxpayers' needs.	3.080	Agree
4. Assistance is readily available when I encounter issues with the system.	2.834	Agree
Overall Mean	2.997	Agree

Source: Imsa-ard (2020)

Service Quality had the highest overall mean of 2.997, indicating that taxpayers generally have a positive view of the assistance and support services at BIR RDO 008, Baguio City. This shows that human support remains very important in digital services, in line with OECD (2020) and UNDESA (2022), which argue that digital transformation makes human interaction even more important.

Among the indicators, empathy of support personnel (M = 3.080), responsiveness to taxpayer concerns (M = 3.067), and assurance provided by staff (M = 3.006) received favorable ratings. These findings suggest that BIR RDO 008 personnel in Baguio City address taxpayer issues well and instill confidence during the filing process. When users encounter technical or procedural problems, responsive support from personnel is crucial to ensuring successful task completion.

The availability of assistance (M = 2.834) was also rated positively, showing that taxpayers usually find support services easy to access when needed. This is especially important in a required system where users might need quick help to meet deadlines.

These results suggest that service quality plays an important role in supporting taxpayers when system-related issues occur. When technical problems arise, taxpayers rely on available support services to help them complete the filing process. This indicates that service quality may contribute to overall satisfaction alongside other factors, a relationship that will be further examined through correlational and regression analyses.

Problem 2: **What is the level of taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City?**

Table 6. Level of perceived taxpayers' satisfaction with the eBIRForms

Indicators	Mean	Interpretation
Taxpayers' Satisfaction:		
1. I am satisfied with the overall performance of the eBIRForms system.	2.773	Agree
2. The system meets my expectations as a taxpayer.	2.822	Agree
3. I feel confident using the eBIRForms system for my tax transactions.	2.785	Agree
Overall Mean	2.793	Agree

Source: Imsa-ard (2020)

The second research question sought to determine the level of taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City.

Results indicate that Taxpayers' satisfaction obtained an overall mean of 2.793, interpreted as Agree, suggesting that taxpayers are generally satisfied with the eBIRForms system.

Meeting expectations (M = 2.822) got the highest score, followed by confidence in using the system (M = 2.785) and overall performance (M = 2.773). This means taxpayers can complete their filing tasks effectively with the system.

However, the moderate satisfaction level indicates that, while the system works, it does not provide the best user experience. Users are satisfied because they can meet their obligations, but problems like system instability and slow confirmations keep satisfaction from being higher.

Comparatively, the descriptive statistics show that Service Quality received the highest mean, followed by Taxpayers' satisfaction, System Quality, and Information Quality. This pattern suggests that institutional support and assistance services play a critical role in shaping taxpayers' overall evaluation of the system.

Problem 3: **Is there a significant relationship between taxpayers' perceived (a) system quality, (b)**

information quality, and (c) service quality, and taxpayers' satisfaction with eBIRForms in RDO 008, Baguio City?

Table 7. Pearson correlation between quality dimensions and taxpayers' satisfaction (n = 163)

Variables	Pearson r	P-value	Interpretation	Decision
System Quality and Taxpayers' Satisfaction	0.890	8.041×10^{-57}	Very Strong Positive	Reject H_{01}
Information Quality and Taxpayers' Satisfaction	0.875	1.572×10^{-52}	Very Strong Positive	Reject H_{01}
Service Quality and Taxpayers' Satisfaction	0.917	4.217×10^{-66}	Very Strong Positive	Reject H_{01}

Source: Abu Bakar, N., Rosbi, S., Hashim, H., & Che Arshad, N. (2021)

The results show statistically significant positive relationships between system quality, information quality, service quality, and taxpayers' satisfaction ($p < .001$), leading to the rejection of all null hypotheses. Among the variables, service quality obtained the highest correlation coefficient ($r = 0.917$), followed by system quality ($r = 0.890$) and information quality ($r = 0.875$).

The coefficient values indicate strong positive associations between each quality dimension and taxpayers' satisfaction. However, it is important to emphasize that Pearson correlation measures the degree of linear association between variables and does not indicate causation or the magnitude of predictive influence. It only shows how variables move together.

These findings are consistent with the DeLone and McLean (2003) Information Systems Success Model, which posits that system quality, information quality, and service quality are key determinants of user satisfaction. They also align with the study of Alkraiji and Ameen (2022), which reported similar relationships in e-government systems.

Although some individual indicators under the quality dimensions obtained relatively lower mean scores in the descriptive results, the overall construct-level analysis still shows strong positive relationships with taxpayer satisfaction. This suggests that while respondents may differ in their evaluations of specific system features, their overall perceptions of each quality dimension remain consistently related to their satisfaction levels. Therefore, taxpayer satisfaction is better understood in terms of the overall experience of the system, information, and service quality rather than in terms of isolated item-level evaluations.

Problem 4: **Do system quality, information quality, and service quality significantly predict taxpayers' satisfaction with the eBIRForms system in RDO 008, Baguio City?**

Table 8. Multiple linear regression analysis of predictors of taxpayers' satisfaction (n = 163)

Predictor	B	p-value	Interpretation
System Quality	-0.147	.187	Not Significant
Information Quality	0.412	1.1×10^{-10}	Significant

Service Quality	0.789	4.0×10^{-11}	Significant

Source: McShane, B. B., Bradlow, E. T., Lynch Jr., J. G., & Meyer, R. J. (2024).

The results show that Service Quality (B = 0.789, p < .001) and Information Quality (B = 0.412, p < .001) significantly predict taxpayers' satisfaction. In contrast, System Quality (B = −0.147, p = .187) is not statistically significant after controlling for the other predictors.

The regression equation is expressed as:
Satisfaction = a − 0.147(System Quality) + 0.412(Information Quality) + 0.789(Service Quality)

These findings indicate that when the three quality dimensions are analyzed simultaneously, information quality and service quality contribute significantly to explaining taxpayers' satisfaction. In contrast, system quality does not provide a statistically significant unique contribution. This suggests that taxpayers' satisfaction is more strongly associated with the quality of information provided and the responsiveness of support services during the filing process.

Although system quality is significantly correlated with satisfaction in the bivariate analysis, its non-significant regression coefficient suggests that its effect overlaps with other predictors in the model. This indicates shared variance among the quality dimensions, with aspects of system functionality already reflected in perceptions of information and service quality.

In this context, system quality may be viewed by taxpayers as a baseline or expected requirement of the digital filing system. Once this basic functionality is met, satisfaction appears to be shaped more by the clarity, reliability, and timeliness of information, as well as the availability of responsive assistance when issues arise.

This pattern aligns with Pham et al. (2023), who emphasized that users of digital government systems tend to evaluate satisfaction more based on informational reliability and support services than on technical system features alone.

Results and discussion

The findings show that taxpayers at BIR RDO 008 in Baguio City generally perceive the eBIRForms system positively. However, satisfaction is influenced more by service quality and information quality than by system quality. This supports the DeLone and McLean Information Systems Success Model while indicating a contextual shift in mandatory e-government settings, where service and information quality become the primary drivers of satisfaction.

This study contributes to the literature by demonstrating that determinants of satisfaction vary by system use conditions. In voluntary systems, system quality is often a key driver; in compulsory systems such as e-tax filing, it functions mainly as a baseline requirement. This extends Pham et al. (2023), showing that although system disruptions negatively affect user experience, they do not necessarily reduce overall satisfaction in mandatory contexts.

Regarding system quality, respondents reported acceptable usability and responsiveness, though issues with stability and occasional errors remain. Consistent with Pham et al. (2023), these disruptions affect user experience in time-sensitive tasks but have a limited impact on satisfaction, reinforcing the view of system quality as a hygiene factor rather than a performance driver.

Regarding information quality, respondents generally viewed guidelines and communication channels positively but noted delays and inconsistencies in confirmation emails. This aligns with Alkraiji and Ameen (2022), emphasizing that accurate and timely information is essential for trust in digital government services. In this context, unreliable confirmations weaken the perceived credibility of the system as proof of compliance.

Service quality emerged as the strongest determinant of satisfaction, consistent with Pham et al. (2023). This highlights the critical role of responsive support services in mitigating system limitations, particularly in mandatory environments where users have no alternatives.

A key contribution of this study is the refinement of the DeLone and McLean Information Systems Success Model in compulsory settings. The findings suggest that system quality does not significantly influence satisfaction when information and service quality are considered, indicating its foundational rather than determining role.

Overall, the study recommends prioritizing responsive support services and ensuring accurate, timely system-generated information—especially confirmation processes—rather than focusing solely on technical system improvements.

Conclusions

This study examined taxpayers' satisfaction with the eBIRForms system at BIR RDO 008 in Baguio City and tested whether system quality, information quality, and service quality were related to and predictive of taxpayers' satisfaction. The findings indicate that taxpayers generally perceive the system positively, with a moderate level of satisfaction.

Based on the correlation results, H_{01} is rejected, as system quality, information quality, and service quality were found to be significantly related to taxpayers' satisfaction. This indicates that all three quality dimensions are associated with taxpayers' satisfaction with the eBIRForms system.

However, regression results show that only information quality and service quality significantly predict taxpayers' satisfaction, while system quality is not a significant predictor. Thus, H_{02} is partially rejected: it is rejected for information and service quality, but accepted for system quality, given the non-significant predictive effect when all variables are considered simultaneously.

Overall, the study concludes that in a mandatory e-government tax-filing context, taxpayers' satisfaction is primarily driven by the reliability of information and the responsiveness of support services, whereas system quality serves as a basic functional requirement rather than a key determinant of satisfaction.

***Author's contribution*:** The author solely contributed to all parts of the study.

Ethical review statement: Ethical review and approval were not needed for this study because it does not involve vulnerable groups or sensitive subjects.

***Funding statement*:** This study was supported by private funding.

***Conflict of interest statement*:** The author declares no conflict of interest

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