

SERVICE QUALITY & TAXPAYERS' SATISFACTION ON THE DIGITALIZATION INITIATIVES OF BUREAU OF INTERNAL REVENUE IN LIPA CITY, BATANGAS



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 52

Issue 6

Pages: 717-731

Document ID: 2026PEMJ5092

DOI: 10.70838/pemj.520606

Manuscript Accepted: 01-23-2026

Service Quality & Taxpayers' Satisfaction on the Digitalization Initiatives of Bureau of Internal Revenue in Lipa City, Batangas

Carmella C. Manalo,* Orbel M. Canoy

For affiliations and correspondence, see the last page.

Abstract

This study examined the effect of digitalization initiatives on service quality and taxpayer satisfaction at the Bureau of Internal Revenue (BIR), Lipa City. Specifically, it assessed the digital services utilized by taxpayers and evaluated how digitalization influences service quality in terms of customer satisfaction, contentment, and loyalty. It also determined the level of taxpayers' satisfaction across the five service quality dimensions—assurance, reliability, responsiveness, tangibles, and empathy—and analyzed the relationship between service quality and taxpayer satisfaction. The study employed a descriptive-correlational research design. A total of 128 taxpayers from BIR Lipa City served as respondents, selected through purposive-quota sampling. Data were gathered using a structured questionnaire, which included a self-constructed instrument and a SERVQUAL-based scale. Statistical tools such as frequency, percentage, ranking, weighted mean, and Pearson Product-Moment Correlation were used for data analysis. Findings revealed that eBIR Forms were the most utilized digital service among taxpayers. Overall, taxpayers strongly agreed that digitalization positively affected service quality in terms of customer satisfaction, contentment, and loyalty. The respondents also expressed a high level of satisfaction across all five service quality dimensions, with reliability emerging as the strongest dimension influencing satisfaction. Moreover, results showed a significant relationship between the perceived effects of digitalization on service quality and the level of taxpayer satisfaction. Based on the findings, the study proposed a plan of action to enhance BIR's digital services further, focusing on system reliability, responsiveness, and continuous improvement of online taxpayer support. The study concludes that digitalization initiatives significantly contribute to improved service quality and higher taxpayer satisfaction, supporting the BIR's goal of efficient, transparent, and citizen-centered public service delivery.

Keywords: *digitalization initiatives, service quality, taxpayer satisfaction, bureau of internal revenue (BIR), SERVQUAL model*

Introduction

Digitization is crucial for the Philippine government as it enhances efficiency and service delivery, promotes transparency and accountability, enables citizen engagement, improves access to government services, facilitates data-driven decision making, and drives economic growth and innovation. By embracing digitalization, the government can become more inclusive, efficient, and responsive to the needs of its citizens. (Bonoan, 2023)

The Commissioner of Internal Revenue, Romeo D. Lumagui, introduced the four major areas of concern that he wants to prioritize: excellent taxpayer service, integrity and transparency, enforcement, and digitalization.

By 2028, the BIR is highly digital, propelled by empowered Revenue Officers with integrity, providing excellent services aligned with international tax standards (BIR, 2023).

The Bureau's digital transformation program has been moving rapidly. The BIR detailed its digital transformation strategy and provided a roadmap for the Digital Transformation (DX) Program in Revenue Memorandum Order No. 42-2022. The ultimate goal of this program is to improve tax collections through digitalization.

The BIR's eServices portal covers several services, such as taxpayers' registration, electronic filing of tax returns, and payment channels for taxpayers. There are also other services, such as an eComplaint system, imprinting or affixing secured taxable documents, online accreditation of business machines, and more. (Yugatech, 2019)

The BIR, being a government agency under the supervision and control of the Department of Finance, is expected to collect taxes through the enforcement of tax laws for nation-building and the upliftment of the lives of the Filipinos (BIR, 2019) by providing service quality among taxpayers, which includes digitalization. Therefore, the present undertaking aims to assess how digitalization affects service quality and taxpayers' satisfaction. In addition, this will also determine how service quality dimensions – assurance, reliability, responsiveness, tangibility, and empathy – influence taxpayers' satisfaction.

Research Questions

This study generally determined the educational challenges and aspirations of Batak students in Puerto Princesa City. Specifically, it answered the following questions.

1. What digitalization initiatives of BIR do the taxpayers-respondents utilize?
2. What is the assessment of the taxpayers-respondents on the effect of digitalization on the service quality of the Bureau of

Internal Revenue in terms of:

- 2.1 customer satisfaction;
 - 2.2 customer contentment; and
 - 2.3 customer loyalty?
3. What is the level of satisfaction of the taxpayers-respondents on the digitalization of the Bureau of Internal Revenue in terms of:
- 3.1 assurance;
 - 3.2 reliability;
 - 3.3 responsiveness;
 - 3.4 tangibles; and
 - 3.5 empathy?
4. Is there a significant difference between the level of satisfaction of the taxpayers-respondents on the digitalization initiatives of the Bureau of Internal Revenue, Lipa City?
5. Is there a significant relationship between the assessment of the taxpayers-respondents on the effect of digitalization on the service quality of the Bureau of Internal Revenue, Lipa City, and their level of satisfaction?
6. What plan of action should be proposed to enhance the services of the Bureau of Internal Revenue, Lipa City, to taxpayers:

Literature Review

Digitalization

Gartner (2024) defined digitalization as the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

Abovyan (2013) argues that the digital age is “the rise of digital technologies that allow more efficient processing, transmission, storage, and review of information.” Digital technologies include telecommunication, broadcasting, computers, and software to process and communicate information by increasing the flow of information and the dissemination of knowledge.

According to Ranjit Atwal (2023), “digitalization has become essential for businesses to stay relevant and thrive in today’s competitive landscape. It enables organizations to adapt to rapidly changing market conditions, meet customer expectations, and optimize their processes for greater efficiency and productivity.”

Upwork (2023) defines digitalization as the process of individuals, businesses, and organizations using digital tools to improve their work speed, efficiency, and value. Digitalization is particularly relevant for businesses, as it can help save time and create new growth opportunities.

Zelmion (2023) states that digitalization offers a wide range of benefits for companies and society as a whole. Businesses that invest in digitalization can benefit from increased efficiency, lower costs, greater flexibility, better customer engagement, improved decision-making, and innovation. However, it is important that companies also pay attention to security aspects when going digital and ensure that they take appropriate measures to protect their data and systems.

According to Lita (2023), the Philippine Government has embarked on a journey towards digitalization, automation, and improved infrastructure management. This aims to enhance public administration and provide citizens with more efficient services. The study of Villanueva (2024) states that the Philippine government’s Digital Transformation Strategy seeks to improve the government’s digital infrastructure, connectivity, and ease of doing business through innovative tools and solutions. Software development for revenue management systems, tax collection, and a one-stop online platform for business processing are projects in the pipeline. Government cloud data centers, employee email, and national archives management are also part of the government’s cloud-first policy. Electronic government portals that require minimal effort from the citizens in doing their transactions consequently lead to citizen satisfaction (Baharon et al., 2017).

Service Quality

Ramya (2023) et al. defined service quality as the ability of a service provider to satisfy customers efficiently, through which they can improve the performance of the business. In the service sector, quality is an important element for the success of a company. It is because of the realization of its positive link with profits, increased market share, and customer satisfaction. Several earlier studies and authors pointed out that the quality concept in service is different from the concept prevalent in the goods sector. The reasons for such treatment are inherent features of services like intangibility, inseparability from the provider, heterogeneity, etc. Hence, there is a distinct framework for quality explication and measurement.

Service quality is associated with several factors. These include customer satisfaction, customer contentment, and customer loyalty. According to Gong and Yi (2017), the happiness of the customer is determined by quality of service. Their study further revealed that customer satisfaction is a factor of service quality. Therefore, when service quality is provided well, it triggers a positive outcome that benefits customers. (Asuncion & Lacap, 2021)

Established by Parasuraman, Zeithaml, and Berry (1988), the SERVQUAL model was to measure service quality quantitatively. The five (5) dimensions of service quality in the said model are assurance, reliability, responsiveness, tangibles, and empathy. Assurance refers to the skills and competencies used in delivering services to the customers. Reliability refers to the firm's dependability, accuracy, and fulfillment of the promised service. Responsiveness is how the enterprise helps and offers quick service to its customers. Tangibles refer to physical characteristics, which include the equipment, facility, appearance of employees, and others. Lastly, empathy, which refers to how the firm fosters care and personalized attention to its clientele (Yarimoglu, 2014). The 7-point Likert scale is used to measure all these dimensions.

Because it is easy to understand, the SERVQUAL model has been widely used in different sectors. For example, the level of service quality, customer satisfaction, and customer loyalty in the banking sector of Hong Kong was examined by the group of Lau, Cheung, Lam, and Chu (2013). Using the SERVQUAL model, the results revealed that all five (5) dimensions are significantly related to customer satisfaction. Among the dimensions, four (4) were recognized as strong predictors of customer satisfaction. These are tangibility, responsiveness, reliability, and assurance. Moreover, Ilyas, Nasir, Malik, Mirza, Munir, and Sajid (2013) measured the level of expectations and perceptions of bank customers using SERVQUAL dimensions. The findings indicated that, in terms of expectations, empathy, assurance, and responsiveness yielded high scores. As to customer perceptions, reliability, responsiveness, and assurance produced the highest perception scores. A similar study was also conducted by Çırpın and Sarıca (2014) to measure the service quality of Turkish banks. The results showed that around 77% of bank customers' expectations were met, and the responsiveness dimension was the primary predictor of expectations. However, assurance was the weakest predictor.

Customer Satisfaction

Customer satisfaction is the outcome that customers receive when the service they experience exceeds their expectations.

According to Lim (2006) et al., in marketing, it is viewed as the global evaluation of service experience over time. Customer satisfaction is generally known as an outcome of service quality. Numerous studies in different industries have proved this relationship. For example, Rod and Ashill (2009), Szwajca (2018; 2016), and Ngo & Pavelková (2017) in banking, Hussain et al. (2015) in the airline industry, Srivastava and Sharma (2013) in the telecommunication industry, and Saghier (2013) in the hotel industry.

Bilan (2013) et al. stated that customer satisfaction portrays the quality of products or services provided to the customer in a positive manner, whereby the level of customer satisfaction is enhanced along with an increased level of service quality.

As noted by Tahir, Waggett, and Hoffman (2013), customer satisfaction is "a customer's perspective based on expectation and then subsequent post-purchase experience". The term customer satisfaction has been on the market for a long time."

According to Kotler and Keller (2008), satisfaction is a feeling of happiness or disappointment that emerges after comparing the perception of the performance or the results of a product and expectations. Satisfaction is a function of perception/impression of the performance and hope.

Lovelock (2012) states that customer satisfaction is an emotional state; their post-purchase reaction can be anger, dissatisfaction, irritation, excitement, or neutrality. Customer satisfaction has a direct relationship with customer loyalty, profits, and market share. In addition, if the customers are satisfied with the value provided by products and services, they are likely to become long-time customers.

Oliver (2010) states that customer satisfaction is a post-purchase evaluation where the perception of product performance exceeds customer expectations. According to Cruz (2015), there is a significant relationship between product quality and customer satisfaction. Seyedi (2012) et al. also stated that the product and service quality were the important factors affecting customer satisfaction.

Customer Loyalty

According to Jacoby and Keyner (2973), loyalty is the behavioral reaction based on prejudice as the function of psychological processes by the decision maker in the existence of one or more alternatives over time. Barron (2019) states that customer loyalty is a customer's willingness to return to a company to conduct business repeatedly. This is typically due to the delightful and remarkable experiences they have with that brand. As noted by Freedman (2024) et al., customer loyalty is the lifeblood that empowers startups and small businesses to differentiate themselves and flourish.

According to Gremler (1999) et al., the concept of customer loyalty to intangible goods, with their definition of service loyalty: "the degree to which a customer exhibits repeat purchasing behavior from a service provider, possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service arises".

Agyei (2013) et al. define customer loyalty as a concept based on the theory of consumer behavior, which is expressed in a brand, product, service, or business activity. Andara and Rachmawati (2017) state that the key factor affecting customer loyalty was service quality.

A study by Meeyod (2018) examined how service quality affects customer loyalty when using tool inspection services in the automotive industry. The research found that customer service quality, customer care, customer reassurance, and service quality affect customer loyalty.

Methodology

Research Design

The researcher used the descriptive correlation method of research since the study focused on the determination of the relationship between the effect of digitalization on the service quality of the Bureau of Internal Revenue to the taxpayers and the level of satisfaction. In the process, the data gathered, based on the problems framed, will be given the appropriate interpretation and analysis.

According to Sarno (2010), descriptive research describes and interprets what is. It is concerned with the conditions and relationships that exist, practices that prevail, beliefs and processes that are going on; effects that are being felt, or trends that are developing. It involves the elements or interpretation of the meaning or significance of what is described. On the other hand, the correlation method was utilized to determine the relationship that exists between the variables listed in the study.

Respondents

The study covers one hundred twenty-eight (128) taxpayers in the Bureau of Internal Revenue, Lipa City, for 2024. Taxpayers who visit the department/office to pay their taxes served as the target respondents.

Purposive-quota sampling was used in this research to identify the respondents of this study. The main goal of purposive sampling is to focus on particular characteristics of a population that are of interest, which best enable the researcher to answer the research questions. Units are selected based on their having similar characteristics because such characteristics are of particular interest to the researcher. In this specific study, the researcher focuses on taxpayers. Quota sampling is also used since the researcher has no exact number of taxpayers.

Instrument

The questionnaire was utilized as the main data gathering instrument. This is composed of four parts, which aim to assess service quality and taxpayers' satisfaction with the digitalization initiatives of BIR, Lipa City.

The first and second parts of the questionnaire are a profiling survey to collect key demographic information (e.g., sex, age, civil status, and client type) and the digitalization initiatives of the BIR, Lipa City, that they are currently utilizing. The third part is a self-constructed questionnaire which focuses on the service quality and taxpayers' assessment on the digitalization initiatives of the BIR, Lipa City, in terms of customers' satisfaction, contentment, and loyalty. The fourth part is a SERVQUAL to determine the taxpayers' level of satisfaction in terms of assurance, reliability, responsiveness, tangibility, and empathy.

The questionnaire will be formulated based on the literature readings and studies to be conducted by the researcher. The first draft will be submitted to the research adviser for further perusal and suggestions for improvement. After editing the said instrument, this will be forwarded to three experts in the field of research and knowledgeable on the objectives/goals of the study for validation. The validation process is called face validation, which is appropriate at this time of pandemic, wherein researchers have limited time and chance to use other validation procedures.

Procedure

In the conduct of the research, after the validation, the survey questionnaires were drafted in a very clear and concise manner to prevent conflicts among respondents. People who participated in the study were given ample time to respond to the questions posed to them to avoid errors and inaccuracies in their answers. The respondents were given a waiver regarding the confidentiality of their identity and the information that they did not wish to disclose. The respondents were assured that the data gathered from them would be treated with the strictest confidence, so that they would be more open. This was done with the hope that this would promote trust between the researcher and the respondents. The data gathering procedure was done face-to-face, and each item was properly discussed to ensure valid and reliable answers.

Data Analysis

The following statistical tools will be used to interpret the data gathered from the respondents of the study:

Ranking. This will be used to determine the position of the taxpayers' assessment on the effect of digitalization on the service quality of the Bureau of Internal Revenue and their level of satisfaction.

Weighted Mean. This will be used to average the assessment of the taxpayers-respondents on the effect of digitalization on the service quality of the Bureau of Internal Revenue and their level of satisfaction.

Pearson Product-Moment Correlation Coefficient. This statistic will be used to determine the relationship between the effect of digitalization on the service quality of the Bureau of Internal Revenue and its level of satisfaction.

Ethical Considerations

Ethics was taken into account at every stage of this research. The participants received a letter invitation, which they can accept or



decline, before the data collection from the questionnaire responses provided by the respondents, or any further involvement. The letter included the goal of the study, the participants' rights, and the researcher's basic details, which they can consult with any questions or concerns they may have about the research. Additionally, the researchers were given informed consent, which the participants must accept, to ensure that their participation is voluntary and that there was no coercion or pressure during the invitation.

Results and Discussion

This section shows the presentation, analysis, and interpretation of the gathered data from the questionnaires answered by the taxpayers-respondents.

Digitalization Initiatives of the Bureau of Internal Revenue, Lipa City, for Taxpayers-Respondents Utilization

Table 1. Digitalization Initiatives of the Bureau of Internal Revenue, Lipa City, for Taxpayers-Respondents Utilization

Items	Frequency	Percentage	Rank
ORUS	33	25.78	5
eFPS	41	32.03	3
eBIR Forms	64	50.00	1
eAFS	18	14.06	8
ePAY	23	17.97	6
eONETT	36	28.13	4
eTCBP-TCVC	3	2.34	13
eTCS	11	8.59	10.5
eDST	11	8.59	10.5
eSubmission	48	37.50	2
eACCRreg	9	7.03	12
eTINQuery	12	9.38	9
NewBizReg	13	10.16	
TINVerification	20	15.63	7

As presented in Table 1, out of 128 total taxpayers-respondents, 64 of them, or 50.00% at rank 1, utilized eBIR forms for their transactions, while three, or 2.34% at rank 13, used eTCB-TCVC. The Bureau created the electronic BIR Forms to make the preparation, generation, and submission of tax returns easier. It is the most commonly utilized eService because a taxpayer can access it online or offline. It is also capable of automatic computation and validation of information encoded by the taxpayers. On the other hand, eTCB-TCVC ranked 13th because this application is only used to secure a Tax clearance for government bidding purposes for certain prospective bidders. Said prospective bidders, as specified in Revenue Memorandum Circular 121-2020, are taxpayers-applicants (individuals, partnerships, corporations, cooperatives, associations, whether taxable or non-taxable, etc.) registered with Revenue Region No. 4, 7A, 7B, and Large Taxpayers Service except Large Taxpayers District Office Cebu and Davao and, Non-Resident Foreign Corporations and Non-Resident Alien not engaged in trade or business. According to former BIR Commissioner Caesar R. Dulay(2020), prospective bidders covered by the system are encouraged to file their application online, especially now that we are still under the restrictions of the COVID-19 pandemic. The Bureau is targeting to implement this online application to all prospective bidders nationwide.

Assessment of the Taxpayers-Respondents on the Effect of Digitalization on the Service Quality of the Bureau of Internal Revenue.

In Terms of Customer Satisfaction

Table 2. Assessment of the Taxpayers-Respondents on the Effect of Digitalization to the Service Quality of the Bureau of Internal Revenue in Terms of Customer Satisfaction

Items	Weighted Mean	Interpretation	Rank
1. The service I need was delivered correctly.	3.59	Strongly Agree	1
2. I spent a fair amount of time for my transaction.	3.42	Strongly Agree	5
3. The BIR's online facilities are adequate.	3.48	Strongly Agree	4
4. I easily found information about my transaction from the BIR office or its website.	3.54	Strongly Agree	3
5. The BIR website followed the transaction's requirements and steps based on the information provided.	3.55	Strongly Agree	2
Composite Mean	3.52	Strongly Agree	

As stated in Table 2, the taxpayers-respondents strongly agreed that the services they need were delivered correctly, with the highest weighted mean of 3.59 and the highest rank of 1. The delivery of services has a direct impact on customer satisfaction. It is to be noted that the key factors in delivering services are timeliness, quality, reliability, communication, and personalization.

Additionally, the said group of respondents also strongly agreed that they spent a fair amount of time for their transactions, which made the least weighted mean of 3.42 and the least rank of 5. For some time, the BIR website will undergo system optimization and maintenance during the period of its unavailability. It will cause the taxpayers some delay in accessing the eServices. However, the



Bureau releases an advisory on when the system will not be available. To ensure that taxpayers still experience smooth online transactions, they were also advised to schedule their online-related transactions within the period of system availability specified in the Advisory (BIR Client Support, 2021).

The composite mean of 3.52 signified that the taxpayers-respondents strongly agreed on the effect of digitalization on the service quality of the Bureau of Internal Revenue, Lipa City, in terms of customer satisfaction. Researchers often use interchangeably in practice the terms service quality and customer satisfaction. According to Lim (2006) et al., in marketing, customer satisfaction is viewed as the global evaluation of service experience over time. Customer satisfaction is generally known as an outcome of service quality. Seyedi (2012) et al. also stated that the product and service quality were the important factors affecting customer satisfaction. In compliance with Republic Act No. 11032, also known as “Ease of Doing Business and Efficient Government Service Delivery Act of 2018”, the Bureau of Internal Revenue, Lipa City, introduced the eServices to taxpayers. The quality of information and the system affect the user’s satisfaction.

In Terms of Customer Contentment

Table 3. *Assessment of the Taxpayers-Respondents on the Effect of Digitalization on the Service Quality of the Bureau of Internal Revenue in Terms of Customer Contentment*

Items	Weighted Mean	Interpretation	Rank
1. The steps (including payment) I needed to do for my transaction were easy and simple.	3.45	Strongly Agree	4
2. I feel the BIR office was fair to everyone, or “ <i>walang palakasan</i> ”, during my transaction.	3.38	Strongly Agree	5
3. The BIR’s online support is knowledgeable to answer queries and issues.	3.48	Strongly Agree	2
4. I got what I needed from the BIR office, or (if denied) the denial of request was sufficiently explained to me.	3.47	Strongly Agree	3
5. The BIR offers the opportunity to apply for their services through the Internet.	3.58	Strongly Agree	1
Composite Mean	3.47	Strongly Agree	

As presented in Table 3, the taxpayers-respondents strongly agreed that the BIR offers the opportunity to apply for their services through the Internet, with the highest weighted mean of 3.58 and the highest rank of 1. The Commissioner of Internal Revenue, Romeo D. Lumagui, introduced the four major areas of concern that he wants to prioritize: excellent taxpayer service, integrity and transparency, enforcement, and digitalization. The Bureau’s digital transformation program has been moving rapidly. The BIR detailed its digital transformation strategy and provided a roadmap for the Digital Transformation (DX) Program in Revenue Memorandum Order No. 42-2022. The ultimate goal of this program is to improve tax collections through digitalization. Azmi and Bee (2010) stated that from their research conducted in Malaysia, e-filing has the potential to benefit both taxpayers and the Malaysian Inland Revenue Board (IRB), but only if it is actually used by the Malaysian taxpayers. And the same is expected in the Philippines. A great number of taxpayers have invested in computers and installed an internet connection to assist them in their day-to-day operations.

In addition, the said group of respondents also strongly agreed that they feel the BIR office was fair to everyone, or “*walang palakasan*”, during their transactions, which got the least weighted mean of 3.38 and the least rank of 5. The *padrino* (*palakasan*) system originated during the Spanish colonial period, when Filipinos needed the consent of a wealthy Filipino or the Spanish to improve their social or economic status or to hold a government position. For some, this is the most notorious, corrupt, and dirtiest system for decades and centuries in the Philippines. Taxpayers might feel that the Bureau is not fair, or the *palakasan* system is also present for some reasons. However, digitalization initiatives of the Bureau were implemented so that the taxpayers can easily do the job online, without the need to wait in lines.

The composite mean of 3.47 implied that the taxpayers-respondents strongly agreed on the effect of digitalization on the service quality of the Bureau of Internal Revenue in terms of customer contentment. Upwork (2023) defines digitalization as the process of individuals, businesses, and organizations using digital tools to improve their work speed, efficiency, and value. Digitalization is particularly relevant for companies, as it can help save time and create new growth opportunities. Wikipedia defines contentment as a state of being in which one is satisfied with one's current life situation, and the state of affairs in one’s life as they presently are. In the context of services, customer contentment can refer to a customer's experience with a service provider and how it makes them feel. A customer may feel a sense of role clarity or even become a co-producer of the product or service. Customer contentment can be experienced in both good and bad times. Taxpayers feel contented whenever they accomplish a task using the online platform of the Bureau. By 2028, the BIR is highly digital, propelled by empowered Revenuers with integrity, providing excellent services aligned with international tax standards (BIR, 2023).

In Terms of Customer Loyalty

As reflected in Table 4, the taxpayers-respondents strongly agreed that if they had to do it all over again, they will opt to use eServices offered by the BIR, which garnered the highest weighted mean of 3.51 and the highest rank of 1. The Bureau has recognized the need to adapt to take advantage of fast-evolving technology to ensure it collects its rightful share of taxes from the digital economy. The 10-year digital roadmap of the Bureau incorporates the tools necessary to maximize resources and ensure maximum value for the organization (Galope, 2024). Loyal taxpayers will opt to utilize this eServices implemented by the Bureau because the web-based system provides an end-to-end process for registering taxpayers and updating their information. This will also make tax compliance on



the part of the taxpayers more convenient by skipping the long queues in the Bureau’s district offices.

Table 4. *Assessment of the Taxpayers-Respondents on the Effect of Digitalization on the Service Quality of the Bureau of Internal Revenue in Terms of Customer Loyalty*

Items	Weighted Mean	Interpretation	Rank
1. I often use the BIR online services because it is convenient.	3.47	Strongly Agree	2
2. I visit the BIR website regularly for convenience.	3.36	Strongly Agree	5
3. If I had to do it all over again, I will opt to use eServices offered by the BIR.	3.51	Strongly Agree	1
4. My loyalty with the BIR eServices has been constantly increasing over time.	3.45	Strongly Agree	3
5. The BIR website is fast and efficient in providing online services; thus, I will recommend this to someone who seeks my advice.	3.44	Strongly Agree	4
Composite Mean	3.45	Strongly Agree	

Furthermore, the said group of respondents also strongly agreed that they visit the BIR website regularly for convenience, which gained the least weighted mean of 3.36 and the least rank of 5. Digitalization initiatives of the Bureau offer a wider selection of services. The characteristics of this web-based system are speed, ease, convenience, security, no cost, and availability (De Castro et al., 2015). Convenience has been one of the principal motivations underlying customer inclinations to adopt online services. In line with this, Costales (2013) stated that the e-Service offered by BIR allows and gives taxpayers a paperless online filing experience and convenient payment of tax dues utilizing the power of the Internet.

The composite mean of 3.45 concluded that the taxpayers-respondents strongly agreed on the effect of digitalization on the service quality of the Bureau of Internal Revenue in terms of customer loyalty. Barron (2019) states that customer loyalty is a customer's willingness to return to a company to conduct business repeatedly. This is typically due to the delightful and remarkable experiences they have with that brand. Andara and Rachmawati (2017) state that the key factor affecting customer loyalty was service quality. To witness customer loyalty, it is essential to build a good relationship with them. The surest way to uphold a good customer relationship is to ensure the services satisfy their needs at all times.

Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue

In Terms of Assurance

As given in Table 5, in terms of expectations, the taxpayers-respondents strongly agreed that the office’s online support is trustworthy and confident in the skills and competencies in delivering services, which made the highest weighted mean of 3.58 and the highest rank of 1. The effect of eServices quality on customer satisfaction, trust, and loyalty has been discussed widely in many articles. Non-transactional privacy requires, for instance, Web cookies or unsolicited email, which may affect consumers' use of websites (Korgaonkar & Wolin, 1999). Although security is sometimes equated with trust (Reichheld & Schefter, 2000), it can also be assumed to be a distinct dimension.

Table 5. *Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue In Terms of Assurance*

Items	Expectation			Experience			Diff.
	WM	VI	R	WM	VI	R	
1. The office’s online support are trustworthy and confident of the skills and competencies in delivering services.	3.58	SA	1	3.52	SA	1	0.06
2. The office’s online support are courteous with the taxpayers.	3.48	SA	7	3.47	SA	2.5	0.01
3. The office’s online support have the knowledge to answer taxpayers’ questions.	3.52	SA	3.5	3.44	SA	4	0.08
4. The office’s online support is consistent in providing services.	3.48	SA	7	3.41	SA	5	0.07
5. Transactions made online are safe and accurate.	3.50	SA	5	3.47	SA	2.5	0.03
6. Transactions made online are updated on time	3.48	SA	7	3.34	SA	8	0.14
7. The website is designed for easy access.	3.52	SA	3.5	3.36	SA	7	0.16
8. Knowledge of the online support about the work provides information and assistance to the taxpayers.	3.54	SA	2	3.40	SA	6	0.14
Composite Mean	3.51	SA		3.43	SA		0.08

Legend: SA = Strongly Agree; WM = Weighted Mean; VI = Verbal Interpretation; R = Rank

Additionally, the said group of taxpayers-respondents strongly agreed on their expectations that the office’s online support is courteous with the taxpayers, the office’s online support is consistent in providing services, and transactions made online are updated on time, which gained the lowest equal weighted means of 3.48 and the lowest rank of 7. Rowley (2006) defines eService based on the opinions of many scholars. EService, based on information technology, includes the information provision and system support, the logistic transportation of service, and the trace and exchange of information. Revenue Memorandum Circular No. 33-2024 is being issued to inform taxpayers and others concerned of the availability of additional/enhanced functionalities of the BIR’s Contact Center Solution and Chatbox Review. These features aimed to improve the Bureau’s online assistance to taxpayers, particularly in addressing tax queries, clarifications, and other tax concerns of the taxpaying public raised through calls and the 24/7 automated chat system.

With respect to the taxpayers-respondents' experiences, they strongly agreed that the office’s online support is trustworthy and confident



of the skills and competencies in delivering services, with the highest weighted mean of 3.52 and the highest rank of 1. The Bureau’s recent issuance informs the taxpayers of the availability of Chatbox Review. Such additional/enhanced functionality was made to be interactive to make it more responsive to taxpayers’ queries raised through chat. Taxpayers will have an option to chat with a live agent in case they need clarification on the answers provided by Revie. Through the single hotline number and the chatbot, taxpayers and other stakeholders can easily access updated tax information in the comfort of their own homes or offices, especially during the COVID-19 pandemic (SunStar Cebu, 2021).

Moreover, the said group of taxpayers-respondents strongly agreed on their experiences that transactions made online are updated on time, which gained the least weighted mean of 3.34 and the least rank of 8. System failures in eServices can occur for a variety of reasons, including network issues, human errors, insufficient system resources, and inadequate maintenance. Frequent downtime can create a perception of unreliability and distrust in the government’s ability to provide effective and efficient services, which can further reduce citizen engagement and usage of eServices (Estrellana, 2023). That is the very reason why the system was offline in the Bureau, and Advisory was released during those times, so that taxpayers could take necessary actions.

The composite means of 3.51 for expectations and 3.43 for experiences had a mean difference of 0.08, which implied that the respondents’ experiences did not meet or exceed their expectations. The said group of respondents also strongly agreed on the assurance of digitalization of the Bureau of Internal Revenue. Assurance refers to the skills and competencies used in delivering services to the customers (Wu et al, 2015). Wu explains that employee skills and competencies help to inspire trust and confidence in the customer, which in turn stirs feelings of safety and comfort in the process of service delivery. The digitalization initiatives of the Bureau were implemented so that the taxpayers can do the work without the need wait in line. In case of doubt, the Bureau introduced the online chat support in the web-based system to ensure that the taxpayers got the necessary answers by simply sending a message on the live chat.

In Terms of Reliability

Table 6. Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue In Terms of Reliability

Items	Expectation			Experience			Diff.
	WM	VI	R	WM	VI	R	
1. The website accurately informed and followed the transaction’s requirements and steps.	3.55	SA	4	3.43	SA	6.5	0.12
2. The website provides its services at the time it promised to do so.	3.54	SA	5	3.31	SA	8	0.23
3. Services and charges have legal basis.	3.52	SA	7.5	3.50	SA	2	0.02
4. The website keeps the taxpayers’s record confidential.	3.59	SA	2	3.51	SA	1	0.08
5. The website performs the service right the first time.	3.52	SA	7.5	3.47	SA	3	0.05
6. The website provides an end-to-end process for the eServices.	3.56	SA	3	3.46	SA	4	0.10
7. The website provides the services at the time it promises to do so.	3.60	SA	1	3.45	SA	5	0.15
8. When a taxpayer has a problem, the online support shows a sincere interest in solving it.	3.53	SA	6	3.43	SA	6.5	0.10
Composite Mean	3.55	SA		3.44	SA	SA	0.11

Legend: SA = Strongly Agree; WM = Weighted Mean; VI = Verbal Interpretation; R = Rank

As revealed in Table 6, in terms of expectations, the taxpayers-respondents strongly agreed that the website provides the services at the time it promises to do so, which got the highest weighted mean of 3.60 and the highest rank of 1. The Bureau of Internal Revenue (BIR) has a digital transformation roadmap that aims to modernize its systems, improve the taxpayer experience, and simplify compliance. The roadmap is based on four pillars and is aligned with the Ease of Paying Taxes (EOPT) Act and the BIR’s Aspiration 2028. The reliability and availability of eServices must be emphasized to guarantee that taxpayers have efficient and effective access to services, which can lead to the BIR increasing revenue collection (Estrellana, 2023)

Meanwhile, the said group of taxpayers-respondents strongly agreed on their expectations that services and charges have a legal basis, and the website performs the service right the first time, which obtained the least equal weighted means of 3.52 and the least equal ranks of 7.5. For most eServices of the Bureau, no charge is imposed. Service charge is an additional payment collected for services rendered. These are minimal fees and are usually convenience fees wherein the taxpayers receive a pop-up notification to pay a Php 150.00 convenience fee (Revenue Memorandum Order, 2024). Service failure occurs when a performance or situation does not meet a customer’s expectation. Glitches may occur while accessing the web-based system due to weak cyber infrastructure, which chokes the Bureau’s digitalization initiatives.

About the taxpayers’ respondents’ experiences, they strongly agreed that the website keeps the taxpayers’ records confidential, with the highest weighted mean of 3.51 and the highest rank of 1. The Bureau of Internal Revenue has its own Privacy Notice in its web-based system. This applies to personal information that the Bureau collects and processes on all BIR forms, website, and online services. Personal information refers to any information, whether recorded in material form or not, that will directly ascertain your identity. This includes the taxpayer’s address and contact information. Sensitive personal information is personal information that includes your age, date of birth, marital status, social security and other government identification numbers, financial information, and tax returns. In



compliance with Republic Act (RA) No. 10173, or the Data Privacy Act of 2012, and RA No. 10021, or the Exchange of Information on Tax Matters Act of 2009, the Bureau only uses and discloses personal information in connection with our lawful functions and activities of administering the NIRC of 1997, as amended, and other existing tax laws. The Bureau respects every taxpayer’s privacy and keeps their information confidential unless it is lawfully required or allowed to disclose it, or the taxpayer gives their written consent to such disclosure.

Consequently, the said group of taxpayers-respondents also strongly agreed on their experiences that the website provides its services at the time it promised to do so, which yielded the least weighted mean of 3.31 and the least rank of 8. The frequent system downtime error reduces the system's effectiveness in increasing the collection. System optimization and maintenance were done as planned so that all the eServices will be made available and accessible to the taxpayers.

The composite means of 3.55 for expectations and 3.44 for experiences had a mean difference of 0.11, which indicates that the respondents' experiences did not meet or exceed their expectations. The said group of respondents also strongly agreed on the reliability of the digitalization of the Bureau of Internal Revenue. A system must be accurate, reliable, relevant, easy to understand, user-friendly, usable, have a great website design, be navigable, and have operational modules. (Al Athmay et al. 2015). "Reliability" is defined as the strongest dimension of service quality that impacts customer satisfaction. From time to time, the Bureau conducts studies on how taxpayers can easily register businesses and comply with the tax laws and standards. Various eServices have been implemented, and continuous training and restructuring have been made to modernize its system and improve services for taxpayers. The roadmap is based on the following principles: people-first, digital technology, and process perspective. The BIR reviews and updates the roadmap annually as needed.

In Terms of Responsiveness

Table 7. Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue In Terms of Responsiveness

Items	Expectation			Experience			Diff.
	WM	VI	R	WM	VI	R	
1. I spent an acceptable amount of time to complete my transaction	3.57	SA	1	3.52	SA	1	0.05
2. The office’s online support is polite and friendly.	3.52	SA	4	3.48	SA	2.5	0.04
3. The office’s online support avoids long waiting lines.	3.49	SA	5	3.42	SA	4.5	0.07
4. The office’s online support informs how many minutes the service will be provided.	3.48	SA	6	3.42	SA	4.5	0.06
5. The office's online support are always available, and if asked are quick to respond.	3.41	SA	8	3.41	SA	6	0.00
6. The office’s online support offers fast lane transactions.	3.55	SA	2	3.48	SA	2.5	0.07
7. The office internet connection is stable to ensure that responses are given to customers immediately.	3.53	SA	3	3.38	SA	7	0.15
8. The office website does not experience system errors	3.47	SA	7	3.36	SA	8	0.11
Composite Mean	3.50	SA		3.44	SA	SA	0.06

Legend: SA = Strongly Agree; WM = Weighted Mean; VI = Verbal Interpretation; R = Rank

As reported in Table 7, in terms of expectations, the taxpayers-respondents strongly agreed that they spent an acceptable amount of time to complete their transactions, which obtained the highest weighted mean of 3.57 and the highest rank of 1. Digitalization is the process of individuals, businesses, and organizations using digital tools to improve their work speed, efficiency, and value. Digitalization is particularly relevant for businesses, as it can help save time and create new growth opportunities (The Upwork Team, 2024). Digitalization saves time by reducing or eliminating time-consuming manual data entry processes. Taxpayers also do not go to BIR offices to wait for long queues, consuming most of their time of the day.

Besides, the said group of taxpayers-respondents strongly agreed on their expectations that the office's online support are always available, and if asked, are quick to respond, which got the least weighted mean of 3.41 and the least rank of 8. Taxpayers with tax queries and concerns call the Customer Assistance Division (formerly BIR Contact Center) at Hotline No. 8538-3200 or send an email to contact_us@bir.gov.ph. In 2021, the Bureau launched Chat Revie, the Bureau’s chatbot, which can be accessed on the Bureau’s web-based system. Its main purpose is to serve as a digital assistant to taxpayers who need help, whether it’s finding out their RDO code or their TIN (Uy, Nicolasora & Associates; Co., 2023).

As to the taxpayers' respondents' experiences, they strongly agreed that they spent an acceptable amount of time to complete their transactions, with the highest weighted mean of 3.52 and the highest rank of 1. Generally, a taxpayer needs to go to the nearest BIR office to register a business, file tax returns, submit information returns, and request certifications. A single transaction may consume a day, depending on the complexity of the transaction. With the birth of the DX Roadmap, it transforms the BIR into a data-driven organization that utilizes advanced digital technologies to greatly improve taxpayer services (Revenue Memorandum Order, 2022). Digitalization initiatives of the Bureau are designed to elevate taxpayers' experience and make them more efficient.

Likewise, the said group of taxpayers-respondents strongly agreed on their experiences that the office website does not experience system error, with the least weighted mean of 3.36 and the least rank of 8. A system error is a software malfunction that causes the



operating system to no longer work properly (Computer Hope, 2024). The Bureau also experiences system errors caused by weak internet connections, system optimization, and maintenance. Errors in the computation of taxes due were also experienced by the taxpayers. However, the Bureau employs the same security measures to ensure that the taxpayers comply with the tax requirements.

The composite means of 3.50 for expectations and 3.44 for experiences had a mean difference of 0.06, which justified that the respondents' experiences did not meet or exceed their expectations. The said group of respondents also strongly agreed on the responsiveness of the digitalization of the Bureau of Internal Revenue. Responsiveness is a dimension of service quality. A company is considered to have high responsiveness if it has a clear and varied program, a definite consumer waiting time, speed of service, and accurate and complete information services for its consumers (Natalisa, 2008). The Bureau has several systems and processes in place to improve responsiveness to taxpayers. Such systems and methods include eComplaint, Customer Assistance Division, and The Revie.

In Terms of Tangibles

Table 8. Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue In Terms of Tangibles

Items	Expectation			Experience			Diff.
	WM	VI	R	WM	VI	R	
1. The website is visually appealing.	3.45	SA	8	3.42	SA	2	0.03
2. The website is in good working order.	3.47	SA	6.5	3.37	SA	8	0.10
3. The website shows clear description and good explanations.	3.48	SA	5	3.40	SA	5.5	0.08
4. There are sufficient number of online supports.	3.47	SA	6.5	3.41	SA	3.5	0.06
5. My online transaction (including steps and payment) was simple and convenient (Tangibles)	3.54	SA	3	3.40	SA	5.5	0.14
6. There are visuals or photos provided for customers to understand the steps easily.	3.52	SA	4	3.41	SA	3.5	0.11
7. The colors used in the website are visually friendly.	3.60	SA	1	3.38	SA	7	0.22
8. The arrangements of buttons and steps in the website are systematically arranged.	3.57	SA	2	3.44	SA	1	0.13
Composite Mean	3.51	SA		3.40	SA	SA	0.11

Legend: SA = Strongly Agree; WM = Weighted Mean; VI = Verbal Interpretation; R = Rank

As written in Table 8, in terms of expectations, the taxpayers-respondents strongly agreed that the colors used in the website are visually friendly, which got the highest weighted mean of 3.60 and the highest rank of 1. A website that is easy to navigate and accessible for people with disabilities, including those who are visually impaired, is considered a visually friendly website. The BIR website was developed together with the Department of Information and Communications Technology (DICT) in line with the BIR's Digital Transformation Program. The website has a new design and content layout to make it more user-friendly and responsive to the needs of the taxpayers in terms of access to updated tax information and various BIR eServices.

Again, the said group of taxpayers-respondents strongly agreed on their expectations that the website is visually appealing, with the least weighted mean of 3.45 and the least rank of 8. A visually appealing website is defined as a website that uses aesthetic qualities to engage the viewer and leave a lasting impression. Visual appeal is important because it can attract attention. However, the Bureau of Internal Revenue, being a government agency, offers a web design that is visually friendly to all taxpayers, including people with disabilities. Having a simple web design makes it easier for a taxpayer to finish a single transaction without being distracted by a colorful layout.

With reference to the taxpayers' respondents' experiences, they strongly agreed that the arrangements of buttons and steps in the website are systematically arranged, with the highest weighted mean of 3.44 and the highest rank of 1. In today's era, modern-day technology has made strides in terms of educational access for students, doing business with clients, and collaborations with colleagues from the comfort of our homes. As people take the reins of technology to go through their daily lives, the Bureau of Internal Revenue (BIR) has also taken steps to embrace modernization by revamping its systems and processes into more digitalized, seamless ones (Malabana, 2021). To make it easier for taxpayers to access the web-based system, the BIR has released accessible and downloadable tax awareness and educational videos through the Facebook page and YouTube channel to be plugged into other social media platforms to reach organizations, learning institutions, and taxpayers. The videos sketch the Bureau's history, guide how to get in touch with them, and provide lectures about taxes, the requirements, and procedures in registration, filing, and payment.

Furthermore, the said group of taxpayers-respondents strongly agreed on their experiences that the website is in good working order, which got the least weighted mean of 3.37 and the least rank of 8. A website is said to be not in good working order if navigation is confusing and frustrating for users (Forbes, 2014). The Bureau makes sure that the home page clearly announces who you are and what you have to offer. Dead links that take the taxpayers to a nonexistent page were avoided during the planning stage. However, taxpayers may have seen it as disorganized or broken up.

The composite means of 3.51 for expectations and 3.40 for experiences had a mean difference of 0.11, which suggests that the respondents' experiences did not meet or exceed their expectations. The said group of respondents also strongly agreed on the tangibility of digitalization of the Bureau of Internal Revenue. Tangibility is the property of being able to be perceived by touch. A common place



understanding of "tangibility" renders it as an attribute allowing something to be perceptible to the senses. The Bureau strives to make its web-based system accessible to all users, including people with disabilities. Common keyboard shortcuts can also be applied in the Bureau's system, and access key assignments are posted on the website to help the taxpayers navigate the site. The webpages are consistent with its design and column positions throughout the website. The website can also be resized to any screen and font size. This site also makes a near-accurate visual rendering from all browsers, such as Google Chrome, Mozilla Firefox, Apple Safari, and Internet Explorer.

In Terms of Empathy

Table 9. Level of Satisfaction of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue In Terms of Empathy

Items	Expectation			Experience			Diff.
	WM	VI	R	WM	VI	R	
1. The website has convenient working hours.	3.52	SA	4.5	3.45	SA	2.5	0.07
2. The office's online support gives taxpayers attention.	3.53	SA	3	3.43	SA	5	0.10
3. The office's online support responds to taxpayers' concerns.	3.51	SA	6	3.34	SA	8	0.17
4. I feel the office was fair to everyone, or "walang palakasan", during my transaction.	3.48	SA	8	3.45	SA	2.5	0.03
5. There are other modes of payment posted online to cater different kinds of customers.	3.50	SA	7	3.37	SA	7	0.13
6. Although there are additional charges (e.g., convenience fee), the website still accepts and processes late payments.	3.52	SA	4.5	3.39	SA	6	0.13
7. The website is primarily developed to provide taxpayers alternative modes.	3.59	SA	1	3.45	SA	2.5	0.14
8. The website is easier and more accessible for every taxpayer.	3.58	SA	2	3.45	SA	2.5	0.13
Composite Mean	3.53	SA		3.42	SA	SA	0.11

Legend: SA = Strongly Agree; WM = Weighted Mean; VI = Verbal Interpretation; R = Rank

As shown in Table 9, in terms of expectation, the taxpayers-respondents strongly agreed that the website is primarily developed to provide taxpayers with alternative modes, with the highest weighted mean of 3.59 and the highest rank of 1. Digitization is indeed introduced to convert analog materials into digital, paperless formats. In the Bureau, the primary purpose of digitalization is to improve taxpayers' experience by transforming the Bureau into a data-driven organization that uses digital technologies. The BIR is not only modernizing its systems but also rethinking its role in the Philippine economy because, through digitalization, taxpayers are given the opportunity to make tax compliance easier.

In addition, the said group of taxpayers-respondents strongly agreed on their expectations that they feel the office was fair to everyone, or "walang palakasan", during my transaction which garnered the least weighted mean of 3.48 and the least rank of 8. The Philippines has multiple systems that have influenced its political and social structure, including the padrino system, cacique democracy, and the multi-party system. Wikipedia defined the padrino system, or patronage in Filipino culture and politics, as the value system where one gains favor, promotion, or political appointment through family affiliation (nepotism) or friendship (cronyism), as opposed to one's merit. The system traces its origins to the Spanish colonial period, where Filipinos were forced to obtain the consent of the Spanish or a wealthy fellow Filipino, usually a friar, to occupy a government position or improve their social or economic status. The padrino system in the Philippines has been the source of many controversies and corruption. Taxpayers might feel that the Bureau is not fair, or that a patronage system is also present for some reason. However, digitalization initiatives of the Bureau were launched so that the taxpayer does not have to be physically present in the BIR offices; they can feel that the Palakasan system exists.

For the taxpayers-respondents experiences, they strongly agreed that the website has convenient working hours; they feel that the office was fair to everyone, or "walang palakasan", during their transaction; the website is primarily developed to provide taxpayers alternative modes; and the website is easier and more accessible for every taxpayers with the highest equal weighted means of 3.45 and the highest ranks of 2.5. The Bureau's digital transformation aims to modernize its system, improve the taxpayer's experience, and simplify task compliance (RMO27-2020). The present administration wants to make a real and meaningful change in the lives of the taxpayers. For the BIR to improve its collection, being a primary revenue-generating agency, it needs to further enhance its existing capabilities, policies, processes, and systems through digital transformation. A series of briefings and consultation workshops was conducted for employees and taxpayers to improve their knowledge of the digitalization roadmap of the Bureau.

Besides, the said group of taxpayers-respondents strongly agreed on their experiences that the office's online support responded to taxpayers' concerns, which made the least weighted mean of 3.34 and the least rank of 8. Previously, the only way to raise the taxpayer's concern was through the Customer Assistance Division or by sending an email. But due to the consistent effort of the Bureau, it launched Revie, the Chatbot, in 2021, wherein issues and concerns can be raised. It is easily accessible and is located in the lower right portion of the website. However, taxpayers may not be able to chat with Revie, the Chatbot, making them believe that the office's online support is not responding.

The composite means of 3.53 for expectations and 3.42 for experiences had a mean difference of 0.08, which indicates that the respondents' experiences did not meet or exceed their expectations. The said group of respondents also strongly agreed on the empathy



of digitalization of the Bureau of Internal Revenue. Empathy is the strongest dimension of service quality for impacting customer loyalty. The Bureau of Internal Revenue’s digital transformation was implemented to be people-first, as it allows taxpayers to file taxes, pay taxes, register businesses, and comply with the tax requirements anytime and anywhere.

Difference in the Level of Satisfaction (Expectation and Experience) of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue

Table 10. *Difference in the Level of Satisfaction (Expectation and Experience) of the Taxpayers-Respondents on the Digitalization of the Bureau of Internal Revenue*

Variables	E1 Mean	E2 Mean	Diff.	t-value	p-value	Decision	Interpretation
Expectation versus Experience:							
Assurance	3.51	3.43	0.08	1.85	0.0667	Failed to Reject Ho	Not Significant
Reliability	3.55	3.44	0.11	2.25	0.0262	Reject Ho	Significant
Responsiveness	3.50	3.44	0.06	1.79	0.0759	Failed to Reject Ho	Not Significant
Tangibles	3.51	3.40	0.11	2.03	0.0445	Reject Ho	Significant
Empathy	3.53	3.42	0.11	2.13	0.0351	Reject Ho	Significant

As displayed in Table 10, when the degree of expectations and experiences of the taxpayers-respondents on their level of satisfaction with the digitalization of the Bureau of Internal Revenue, the mean differences of 0.11 and computed t-values of 2.25 for reliability, 2.03 for tangibles, and 2.13 for empathy have corresponding p-values of less than 0.05, thus rejecting the hypothesis. On the other hand, the mean differences of 0.08 and 0.06 and computed t-values of 1.85 and a.79 for assurance and responsiveness, respectively, have corresponding p-values of more than 0.05, thus failing to reject the hypothesis.

The mean differences for reliability, tangibles, and empathy signified significant differences in their level of satisfaction through their expectations and experiences. However, the mean differences for assurance and responsiveness inferred no significant differences in the expectations and experiences of the taxpayers-respondents on the digitalization of the Bureau of Internal Revenue.

Relationship Between the Assessment of the Taxpayers-Respondents on the Effect of Digitalization on the Service Quality of the Bureau of Internal Revenue and Their Level of Satisfaction

As discussed in Table 11, when the responses of the taxpayers-respondents on the effect of digitalization in terms of customer satisfaction were compared to the service quality of the Bureau of Internal Revenue, the computed r-values of 0.58 for assurance, 0.47 for reliability, 0.49 for responsiveness, 0.51 for tangibles and 0.40 for empathy have corresponding p-values of less than 0.01, thus rejecting the hypothesis.

Table 11. *Relationship Between the Assessment of the Taxpayers-Respondents on the Effect of Digitalization on the Service Quality of the Bureau of Internal Revenue and Their Level of Satisfaction*

Variables	r-value	p-value	Decision	Interpretation
Customer Satisfaction Versus:				
Assurance	0.58	0.00000	Reject Ho	Highly Significant
Reliability	0.47	2.00E-8	Reject Ho	Highly Significant
Responsiveness	0.49	0.00000	Reject Ho	Highly Significant
Tangibles	0.51	0.00000	Reject Ho	Highly Significant
Empathy	0.40	2.90E-6	Reject Ho	Highly Significant
Customer Contentment Versus:				
Assurance	0.59	0.00000	Reject Ho	Highly Significant
Reliability	0.49	0.00000	Reject Ho	Highly Significant
Responsiveness	0.59	0.00000	Reject Ho	Highly Significant
Tangibles	0.52	0.00000	Reject Ho	Highly Significant
Empathy	0.42	8.00E-7	Reject Ho	Highly Significant
Customer Loyalty Versus:				
Assurance	0.70	0.00000	Reject Ho	Highly Significant
Reliability	0.64	0.00000	Reject Ho	Highly Significant
Responsiveness	0.75	0.00000	Reject Ho	Highly Significant
Tangibles	0.65	0.00000	Reject Ho	Highly Significant
Empathy	0.57	0.00000	Reject Ho	Highly Significant

These findings suggest that the responses of the taxpayers-respondents on the effect of digitalization in terms of customer satisfaction have highly significant relationships to the service quality of the Bureau of Internal Revenue digitalization in terms of assurance, reliability, responsiveness, tangibles, and empathy.

Additionally, when the responses of the taxpayers-respondents on the effect of digitalization in terms of customer contentment were compared to the service quality of the Bureau of Internal Revenue, the computed r-values of 0.59 for assurance, 0.49 for reliability,

0.59 for responsiveness, 0.52 for tangibles, and 0.42 for empathy have corresponding p-values of less than 0.01, thus rejecting the hypothesis.

These studies safely deduced that the responses of the taxpayers-respondents on the effect of digitalization in terms of customer contentment have highly significant relationships to the service quality of the Bureau of Internal Revenue in terms of assurance, reliability, responsiveness, tangibles, and empathy.

Finally, when the responses of the taxpayers-respondents on the effect of digitalization in terms of customer loyalties were compared to the service quality of the Bureau of Internal Revenue, the computed r-values of 0.70 for assurance, 0.64 for reliability, 0.75 for responsiveness, 0.65 for tangibles, and 0.57 for empathy have corresponding p-values of less than 0.01, thus rejecting the hypothesis.

These findings suggest that the responses of the taxpayers-respondents on the effect of digitalization in terms of customer loyalty have highly significant relationships to the service quality of the Bureau of Internal Revenue in terms of assurance, reliability, responsiveness, tangibles, and empathy.

What plan of action should be proposed to enhance the services of the Bureau of Internal Revenue to taxpayers?

The BIR continues to face challenges in terms of strengthening revenue collection for the government to fund social and infrastructure commitments to the community. To attract the taxpayers to pay their taxes correctly and on time, the BIR should improve assistance and enforcement by expanding the scope of the digital transformation, streamlining the processes, and re-engineering other eServices. Taxpayers will work hand in hand with the BIR if they see that the agency is also helping them to be compliant by conducting monthly or quarterly seminars about the updates or new revenue issuances on the BIR.

Conclusions

After thorough analysis of the data, the researcher noted the following conclusions:

The most commonly utilized eServices of the taxpayers from the Bureau of Internal Revenue, Lipa City, is the eBIR Forms. The result of the study revealed that the taxpayers-respondents of the Bureau of Internal Revenue, Lipa City, are very satisfied with the effect of digitalization on the service quality of the Bureau. In addition, it is to be noted that the taxpayers-respondents feel contented with the service quality of the Bureau of Internal Revenue, Lipa City, and will remain loyal in availing the eServices offered by this office.

The result indicates that in terms of assurance, the taxpayers-respondents find the Bureau of Internal Revenue, Lipa City's online support trustworthy and confident of the skills and competencies in delivering services. Moreover, in terms of reliability, the taxpayers-respondents find the website reliable because the website keeps the taxpayers' records confidential. In terms of responsiveness, the taxpayers-respondents agreed that they spent an acceptable amount of time to complete their transactions. With regard to tangibles, the result indicates that the taxpayers-respondents agreed that the arranged buttons and steps on the website are systematically arranged. And lastly, the taxpayers-respondents believed that the Bureau of Internal Revenue, Lipa City, is empathetic. They acknowledge that the website has convenient working hours, the office's online support is fair during the transaction, the website is primarily developed to provide taxpayers with alternative modes, and that the website is easier and more accessible for every taxpayer.

In terms of the test of significant difference on the level of satisfaction of the taxpayers-respondents on the digitalization of the Bureau of Internal Revenue, Lipa City, the results showed that there is a significant difference in reliability, tangibles, and empathy. At the same time, assurance and responsiveness do not have a considerable difference.

The research showed that the responses of the taxpayers-respondents on the effect of digitalization in terms of customer satisfaction, customer contentment, and customer loyalty have a highly significant relationship to the service quality of the Bureau of Internal Revenue, Lipa City.

The BIR continues to face challenges in terms of strengthening revenue collection for the government to fund social and infrastructure commitments to the community. To attract the taxpayers to pay their taxes correctly and on time, the BIR should improve assistance and enforcement by expanding the scope of the digital transformation, streamlining the processes, and re-engineering other eServices. Taxpayers will work hand in hand with the BIR if they see that the agency is also helping them to be compliant in accordance with the Bureau's 2024 tax campaign "Sa Tamang Buwis, Pag-assenso'y Mabilis."

References

- Abovyan, A. (2013). Digital age and information society. *International Journal of Advanced Research in Computer Science*, 4(7), 45–49.
- Agyei, P. M., & Kilika, J. M. (2013). Relationship between service quality and customer loyalty in the banking sector. *International Journal of Business and Social Science*, 4(8), 179–186.
- Al Athmay, A. A. A., Fantazy, K., & Kumar, V. (2015). E-government adoption and user satisfaction: An empirical investigation. *International Journal of Public Sector Management*, 28(5), 369–388. <https://doi.org/10.1108/IJPSM-06-2015-0106>
- Andara, R., & Rachmawati, R. (2017). The influence of service quality on customer loyalty. *Journal of Business and Management*,

19(6), 38–45.

Asuncion, A. M., & Lacap, J. P. G. (2021). Service quality and customer satisfaction in Philippine service organizations. *Asia-Pacific Social Science Review*, 21(1), 65–78.

Atwal, R. (2023). Why digitalization is essential for business success. Gartner Research. <https://www.gartner.com>

Azmi, A. A. C., & Bee, N. G. (2010). The acceptance of the e-filing system by Malaysian taxpayers. *Electronic Journal of e-Government*, 8(1), 1–10.

Baharon, A., Hamid, N. A., & Ahmad, R. (2017). Electronic government portals and citizen satisfaction. *Journal of E-Government Studies*, 9(2), 22–34.

Barron, J. (2019). Customer loyalty and brand trust. *Harvard Business Review*. <https://hbr.org>

Bilan, Y., Simionescu, M., & Mentel, G. (2013). The impact of service quality on customer satisfaction. *Economic Research-Ekonomska Istraživanja*, 26(1), 1–14.

Bonoan, R. (2023). Philippine government digitalization initiatives. Department of Finance, Philippines.

Bureau of Internal Revenue. (2019). BIR's mission, vision, and mandate. <https://www.bir.gov.ph>

Bureau of Internal Revenue. (2023). BIR aspiration 2028. <https://www.bir.gov.ph>

Çırpın, B. K., & Sarıca, K. (2014). Measuring service quality in the Turkish banking sector using SERVQUAL. *Journal of Business Research*, 6(1), 67–82.

Computer Hope. (2024). System error definition. <https://www.computerhope.com>

Costales, J. (2013). Electronic tax filing and compliance in the Philippines. *Philippine Journal of Public Administration*, 57(2), 112–130.

Cruz, J. P. (2015). Product quality and customer satisfaction. *International Journal of Marketing Studies*, 7(4), 124–133.

De Castro, R., Santos, M., & Reyes, J. (2015). Online tax systems and taxpayer compliance. *Asian Journal of Business Research*, 5(3), 55–68.

Estrellana, R. (2023). Digital transformation challenges in Philippine government agencies. *Public Administration Quarterly*, 47(2), 210–228.

Forbes. (2014). What makes a website fail? <https://www.forbes.com>

Freedman, D., Smith, R., & Jones, P. (2024). Customer loyalty as a competitive advantage. *Journal of Small Business Management*, 62(1), 89–105.

Galope, J. (2024). BIR's 10-year digital roadmap. *BusinessWorld Philippines*. <https://www.bworldonline.com>

Gartner. (2024). Digitalization definition. <https://www.gartner.com>

Gong, T., & Yi, Y. (2017). The effect of service quality on customer satisfaction. *Journal of Service Management*, 29(2), 263–285.

Gremler, D. D., & Brown, S. W. (1999). Service loyalty. *Journal of Service Research*, 1(3), 271–288.

Hussain, R., Al Nasser, A., & Hussain, Y. (2015). Service quality and customer satisfaction in the airline industry. *Journal of Air Transport Management*, 49, 1–7.

Ilyas, A., Nasir, H., Malik, M. I., Mirza, E., Munir, S., & Sajid, A. (2013). Assessing service quality using the SERVQUAL model. *World Applied Sciences Journal*, 24(4), 521–527.

Jacoby, J., & Kyner, D. (1973). Brand loyalty vs. repeat purchasing behavior. *Journal of Marketing Research*, 10(1), 1–9.

Khan, M. M., & Fasih, M. (2014). Impact of service quality on customer satisfaction. *International Journal of Academic Research in Business and Social Sciences*, 4(5), 487–505.

Kotler, P., & Keller, K. L. (2008). *Marketing management* (13th ed.). Pearson Education.

Lau, M. M., Cheung, R., Lam, A. Y., & Chu, Y. T. (2013). Measuring service quality in banking. *Journal of Banking and Finance*, 5(4), 11–21.

Lim, H., Widdows, R., & Park, J. (2006). M-loyalty: Winning strategies. *Journal of Consumer Marketing*, 23(4), 208–218.

Lovelock, C. (2012). *Services marketing* (7th ed.). Pearson Education.

Malabana, G. (2021). Digital government services in the Philippines. *Journal of Asian Public Policy*, 14(3), 345–360.

Meeyod, K. (2018). Service quality and customer loyalty in automotive services. *International Journal of Business Research*, 18(1), 45–

56.

- Natalisa, D. (2008). Service responsiveness and customer satisfaction. *Management Research Journal*, 6(2), 77–90.
- Ngo, V. M., & Pavelková, D. (2017). Moderating effects of customer satisfaction. *Economic Research-Ekonomska Istraživanja*, 30(1), 1–14.
- Oliver, R. L. (2010). *Satisfaction: A behavioral perspective on the consumer*. Routledge.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL. *Journal of Retailing*, 64(1), 12–40.
- Ramya, N., Kowsalya, A., & Dharanipriya, K. (2023). Service quality and customer satisfaction. *International Journal of Business and Management Invention*, 12(1), 45–53.
- Reichheld, F. F., & Schefter, P. (2000). E-loyalty. *Harvard Business Review*, 78(4), 105–113.
- Rod, M., & Ashill, N. J. (2009). Service quality in banking. *Journal of Services Marketing*, 23(3), 190–201.
- Rowley, J. (2006). An analysis of e-service literature. *International Journal of Information Management*, 26(5), 339–359.
- Sarno, D. (2010). *Research methods in education*. McGraw-Hill.
- Seyedi, S. M., et al. (2012). Service quality and customer satisfaction. *African Journal of Business Management*, 6(11), 3898–3905.
- SunStar Cebu. (2021). BIR launches chatbot Revie. <https://www.sunstar.com.ph>
- Tahir, M., Waggett, P., & Hoffman, D. (2013). Customer satisfaction and expectation. *Journal of Consumer Behavior*, 12(3), 210–218.
- Upwork. (2023). What is digitalization? <https://www.upwork.com>
- Villanueva, E. (2024). Philippine government digital transformation strategy. *Journal of Public Sector Innovation*, 5(1), 15–29.
- Wu, J., Li, H., & Chang, Y. (2015). Service quality and trust. *Service Industries Journal*, 35(9–10), 491–512.
- Yarimoglu, E. K. (2014). A review of the SERVQUAL model. *Procedia - Social and Behavioral Sciences*, 109, 1007–1011.
- Yugatech. (2019). BIR online services explained. <https://www.yugatech.com>.

Affiliations and Corresponding Information

Carmella C. Manalo

Lipa City Colleges – Philippines

 carmella.chavez1204@gmail.com

Dr. Orbel M. Canoy

Lipa City Colleges – Philippines