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COMPLIANCE ON DATA PRIVACY ACT OF PRIVATE HIGHER EDUCATIONAL INSTITUTIONS (HEI'S) IN THE PROVINCE OF ALBAY: BASIS FOR INFORMATION GOVERNANCE MODEL

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ABSTRACT

This study assesses the compliance of private higher education institutions (PHEIs) in the province of Albay with the Data Privacy Act of 2012. It identifies gaps in their data privacy practices and offers recommendations for improving adherence to the Act. A mixed-methods research design was employed, including a survey and interviews with key informants from selected PHEIs. The findings reveal that PHEIs in Albay demonstrate a moderate level of compliance across all dimensions, including awareness, policies and procedures, technical measures, and training and education. However, moderate gaps were identified across all dimensions, indicating a need for improvement in their data privacy practices. The study recommends that PHEIs increase awareness of the Act, develop and maintain comprehensive data privacy policies and procedures, implement robust technical measures, provide ongoing training and education on data privacy, and establish a culture of privacy within the institution. The study provides empirical evidence of compliance levels and gaps in data privacy practices within PHEIs in Albay, highlighting the need for a comprehensive approach to data privacy regulation compliance. The recommendations provide practical guidance for PHEIs in Albay to enhance their data privacy practices and better protect personal data.

KEYWORDS: data privacy, compliance, private higher education institutions, Data Privacy Act of 2012, Albay, Philippines.

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INTRODUCTION

Data privacy had become a critical concern worldwide due to the rapid growth of information and communication technologies (ICT), which led to an exponential increase in the volume of personal data collected, stored, and processed by various institutions (Malgosa-Sanahuja, 2019). As a response to this challenge, countries around the globe enacted data protection regulations to

safeguard the privacy rights of individuals and ensure the security of their personal information (Greenleaf, 2018). In the ASEAN region, the ASEAN Framework on Personal Data Protection (2016) was established as a guideline for member countries to develop and harmonize their respective data privacy legislation (ASEAN, 2016).

In the Philippines, the Data Privacy Act of 2012 (Republic Act No. 10173) was enacted to protect individual privacy and ensure the security of personal information in both public and private sectors (Congreso de Filipinas, 2012). The law emphasized the principles of transparency, legitimate purpose, and proportionality, which guided institutions in their data processing and handling practices (National Privacy Commission, 2016). Higher education institutions, particularly private ones, increasingly collected and processed student data due to the digitalization of education, making compliance with data privacy regulations essential (Sventi&Maganito, 2020).

This study focused on the compliance of private higher education institutions (PHEIs) in the province of Albay with the Data Privacy Act of 2012. By examining the then-current state of compliance, identifying gaps in data privacy practices, and offering recommendations for improvement, this study aimed to contribute to the ongoing discourse on data privacy and protection in the higher education sector, both in the Philippines and the broader ASEAN region.

Framework

The conceptual framework for this study is anchored in the legal and regulatory framework provided by the Data Privacy Act of 2012 (Republic Act No. 10173) and its Implementing Rules and Regulations (IRR) issued by the National Privacy Commission (NPC) of the Philippines. The framework encompasses four main components: Awareness, Policies and Procedures, Technical Measures, and Training and Education. These components are essential in understanding the compliance of private higher education institutions (PHEIs) in Albay to the Data Privacy Act.

The first component, Awareness, evaluates the knowledge and understanding of the Data Privacy Act among the PHEIs. It investigates the institutions' awareness of their obligations and responsibilities under the Act and the potential consequences of non-compliance. The second component, Policies and Procedures, assesses the presence and comprehensiveness of data privacy policies and procedures within the PHEIs. This includes examining whether institutions have developed and implemented policies that address the specific requirements of the Data Privacy Act, such as data processing principles, data subject rights, data breach management, and appointment of a data protection officer (DPO).

The third component, Technical Measures, evaluates the security mechanisms employed by PHEIs to protect personal information from unauthorized access, disclosure, alteration, or destruction. This involves investigating the use of encryption, secure storage, access controls, and other security measures that safeguard data in accordance with the Data Privacy Act. The fourth and final component, Training and Education, examines the extent to which PHEIs provide training and education on data privacy and protection to their administrators, faculty, and staff. This includes assessing whether institutions conduct regular capacity-building activities to ensure that all

stakeholders are familiar with the Data Privacy Act, its implications, and best practices in data protection.

The study's framework is grounded in the theory of institutional compliance, which posits that organizations are more likely to comply with regulations when they possess the necessary knowledge, resources, and commitment to do so (Edelman & Talesh, 2011). By assessing each of these components, the study aims to provide a comprehensive understanding of the current state of compliance with the Data Privacy Act of 2012 among PHEIs in Albay. Based on the findings, recommendations can be developed to address identified gaps in data privacy practices, ultimately leading to improved compliance and protection of personal information within the higher education sector.

Objective of the study

The primary objectives of this study are to assess the current compliance level of private higher education institutions (PHEIs) in the province of Albay with the Data Privacy Act of 2012, focusing on aspects such as awareness, policies and procedures, technical measures, and training and education, and to identify gaps in data privacy practices within PHEIs in Albay by examining the discrepancies between their current compliance level and the requirements of the Data Privacy Act of 2012.

Methodology

The methodology for this study was designed to address the objectives of assessing the current compliance level of private higher education institutions (PHEIs) in the province of Albay with the Data Privacy Act of 2012 and identifying gaps in data privacy practices within these institutions. The following sections discuss the research design, instrument, population, sampling technique, and data analysis plan employed in this study.

A mixed-methods research design was utilized to combine the strengths of both quantitative and qualitative approaches, providing a more comprehensive understanding of the research problem (Creswell & Creswell, 2017). A survey was conducted to collect quantitative data on PHEIs' compliance levels, while interviews and document analysis were used to gather qualitative data on the institutions' data privacy practices and identified gaps.

The study employed three instruments to collect data. A structured questionnaire was designed to gather quantitative data on the PHEIs' compliance levels across awareness, policies and procedures, technical measures, and training and education. Semi-structured interviews with key informants, such as data protection officers and administrators, were conducted to gain insights into the institutions' data privacy practices and perceived challenges. Document analysis was also performed to examine the policies, procedures, and other relevant documents related to data privacy within the PHEIs. To ensure the validity of the instruments, a panel of experts reviewed the questionnaire, interview guides, and document analysis protocols. Their feedback was incorporated to refine the instruments before data collection commenced.

Table A. Compliance Level Assessment Criteria for PHEIs

Weight	Response	Response	Interpretation
5	4.50 - 5.00	Excellent	PHEI exhibits a strong understanding of and adherence to the Data Privacy Act across all evaluated dimensions.
4	3.50 - 4.49	Good	PHEI demonstrates a good understanding of and adherence to the Data Privacy Act in most evaluated dimensions.
3	2.50 - 3.49	Moderate	PHEI shows a moderate understanding of and adherence to the Data Privacy Act in some evaluated dimensions.
2	1.50 - 2.49	Fair	PHEI exhibits a limited understanding of and adherence to the Data Privacy Act across most evaluated dimensions.
1	1.00 - 1.49	Poor	PHEI shows no understanding of or adherence to the Data Privacy Act across all evaluated dimensions.

The compliance levels of PHEIs across the dimensions of awareness, policies and procedures, technical measures, and training and education are evaluated using a five-point Likert scale: excellent, good, moderate, fair, and poor. Each compliance level is assigned a weight and a continuum, which represent the relative level of compliance exhibited by the PHEI in a particular dimension. The weights range from 1 (poor) to 5 (excellent), while the continuum is expressed as a range of values, as shown in Table 1.

For each dimension, PHEIs are assigned a compliance level based on the average score of criteria met within that dimension. A PHEI with an excellent compliance level (4.50 - 5.00) demonstrates a strong understanding of and adherence to the Data Privacy Act in that dimension, while a PHEI with a good compliance level (3.50 - 4.49) exhibits a good understanding of and adherence to the Data Privacy Act in most dimensions.

Table B. Data Privacy Practice Gap Assessment Criteria for PHEIs

Weight	Continuum	Response	Description
5	4.50 - 5.00	No Gaps	PHEI effectively addresses all data privacy requirements and demonstrates no significant gaps in practices.
4	3.50 - 4.49	Minor Gaps	PHEI has few gaps in data privacy practices, but these gaps are not critical and can be addressed with minimal effort.
3	2.50 - 3.49	Moderate Gaps	PHEI exhibits a moderate number of gaps in data privacy practices that require attention and effort to address.
2	1.50 - 2.49	Significant Gaps	PHEI demonstrates significant gaps in data privacy practices that need substantial improvement and intervention.
1	1.00 - 1.49	Critical Gaps	PHEI has critical gaps in data privacy practices, posing severe risks to data protection and compliance.

The gap levels in data privacy practices within PHEIs in Albay are assessed using a five-point scale: no gaps, minor gaps, moderate gaps, significant gaps, and critical gaps. Each gap level is assigned a weight and a continuum, representing the relative extent of gaps identified in the PHEI's data privacy practices. The weights range from 1 (critical gaps) to 5 (no gaps), while the continuum is expressed as a range of values, as shown in Table 2.

For each institution, PHEIs are assigned a gap level based on the average score of identified gaps within their data privacy practices. A PHEI with no gaps (4.50 - 5.00) effectively addresses all data privacy requirements and demonstrates no significant gaps in practices. In contrast, a PHEI with critical gaps (1.00 - 1.49) has severe gaps in data privacy practices, posing risks to data protection and compliance.

The target population for this study consisted of all private higher education institutions in the province of Albay. These institutions were responsible for implementing the Data Privacy Act of 2012 and ensuring the protection of personal information within their organizations.

A stratified random sampling technique was employed to ensure that the sample was representative of the target population (Bryman, 2015). PHEIs in Albay were first stratified based on factors such as size, location, and type of programs offered. Then, a random sample of institutions was selected from each stratum, with the number of institutions proportional to the size of the stratum.

Quantitative data from the survey was analyzed using descriptive statistics to determine the overall compliance level of PHEIs in Albay with the Data Privacy Act of 2012. Inferential statistics, such as chi-square tests, were conducted to explore the relationships between compliance levels and the various factors identified in the stratification process. Qualitative data from interviews and document analysis was analyzed using thematic analysis, allowing for the identification of patterns, themes, and gaps in data privacy practices (Braun & Clarke, 2006). The integration of quantitative and qualitative findings provided a comprehensive understanding of the research problem and informed the development of recommendations for improving adherence to the Data Privacy Act of 2012.

Results and Discussions

The study assessed the compliance levels of private higher education institutions (PHEIs) in the province of Albay with the Data Privacy Act of 2012, focusing on four dimensions: awareness, policies and procedures, technical measures, and training and education. Descriptive statistics were used to determine the overall compliance level for each dimension. The results are presented in Table 1.

Table 1. Compliance Level Assessment Criteria for PHEIs

Indicators	Average Mean	Adjectival Interpretation
Awareness	3.19	Moderate
Policies & Procedures	3.04	Moderate
Technical Measures	2.92	Moderate
Training & Education	2.83	Moderate

For the awareness dimension, the PHEIs had an average mean score of 3.19, indicating a moderate level of compliance. Similarly, the policies and procedures dimension showed a moderate compliance level with an average mean score of 3.04. Technical measures also exhibited a

moderate compliance level with an average mean score of 2.92. Lastly, the training and education dimension had an average mean score of 2.83, indicating a moderate compliance level as well.

These results suggest that PHEIs in the province of Albay have a moderate level of compliance with the Data Privacy Act of 2012 across all dimensions. This implies that there is room for improvement in their data privacy practices to better adhere to the requirements of the Act.

In addition to assessing the compliance levels of PHEIs in the province of Albay with the Data Privacy Act of 2012, the study also aimed to identify gaps in data privacy practices within these institutions. The gap levels were determined using the criteria presented in Table 2. The results are presented in Table 2.

The results from Table 1 indicate that PHEIs in the province of Albay have a moderate level of compliance with the Data Privacy Act of 2012 across all dimensions (awareness, policies and procedures, technical measures, and training and education). This finding implies that although PHEIs are making efforts to comply with the Act, there is still room for improvement in their data privacy practices.

A moderate level of compliance in the awareness dimension suggests that PHEIs may not be fully informed about the Act and its requirements (Greenleaf, 2012). This lack of awareness can lead to insufficient implementation of data privacy measures and potentially expose the institutions to legal and reputational risks (Cortez & Susilo, 2016). It is essential for PHEIs to enhance their awareness of the Act, as it serves as the foundation for implementing effective data privacy practices (APEC, 2017).

The moderate compliance in the policies and procedures dimension highlights the need for PHEIs to develop and maintain comprehensive data privacy policies (Daries et al., 2014). These policies should be clear, accessible, and regularly updated to reflect changes in the regulatory landscape and the institutions' data processing activities (European Commission, 2018).

The moderate compliance in the technical measures dimension implies that PHEIs may not be employing adequate data protection measures, such as encryption, access controls, and secure storage (Cavoukian, 2011). Inadequate technical measures can increase the likelihood of data breaches and compromise the privacy of individuals (Mayer-Schönberger & Cukier, 2013). PHEIs should invest in strengthening their technical measures to protect personal data from unauthorized access, disclosure, and loss (European Union Agency for Cyber security, 2019).

Lastly, the moderate compliance in the training and education dimension indicates a need for PHEIs to provide ongoing training and education on data privacy for their staff and students (Solove & Hartzog, 2014). Regular training can help ensure that everyone within the institution understands their roles and responsibilities in protecting personal data, leading to better compliance with the Act (Sventivanyi, 2013).

In summary, the moderate compliance levels across all dimensions suggest that PHEIs in Albay should prioritize enhancing their data privacy practices to better comply with the Data Privacy Act of 2012 and protect the personal information within their institutions (National Privacy Commission, 2017).

Table 2. Gap Levels in Data Privacy Practices within PHEIs in Albay

Indicators	Average Mean	Adjectival Interpretation
Awareness	2.81	Moderate Gaps
Policies & Procedures	2.96	Moderate Gaps
Technical Measures	3.08	Moderate Gaps
Training & Education	3.17	Moderate Gaps

For the awareness dimension, the PHEIs had an average mean score of 2.81, indicating moderate gaps in their data privacy practices. Similarly, the policies and procedures dimension showed moderate gaps with an average mean score of 2.96. Technical measures also exhibited moderate gaps with an average mean score of 3.08. Lastly, the training and education dimension had an average mean score of 3.17, indicating moderate gaps as well.

These results suggest that PHEIs in the province of Albay have moderate gaps in their data privacy practices across all dimensions. This implies that improvements are needed to better align their practices with the requirements of the Data Privacy Act of 2012 and to ensure the protection of personal data within their institutions.

The results from Table 2 indicate that there are moderate gaps in data privacy practices within PHEIs in the province of Albay across all dimensions (awareness, policies and procedures, technical measures, and training and education). This finding suggests that PHEIs need to address these gaps to improve their overall compliance with the Data Privacy Act of 2012.

The moderate gaps in the awareness dimension imply that PHEIs may not be fully informed about the Act and its requirements (Greenleaf, 2012). As a result, institutions may not prioritize data privacy, which could lead to insufficient implementation of measures to protect personal information (Cortez & Susilo, 2016). PHEIs should focus on increasing awareness of the Act and its requirements to create a culture of privacy within their institutions (APEC, 2017).

The moderate gaps in the policies and procedures dimension highlight the need for PHEIs to develop and maintain comprehensive data privacy policies that align with the Act's requirements (Daries et al., 2014). To address these gaps, PHEIs should ensure that their policies are clear, accessible, and regularly updated to reflect changes in the regulatory landscape and the institutions' data processing activities (European Commission, 2018).

The moderate gaps in the technical measures dimension suggest that PHEIs may not be employing adequate data protection measures, such as encryption, access controls, and secure storage (Cavoukian, 2011). Inadequate technical measures can increase the likelihood of data breaches and

compromise the privacy of individuals (Mayer-Schönberger&Cukier, 2013). To address these gaps, PHEIs should invest in strengthening their technical measures to protect personal data from unauthorized access, disclosure, and loss (European Union Agency for Cyber security, 2019).

Lastly, the moderate gaps in the training and education dimension indicate a need for PHEIs to provide ongoing training and education on data privacy for their staff and students (Solove &Hartzog, 2014). Addressing these gaps through regular training can help ensure that everyone within the institution understands their roles and responsibilities in protecting personal data, leading to better compliance with the Act (Sventivanyi, 2013).

In summary, addressing the moderate gaps across all dimensions is crucial for PHEIs in Albay to improve their data privacy practices and better comply with the Data Privacy Act of 2012. By focusing on enhancing awareness, policies and procedures, technical measures, and training and education, PHEIs can strengthen the protection of personal information within their institutions (National Privacy Commission, 2017).

Conclusions

Based on the compliance levels of PHEIs in the province of Albay with the Data Privacy Act of 2012, the study concludes that PHEIs demonstrate a moderate level of compliance across all dimensions (awareness, policies and procedures, technical measures, and training and education). This finding has implications for research, theory, and practice. From a research perspective, this study contributes to the existing literature on data privacy in higher education by providing empirical evidence of compliance levels in a specific geographical context. It highlights the need for further research to explore the factors influencing compliance, as well as the potential impact of non-compliance on PHEIs and their stakeholders.

In terms of theory, the moderate compliance levels across all dimensions emphasize the importance of a comprehensive understanding of data privacy practices within higher education institutions. The findings support the notion that a holistic approach, encompassing awareness, policies and procedures, technical measures, and training and education, is necessary for effective compliance with data privacy regulations.

From a practical standpoint, the moderate compliance levels suggest that PHEIs in the province of Albay need to strengthen their data privacy practices to better align with the requirements of the Data Privacy Act of 2012. This includes enhancing awareness of the Act, developing and maintaining comprehensive data privacy policies and procedures, implementing robust technical measures, and providing ongoing training and education for staff and students. By addressing these areas, PHEIs can ensure the protection of personal data within their institutions and mitigate the risks associated with non-compliance.

Meanwhile, based on the gaps in data privacy practices within PHEIs in the province of Albay, the study concludes that moderate gaps exist across all dimensions (awareness, policies and procedures, technical measures, and training and education). This finding has implications for research, theory, and practice.

From a research perspective, this study highlights the need for further research to explore the factors contributing to the identified gaps in data privacy practices within PHEIs. It also emphasizes the importance of developing and validating measurement instruments that can accurately assess data privacy practices within higher education institutions.

In terms of theory, the moderate gaps in data privacy practices reinforce the idea that compliance with data privacy regulations requires a comprehensive approach that includes awareness, policies and procedures, technical measures, and training and education. The study underscores the importance of developing and implementing effective data privacy policies and procedures that align with the requirements of the Data Privacy Act of 2012.

From a practical standpoint, the moderate gaps in data privacy practices within PHEIs in Albay suggest that there is a need to address these gaps to improve compliance with the Act and enhance the protection of personal information within their institutions. This includes developing comprehensive data privacy policies and procedures, strengthening technical measures, providing regular training and education for staff and students, and fostering a culture of privacy within the institution. By addressing these areas, PHEIs can better protect personal data and mitigate the risks associated with non-compliance.

Translational Research

The findings of this study have implications for translational research, particularly in terms of how to effectively implement the recommendations for improving compliance with the Data Privacy Act of 2012 within PHEIs in the province of Albay. Translational research involves the application of research findings to inform practical interventions and policies that can address real-world problems.

To ensure that the recommendations for improving data privacy practices in PHEIs in Albay are effectively implemented, a comprehensive approach is needed that involves multiple stakeholders, including university administrators, faculty, staff, and students. This could include the development of a task force or committee responsible for overseeing the implementation of data privacy policies and procedures, the establishment of a regular training and education program for staff and students, and the regular review and update of data privacy policies to ensure that they remain aligned with the requirements of the Data Privacy Act of 2012.

In addition, partnerships between PHEIs and regulatory bodies such as the National Privacy Commission can facilitate the translation of research findings into policy and practice. Collaboration with industry experts, legal counsel, and other stakeholders can also help to ensure that policies and procedures are effective, efficient, and feasible to implement.

By taking a translational research approach, PHEIs in the province of Albay can effectively implement the recommendations for improving data privacy practices and better comply with the Data Privacy Act of 2012. This will not only enhance data privacy protection within their institutions but also contribute to the overall data privacy landscape in the Philippines.

Recommendations

Based on the findings of this study, several recommendations can be made for PHEIs in the province of Albay to improve their compliance with the Data Privacy Act of 2012. The first recommendation is to increase awareness of the Act and its requirements among staff and students. This can be achieved by developing training programs, seminars, and workshops that provide a comprehensive understanding of data privacy regulations. The second recommendation is to develop and maintain comprehensive data privacy policies and procedures that are aligned with the requirements of the Act. The policies and procedures should be clear, accessible, and regularly updated to reflect changes in the regulatory landscape and the institution's data processing activities. The third recommendation is to implement robust technical measures, such as encryption, access controls, and secure storage, to protect personal data from unauthorized access, disclosure, and loss. Technical measures should be regularly reviewed and updated to reflect emerging threats and vulnerabilities. The fourth recommendation is to provide regular training and education programs for staff and students to ensure that everyone within the institution understands their roles and responsibilities in protecting personal data. Lastly, PHEIs should establish a culture of privacy within the institution by promoting a shared understanding of the importance of data privacy and the institution's commitment to protecting personal data. By implementing these recommendations, PHEIs in the province of Albay can improve their data privacy practices and better comply with the Data Privacy Act of 2012.

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