

THE MEDIATING Effect of Internal Audit Between Corporate Governance and Business Sustainability among Cooperatives in REGION XI

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ABSTRACT

Achieving sustainability transcends mere operational efficiency and economic viability for cooperatives. These organizations recognize that ensuring social and environmental sustainability is integral to their long-term success and the well-being of their members. The purpose of this study was to determine the mediating effect of internal audit between corporate governance and business sustainability. The study utilized quantitative, descriptive correlational research design and mediation technique using sobel z-test, with 300 cooperative employees chosen as the respondents selected through stratified random sampling. Results revealed that the level of business sustainability and corporate governance were very high while internal audit was high. There was a significant and positive correlation between corporate governance and business sustainability, corporate governance and internal audit, and internal audit and business sustainability. Internal audit partially mediated the relationship between corporate governance and business sustainability. About 94.88 percent of the total effect of corporate governance on business sustainability goes through internal audit and about 5.12 percent of the total effect is either directly or mediated by other variables not covered in the model.

KEYWORDS: *Business management, social sustainability, transparency, nature of work, cooperatives, descriptive correlation, mediation, Region XI, Philippines*

INTRODUCTION

In cooperatives, business sustainability involves addressing current needs and pursuing goals while safeguarding future generations, encompassing economic, social, and environmental dimensions (Pritchard & Çalıyurt, 2021).

Societal collapse could happen again if issues on unsustainable practices and lifestyles will be left unresolved (D'Adamo et al., 2022). Resource mismanagement, environmental neglect, and urbanization were among other concerns that raised the need for sustainable entrepreneurship (Rosário et al., 2022, Suhail et al., 2022). Cooperatives, despite being an inherently sustainable business model (International Labour Organization, 2015), have been facing sustainability problems such as unfavorable institutional environments, lack of financial support, poor management, and limitations on market access (Moon & Lee, 2020; Mhembwe & Dube, 2017). Additionally, overemphasis on compliance and reporting, strategy and sustainability discordance (Sharma, 2020) and organizational inefficiencies (Sari et al., 2021) can result in significant financial and environmental losses, posing a threat to sustainability. In the Philippines, as highlighted by Jumanawan (2022), inadequate managerial skills and slow technology adaptation have further impeded the resilience and sustainability efforts of cooperatives during the pandemic.

In an era of global challenges, business sustainability has become a focal point for organizations balancing economic success with environmental responsibility and social equity (Chopra et al., 2021). In the complex landscape of cooperatives, business sustainability emerges as a strategic imperative, aligning with their inherent commitment to economic prosperity, environmental stewardship, and social equity (Novkovic et al., 2022). Cooperatives play a crucial role in promoting sustainable development as the world's problems amplify. Members and the larger community are impacted by this dedication, which transcends organizational borders (Moxom et al., 2022). In addition to providing members with economic security and overcoming obstacles with resilience, sustainable cooperatives improve ecosystem health and the environment (Fallah Shayan et al., 2021). Besides, Koutoupis and Pourgias (2023) mentioned that it is important to recognize the importance of two critical functions in the context of business sustainability: internal audit and corporate governance.

To achieve and maintain sustainability, a cooperative must establish a strong basis for corporate governance in order to attain and preserve sustainability. Since corporate governance establishes the moral guidelines, strategic orientation, and accountable leadership that serve as the foundation for an organization's potential, it has a favorable effect on business sustainability (Gutterman, 2023). Business sustainability is greatly impacted by proactive CEO actions and effective corporate governance, which is supported by a diverse and

independent board (Ludwig & Sassen, 2022). Furthermore, by guaranteeing a comprehensive evaluation of operational and financial procedures, strong corporate governance significantly influences internal audit (Rehman, 2021). Strong governance improves internal audit processes' effectiveness by providing thorough assessment tools that support the cooperative's long-term viability (Khalid, 2023). In the same light, the effectiveness of internal audit is pivotal in the long-term sustainability of cooperatives (Abdul-Rahman & Ishak, 2019). It provides a systematic review of financial controls, risk management, and compliance, thereby safeguarding the cooperative's assets and fostering confidence among members (Abdelrahim & Al-Malkawi, 2022). In essence, as emphasized by Maina (2017), the role of internal audit becomes indispensable for steering the cooperative toward sustained viability and positive societal impact.

While there exist studies on the variables mentioned, these studies are mostly bivariate and the concentration is in the international setup. Notably, the researcher has only encountered a limited number of studies exploring the mediating role of internal audit in the relationship between corporate governance and business sustainability among cooperatives. This study fills a crucial research void by addressing this specific gap in the literature. This uniqueness extends to the study's specific geographic focus on Region XI. The research contributes to the existing body of knowledge, theory, and practice, providing valuable insights for future researchers, policymakers, cooperative leaders, members, and the community. Moreover, the study aspires to be a catalyst for positive change, providing benefits not only to individual cooperatives but also to the broader socio-economic fabric of Region XI.

Study Objectives. This research investigated the mediating effect of internal audit on the relationship between corporate governance and business sustainability among cooperatives in Region XI. Specifically, it sought to determine the level of business sustainability, corporate governance, and internal audit of the cooperatives in Davao Region. It also aimed to examine the relationship between corporate governance and business sustainability, corporate governance and internal audit, and internal audit and business sustainability. Lastly, this research aspired to identify the mediating effect of internal audit between corporate governance and business sustainability.

Theoretical Lens

This study was anchored on Agency Theory and Institutional Theory.

Agency theory widely known to be a prominent viewpoint in business economics, examined the associations and potential conflicts of interest between principals and agents within an organization. Principals normally refers to the shareholders or owners of the business while agents commonly refer to the management or executives running the business. This theory posits that there is a possible misalignment of goals when these agents are putting their interests first above the organization. And this is why principal-agent problem in the organization happens. This is what Jensen and Meckling (1976) explains, stressing the challenges of making sure that agents think, act, and responds in the best interests of the principals above from theirs. On the other hand, Institutional Theory (Scott, 1987), highlighted the concept that all forms of organizations are molded by outside institutions through social norms, expectations, and pressures. One important concept coined in this theory is isomorphism, which expressed how organizations strive to conform from the establish and mandatory standards set by the government, the industry, associations, and even cultural norms. To gain legitimacy and maintain social acceptance, organizations adopt similar structures, practices, and cultures

METHODS

Research Design

The researcher used the descriptive correlational design for this study to describe and determine the simultaneous or relative relation of the research variables. Kim et al. (2017) highlighted that descriptive research goes through the process of systematic observation, recording, and analysis of phenomena while Asamoah (2014) and Creswell (2014) underscored that correlational research focuses on the statistical association between two or more variables without any intention of manipulation. Descriptive research design was employed in this study to describe the levels of Business Sustainability, Corporate Governance, and Internal Audit of cooperatives. Conversely, correlational design was utilized to measure the relationship between corporate governance and business sustainability, corporate governance and internal audit, and internal audit and business sustainability. Furthermore, after examining the relationship between corporate governance and business sustainability, the mediating effect of internal audit was then investigated. As per Agler and De Boeck (2017), mediation is a method which aims to delineate, uncover, and examine potential connections. Moreover, it helps researchers to elucidate the process or mechanism through which one variable influence another.

Research Locale and Respondents

The study took place in Region XI, commonly referred to as Davao Region, located in the southern part of Mindanao. This region comprises five provinces: Davao del Sur, Davao Oriental, Davao Occidental, Davao del Norte, and Davao de Oro (formerly known as Compostela Valley), with Davao City serving as its regional center. The Cooperative Development Authority (CDA), reported that as of June 2021, there are a total of 1,193 registered cooperatives in the region. The actual survey was administered to 300 cooperative employees selected through stratified random sampling technique, ensuring proper distribution or representation across provinces. Specific criteria were also considered to identify the participants of this study. Meeting these criteria has been instrumental to ensure the study's accuracy, reliability, and relevance to the targeted population within Region XI.

Research Instrument

The study adapted survey instruments from three different studies. The instrument for Business Sustainability was adapted from De Guzman-Asi (2021) with three indicators, Corporate Governance was adapted from Dasuki & Lestari (2019) with five indicators, and Internal Audit was adapted from Mohamed and Tawfik (2018) with five indicators. All adapted instruments garnered Cronbach's alpha values with excellent internal consistency which means very high reliability.

Data Gathering Procedure

The data gathering took a month from February 1 to March 1, 2024 and was conducted face to face to maximize the time of collecting the needed data for the analysis. The use of enumerators concerning data gathering was utilized. The enumerator was first oriented and had to understand the research protocols, ethical guidelines, and techniques for data collection to maintain consistency and accuracy. The questionnaire was answered by the respondents within 30 minutes. Before retrieving the questionnaires, the researcher/enumerator verified that they had been fully answered. The researcher performed data validation, reviewing the collected data for accuracy, completeness, and consistency. This has been performed to address any errors, missing values or outliers.

Statistical Tools

Mean was used to measure the status of Business Sustainability, Corporate Governance, and Internal Audit of cooperatives in the Davao Region. Also, Standard Deviation was executed to measure the central tendency and variability of a dataset relative to the mean, or the consistency of the responses.

Moreover, Pearson Product-Moment Correlation Coefficient was utilized to determine the relationships between corporate governance and business sustainability, internal audit and business sustainability, and cooperative governance and internal audit. Furthermore, Multiple Regression Analysis was employed to measure the influence of corporate governance and internal audit on business sustainability of cooperatives in the Davao Region. Lastly, Medgraph using Sobel z-test was applied to determine the mediating effect of internal audit on the relationship between corporate governance and business sustainability.

Ethical Statement

In maintaining the integrity of this research endeavor, the author ensured the strict adherence to relevant ethical guidelines and standards. To fortify this commitment, the paper was submitted to the Ethics Review Committee at the University of Immaculate Conception for assessment. This examination aimed to guarantee that the research design, data collection, and dissemination processes matched rigorously with the essential ethical protocols governing academic investigations. This proactive ethical consideration underscored the dedication to upholding the highest ethical standards throughout the entire research undertaking.

RESULTS

Table 1
Level of Business Sustainability

Item	SD	Mean	Description
Environment			
1. Taking measures to support environmental care and protection (e.g., avoid usage of plastic materials for packaging).	0.54	4.20	Very High
2. Implementing recycling and composting programs in all departments.	0.48	4.08	High
3. Introducing water and energy saving measures in all departments.	0.40	4.13	High

4. Purchasing environmentally friendly products (e.g. ecological detergents, unbleached fabrics, reusable items, etc.).	0.51	4.06	High
5. Encouraging eco-friendly behavior by members through awareness raising and information dissemination (e.g., public transport, water, and energy saving advice, etc.).	0.56	4.01	High
Category Mean	0.51	4.10	High
Economic			
6. Developing business plans to ensure long term profitability and financial viability of the business.	0.51	4.53	Very High
7. Supporting local businesses by purchasing local products, fostering a more resilient and self-sufficient local economy.	0.58	4.22	Very High
8. Striving for business growth through product innovation and quality.	0.58	4.23	Very High
9. Monitoring regulatory changes and understands its impact on business operations.	0.60	4.08	High
10. Valuing staff through pay levels, employment benefits, and rewards over the legal minimum requirements.	0.56	4.39	Very High
Category Mean	0.59	4.29	Very High
Social			
11. Sponsoring and/or actively supporting community initiatives or groups.	0.49	4.66	Very High
12. Cultivating strong and effective relations with the members.	0.51	4.64	Very High
13. Implementing policies that ensure equal opportunities for all genders, promoting equality and inclusivity.	0.54	4.30	Very High

14. Improving public relations to protect its good reputation.	0.55	4.15	High
15. Establishing harmonious relationships with others by cultivating shared values.	0.53	4.13	High
Category Mean	0.57	4.38	Very High
OVERALL	0.57	4.25	Very High

The data in table 1 pertains to the level of business sustainability among cooperatives in Davao Region. It has three domains which are environment, economic, and social. The standard deviation for the three domains ranges from 0.40 to 0.59, which are all below 1.00, indicating homogeneity of responses.

Business Sustainability obtained an overall mean of 4.25 described as very high. This connotes that business sustainability among cooperatives is very evident. This result indicates the cooperatives’ robust commitment to integrating sustainable practices into operations, emphasizing the recognition of environmental and social responsibility as key drivers for long-term success and resilience. This is in congruence with Mensah's (2019) assertion that sustainability serves as a strategic tactic for organizations, highlighting the crucial role of integrating sustainable practices into operations. Furthermore, it resonates with Gutterman's (2023) emphasis on the significance of corporate sustainability in ensuring long-term success and resilience.

Environment. The indicator’s category mean is high with a mean score of 4.10. This implies that business sustainability in terms of environment is evident among cooperatives through initiatives like avoiding plastic packaging, implementing recycling and composting programs, saving water and energy, purchasing eco-friendly products, and promoting eco-friendly behavior among members through awareness campaigns. As Folke et al. (2019) expressed, cooperatives set priority on responsible resource management which mirrors the importance they placed on this aspect in achieving Sustainable Development Goals. Cooperatives’ focus on mitigating environmental impact coincides with findings from Ali et al. (2023), who highlight the positive effects of eco-friendly practices to mitigate climate change and reduce degradation. Furthermore, the realization of comprehensive recycling and composting programs, along with water and energy-saving measures, depicts the long-term perspective of

cooperatives. This echoes the concept of operational resilience by way of sustainable practices integration, as emphasized by Oláh et al. (2018) and Fry & Egel (2021). Ultimately, these initiatives by cooperatives illustrate a strategic direction towards environmental sustainability, firming up their commitment to a healthy planet.

Economic. The domain economic received a category mean of 4.29, described as very high, and interpreted as always evident in the cooperative practices. This indicates that cooperative's economic tactic centers long-term sustainability through substantial business planning, strong support to local businesses for community resilience, nurtures growth by means of innovation and quality, embraces regulatory changes, and values employees through competitive benefits and compensation. The result is consistent with De Guzman-Asi (2021) who accentuates the importance of robust business planning and conscious resource management, underscoring the long-term sustainability commitments of cooperatives. Furthermore, Al Breiki & Nobanee (2019) discussed the significance of supporting local businesses for community resilience, which brings into line with the cooperative's dedication to fostering economic growth while considering broader societal impacts.

Social. This domain generated a very high mean of 4.38 interpreted as very evident in cooperative practices. This signifies that these cooperatives go beyond the concept of business for profit, they have the concern for the community and the purpose of uplifting the lives of their members. Cooperatives give prominence to inclusion and diversity, protect its reputation, and shape collaborative partnerships rooted on shared values. This supports with Martos-Pedrero et al. (2019) who pointed out the importance of fair labor practices, diversity, inclusion, and good community contributions as key components in prioritizing social sustainability within organizations. In addition, Venkat et al. (2023) stressed the positive impact of socially conscious plans on areas like employee morale, loyalty, and productivity, which further strengthens community ties and reputation.

Table 2
Level of Corporate Governance

Item	SD	Mean	Description
Accountability			

1. Running in accordance with the Operational & Management Standards (SOM) and applicable Procedure Standards (SOP).	0.49	4.31	Very High
2. Ensuring that each division or part was staffed by individuals proficient in their respective fields.	0.48	4.25	Very High
3. Ensuring that there is no duplicate position or vacant position in the organization.	0.49	4.18	High
4. Employing specialized software to enhance its operational efficiency.	0.54	4.11	High
Category Mean	0.50	4.21	Very High

Responsibility

5. Maintaining robust security measures for safeguarding all crucial documents.	0.59	4.12	High
6. Conducting member’s assembly regularly.	0.60	4.29	Very High
7. Operating within the legal boundaries and complies with the requirements set forth by governing authorities.	0.50	4.55	Very High
8. Adhering to every commitment both with members and other parties.	0.53	4.45	Very High
Category Mean	0.58	4.35	Very High

Transparency

9. Disclosing financial statements, including cash flow, income statements, and balance sheets, transparently.	0.47	4.67	Very High
10. Announcing cooperation with other parties.	0.56	4.29	Very High
11. Communicating information about its products and services clearly.	0.57	4.23	Very High
12. Receiving all criticism and suggestions from members quite effectively.	0.55	4.57	Very High
Category Mean	0.57	4.44	Very High

Independency

13. Executing management activities in a professional manner.	0.50	4.12	High
14. Ensuring its continuity by avoiding dependency on a single party, thus minimizing any threat to its existence in the event of non-cooperation from that party.	0.54	4.20	Very High
15. Prohibiting employees and officers from pursuing personal interests that would benefit themselves or their groups.	0.31	4.06	High
16. Ensuring that it is not easily influenced by any party.	0.29	4.03	High
Category Mean	0.43	4.10	High

Fairness

17. Treating members equally without discrimination.	0.48	4.27	Very High
18. Guarantying the provision of high-quality service to members.	0.68	4.32	Very High
19. Ensuring that supervisors execute tasks diligently to safeguard against the risk of fraud.	0.51	4.41	Very High
20. Providing information to its members regarding their membership classification.	0.48	4.05	High
Category Mean	0.56	4.26	Very High
OVERALL	0.54	4.27	Very High

Displayed in Table 2 is the status of corporate governance among cooperatives in Davao Region. It has five indicators which are accountability, responsibility, transparency, independency, and fairness. The standard deviation across these indicators ranges from 0.29 to 0.68, which are all below 1.00 which connotes consistency of responses.

Corporate Governance obtained an overall mean of 4.27 indicating a very high status. This infers that corporate governance among cooperatives is

always demonstrated. This proposes that cooperatives in Davao region have clear accountability for decisions, considers the well-being of all stakeholders, provides open communication, have independent oversight, and ensures fair treatment for everyone involved. This corresponds with the findings of Shungu et al. (2014) and Al-Baidhani (2014), emphasizing the significance of governance frameworks in regulating organizational operations. Such frameworks not only establish guidelines and protocols for decision-making processes, as noted by Krechovská & Procházková (2014) and The IIA (2017), but also ensure clear accountability for decisions, as indicated by Saxena (2012). Moreover, the research of Torino and Tagadiad (2021) reinforces the findings on cooperative governance, highlighting its consistency and effectiveness in managing executive management structures and procedures, as well as audits and financial disclosures.

Accountability. It earned a category mean of 4.21, described as very high and interpreted as always demonstrated in cooperatives. This means that the operates in accordance with Operational & Management Standards (SOM) and applicable Procedure Standards (SOP), all departments are completely and proficiently staffed, and specialized software are utilized to enhance operational efficiency. This is in line with study of Camilleri (2018) and Ssekiziyivu et al. (2018) who underscored how accountability ignites confidence and defines each role across all divisions within the organizations. Similarly, Hussain et al. (2018) highlighted that accountability drives improvement and flexibility, which supports the findings on the cooperatives' goal to avoid duplicate or vacant positions. Moreover, Sari (2023) emphasized accountability's role in cultivating a culture of responsibility, which warrants adherence to standards and procedures, including the utilization of specialized software for operational efficiency.

Responsibility. This indicator obtains a category mean of 4.35, signifying a very high status and is always demonstrated by cooperatives. This conveys that cooperatives have high security for important documents, conducts regular assemblies to connect with members, adhere to external regulations for ethical integrity, and honor commitments to promote trust and accountability. Several studies provide strong evidence that responsibility is a central aspect of cooperative governance. One is Jamaluddin et al. (2023) who conducted an extensive analysis revealing that cooperatives act and behave responsibly, as demonstrated by their commitment to maintain security measures, conduct member assemblies, and adhere to legal boundaries. Also, Chacón and Chaves

(2008) further support this by stressing the engagement of cooperatives in social initiatives, particularly on their contribution to sustainable development and community well-being. Additionally, Abdul-Samad et al. (2020) substantiates that cooperatives are putting high regards to ethical standards, emphasizing fair treatment for members. Collectively, these studies reinforce the interpretation that cooperatives are consistent in demonstrating responsibility across various dimensions of their operations, as reflected in the high mean scores observed.

Transparency. The category mean of this indicator denoted a very high status which garnered a category mean of 4.44, conveying that it is always demonstrated among cooperatives in Davao Region. This represents that the cooperative is committed to transparency and effectiveness by openly disclosing financial statements and collaborations, clearly communicating product information, and effectively addressing member feedback. This validates the argument of Romito & Vurro (2021) that transparency in corporate governance leads to enhanced trust and confidence among stakeholders thus building better relationships. This transparency includes open communication about financial performance and decision-making processes. Similarly, Li et al. (2021) underlined the significance of transparent practices which allows stakeholders to make informed decisions, signifying that transparent organizations are more likely to succeed in building trust and credibility.

Independency. The category mean of Independency is 4.10, which is reported as high and is often demonstrated among cooperatives in Davao Region. This proposes that cooperative puts priority with regards to professional management, making sure that it doesn't rely on single party to ensure continuity and mitigate threats, forbids personal interest motives among employees and officers, and maintains resistance to external influences. This focus on independence is coherent with the research by Uycan & Ertugrul (2015) who points out the legal importance of board independence to lessen conflicts of interest, and Macey et al. (2019) who emphasize that independence strengthens the integrity of decision-making processes.

Fairness. It scored a category mean of 4.26, described as very high and interpreted as always demonstrated among cooperatives being studied. This indicates that cooperatives are giving relevance in creating a fair and equitable environment for all members. This is reflected in their service provision, policies, and overall member treatment. This backs up with the concept mentioned by Thompson (2020) that fairness encompasses and encourages

diversity, combats discrimination, and creates equal opportunities for all. Cooperatives naturally are member-owned and controlled, so prioritizing fairness in these kind of organizations is crucial for their success. Besides, research by Sekerka & Yacobian (2018) conveys that fairness extends to the distribution of rewards and liabilities. The high score for fairness in cooperatives suggests a commitment to ensuring all members share in the benefits and burdens of the organization.

Table 3

Level of Internal Audit

Item	SD	Mean	Description
Internal Auditors' Independence			
1. Maintaining an Internal Audit department with organizational independence and the capacity to communicate effectively with both the board of directors and senior management.	0.47	4.34	Very High
2. Guaranteeing the independence of the internal auditor, allowing them to thoroughly audit all activities.	0.51	4.37	Very High
3. Guaranteeing that the internal auditor's performance is marked by objectivity, ensuring neutrality, impartiality, and the absence of personal conflicts of interest with any party.	0.49	4.16	High
4. Ensuring that all recommendations from the internal auditors, financial and non-financial, are strictly implemented.	0.52	4.26	Very High
5. Upholding the independence of the internal audit, ensuring that executive departments do not interfere in the appointment, determination of fees, and remuneration of the auditor.	0.54	4.11	High
Category Mean	0.52	4.25	Very High

Proficiency and Due Professional Care

6. Undergoing continuous training to maintain compliance with professional standards.	0.48	4.37	Very High
7. Possessing expertise in performing work and holds both scientific and practical qualifications.	0.46	4.27	Very High
8. Possessing communication, persuasion, teamwork, and dialogue skills.	0.56	4.36	Very High
9. Possessing computer proficiency.	0.51	4.43	Very High
10. Fortifying their knowledge through a comprehensive understanding of IT and technology.	0.39	3.19	Moderate
11. Holding experience and comprehensive knowledge of all relevant laws and authorities.	0.50	3.56	High
12. Accumulating experience in economics, taxation, finance, and law.	0.50	3.51	High
Category Mean	0.68	3.96	High

Nature of Work

13. Contributing to the control and protection of the cooperative's assets.	0.55	4.48	Very High
14. Contributing to maintain the integrity of financial and operational information within the cooperative.	0.54	4.59	Very High
15. Ensuring the effective follow-up and proper conduct of the cooperative's operation.	0.59	4.24	Very High
16. Performing distinct tasks separate from those of the management or internal control department.	0.56	4.31	Very High
Category Mean	0.57	4.40	Very High

Assurance and Improvement Program

17. Collecting and examines all information to obtain results that support his audit.	0.49	4.12	High
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18. Writing the report and communicates the results of the audit work to the cooperative.	0.48	4.25	Very High
19. Planning and reviews each audit engagement.	0.58	4.25	Very High
20. Following up and ensures that appropriate actions and procedures are implemented in response to the findings of the audit.	0.58	4.38	Very High
Category Mean	0.53	4.25	Very High
Managing the Internal Audit Activity			
21. Preparing risk plans to prioritize internal audit activity.	0.67	4.19	High
22. Developing a program to evaluate the work of the Internal Audit department.	0.46	4.21	Very High
23. Communicating and follows up on the internal audit activity plans.	0.66	4.23	Very High
24. Developing the policies and procedures necessary to guide the internal audit work.	0.51	4.43	Very High
25. Coordinating with internal and external service providers to ensure the effective conduct of audit.	0.46	3.99	High
Category Mean	0.58	4.21	Very High
OVERALL	0.61	4.18	High

Exhibited in Table 3 is the extent of internal audit among cooperatives in Davao Region. It has five domains which are internal auditors' independence, proficiency and due professional care, nature of work, assurance and improvement program, and managing the internal audit activity. The standard deviation within these domain spans from 0.39 to 0.67, all falling below 1.00, indicating consistency in responses.

Internal Audit got an overall mean of 4.18, signifying a high extent. It can be gleaned that internal audit among cooperatives in Davao region is often practiced. This conveys that cooperatives prioritize strong internal controls and

financial management through independent, thorough audits. The focus extends beyond problem identification, aiming to provide assurance and improvement opportunities. This is in conformance with Mohamed & Tawfik (2018) who pointed that nature of work performed by internal auditors as encompassing more than just identifying problems but they also aim to provide stakeholders with a level of comfort and confidence regarding the financial health of the organization. Also, Bhargava et al. (2019) highlight the role of internal audit in promoting transparency by conducting regular and thorough internal audits with a goal of assurance. Moreover, Eulerich et al. (2013) and Hegazy & Farghaly (2021) expressed that internal audit enhances an organization's efficiency and effectiveness through risk management and control assessments. Internal audits not just to identify weaknesses, but also to proactively seek ways to improve their processes and controls.

Internal Auditors' Independence. This received a category mean of 4.25, evaluated as very high, showing that it always practiced by cooperatives. This underscores that cooperatives highlight the critical role of a completely independent internal audit function. This includes a distinct department with open communication channels reaching leadership. Furthermore, the auditors themselves must be free from any influence and have unrestricted access to all necessary information to conduct thorough audits. Finally, their work should be objective and impartial, meaning they avoid personal biases and conflicts of interest. This finding corroborates with several authors like Ali et al. (2023) and Taha (2023) who underlined that independence is a cornerstone of effective internal audit. Establishing a separate internal audit department with clear communication channels reaching leadership helps to ensure auditors are free from undue influence. Additionally, Njagi (2023) and Kimotho (2014) highlight the significance of independence through granting auditors unrestricted access to necessary information which allows for thorough and objective audits.

Proficiency and Due Professional Care. This domain garnered a category mean of 3.96, rated as high and is often practiced in cooperatives. This stresses that internal auditors in these cooperatives often undergo continuous training and possess a well-rounded skillset. This includes theoretical knowledge, practical experience, strong communication, computer proficiency, and an understanding of IT and relevant legal frameworks. This ensures they provide services with due professional care. This bolsters the idea of Modisane (2019) and Thottoli (2021), who cleared the need for internal auditors to possess a well-rounded skillset that includes not only traditional auditing knowledge but

also the ability to navigate complex technological environments. Furthermore, the emphasis on strong communication skills and an understanding of relevant legal frameworks resonates with the concept of due professional care as highlighted by Lachney (2018).

Nature of Work. This displays a very high assessment with a mean score of 4.40, which means it is always practiced by cooperatives. This suggest that internal auditors contribute to safeguarding assets and ensuring the integrity of financial and operational information. Additionally, they participate in monitoring ongoing operations and promoting proper conduct. Importantly, their work remains distinct from management and internal control departments, reinforcing their objectivity. This validates the statements of Mohamed and Tawfik (2018) and Turetken et al. (2020) that the core functions of internal audit include examining and appraising an organization's governance, risk management, and internal control procedures. More so, Hazami-Amman (2019), stressed the role of internal auditors in reviewing the complexity of internal controls. By ensuring internal controls function effectively, auditors can help prevent irregularities and promote adherence to established procedures.

Assurance and Improvement Program. This is earning a category mean of 4.25, signifying a very high extent and implying that it is always practiced. This proposes that auditors gather and analyze data to support their findings, then clearly communicate results via reports. Meticulous planning and review precede each audit, followed by ensuring the cooperative implements appropriate actions based on recommendations. This cycle highlights a focus on continuous improvement. This corroborates with the research of Nwaigwe (2013) who stated the importance of a well-developed Quality Assurance and Improvement Program (QAIP) in ensuring internal audit activities adhere to professional standards. Correspondingly, the cycle of continuous improvement, with data gathered to support findings, clear communication of results, and follow-up to ensure implementation of recommendations, is parallel to the Institute's guidance on utilizing a QAIP to measure effectiveness and adherence to international standards (IIA, 2023).

Managing the Internal Audit Activity. This indicator reflected a category mean 4.21, conveyed as very high inferring that it is always practiced. This conveys that the internal audit manager has been creating risk-based plans to prioritize audits, ensuring the department's effectiveness through a dedicated evaluation program, and maintaining clear communication and follow-up on

audit plans. Additionally, established policies and procedures guide the internal audit process, and coordination with internal and external service providers facilitates smooth audit execution. These all directly correspond to the International Standard on the Governance of Internal Audit emphasized by the IIA (2023). A risk-based approach ensures resources are directed towards the most critical areas, while evaluation programs demonstrate a commitment to continuous improvement. Besides, Yusof et al. (2013) agrees that by proactively identifying risks through planning, effectively communicating issues, and following established procedures, internal auditors can work towards addressing control weaknesses before they lead to problems.

Table 4

Correlations between variables

Variables	r-value	p-value	Sig. Level
Corporate Governance (IV) & Business Sustainability (DV)	.757***	.000	Significant
Corporate Governance (IV) & Internal Audit (MV)	.683***	.000	Significant
Internal Audit (MV) & Business Sustainability (DV)	.812***	.000	Significant

* $p < .05$

Shown in Table 4 is the correlation result for the three variables. Corporate governance, internal audit, and business sustainability are statistically significant with p-value less than 0.05 respectively. The strong correlation between corporate governance and business sustainability ($r=.757$, $p<0.05$) suggests that cooperatives with more effective governance structures tend to exhibit higher levels of business sustainability. This implies that good corporate governance practices, such as transparency, responsibility, fairness, accountability, and independency, can contribute to a company's ability to operate in a way that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Additionally, corporate governance is also moderately correlated to internal audit ($r=.683$, $p<0.05$) which indicates that cooperatives with strong governance practices tend to have well-functioning internal audit functions. This implies that effective governance structures which promotes transparency and accountability within a cooperative, often create an environment that supports a

robust internal audit. Consequently, this internal audit function can operate more effectively, providing independent assessment and contributing to a positive cycle that strengthens good governance. As corporate governance practices improve, internal audit functions are better equipped to uphold compliance, risk management, and operational efficiency standards.

Moreover, the strong correlation between internal audit and business sustainability ($r=.812$, $p\text{-value}<0.05$) highlights a clear benefit for cooperatives. Cooperatives with well-functioning internal audits, which assess practices and identify risks, tend to achieve higher levels of sustainability. This suggests that a solid internal audit plays an integral role in converting good intentions into tangible actions. By providing independent oversight and promoting responsible practices, internal audit empowers cooperatives to operate in a way that meets environmental, social, and economic needs for the long haul.

The strong positive correlation between corporate governance and business sustainability, as highlighted in this study, resonates with insights from various authors, shedding light on crucial aspects of this relationship. Kumar (2019) asserts the pivotal role of corporate governance in improving business sustainability, stressing how effective governance practices can significantly uplift sustainability initiatives across economic, social, and environmental dimensions. Boeva and Zhivkova (2017) emphasize that good corporate governance contributes to business sustainability by harmonizing with principles of sustainable development. Moreover, Akca et al. (2010) advocate for strong corporate governance frameworks to warrant financial sustainability by way of sound financial management and risk mitigation. Furthermore, Agyemang et al. (2021) highlight the role of corporate governance in promoting social sustainability by upholding ethical conduct and community engagement. Finally, Shrivastava and Addas (2014) claimed that good corporate governance alone can lead to high sustainability performance, aligning sustainability strategies with the interests of stakeholder.

The moderate positive correlation between corporate governance and internal audit corresponds with assertions made by various authors. Drogalas et al. (2016), Bi (2019), and Sarens et al. (2012) collectively highlight the indispensable role of internal audit within effective corporate governance structures, mentioning its contribution to transparency and confidence in financial reporting. The author further states that governance factors, such as audit committee independence and board structures, impact internal audit quality

and independence, thereby optimizing its effectiveness in managing risks and internal controls. Moreover, Yusof et al. (2013) and Omolaye and Jacob (2018) underscore the relevance of transparent reporting channels and the integration of governance principles in amplifying the impact of internal audit within organizations, thus elevating its role from mere compliance to strategic asset. Complementarily, Lemonakis et al. (2018) stress the role of governance in sustaining the credibility and objectivity of internal audit through steady oversight mechanisms, while Abdul-Samad et al. (2020) accentuate the substantial positive correlation between corporate governance and internal audit effectiveness, particularly in Islamic cooperatives, stressing that in order to enhance internal audit performance, there must be clear charters and adequate resources.

The strong positive influence of Internal audit in enhancing the sustainability of cooperatives is substantiated by a multitude of authors. Ahmed and Zainul Abidin (2020) highlight the significant positive impact of internal audits on the financial performance of cooperatives, emphasizing their role in achieving economic sustainable growth. Similarly, Agyemang et al. (2021) underscore the contribution of internal audits to reduce the risk of fraud and corruption in cooperatives, thereby helps in safeguarding their financial sustainability. Furthermore, internal audits contribute to the social and environmental sustainability of cooperatives by promoting ethical practices and identifying environmental risks, as stated by Ojo and Olawale (2022). Also, Ogunpipe and Olawale (2020) elaborated how strong internal audit functions are associated with increased engagement in socially responsible initiatives, contributing to community welfare, thus boosting cooperatives' sustainability practices. Additionally, internal audits facilitate organizational transformation and innovation, advancing long-term sustainability, as demonstrated by Abdul-Rahman and Ishak (2019).

Table 5

Mediating Effect of Internal Audit on the Relationship between Corporate Governance and Business Sustainability

Independent Variable (IV)	Corporate Governance
Dependent Variable (DV)	Business Sustainability
Mediating Variable (MV)	Internal Audit

STEPS

1. Path C (IV and DV)

Corporate Governance Regressed on Business Sustainability		
B (Unstandardized regression coefficient)		.469
<i>e</i> (Standard error)		.023
Significance		.000
<hr/>		
2. Path B (MV and DV)		
Internal Audit Regressed on Business Sustainability		
B (Unstandardized regression coefficient)		.773
<i>e</i> (Standard Error)		.032
Significance		.000
<hr/>		
3. Path A (IV and MV)		
Corporate Governance on Internal Audit		
B (Unstandardized regression coefficient)		.445
<i>e</i> (Standard Error)		.027
Significance		.000
<hr/>		
4. Combined Influence of MV and IV on DV		
Business Sustainability Regressed on Internal Audit and Corporate Governance		
Internal Audit:		
B (Unstandardized regression coefficient)		.526
SE (Standard Error)		.039
Beta (Standardized regression coefficient)		.553
Corporate Governance:		
Beta (Standardized regression coefficient)		.235
Part Correlation		.061
<hr/>		
Total R Square		.732
<hr/>		

Revealed in Table 5 is the regression analysis of the mediating effect of internal audit on the relationship between corporate governance and business sustainability. The data in the table below were used as input to medgraph. Table 5 is categorized into four steps. In step 1 (Path C), corporate governance has a direct significant effect on business sustainability ($B = 0.469$, $p < 0.05$). In step 2 (Path B), business sustainability regress on internal audit and has a significant direct effect on it ($B = 0.773$, $p < 0.05$). In step 3 (Path A), corporate governance has a significant direct effect on internal audit ($B = 0.445$, $p < 0.05$). The total R Square for the model is 0.732, which implies that the model explains 73.2 per cent of the variance in business sustainability. The beta coefficient for internal audit ($B = 0.553$, $p < 0.05$) implies that internal audit significantly affects business sustainability, even after controlling for corporate governance. This

finding suggests that having good corporate governance and sound internal audit optimizes business sustainability in the cooperatives.

Significance of Mediation		Significant
Sobel z-value	10.387367	$p = 0.00000$
Effect size Measures		
<u>Unstandardized Coefficients</u>		
Total:	.469	
Direct:	.235	
Indirect:	.445	
Ratio Index:	0.9488	

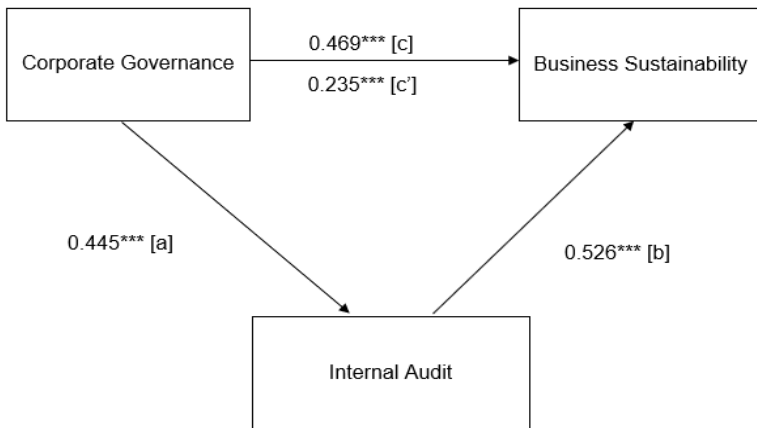


Figure 3. Med graph showing the variables of the study

Demonstrated in Figure 3 is the mediating role of internal audit on the relationship between corporate governance and business sustainability. The Sobel z-value measures the strength of the mediation effect. Based on the figure below, the Sobel z-test reveals a statistically significant partial mediation effect with a z- value of 10.387367 ($p < 0.05$), considered a strong effect. In this test, the larger is the z-value, the better is the mediation effect of the mediating variable. This result indicates that internal audit plays a vital role in translating the influence of corporate governance on business sustainability. Also, unstandardized effects further solidify this interpretation. The indirect effect, representing the influence of corporate governance on business sustainability through internal audit, is 0.445, indicates more significant than the direct effect of 0.235. The ratio index with the value 0.9488 indicates that about 94.88 percent of the total effect of corporate governance on business sustainability

goes through internal audit and about 5.12 per cent of the total effect is either direct or mediated by other variables not included in the model.

The significant partial mediation effect of internal audit between corporate governance and business sustainability validates the research of De Villiers et al. (2016) that internal audit can help companies to improve their sustainability performance by ensuring that sustainability is considered at all levels of the organization. The result also confirms the proposition of Chiu et al. (2016) that internal audit acts as a crucial mechanism through which corporate governance fosters business sustainability by emphasizing the role of internal audit in facilitating comprehensive reporting of sustainability initiatives. Moreover, it substantiates the perspective of Pérez-López et al. (2015) on how strong internal controls, often overseen by internal audit, can lead to improved sustainability management practices. Also, the results support Fogarty and Wright's (2017) findings, linking a strong internal audit function in enhancing corporate governance and its positive impact on long-term sustainability goals.

CONCLUSION

Generally, the business sustainability of cooperatives in Region XI exhibited a very high level, indicating that these cooperatives are operating in a manner that ensures its long-term viability and success. However, from the three domains of business sustainability, environment was observed to be the weakest area, obtaining the lowest mean, signifying a high level. Specifically, these weak areas include: implementing recycling and composting programs in all departments, introducing water and energy saving measures in all departments, purchasing environmentally friendly products, and encouraging eco-friendly behavior by members through awareness raising and information dissemination. These imply that cooperatives are falling behind in its environmental efforts, which could result in increased environmental impact, higher operational costs, and a missed opportunity to align with sustainable business practices thus affecting its image as a socially responsible organization within its community.

Corporate governance as a whole, achieved a very a high status, demonstrating that cooperatives in Region XI have robust systems and processes in place to ensure transparency, accountability, and fairness in its decision-making processes. Nevertheless, independency, emerged as the weakest indicator, earning the lowest mean and having a high descriptive level. The weakness stems from the low ratings received in key areas, including the execution management activities in a professional manner, prohibition of employees and officers from pursuing personal interests that would benefit

themselves or their groups, and ensuring that it is not easily influenced by any party. Weaknesses in executing management activities professionally denotes inefficiencies, mismanagement of resources, and reduced organizational effectiveness. Furthermore, the failure to enforce policies prohibiting personal interests from influencing decisions could result in conflicts of interest, favoritism, and compromised decision-making processes. Also, if the cooperatives are easily influenced by external parties, it connotes risk of losing autonomy, credibility, and trust among its stakeholders.

The overall internal audit generated a high extent, denoting that cooperatives are proactive in monitoring its operations, identifying risks, and ensuring compliance with relevant laws, regulations, and internal policies. Nonetheless, proficiency and due professional care was identified to be the weakest link among its indicators, garnering the lowest mean, suggesting a high extent. Specifically, this was attributed to low scores provided by respondents on aspects such as: enhancing their expertise through a thorough grasp of IT and technology, possessing experience and in-depth knowledge of pertinent laws and authorities, and accumulating expertise in economics, taxation, finance, and law. These weak aspects expose cooperatives to inefficiencies, errors, and compliance issues which will compromise the cooperative's regulatory compliance, financial integrity, and overall organizational performance in the long run.

There is a significant and positive correlation between corporate governance and business sustainability, corporate governance and internal audit, and, internal audit and business sustainability in the cooperatives of Region XI. These positive correlations signify that fostering a robust governance structure and employing an effective internal audit processes are essential to improve the cooperative's sustainable business practices. These connections significantly call for the alignment of governance principles with internal controls in promoting long-term viability and responsible decision-making, thereby bolstering the ability of cooperatives to navigate in the dynamic environments and ensure its continued success.

Additionally, internal audit has a significant mediation effect on the relationship between corporate governance and business sustainability. The finding infers that internal audit serves as a mechanism through which corporate governance influences the sustainability initiatives of cooperatives. In other words, internal audit processes reinforce and amplify the effects of corporate

governance on business sustainability. By serving as a bridge between corporate governance and business sustainability, internal audit ensures that the governance principles within cooperatives are effectively translated into action and that sustainability objectives are given priority and are integrated into the cooperative's operations and decision-making processes.

The results corroborate the Agency Theory by Jensen & Meckling (1976), which proposes that internal audit strengthens the influence of corporate governance on business sustainability. Internal audit serves to represent the interests of members, mitigate potential conflicts, and ensure that sustainable practices are aligned. Strong internal audit reduces information asymmetry between agents or the cooperative managers/leaders and principals who are the cooperative members/shareholders. This emphasis on transparency allows members to better monitor the actions of the management and hold them accountable in warranting that the cooperative's sustainable practices are parallel with its long-term corporate goals. More so, a robust internal audit function acts as a warning device against opportunistic behavior by management, which guarantees that they should not only prioritize financial performance but social and environmental responsibility should go along.

Moreover, the findings support the Institutional Theory by Scott (1987) that internal audit plays a crucial role in optimizing the relationship between corporate governance and business sustainability. When internal audit is embedded in the governance frameworks, it warrants the cooperative's conformance to sustainability laws and regulations, industry standards, and social expectations from members and the community. This in turn, augment the legitimacy and reputation of the cooperative within its institutional environment. This point towards the desire of the cooperative to exceed expectations and contribute positively to society.

These combined theoretical perspectives substantiate the multifaceted role of internal audit in translating governance principles into concrete actions that drive business sustainability in cooperatives.

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