INSTITUTIONAL ISOMORPHISM, REFLEXIVITY AND DIGITAL TAX STAMP ADOPTION BY MANUFACTURING FIRMS IN UGANDA

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Abstract

This study examined the influence of institutional isomorphism and reflexivity on the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda. Despite regulatory efforts to enforce DTS as a tax compliance measure, adoption among manufacturing firms required to implement it remains inconsistent, necessitating an examination of the underlying institutional and organizational factors influencing firms' decisions. Grounded in institutional theory and structuration theory, the study explores how coercive, normative, and mimetic pressures, alongside firms' capacity for reflexivity, shape DTS adoption.

A cross-sectional explanatory research design was employed, with data collected from 235 employees across various manufacturing firms required by law to use DTS. The study utilized a structured questionnaire to gather quantitative data, which was analysed using descriptive and inferential statistical methods, including exploratory factor analysis, multiple regression modelling, and mediation analysis.

The findings indicate that institutional isomorphic pressures significantly impact DTS adoption, with coercive pressures exerting the strongest influence. However, reflexivity did not significantly mediate the relationship between institutional isomorphism and DTS adoption, suggesting that compliance is primarily driven by external regulatory pressures rather than internal organizational reflection.

This study contributes to the existing literature on tax compliance and digital transformation by highlighting the dominant role of institutional pressures in shaping firms' compliance behaviour. The findings suggest that policymakers should strengthen enforcement mechanisms as this is what the firms largely respond to. Future research should investigate other drivers such as technological infrastructure, firm size, and leadership commitment to better understand what influences firms' compliance decisions.

Declaration

I, OKELLO MARK OLWA, hereby declare that this is my original work, is not plagiarised and has not been submitted to any other institution for any award.

OKELLO MARK OLWA

J23M15/202

Signature: Date: 20/05/2025

Approval

This is to certify that this research titled “Institutional Isomorphism, Reflexivity and Digital Tax Stamp Adoption by Manufacturing Firms in Uganda”, has been done under my supervision and is now ready for submission.

Name: Joshua Mandre, Ph.D.

Signature:  Date: 20/05/2025

Dedication

This dissertation is dedicated to my beloved parents, Alfred and Susan Olwa, whose unwavering financial, moral, and spiritual support has been the cornerstone of my academic journey. Your sacrifices and encouragement have been instrumental in my achievements.

I also dedicate this work to my sisters, Hope and Mercy, whose constant encouragement and faith in my abilities have motivated me to persevere and succeed. Your words of support have been a source of strength throughout this journey.

Thank you for being my pillars of strength and inspiration.

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I extend my deepest gratitude to Dr. Mandre Joshua, my supervisor, for his invaluable guidance, insightful feedback, and unwavering support throughout this research process. His expertise and patience have been instrumental in shaping this dissertation.

I also sincerely appreciate the manufacturing firms that participated in this study, allowing me to collect data and gain critical insights into the adoption of Digital Tax Stamps. Their cooperation and openness made this research possible.

Lastly, my heartfelt appreciation goes to the Faculty of Business at Uganda Christian University for providing the necessary academic support and resources. The faculty's commitment to excellence and willingness to assist whenever needed has greatly contributed to the successful completion of this dissertation.

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List of Abbreviations

CPA (U) : Certified Public Accountants of Uganda.....13

DTS : Digital Tax Stamps 2

GDP : Gross Domestic Product 1

OECD : Organisation for Economic Co-operation and Development.....1

Chapter One

Introduction

1.1 Introduction

This chapter presents an overview of the study by explaining its background, the problem statement, the study objectives, hypothesis, justification, significance, scope, and the theories guiding the research. The study aims to investigate how institutional pressures (institutional isomorphism) and self-assessment (relexify) influence the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda.

1.2 Background of the Study

Taxation is a cornerstone for the financial welfare of contemporary governments, enabling the financing of important sectors like education, healthcare, national security, and public infrastructure (Bird & Zolt, 2020). Good tax administration not only generates the revenue needed for the provision of public services but also is necessary for the country's economic and social stability (OECD, 2022).

The performance of tax systems varies greatly around the world. Developed countries tend to have a higher tax-to-Gross Domestic Product (GDP) ratio as they have strong tax collection systems and compliance rates. The average tax-to-GDP ratio among Organisation for Economic Co-operation and Development (OECD) countries in 2020 was approximately 34.1% (OECD, 2022), showing highly efficient levels of tax compliance coupled with broad tax bases. By contrast, lower-middle-income countries have, on average, lower tax-to-GDP ratios, often reflecting the high level of tax evasion, narrow tax bases, and low administrative capacity. These figures generally fall within the 10% to 20% spectrum, indicating a lot of room for progress needed (World Bank, 2020). This shows that, tax administration poses huge challenges for developing countries, especially in Sub-Saharan Africa. Indeed, many of these economies typically have tax-to-GDP ratios around 15% – well below the global average (Fjeldstad & Heggstad, 2012). This average is low because of factors like informal economies, weak enforcement mechanisms, and inadequate taxpayer education. In East Africa, for instance, countries such as Kenya, Tanzania, and Uganda experience tax evasion

and compliance problems, despite a range of reforms (Kangave et al., 2015). Furthermore, reliance on trade taxes rather than domestic taxes historically undermined the sustainability and efficiency of their tax systems (Ndikumana, 2021).

In the case of Uganda, her tax-to-GDP ratio has improved but is still below the necessary threshold for sustained economic growth. Despite ongoing efforts, Uganda's tax-to-GDP ratio was about 14.2% in 2022, which is significantly lower than the level required for robust economic growth and development estimated around 20-25% (URA, 2022).
To mitigate these issues, digital tax administration solutions have emerged and gained traction in many developing economies as a pragmatic solution to improve tax compliance and efficiency through reducing compliance burden and tax evasion (Awasthi et al., 2019). Many countries are leveraging digital tax administration tools (e-invoicing system, digital tax stamps (DTS), online tax filing platforms) to ensure better tax compliance and administrative coercion (Awasthi et al., 2019). An example can be drawn from South Africa with their SARS eFiling platform which has improved efficiency in tax filing, resulting in improved compliance rates and reducing the burden associated with administration (South African Revenue Service, 2021).In Kenya, the iTax system has improved revenue collection through real-time data and has lowered chances of tax evasion (KRA, 2021). Digital tax stamps employed in countries such as Ethiopia and Tanzania have been shown to be useful in authenticating products, assuring taxes are paid, and tackling illegal trade (Mzee & Gebrehiwot, 2019).

Uganda has also implemented digital stamps as part of a wider initiative to modernize its tax administration. The Ministry of Finance introduced digital tax stamps in 2019 to help curb revenue leakages and increase tax compliance (Daily Monitor, 2024). The government stressed that introducing digital stamps was critical in curbing tax evasion, combating fake products, and enhancing revenue collection (Daily Monitor, 2024). Revenue leakages, especially in manufacturing, were becoming a reason for concern for the Finance Ministry, which was why the digital tax stamps were introduced as a strategic approach to deal with this (Daily Monitor, 2024).

The implementation of Digital Tax Stamps (DTS) in Uganda has been recognized as a critical measure to enhance tax compliance and operational transparency and yet, the manufacturing sector is facing major hurdles in its acceptance. The contribution of

manufacturing firms' products and DTS collections to increasing this threshold is significant but remains underutilized (IGC, 2022). This gap indicates the need for a detailed study to investigate the factors affecting the adoption of DTS in Uganda's manufacturing sector, which makes this a worthy problem of investigation.

1.3 Problem Statement

Several studies have investigated different aspects of tax administration around the world. For example, the (OECD, 2022) investigated the introduction and implementation of electronic invoicing. The study concentrated on the increase in compliance rates, reduction in tax evasion, and the technological infrastructure necessary for implementation.
Similarly, (Mascagni et al., 2021) studied taxpayer morale and compliance in low-income countries, stressing factors like taxpayer education, trust in the tax system, and transparent use of tax revenues. (Gupta & Sawyer, 2020) also provided an overview around digital tax tools adoption in developing countries, discussing compliance rates, administrative burdens, infrastructure investments, and capacity building. Additionally, (Tumwine, 2013) conducted a study on automating tax administration in Uganda, specifically investigating online taxpayer registration, online filing of tax returns, tax payments, and the spread of technical knowledge. The International Growth Centre (IGC, 2022) studied the effect of digital tax stamps on firms in Uganda, with an emphasis on compliance, revenue collection, costs, and operational disruptions.

However, while these studies have provided valuable insights, they have been less attentive to the role played by institutional isomorphism and reflexivity in explaining the adoption of DTS (Teo et al., 2003). Institutional isomorphism describes how organizations increasingly become similar to each other as they face pressure to conform to norms, rules, and standards within their field (DiMaggio & Powell, 1983). Essential to navigating the challenges of DTS adoption is reflexivity which according to (Giddens, 1984) is the process of self-reflection and constant modification of actions to accommodate regulatory changes and developments in technology.

Therefore, this study aimed to address this gap by analysing the interplay between institutional isomorphism, reflexivity, and the adoption of DTS in Uganda's manufacturing

sector. Together, by analysing these factors, this study aimed to enhance our understanding of what drives or hinders the adoption of Digital tax Stamps in Uganda and, ultimately, contribute evidence to our wider understanding of tax compliance and administration in developing economies.

1.4 Purpose of the Study

The purpose of this study was to investigate the relationship between Iinstitutional Iisomorphism, Reflexivity and the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda.

1.5 Objectives of the Study

1. To analyse the relationship between institutional isomorphism and the adoption of Digital Tax Stamps.
2. To investigate the connection between institutional isomorphism and reflexivity in manufacturing firms.
3. To evaluate the influence of reflexivity on the adoption of Digital Tax Stamps.
4. To determine the mediating role of reflexivity in the relationship between institutional isomorphism and DTS adoption.

1.6 Hypotheses

H_1. Institutional isomorphism has a positive relationship with the adoption of Digital Tax Stamps.

H_2. Institutional Isomorphism has a positive relationship with reflexivity.

H_3. Reflexivity has a positive relationship with the adoption of Digital Tax Stamps.

H4. Reflexivity mediates the relationship between institutional isomorphism and the adoption of Digital Tax Stamps.

1.7 Scope of the Study

1.7.1 Content Scope

This study focused on the adoption of digital tax stamps (DTS) by manufacturing firms in Uganda. It examined how institutional isomorphic pressures namely, regulative,

normative, and mimetic mechanisms influence the adoption of DTS. Additionally, it explored the role of reflexivity as a mediating factor that allows firms to reflect on and adapt their strategies in response to these institutional pressures. The study evaluated the actual usage of DTS among manufacturing firms to provide a comprehensive understanding of the factors driving or hindering their adoption.

1.7.2 Geographical Scope

The geographical scope of this study was confined to Uganda, specifically targeting manufacturing firms operating within Kampala city and the districts of Wakiso, and Mukono. These regions were chosen due to their concentration of manufacturing activities and the significant role they play in the country's economy. By focusing on these areas, the study aimed to capture a comprehensive understanding of the adoption of Digital Tax Stamps (DTS) in regions with the highest levels of industrial activity. This targeted approach allowed for an in-depth analysis of the factors influencing DTS adoption in key economic hubs of Uganda, where regulatory, infrastructural, and cultural dynamics are most pronounced.

1.7.3 Time Scope

The time scope of this study covered a period from 2019 to 2024. This timeframe was chosen to capture the initial phase of DTS implementation in Uganda and to analyse its early impacts on the manufacturing sector. The study also considered data and events from this period to understand the current state of DTS adoption and to identify trends and patterns in the adoption process. This temporal focus allowed for the assessment of recent regulatory changes and technological advancements that have influenced DTS adoption in Uganda.

1.8 Justification

The justification for this study lied in addressing the gap in the literature regarding the adoption of digital tax stamps in Uganda’s manufacturing sector. By understanding the factors that drive or hinder the adoption of digital tax stamps, policymakers and stakeholders can develop more effective strategies to enhance tax compliance and improve revenue

collection. This study also contributes to the broader understanding of institutional isomorphism and reflexivity in the context of digital transformation in tax administration.

1.9 Significance

Policy Implications. The findings provide valuable insights for policymakers in designing interventions that promote the adoption of digital tax stamps, ultimately improving tax compliance and revenue collection in Uganda.

Theoretical Contribution. This study contributes to the theoretical literature given it has explored the interplay between institutional isomorphism, reflexivity, and technology adoption, providing a deeper understanding of these concepts in a developing country context.

Practical Implications. For manufacturing firms, the study highlights the benefits and challenges of adopting digital tax stamps, offering practical recommendations for overcoming barriers and leveraging opportunities to enhance operational transparency and efficiency.

1.10 Theoretical Framework

This study drew on two theories to explain the adoption of Digital Tax Stamps (DTS) by manufacturing firms.

1.10.1 Institutional Theory

Institutional theory is a key concept in organisational studies which helps to explain how organisations behave based on their environment (Scott, 2013). It suggests that organisations are influenced by social factors like new laws, standards, rules, behaviours and new players in the industry. According to (Greve, 2003), this theory explains how structures, processes and professional practices are developed and then spread within and between the organisations. Unlike market forces that focus on profit, institutional theory argues that the environment's social expectations often have a strong influence on how organisations operate (Meyer and Rowan 1977). This happens because organisations are more concerned with

gaining acceptance and legitimacy in society rather than just maximising profits (Suddaby 2013).

From Institutional Theory, we drew upon the concept of institutional isomorphism. Isomorphism is a process where organisations in the same environment become more alike over time due to similar external pressures. This means that organisations tend to adjust their structures and practices to match those of others facing the same environment conditions constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions (DiMaggio & Powell, 1983).

1.10.2 Structuration Theory

Structuration Theory (Giddens, 1984), posits that social life is not merely a series of random individual acts but is deeply structured by recurrent social practices. According to this theory, the basic domain of study for the social sciences is not the isolated actions of individuals or a predefined social order, but rather the regular, patterned social practices that occur across time and space. Giddens emphasizes the recursive nature of human actions, meaning that these actions are not just initiated by social actors but are continuously reproduced by them. Through their everyday activities, individuals both produce and reproduce the social structures that make these activities possible. This theory challenges the dichotomy between structure and agency, arguing instead that they are mutually dependent that is, structures are both the medium and the outcome of the practices they organize.

A key concept within Structuration Theory is reflexivity, which refers to the capacity of individuals to reflect on and adapt their actions based on the ongoing flow of social life. Reflexivity involves a conscious awareness by social actors who continuously monitor their actions and the context in which these actions occur (Giddens, 1984). This self-awareness enables actors to not only respond to social structures but also to modify them. Reflexivity, therefore, highlights the dynamic nature of social practices where actors do not passively conform to existing structures but actively engage with and sometimes transform these structures. In organizational contexts, reflexivity allows firms to critically evaluate their strategies, understand the evolving external environment, and adapt accordingly (Schippers et al., 2007).

By integrating Institutional Theory and Structuration Theory, this study provides a comprehensive framework for understanding the factors influencing DTS adoption in Uganda's manufacturing sector. This theoretical framework guided the analysis of how institutional pressures and reflexive practices interact to drive or hinder the adoption of DTS.

1.11 Conceptual Framework

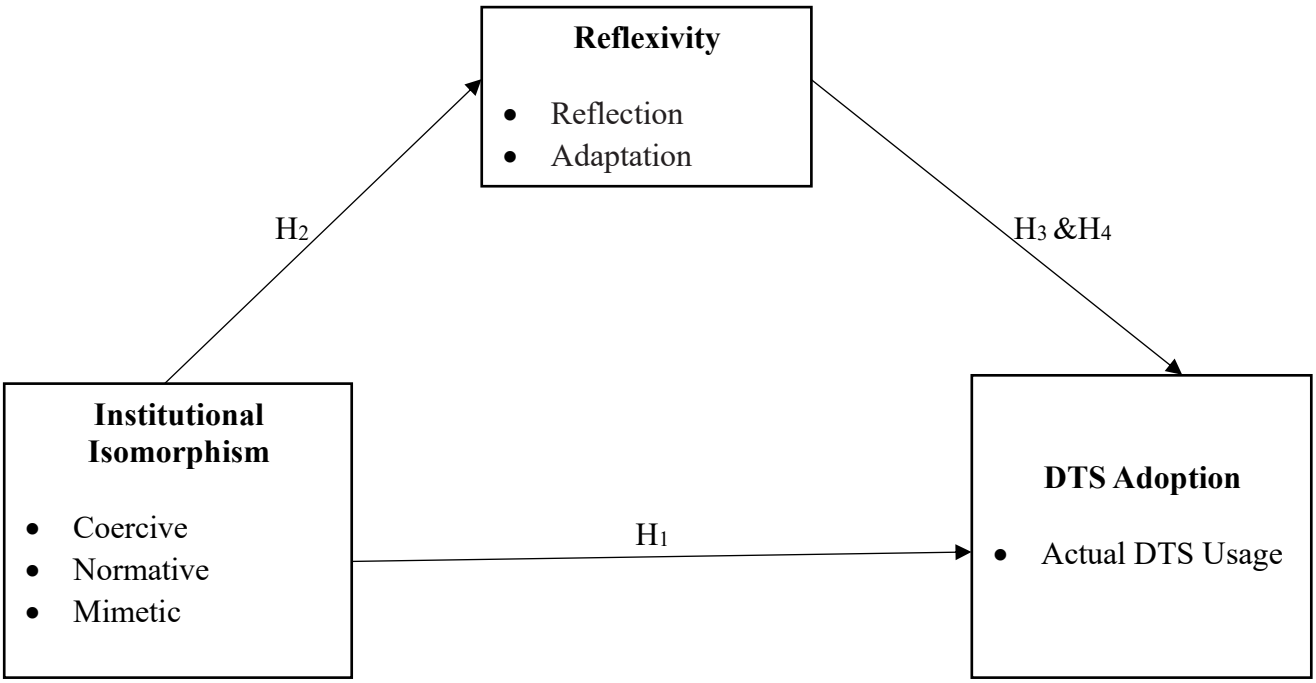

Figure 1. *Conceptual Framework*

In the conceptual framework, the Dependent Variable (DV) is DTS Adoption, with Actual DTS Usage as the dimension. The Independent Variable (IV) is Institutional Isomorphism, encompassing Regulative, Normative, and Mimetic mechanisms.
The Mediating Variable (MV) is Reflexivity, which contains Reflection and Adaptation dimensions.

1.12 Conclusion

The chapter began with an introduction highlighting the main areas covered. It then presented the background of the study discussing taxation from a global view, taxation in sub-Saharan Africa, the introduction of DTS in Uganda, tax compliance and how the digital

tax system works. The problem statement explored why Uganda still struggles with the adoption of DTS among the manufacturing firms despite being a regulatory requirement. The chapter also explains the purpose of the study, which is to examine how institutional isomorphism and reflexivity influence the adoption of DTS in Uganda's manufacturing sector. The study objectives and research hypothesis were outlined, followed by the scope of the study, justification and significance of the research. Finally, the chapter presented the theoretical and conceptual framework guiding the study.

Chapter Two

Literature Review

2.1 Introduction

This chapter presents a review of literature arranged according to themes derived from the specific objectives and research questions. It examined scholarly works and perspectives related to the study variables, focusing on the adoption of Digital Tax Stamps (DTS) and tax compliance in Uganda's manufacturing sector. The chapter analysed empirical studies on institutional isomorphism and tax compliance, organizational reflexivity, and the interplay between external pressures and firms' adoption of DTS.

2.2 Theoretical Literature Review

2.2.1 Institutional Theory

Institutional Theory (Scott, 2013), posits that organizations are influenced by the norms, values, and rules of the broader social environment in which they operate so as to gain legitimacy, and social acceptance within their institutional environment. From Institutional Theory, we drew upon the concept of institutional isomorphism to explain the adoption of DTS. Institutional isomorphism refers to the process by which organizations become similar to one another over time due to pressures to conform to norms, rules, and standards in their field (DiMaggio & Powell, 1983). These pressures can be categorized into three mechanisms: Coercive, normative, and mimetic isomorphism (DiMaggio & Powell, 1983).

Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent, as well as cultural expectations in the society within which organizations function. These pressures often take the form of legal regulations, mandates, and standards that organizations must adhere to in order to remain legitimate and functional within their respective fields. In the context of Digital Tax Stamp (DTS) adoption in Uganda's manufacturing sector, coercive pressures play a critical role. Regulatory requirements from the government and tax authorities mandate the implementation of DTS to ensure compliance and enhanced revenue collection (Sadress et al., 2019). Organizations are compelled to adopt DTS to avoid penalties, fines, or even the revocation of business licenses. The need to conform to these legal requirements significantly

influences manufacturing firms' decisions to adopt DTS, as compliance ensures their continued operation and legitimacy in the regulatory environment. The findings of (Musimenta et al., 2017) similarly suggest that coercive pressures from regulatory bodies are a strong determinant of tax compliance, reinforcing the importance of institutional pressures in driving compliance behaviours within firms.

In contrast, Mimetic isomorphism is a response to uncertainty, where organizations model themselves after others in their field that they perceive to be more successful or legitimate. This imitation is often a strategic response when firms face ambiguous circumstances and lack clear guidance. In the context of Digital Tax Stamp (DTS) adoption in Uganda's manufacturing sector, mimetic pressures significantly influence adoption decisions. Firms tend to observe industry leaders or peers who have successfully implemented DTS and emulate their practices, perceiving them as best practices that can lead to similar successes, such as increased compliance and reputation. According to (Sadress et al., 2019), tax compliance behaviours in SMEs often arise from mimicking successful competitors, where businesses adopt strategies observed to be effective in their counterparts. Similarly, (Musimenta et al., 2017) found that mimetic pressures, in combination with other isomorphic forces, compel organizations to adopt tax compliance practices modelled by peers and competitors in the market, particularly in uncertain environments. This tendency to imitate can lead to widespread DTS adoption as firms seek to replicate the benefits observed in their counterparts, such as enhanced compliance, reduced risks of tax evasion, and improved reputational standing.

A third source of isomorphic organizational change is Normative isomorphism and stems primarily from professionalization and the establishment of norms within professional communities. Two aspects of professionalization are important sources of isomorphism. One is the resting of formal education and of legitimation in a cognitive base produced by university specialists; the second is the growth and elaboration of professional networks that span organizations and across which new models diffuse rapidly (DiMaggio & Powell, 1983). This form of isomorphism is therefore characterized by the influence of professional standards, formal education, and professional networks, which collectively shape organizational behaviour and expectations. Professional norms and values often become ingrained within organizational practices, driving firms toward similar strategies and standards. In relation to DTS adoption, Normative pressures are particularly influential in the

adoption of Digital Tax Stamps (DTS) through professional standards and networks. In Uganda, professional associations such as the CPA (U) and ULS, alongside tax consultants and regulatory bodies, advocate for the modernization of tax practices through digital tools like DTS (Kabuye et al., 2021). These professional groups push for DTS as a best practice for compliance and efficiency, driving firms to adopt these strategies to align with evolving professional norms. Furthermore, industry forums and professional networks that endorse DTS strengthen its adoption as organizations seek to maintain their legitimacy by adhering to recognized standards of excellence (Sadress et al., 2019). Firms that engage in these professional networks are more likely to adopt DTS, perceiving it as a necessity for maintaining competitiveness and meeting industry expectations.

2.2.2 Structuration Theory

Structuration Theory (Giddens, 1984), posits that social life is not merely a series of random individual acts but is deeply structured by recurrent social practices. According to this theory, the basic domain of study for the social sciences is not the isolated actions of individuals or a predefined social order, but rather the regular, patterned social practices that occur across time and space. Giddens emphasizes the recursive nature of human actions, meaning that these actions are not just initiated by social actors but are continuously reproduced by them. Through their everyday activities, individuals both produce and reproduce the social structures that make these activities possible. This theory challenges the dichotomy between structure and agency, arguing instead that they are mutually dependent that is, structures are both the medium and the outcome of the practices they organize.

A key concept within Structuration Theory is reflexivity, which refers to the capacity of individuals to reflect on and adapt their actions based on the ongoing flow of social life. Reflexivity involves a conscious awareness by social actors who continuously monitor their actions and the context in which these actions occur (Giddens, 1984). This self-awareness enables actors to not only respond to social structures but also to modify them. Reflexivity, therefore, highlights the dynamic nature of social practices where actors do not passively conform to existing structures but actively engage with and sometimes transform these structures. In organizational contexts, reflexivity allows firms to critically evaluate their strategies, understand the evolving external environment, and adapt accordingly (Schippers et al., 2007).

In the context of this study, reflexivity provides a valuable lens for understanding the adoption of Digital Tax Stamps (DTS) by manufacturing firms. As regulatory requirements and technological landscapes continuously evolve, firms are compelled to assess and adapt their strategies to remain compliant and efficient. Reflexivity enables firms to critically evaluate their existing practices in light of new regulations, such as the requirement to adopt DTS, and to make necessary adjustments to their operations. This adaptive capacity ensures that firms are not only compliant with current standards but are also proactively positioning themselves to handle future regulatory and technological changes (Gertler, 1995). By incorporating reflexivity into their decision-making processes, firms can effectively navigate the complexities associated with DTS adoption, enhancing their ability to respond to respond to emerging regulatory pressures and technological shifts (Schippers et al., 2007).

By integrating Institutional Theory and Structuration Theory, this study provides a comprehensive framework for understanding the factors influencing DTS adoption in Uganda's manufacturing sector. This theoretical framework will guide the analysis of how institutional pressures and reflexive practices interact to drive or hinder the adoption of DTS.

2.3 Empirical Literature Review

2.3.1 Institutional isomorphism and the adoption of Digital Tax Stamps

Digital Tax Stamps is a modern tax compliance tool that ensures excisable goods are properly taxed at each stage of the production and distribution chain, enhancing transparency and accountability (URA, 2024). The adoption of Digital Tax Stamps (DTS) refers to the process by which businesses integrate digital tax stamp technology into their operations to comply with tax regulations, prevent counterfeiting, and improve product traceability (URA, 2024). For Uganda’s manufacturing firms, adopting DTS is seen as a crucial step towards improving tax compliance, reducing illicit trade, and promoting fair competition within the industry (Kakooza et al., 2024).

Institutional isomorphism refers to the process by which organizations within the same field or industry become more similar over time due to external pressures. These pressures can be categorized into three main types: coercive, normative, and mimetic

(DiMaggio & Powell, 1983). Coercive isomorphism stems from formal and informal pressures, such as regulatory mandates, while normative isomorphism is driven by professional standards and industry norms. Mimetic isomorphism occurs when organizations imitate successful practices of others in response to uncertainty (DiMaggio & Powell, 1983).

Institutional isomorphism plays a critical role in influencing the adoption of new technologies such as DTS. According to institutional theory, organizations strive to achieve legitimacy by conforming to the expectations of their environment (Meyer & Rowan, 1977). Coercive isomorphism, driven by regulatory requirements, pushes organizations to adopt DTS to comply with government mandates and avoid penalties (Scott, 2013). In Uganda's manufacturing sector, coercive pressures from Uganda Revenue Authority (URA) and other regulatory bodies like UNBS have been significant drivers for DTS adoption, as firms are required to use DTS to meet tax obligations (URA, 2024).

Mimetic isomorphism influences DTS adoption as firms often look to peers or industry leaders who have successfully implemented the system. In situations of uncertainty regarding the benefits or complexity of DTS, firms may imitate the practices of more successful competitors to reduce risk and align themselves with perceived best practices (DiMaggio & Powell, 1983).

Normative isomorphism also plays a role, as professional associations such as CPA (U) and networks encourage firms to adopt DTS as a way of maintaining industry standards and credibility (Nyahas et al., 2017). The adoption of DTS becomes a symbol of professionalism and compliance within the manufacturing sector, driven by peer influence and industry norms.

Recent studies provide strong empirical support for the role of institutional isomorphism in the adoption of digital technologies, including Digital Tax Stamps. (Patalon & Wyczisk, 2024) found that coercive, mimetic, and normative pressures significantly influenced the digital transformation of municipalities, where regulatory mandates and the need to emulate successful peers drove the adoption of digital solutions. Similarly, (Dubey et al., 2017) highlighted that coercive and normative pressures played a crucial role in driving sustainable practices in manufacturing firms, illustrating how institutional pressures can encourage firms to adopt Digital Tax Stamps in response to government regulations and

industry norms. Further supporting this, (Currie & Guah, 2007) examined IT adoption in healthcare and concluded that coercive pressures from regulatory authorities were pivotal in ensuring compliance, mirroring the way coercive pressures from URA in Uganda drive DTS adoption. Still in line with this, (Kabuye et al., 2021) emphasized the role of isomorphic forces, particularly normative pressures, in shaping organizational practices in Ugandan financial institutions. The study highlighted how adherence to professional standards and the influence of industry bodies drive organizations to improve their internal controls and align with evolving industry norms. This aligns with the notion that similar normative pressures, such as those from professional associations and regulatory bodies, play a pivotal role in driving the adoption of DTS by firms seeking to enhance compliance and maintain legitimacy in the tax system. These studies collectively show that institutional isomorphism, especially through regulatory enforcement, peer imitation, and adherence to professional norms have strong influences on the adoption of digital tax compliance tools which then leads this study to hypothesis that;

H_1: *Institutional isomorphism has a positive relationship with the adoption of Digital Tax Stamps.*

2.3.2 Institutional Isomorphism and reflexivity

Reflexivity refers to an organization's ability to critically reflect on its own operations, decisions, and the external environment, allowing it to adapt and respond effectively to change. Reflexive organizations constantly assess their actions and adjust their strategies based on insights gained from both internal processes and external pressures (Archer, 2012). Reflexivity is essential for maintaining organizational flexibility and fostering innovation, as it involves ongoing evaluation and learning to adapt to changing conditions (Cunliffe, 2016). (Schippers et al., 2014) argue that Reflexive practices enable firms to reconsider their approaches and align their strategies with evolving institutional expectations and industry standards.

Institutional isomorphism influences reflexivity by providing new information and pressures from the external environment that organizations must process and internalize. Faced with regulatory mandates (coercive), successful practices of peers (mimetic), or

professional standards (normative), organizations must reflect on how to adapt and integrate this information through discursive processes (Scott, 2013). Reflexivity allows firms to critically assess this information, discuss it within the organization, and then align their strategies and practices accordingly. This reflective process ensures that firms remain responsive and adaptive to external institutional expectations (Schippers et al., 2014).

Several recent studies support the relationship between institutional isomorphism and reflexivity. (Luque-Vílchez & Larrinaga, 2016) found that institutional pressures, particularly coercive and normative isomorphism, drove organizations to adopt more reflexive practices in their sustainability reporting processes, as companies were forced to evaluate their internal practices to meet external standards. Similarly, (Currie & Guah, 2007) highlighted that healthcare organizations subjected to regulatory mandates became more reflexive in their approach to IT system adoption, continuously reassessing their strategies to comply with institutional requirements. Another study by (Caputo et al., 2020) on the impact of digitalization on corporate sustainability strategies demonstrated that firms facing mimetic and normative pressures were more likely to engage in reflexive practices, adjusting their approaches to align with evolving industry norms and technological advancements. These studies provide strong evidence of the positive impact of institutional isomorphism on organizational reflexivity. Based on this, the study hypothesis that,
H_2: *Institutional Isomorphism has a positive relationship with reflexivity.*

2.3.3 Reflexivity and the adoption of Digital Tax Stamps

Reflexivity, the capacity of an organization to continuously evaluate and adapt its processes, plays a significant role in the adoption of new technologies, such as Digital Tax Stamps (DTS). Reflexive organizations are more likely to recognize the benefits of DTS and implement the necessary changes to integrate these systems into their operations. Reflexivity encourages firms to question their current tax compliance practices and assess whether adopting digital tax solutions would improve efficiency and compliance (Archer, 2012). Reflexivity enables organizations to adapt to evolving tax regulations and industry standards, allowing for a smoother transition to the adoption of DTS (Fazey et al., 2014).

Empirical evidence supports the link between reflexivity and technology adoption. (Luque-Vílchez & Larrinaga, 2016) found that companies with higher reflexive capacities were more likely to adopt sustainability reporting practices. This is similar to the adoption of DTS, where firms that are reflexive are more likely to recognize the importance of digital tax compliance tools and actively seek to integrate them into their processes. Similarly, (Cunliffe, 2016) demonstrated that reflexive organizations are better at responding to external pressures, such as regulatory requirements, and can quickly adapt to new technologies like DTS to remain compliant. Additionally, (Caputo et al., 2020) highlighted that reflexive firms are more capable of integrating digital solutions into their corporate strategies, allowing them to stay competitive in a fast-evolving regulatory landscape. This shows how reflexivity can facilitate the adoption of DTS by enabling firms to constantly evaluate and adjust their strategies in response to new tax regulations. Reflexive organizations are better equipped to see the long-term benefits of DTS, such as increased transparency and reduced risk of tax non-compliance (Deloitte, 2022). The evidence therefore suggests that reflexivity has a positive influence on the adoption of Digital Tax Stamps which then leads this study to hypothesis that;

H_3: *Reflexivity has a positive relationship with the adoption of Digital Tax Stamps.*

2.3.4 Reflexivity, institutional isomorphism and the adoption of Digital Tax Stamps

Institutional isomorphism, reflexivity, and the adoption of Digital Tax Stamps (DTS) are interconnected in shaping how organizations respond to external pressures and internal reflection processes. Institutional isomorphism, particularly through coercive, mimetic, and normative pressures, compels organizations to evaluate their practices and conform to evolving industry standards and regulatory requirements. These pressures often trigger reflexivity, as organizations must critically assess their existing systems and strategies to align with external expectations (Meyer & Rowan, 1977); (DiMaggio & Powell, 1983). Reflexivity serves as a bridge between institutional pressures and the adoption of new technologies, such as DTS, by enabling firms to engage in self-assessment and adjust their operations to meet these demands (Archer, 2012). Thus, institutional isomorphism leads to reflexivity, which, in turn, facilitates the adoption of DTS by encouraging organizations to evaluate their compliance strategies and embrace digital tax solutions for improved efficiency and transparency.

Research has demonstrated the mediating role of reflexivity in organizational responses to institutional pressures and technology adoption. (Luque-Vílchez & Larrinaga, 2016) found that institutional pressures prompted organizations to adopt reflexive practices, which, in turn, facilitated the adoption of sustainability reporting tools. This parallels how reflexivity can mediate the relationship between institutional isomorphism and DTS adoption. (Currie & Guah, 2007) also highlighted that reflexivity helped healthcare organizations navigate coercive regulatory pressures by adapting their internal processes to comply with new IT systems. Furthermore, (Caputo et al., 2020) demonstrated that reflexivity enabled firms to integrate digital technologies in response to mimetic and normative pressures, ensuring that they remain competitive and compliant in a dynamic regulatory environment. These studies suggest that reflexivity not only influences how firms respond to institutional pressures but also plays a crucial role in determining the successful adoption of new technologies like DTS. Based on this, the study hypothesis that,
H_4: *Reflexivity mediates the relationship between institutional isomorphism and the adoption of Digital Tax Stamps.*

2.4 Conclusion

This chapter provided a comprehensive review of literature related to the adoption of Digital Tax Stamps (DTS) and tax compliance, guided by the study's objectives and research questions. It explored existing theories, empirical studies, and scholarly perspectives on institutional isomorphism, organizational reflexivity, and their influence on DTS adoption. The review highlighted gaps in literature, particularly the limited studies on the interaction between external pressures and firms' internal decision-making processes in the Ugandan manufacturing sector. These gaps formed the basis for the study, paving the way for the research methodology discussed in the next chapter.

Chapter Three

Methodology

3.1 Introduction

This chapter outlines the methodology that was used in this research, focusing on the relationships between institutional isomorphism, reflexivity, and the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda. It provides a comprehensive description of the research design, population, sample size determination, sampling techniques, data collection methods, and data analysis strategies. Ethical considerations relevant to the study and the anticipated limitations are also provided for.

3.2 Research Design

This study employed a cross sectional explanatory research design to describe the relationships between institutional isomorphism, reflexivity, and the adoption of DTS among manufacturing firms in Uganda. A cross sectional explanatory research was suitable for this research because it allowed for the examination of relationships between variables without manipulating them (Creswell, 2018). This design facilitated the identification of patterns and associations, providing a foundational understanding of how institutional pressures and reflexive practices influence DTS adoption.

3.3 Population of the Study

The target population for this study is comprised of 562 manufacturing firms located within Uganda, specifically those involved in the production of excisable goods that are required by law to use Digital Tax Stamps (DTS) (URA, 2022). This figure is derived from the (Uganda Bureau of Statistics, 2023) report, which provides a detailed breakdown of manufacturing establishments by sub-sector.

3.4 Sampling Frame

The sampling frame for this study consisted of the 562 manufacturing firms identified from the report, specifically those firms involved in the production of excisable goods that are required by law to use Digital Tax Stamps (DTS).

3.5 Sample Size

The sample size for this study was determined to be 235 manufacturing firms determined using Krejcie and Morgan's table for determining sample size (Krejcie & Morgan, 1970).

3.6 Calculating Stratified Sample Sizes

Using the total sample size n=235, the study distributed it proportionally across the strata. Table 1 shows the number of establishments involved in the manufacture of excisable goods, along with the calculated sample size for each category based on stratified random sampling technique. The total sample size was 235 establishments, proportionally representing each stratum in the study.

Table 1.

Proportional Stratified Sampling Distribution of firms Involved in the Manufacture of Goods Required to have Digital Tax Stamps

Strata	Firms	Proportion	Sample size
Beer and spirits	333	(333/562) *234	139
Soft Drinks and Mineral Water	53	(53/562) *234	22
Other Foods	172	(172/562) *234	72
Cement	4	(4/562) *234	1
Total	562	456	234

Source: (Uganda Bureau of Statistics, 2023) Report

3.7 Operationalization and Measurements of Study Variables

Table 2 presents the variables in this study, with the definitions, their dimensions and associated indicators.

Table 2.

Operationalization and Measurements of Study Variables

Variable	Dimension	Indicators
Institutional Isomorphism. Refers to the process by which organizations in the same field become increasingly similar over time due to external pressures (DiMaggio & Powell, 1983)	Coercive Isomorphism. This focuses on the formal pressures exerted by laws, regulations, and governmental mandates. (DiMaggio & Powell, 1983)	**1.** Current and foreseeable regulations are pressuring us to adopt DTS. (Policy) (Chen et al., 2011) **2.** Firms in our industry that do not meet the legislated standards for DTS face a significant threat for legal prosecution. (Dubey et al., 2017) **3.** Firms in our industry are aware of the fines and penalties associated with not implementing DTS. (Dubey et al., 2017) **4.** If a firm in our industry doesn't implement DTS, the consequence would include negative reports by industry analysts. (Dubey et al., 2017) **5.** There are negative consequences for organizations that fail to comply with DTS regulations. (Dubey et al., 2017) **6.** We adhere to the DTS guidelines provided by URA. (Nyahas et al., 2017) **7.** We adhere to the DTS guidelines provided by UNBS (Nyahas et al., 2017) **8.** We adhere to guidelines provided in the Excise Duty Act, 2014. (Nyahas et al., 2017)
	Normative Isomorphism. This arises from the influence of professional norms, standards, and values that organizations adhere to in order to gain legitimacy and credibility	**1.** Our industry has a trade association that encourage organizations within the industry to adopt DTS (Dubey et al., 2017) **2.** Our industry has professional associations that encourage

	within their field (DiMaggio & Powell, 1983).	organizations within the industry to adopt DTS (Dubey et al., 2017) **3.** Our industry expects all firms in the industry to adopt DTS. (Dubey et al., 2017) **4.** Adopting DTS is a requirement for firms to be part of this industry. (Dubey et al., 2017) **5.** Our staff are encouraged to adhere to professional codes of ethics of their respective professions (Nyahas et al., 2017) **6.** Our industrial association emphasizes adoption of DTS (Nyahas et al., 2017) **7.** Our organization considers professional qualification in their recruitment policy (Nyahas et al., 2017)
	Mimetic Isomorphism. This occurs when organizations imitate the successful practices of peers, especially in conditions of uncertainty (DiMaggio & Powell, 1983).	**1.** What is the current extent of the adoption of DTS by your organization's competitors (Chen et al., 2011). **2.** Our main competitors who have adopted DTS have benefited greatly financially (Chen et al., 2011). **3.** Our main competitors who have adopted DTS are perceived favorably by customers (Chen et al., 2011) **4.** The leading companies in our industry set an example for DTS adoption. (Dubey et al., 2017) **5.** The leading companies in our industry are known for their adoption of DTS (Dubey et al., 2017) **6.** We follow industry leaders when dealing with uncertainties (Nyahas et al., 2017) **7.** We copy industrial peers in adopting DTS. (Nyahas et al., 2017) **8.** We benchmark our competitors when coping with uncertainties (Nyahas et al., 2017)
Reflexivity.	Reflection.	*Reflection: Evaluation/learning*

Refers to the capacity of manufacturing firms to continuously evaluate and adjust their strategies and practices in response to changes in their environment, such as regulatory demands and technological advancements. (Giddens, 1984)	Involves the deliberate and thoughtful evaluation of an organization's current practices, processes, and strategies (Schippers et al., 2007).	**1.** In our manufacturing firm, we usually take well-considered decisions. (Schippers et al., 2007) **2.** We review our methods of working as a result of changes in the environment. (Schippers et al., 2007) **3.** We talk about different ways in which we can reach our objectives. (Schippers et al., 2007) **4.** Problems are discussed only once they have become critical. (Schippers et al., 2007) **5.** We examine the implications that changes in the environment may have for the aims of the firm. (Schippers et al., 2007) **6.** We work out what we can learn from past activities. (Schippers et al., 2007) **7.** Before we get to work, we make sure everyone in the firm has the same problem definition. (Schippers et al., 2007) **8.** During task execution, we stop to assess whether the firm is on the right track. (Schippers et al., 2007) **9.** If a staff member discovers a problem, he or she will talk about it with other staff members. (Schippers et al., 2007) **10.** We examine the long-term consequences of certain activities. (Schippers et al., 2007) **11.** We question our objectives on a regular basis. (Schippers et al., 2007) **12.** Problems are looked at from different points of view in this team. (Schippers et al., 2007) **13.** We check whether our activities produced the expected results. (Schippers et al., 2007) **14.** In this firm, the results of actions are evaluated. (Schippers et al., 2007)

		15. We reflect on the question of whether a pattern can be discerned in events (Schippers et al., 2007) **16.** If things don't work out as planned, we consider what we can do about it. (Schippers et al., 2007) **17.** If we are successful as a firm, we take the time to analyze how we achieved this. (Schippers et al., 2007) **18.** After certain activities are completed, we evaluate matters. (Schippers et al., 2007) **19.** If things don't work out as they should, we take the time as a firm to find the possible cause of the problems. (Schippers et al., 2007) Reflection: Discussing processes **1.** The firm often reviews its objectives. (Swift & West, 1998) **2.** The methods used by the firm to get the job done are often discussed. (Swift & West, 1998) **3.** We regularly discuss whether the firm is working effectively. (Swift & West, 1998) **4.** The firm often reviews whether it's getting the job done. (Swift & West, 1998)
	Adaptation. Refers to the active process of making strategic changes based on the insights gained from reflection. It involves implementing new strategies, modifying existing processes, or adopting new technologies to align with regulatory standards and enhance organizational efficiency (Gertler, 1995).	Adaptation **1.** After agreements have been made in this firm, everyone does things a little differently. (Schippers et al., 2007) **2.** In this firm, people keep to agreements. (Schippers et al., 2007) **3.** In this firm, people have their own personal interpretation of agreements even when they are written down. (Schippers et al., 2007) **4.** What we discuss corresponds with what we do subsequently. (Schippers et al., 2007)

		5. After matters have been agreed, it turns out that different interpretations of the agreements exist among team members. R (Schippers et al., 2007) Feedback-seeking behaviour **1.** We check on how satisfied others are with us. (Schippers et al., 2007) **2.** We seek feedback on our methods. (Schippers et al., 2007) **3.** We work out how well we are performing in comparison to other firms. (Schippers et al., 2007) **4.** We ask for feedback from internal and external customers on our results. (Schippers et al., 2007) **5.** We check how well we perform as a firm. (Schippers et al., 2007)
Adoption of Digital Tax Stamps (DTS) refers to the process by which businesses integrate digital tax stamp technology into their operations to comply with tax regulations, prevent counterfeiting, and improve product traceability. (URA, 2024)	Perceived Usefulness. is the degree to which a firm believes that using Digital Tax Stamps will enhance its compliance efficiency and overall operational effectiveness (Davis & Fred, 1989).	**1.** Using DTS would improve our performance in our sector. (Davis et al., 1989) **2.** Using DTS in our sector would increase our productivity, (Davis et al., 1989) **3.** Using DTS would enhance our effectiveness in the sector. (Davis et al., 1989) **4.** We would find DTS useful in our sector. (Davis et al., 1989)
	Perceived Ease of Use. refers to the degree to which a firm believes that adopting Digital Tax Stamps (DTS) will be free of effort. (Davis & Fred, 1989).	**1.** Learning to use DTS would be easy for us. (Davis et al., 1989) **2.** We would find it easy to get DTS to do what we want it to do. (Davis et al., 1989) **3.** It would be easy for us to become skilful at using DTS. (Davis et al., 1989) **4.** We would find DTS easy to use. (Davis et al., 1989)
	Actual Usage. is the practical application and extent to which Digital Tax Stamps are utilized by	The first was a 7-point scale with the adjectives frequent and infrequent at the endpoints. (Davis et al., 1989)

	manufacturing firms in their daily operations. (Venkatesh et al., 2003).	**1.** On a scale from 1 to 7, please indicate how frequently you use DTS? (1 - Very Infrequent, 2 - Infrequent, 3 - Slightly Infrequent, 4 - Neutral, 5 - Slightly Frequent, 6 - Frequent, 7 - Very Frequent) **2.** Please select the option that best describes your current use of DTS? not at all; a) less than once a week; b) about once a week; c) 2 or 3 times a week; d) 4 to 6 times a week; e) about once a day, f) more than once a day (Davis et al., 1989)

3.8 Sources of Information

Data for this study was collected from both primary and secondary sources. Primary data was obtained through structured questionnaires distributed to key informants from the selected manufacturing firms. These informants included managers, financial officers, and compliance officers knowledgeable about DTS adoption and its impacts on their firms. Secondary data was sourced from relevant literature, reports, and studies on DTS adoption, tax compliance, and institutional theory, providing a theoretical framework and context for the research.

3.9 Data Collection Instrument

The primary data collection instrument was a close-ended questionnaire designed to gather quantitative data on institutional isomorphism, reflexivity, and DTS adoption. A self-administered, close-ended questionnaire with Likert scales allowed respondents to independently rate their level of agreement or frequency on a predefined scale, providing structured, quantitative data for analysis. This format was useful for measuring attitudes, perceptions, and behaviours methodically. The questionnaire was developed based on established scales from previous research (Creswell, 2018).

3.10 Procedure of Data Collection

The data collection process involved distributing questionnaires to the selected manufacturing firms through in-person visits. Respondents were given two weeks to complete the questionnaires, with follow-up reminders sent to ensure a high response rate.

3.11 Ethical Considerations

This study adhered to the ethical standards set forth by Uganda Christian University and followed (Creswell, 2018)’s guidelines for ethical research practices. The following ethical considerations were addressed:

Research Ethics Committee (REC) Clearance: This was got by the researcher and a letter of introduction obtained from the Dean.

Informed Consent: Participants were fully informed about the study's purpose, procedures, and their rights. Written consents were obtained from all participants before data collection began.

Confidentiality: All data collected was treated with strict confidentiality. Participants' identities were anonymized to protect their privacy, and data was securely stored to prevent unauthorized access.

Voluntary Participation: Participation in the study was voluntary, and participants were free to withdraw at any time without any consequences.

Chapter Four

Data Analysis, Presentation and Interpretation Of Results

4.1 Data Processing and Analysis Strategy

Data collected from the questionnaires was inputted into Social Sciences (SPSS) version 29.0. (IBM Corp, 2023), with careful attention to coding and labelling variables to maintain consistency. Following data entry, preliminary data checks, such as identifying and handling missing values, detecting outliers, and ensuring data accuracy, was performed.

4.2 Presentation and Interpretation of Results

4.2.1 Descriptive statistics

Descriptive statistics was used to summarize the data, providing an overview of the sample characteristics. Table 3 presents the descriptive statistics for the unit of enquiry, who were staff of the manufacturing firms. The majority of respondents were male (55.7%). The predominant age group were respondents aged between 20-39 years. In terms of marital status, the largest proportion of respondents were single (48.9%), followed by married individuals (42.6%). Regarding education level, most respondents had a bachelor's degree (67.7%) which is a reflection that they were knowledgeable and able to comprehend the questions and answer them correctly. The most represented department was sales and marketing (32.3%), followed by finance/accounting (18.7%). In terms of work experience, the highest proportion had 5-10 years of experience (44.7%), and most respondents had a job tenure of less than 5 years (52.3%) in the same firm.

Table 3.

Respondents Demographics (N=235)

Measure	*n*	%
Sex		
Male	131	55.7
Female	104	44.3
Age		
20-29	119	50.6
30--39	99	42.1
40-49	13	5.5
50-59	4	1.7
Marital Status		
Single	115	48.9
Married	100	42.6
Separated/Divorced	15	6.4
Widowed	5	2.1
Education		
High school	32	13.6
Bachelors	159	67.7
Masters	29	12.3
Doctorate	6	2.6
Professional Qualification (e.g. CPA.ACCA)	9	3.8
Department		
Production	33	14.0
Quality Control/Assurance	18	7.7
Research and Development (R&D)	9	3.8
Human Resources (HR)/Administration	21	8.9
Finance/Accounting	44	18.7
Procurement/Logistics/Supply Chain	20	8.5
Sales and Marketing	76	32.3
IT/Information Systems	13	5.5
Compliance/Legal	1	.4
Work Experience (Years)		
Less than 5	87	37.0
5-10	105	44.7
11-15	37	15.7
15-20	6	2.6
Job Tenure (Years)		
Less than 5 years	123	52.3
5-10	101	43.0
11-15	10	4.3
20 and above	1	.4

Table 4 presents the characteristics of the manufacturing firms. The largest proportion of respondents worked in firms with 201 or more employees (54.5%), and the majority of firms had been in operation for more than 10 years (57.9%). In terms of sub-sector distribution, most firms belonged to the beer and spirits industry (59.1%), while other foods manufacturing (30.6%) was the second largest category. Regarding annual revenue, the majority of firms reported earnings of over 1 billion UGX (51.5%), making them dominant among surveyed manufacturing firms

Table 4.

Firm Characteristics (N=235)

Measure	*n*	%
Number of Employees		
Less than 50	45	19.1
50-100	26	11.1
101-200	36	15.3
201 and above	128	54.5
Firm Age		
Less than 5 years	49	20.9
5-10 years	50	21.3
More than 10 years	136	57.9
Sub-Sector		
Beer and Spirits	139	59.1
Soft Drinks and Mineral Water	22	9.4
Other Foods	72	30.6
Cement	2	.9
Annual Revenue		
Less than 100 million UGX	41	17.4
100 million – 500 million UGX	11	4.7
500 million – 1billion UGX	62	26.4
Over 1billion UGX	121	51.5

4.2.2 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a statistical method used to find hidden patterns in large sets of data. Researchers use it in the early stages of data analysis to group related variables into smaller clusters called factors. This makes complex data easier to understand and helps create simpler more meaningful models (Field, 2024).

4.2.2.1 KMO and Bartlett's Test

Before proceeding to carry out EFA, it is advisable to carry out Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. Firstly, If Kaiser-Meyer-Olkin Measure of Sampling Adequacy is equal or greater than 0.60 then we should proceed with Exploratory Factor Analysis; meaning the sample used was adequate. Moreover, Bartlett's Test of Sphericity checks if your correlation matrix is significantly different from an identity matrix. If this test is significant ($p < 0.05$), we should proceed with the Exploratory Factor Analysis (Field, 2024).

The results, presented in table 5 indicate that the KMO values for the study variables lie between .845 and .943. Bartlett's Test of Sphericity for all the study variables is significant ($p < 0.05$), thus the study could proceed to carry out EFA.

Table 5.

KMO and Bartlett's Test

Test		Adoption	Isomorphism	Reflexivity
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.845	.922	.943
Bartlett's Test of Sphericity	Approx. Chi-Square	2109.766	3687.352	5790.379
	df	45	253	528
	Sig.	.000	.000	.000

Note. N=235.

Having established that the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were adequate, the study then proceeded to carry out EFA using Alpha Factoring. This method assesses the reliability of the factors by considering the communalities of the variables and maximising the alpha reliability coefficient. The factors were rotated to enhance the interpretability of factors by simplifying the factor structure. By rotating the factor axes, the study was able to achieve a clearer, more meaningful pattern of factor loadings, using Varimax rotation, which is an orthogonal

rotation method that maximises the variance of squared loadings for each factor, making interpretation easier by producing factors with high loadings on a few variables (Field, 2024). Only items with loadings above 0.70 were retained, as they usually indicate that the factor is able to adequately capture the variance of a variable (Hair et al., 2018). The results are presented in tables 6 and 7.

Table 6.

Results from a Factor Analysis of the items measuring Institutional Isomorphism

PCAT item	Factor loading		
	1	2	3
Factor 1: Coercive Isomorphism (IIC)			
IIC2: Firms in our industry that do not meet the legislated standards for Digital Tax Stamps face a significant threat from legal prosecution.	.313	.112	.789
IIC3: Firms in our industry are aware of the fines and penalties associated with not implementing Digital Tax Stamps.	.216	.232	.797
IIC6: We adhere to the Digital Tax Stamps guidelines provided by URA.	.802	.076	.162
IIC7, We adhere to the Digital Tax Stamps guidelines provided by UNBS.	.820	.123	.127
IIC8, we adhere to guidelines provided in the Excise Duty Act, 2014.	.749	.238	.232
Factor 2: Mimetic Isomorphism (IIM)			
IIM2 Our main competitors who have adopted Digital Tax Stamps have benefited greatly financially.	.034	.804	.331
IIM3 Our main competitors who have adopted Digital Tax Stamps are perceived favourably by customers.	.131	.843	.211
IIM4 The leading companies in our industry set an example for Digital Tax Stamps adoption.	.342	.813	-.029
IIM5 The leading companies in our industry are known for their adoption of Digital Tax Stamps.	.234	.778	.162
Factor 3: Normative Isomorphism (IIN)			
IIN1 Our industry has a trade association that encourage organizations within the industry to adopt Digital Tax Stamps.	.758	.180	.247
IIN2 Our industry has professional associations that encourage organizations within the industry to adopt Digital Tax Stamps.	.766	.236	.170
IIN3 Our industry expects all firms in the industry to adopt Digital Tax Stamps.	.728	.107	.276
IIN4 Adopting Digital Tax Stamps is a requirement for firms to be part of this industry.	.296	.233	.768
IIN5 Our staff are encouraged to adhere to professional codes of ethics of their respective professions.	.797	.183	.193

Note. $N = 235$. The extraction method was principal axis factoring with a varimax rotation. Factor loadings above .70 are in bold. Reverse-scored items are denoted with an (R). Items

IIC2 and IIC3, which had initially been conceptualized to represent coercive isomorphism loaded on factor 3 for normative isomorphism. Additionally, items IIN1, II2, IIN3, and IIN5 loaded on factor 1, Coercive isomorphism instead of factor 3 Normative isomorphism.

Table 7.

Results from a Factor Analysis of the items measuring Reflexivity

PCAT item	Factor loading	
	1	2
Factor 1: Adaptation. (RFA)		
RFA2 In this firm, people keep to agreements.	.724	.202
RFA6 We check on how satisfied others are with us.	.755	.156
RFA7 We seek feedback on our methods.	.788	.230
RFA8 We work out how well we are performing in comparison to other firms.	.784	.162
RFA9 We ask for feedback from internal and external customers on our results.	.783	.237
RFA10 We check how well we perform as a firm.	.765	.231
RFA2 In this firm, people keep to agreements.	.724	.202
RFA6 We check on how satisfied others are with us.	.755	.156
RFA7 We seek feedback on our methods.	.788	.230
RFA8 We work out how well we are performing in comparison to other firms.	.784	.162
RFA9 We ask for feedback from internal and external customers on our results.	.783	.237
RFA10 We check how well we perform as a firm.	.765	.231
Factor 2: Reflection. (RFR)		
RFR1 In our manufacturing firm, we usually take well-considered decisions.	.263	.813
RFR2 We review our methods of working as a result of changes in the environment.	.261	.836
RFR3 We talk about different ways in which we can reach our objectives.	.221	.815
RFR4 Problems are discussed only once they have become critical. (R)	.110	.736
RFR5 We examine the implications that changes in the environment may have for the aims of the firm.	.261	.861
RFR6 We work out what we can learn from past activities.	.263	.816
RFR22 We regularly discuss whether the firm is working effectively.	.765	.251
RFR23 The firm often reviews whether it's getting the job done.	.794	.244

Note. $N = 235$. The extraction method was principal axis factoring with a varimax rotation. Factor loadings above .70 are in bold. Reverse-scored items are denoted with an (R). Items IIC2 and IIC3, which had initially been conceptualized to represent coercive isomorphism loaded on factor 3 for normative isomorphism. Additionally, items RFR22, and RFR23 loaded on the reflexivity dimension instead of the reflexivity dimension.

Adoption

Table 8.

Results from a Factor Analysis of the items measuring Adoption of DTS

PCAT item	Factor loading		
	1	2	3
Factor 3: Actual Usage. (DAU)			
DAU1. On a scale from 1 to 5, please indicate how frequently you use Digital Tax Stamps?	.080	.032	.970

Note. $N = 235$. The extraction method was principal axis factoring with a varimax rotation. Factor loadings above .70 are in bold.

4.3 Construct Reliability and Validity

Having reduced the constructs to more manageable factors, the study then proceeded to test these scales to ensure that: (1) these scales indeed measure the unobservable construct that we wanted to measure (i.e., the scales are "valid"), and (2) they measure the intended construct consistently and precisely (i.e., the scales are "reliable"). Reliability and validity, jointly called the "psychometric properties" of measurement scales, are the yardsticks against which the adequacy and accuracy of our measurement procedures are evaluated in scientific research (Field, 2024).

4.3.1 Construct reliability

Reliability refers to the consistency of a multi-item scale or construct. A scale is reliable when it produces consistent outcomes under similar or the same conditions. The most commonly used measure of reliability is the internal consistency reliability (Hair et al., 2019). Internal consistency reliability was assessed using both Cronbach's Alpha (Cronbach, 1951) and Composite Reliability (Jöreskog, 1971). Higher values indicate higher levels of reliability when interpreting internal consistency reliability results (Hair et al., 2019). Cronbach's alpha values ranges from 0 to 1 and assumes equal (unweighted) indicator loadings. Composite reliability, in contrast to Cronbach's alpha, does not assume equally weighted indicator loadings. Composite reliability should be above 0.70 as a general guideline, but not above 0.95 (Hair et al., 2019).

Cronbach's Alpha for each construct in the study was found over the required limited of .70. Composite reliabilities ranged from 0.96 to 0.97, above the 0.70 benchmark (Nunnally & Bernstein, 1994). Therefore, the results, presented in table 9 indicate that the study constructs have sufficient internal consistency reliability.

4.3.2 Convergent Validity

Convergent validity states that tests having the same or similar constructs should be highly correlated (Campbell & Fiske, 1959).High positive correlations between measures of the same construct indicate convergent validity (Hair et al., 2018). Convergent validity of scale items was estimated using Average Variance Extracted (AVE) (Fornell & Larcker, 1981). The average variance extracted values, presented in table 9 were above the threshold value of 0.50 (Fornell & Larcker, 1981). Therefore, the scales used for the present study have the required convergent validity.

Table 9.

Internal Consistency Reliability, and Convergent Validity

Variable	rho_A	Cronbach's α	AVE
Adoption	0.97	0.88	0.88
Reflexivity	0.96	0.96	0.79
Isomorphism	0.96	0.94	0.79

Note. rho A = Composite Reliability, Cronbach's α = Cronbach's alpha, AVE = Average Variance Extracted

4.3.3 Discriminant Validity

Discriminant validity checks whether measures of constructs that shouldn't be related are indeed not related (Campbell & Fiske, 1959). The purpose of the discriminant validity assessment is to verify that a reflective construct exhibits stronger relationships with its own indicators than with those of any other construct (Hair et al., 2018). Thus, the square root of the AVE of each latent variable (LV) should be greater than its correlations with any other LV in the assessment. (Fornell & Larcker, 1981). The results presented in table ten indicate that for all the study variables, the square root of the AVE of each latent variable is greater than its

correlations with any other latent variable in the assessment, thus establishing sufficient discriminant validity.

Table 10.

Fronell-Larcker criterion

Measure	1	2	3
1. Adoption	0.94		
2. Reflexivity	.352**	0.89	
3. Isomorphism	.473**	.494**	0.89

Note. ** $p < .005$ (two-tailed). Square root of the AVE is highlighted in bold.

4.4 Parametric Assumption of Normality

The statistical techniques used to carry out hypothesis testing in this study assume that the distribution of scores on the dependent variable is 'normal'. Normal is used to describe a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies towards the extremes (Pallant, 2020). Normality was assessed using both statistical techniques and graphically.

4.4.1 Descriptive Statistics for the study variables

The descriptive statistics shown in table 11 provide insights into how the study's continuous variables were distributed, specifically looking at skewness and kurtosis. This information was important because these variables were going to be used in statistical tests like t-tests and analysis of variance. Skewness measures whether the data is evenly spread or leans more on one side. Positive skewness means most scores are low and gathered on the left, while negative skewness means most scores are high and gathered on the right. Kurtosis shows how peaked or flat the distribution is. A high positive kurtosis means the data is tightly packed around the centre with long thin tails while a low kurtosis means the data is more spread out with many sores at the edges. In large samples, skewness usually doesn't have a big effect on the analysis (Pallant, 2020) (Tabachnick & Fidell, 2021).

The descriptive statistics indicate skewness values ranging from -.566 to -1.368 and -.504 to 1.078 for the kurtosis values suggesting the study data may not strictly follow a normal distribution. However, tests that are used to evaluate skewness and kurtosis values are too sensitive with large samples. Thus, it is recommended to inspect the shape of the distribution (e.g., using a histogram) (Tabachnick & Fidell, 2021). The results for this procedure for further assessing the normality of the distribution of scores is provided later in sections 4.4.2 – 4.4.5

Table 11.

Descriptive Statistics

	Min	Max	Mean	Std. Dev	Skewness		Kurtosis	
Variable					Statistic	Std. Error	Statistic	Std. Error
Adoption	1.00	5.00	3.6574	.82787	-.566	.159	-.504	.316
Reflexivity	1.00	5.00	4.0991	.67067	-1.368	.159	3.356	.316
Isomorphism	1.00	5.00	3.7237	.70291	-.963	.159	1.078	.316

Note: N=235

4.4.2 Kolmogorov-Smirnov and Shapiro-Wilk Test

Table twelve shows the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests which check if the data follows a normal distribution. If the significance value (Sig.) is greater than 0.05, it means the data is normally distributed. However, in the case the Sig. value is 0.000, meaning the data does not meet the normality assumption. This is a common result when dealing with large samples of (≥200) (Pallant, 2020).

Table 12

Kolmogorov-Smirnov and Shapiro-Wilk Test

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Reflexivity	.087	235	.000	.907	235	.000
Isomorphism	.104	235	.000	.943	235	.000
Adoption	.156	235	.000	.943	235	.000

Note. N=235

4.4.3 Normal Q-Q Plot

In order to determine normality graphically, the study used the output from SPSS of a normal Q-Q Plot. If the data are normally distributed, the data points will be close to the diagonal line. If the data points stray from the line in an obvious non-linear fashion, the data are not normally distributed (Pallant, 2020). As can be seen from the normal Q-Q plot in figures 2 to 4, the data is normally distributed.

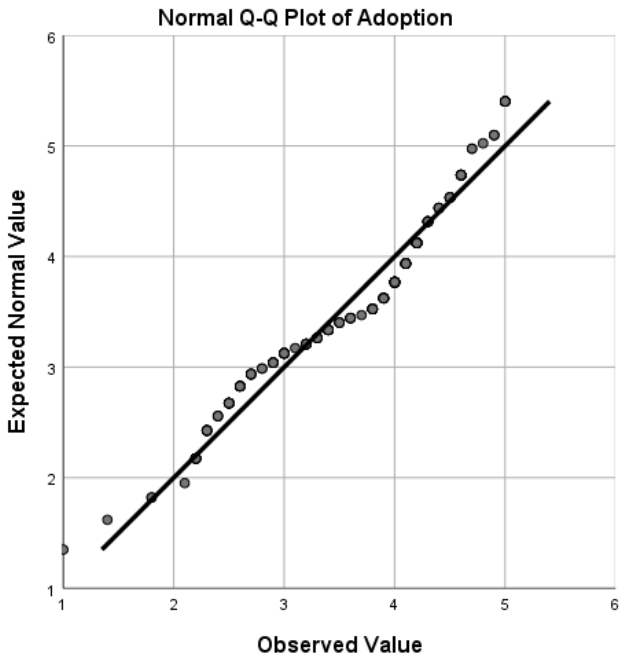

Figure 2. Normal Q-Q Plot for Adoption of DTS. Source: Primary Data

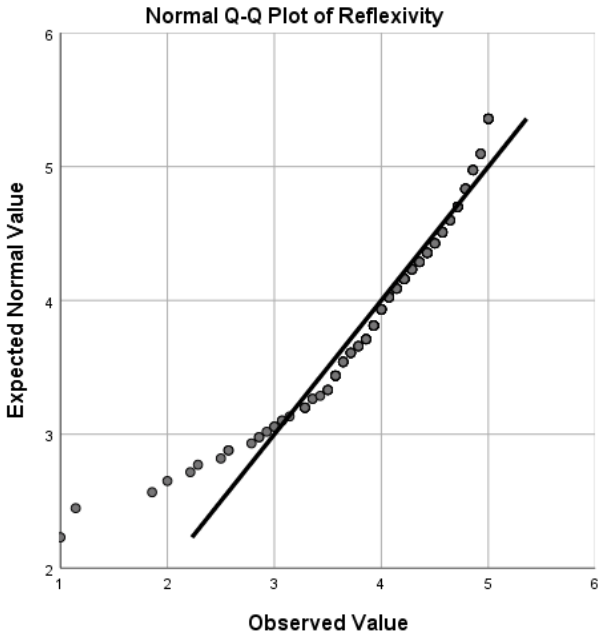

Figure 3. Normal Q-Q Plot for Reflexivity. Source: Primary Data

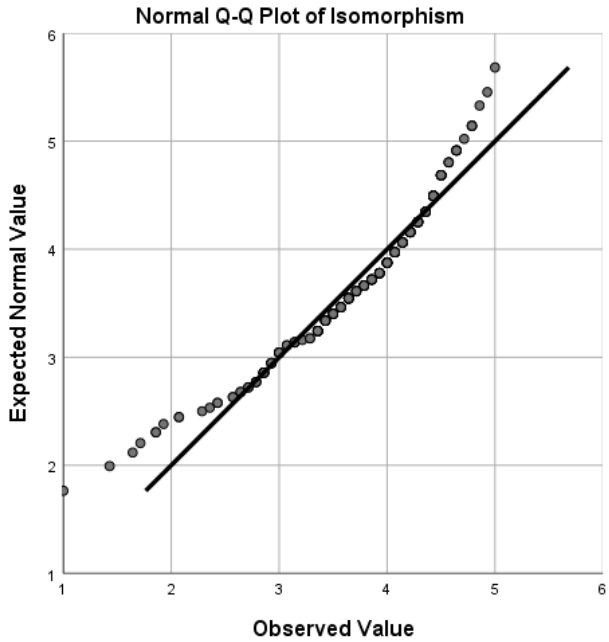

Figure 4. Normal Q-Q Plot of Isomorphism: Primary Data

4.4.4 Histograms

The actual shape of the distribution for each group can be seen in the Histograms. In this study, the scores appear to be reasonably normally distributed as the distribution curve of the data for all the variables approximately matches the normal distribution curve. This is

also supported by an inspection of the normal probability plots (labelled Normal Q-Q Plot). The results are presented in figures 5 to 7.

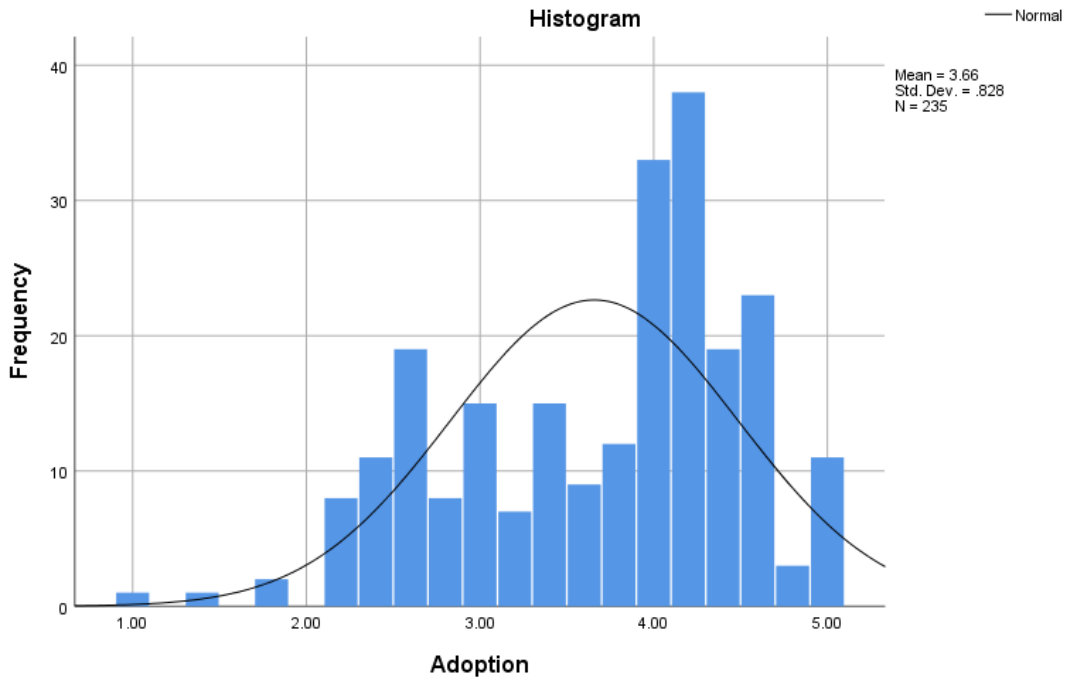

Figure 5. Normal Q-Q Plot Adoption. Source: Primary Data

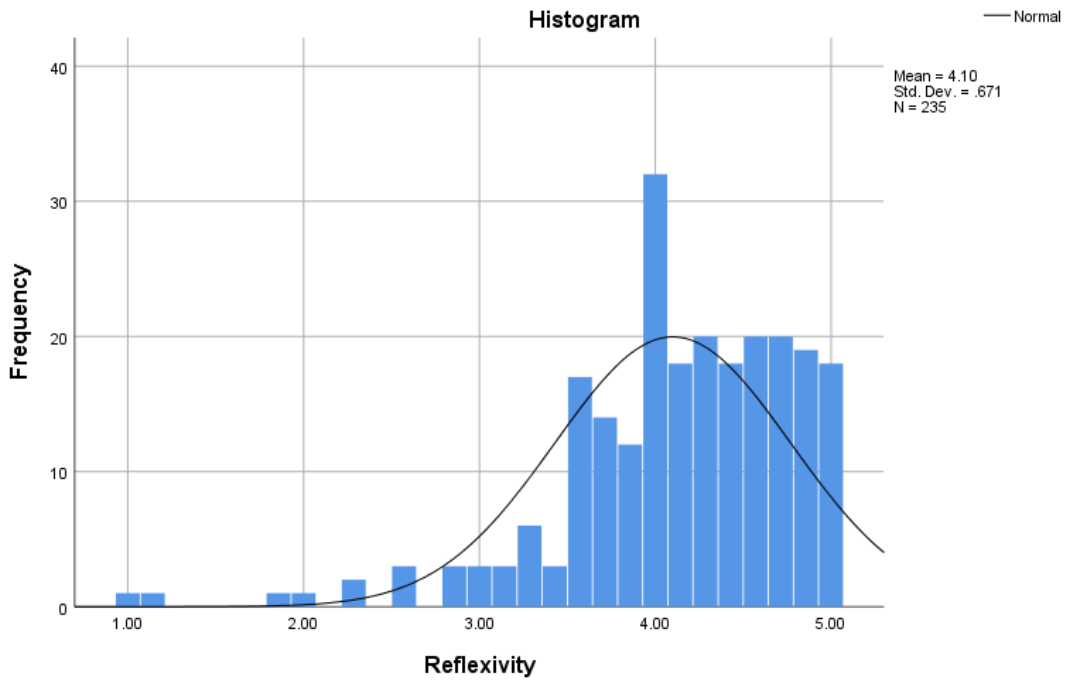

Figure 6. Normal Q-Q Plot Reflexivity. Source: Primary Data

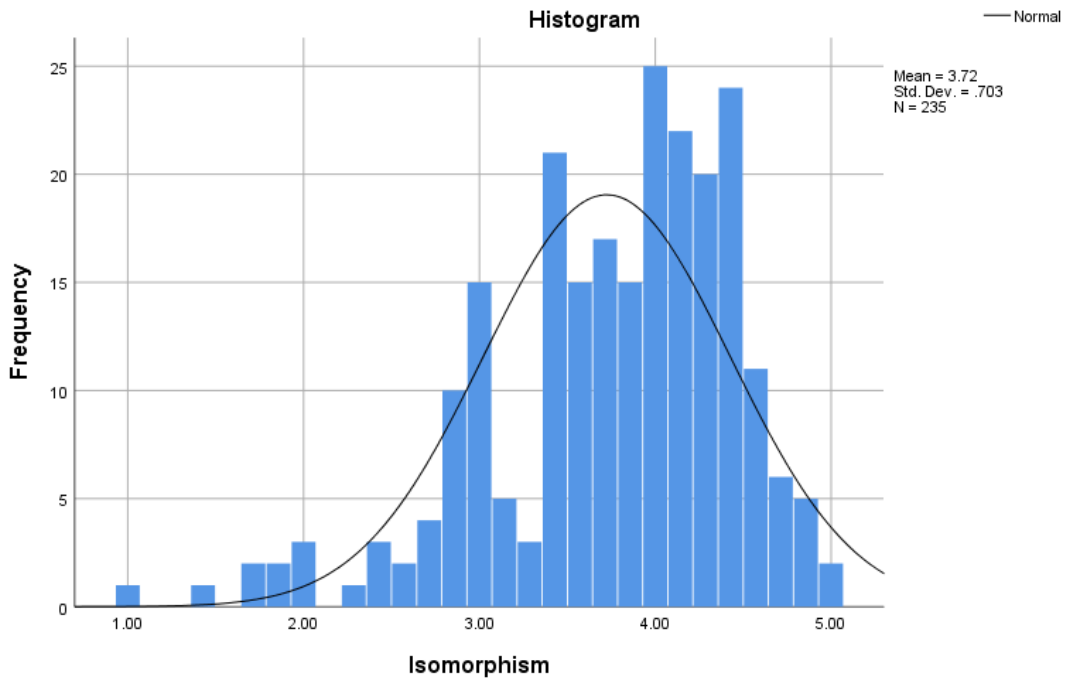

Figure 7. Normal Q-Q Plot Isomorphism. Source: Primary Data

4.4.5 Checking for Outliers

Given that the statistical techniques used for hypothesis testing in this study are sensitive to outliers (cases with values well above or well below the majority of other cases) (Pallant, 2020). Such outliers can bias estimates and distort inference in regression models (Jiao & Pretis, 2022). Therefore, it was important to check for outliers by inspecting the Boxplots for each variable (Pallant, 2020).

Having inspected the box plots for the study variables, it was evident that there were outliers present, as depicted in figures 8, 9, and 10. Researchers are advised that it is important to check that the outlier's score is genuine, not just an error. The study checked the scores to see whether they were within the range of possible scores for that variable. The study also checked back with the questionnaire and data record to see if there was a mistake in entering the data. Where it was an error, the error was corrected, and the boxplot was repeated. Where it turned out to be a genuine score, the study then needed to decide what to do about it.

Some statistics writers suggest changing the value to a less extreme value, thus including the person in the analysis but not allowing the score to distort the results. Others

suggest removing all extreme outliers from the data file (Pallant, 2020). This procedure has been used extensively in applied work (Jiao & Pretis, 2022).

However, while robust to outliers, this approach will classify and remove some observations as outliers by chance even when none are present in the data generating process. The question is then whether there moved observations correspond to actual outliers, or if these observations have been falsely identified as outlying by chance. If outliers are present, then we should rely on robust estimates. If instead these observations have been falsely removed, then we face an efficiency loss by wrongly removing observations (Jiao & Pretis, 2022). In this study, the distribution of data was reasonably 'normal'. Thus, there was no need to remove the outliers.

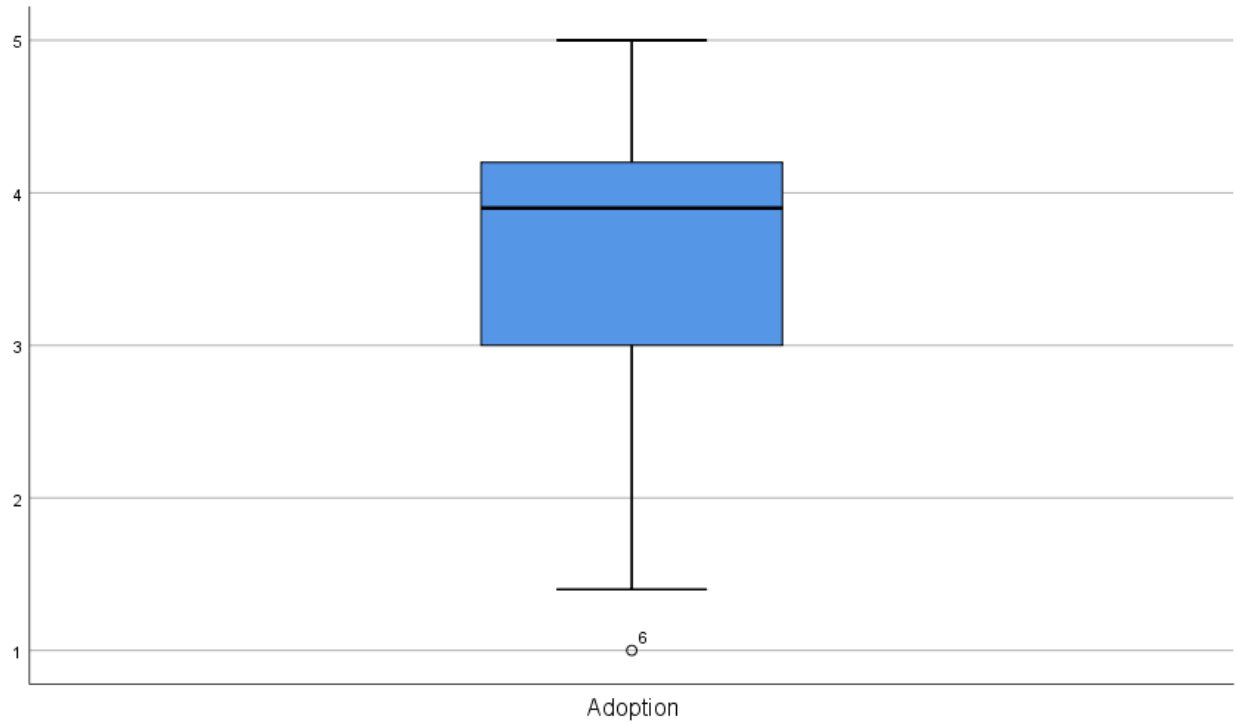

Figure 8. Box plots Adoption. Source: Primary Data

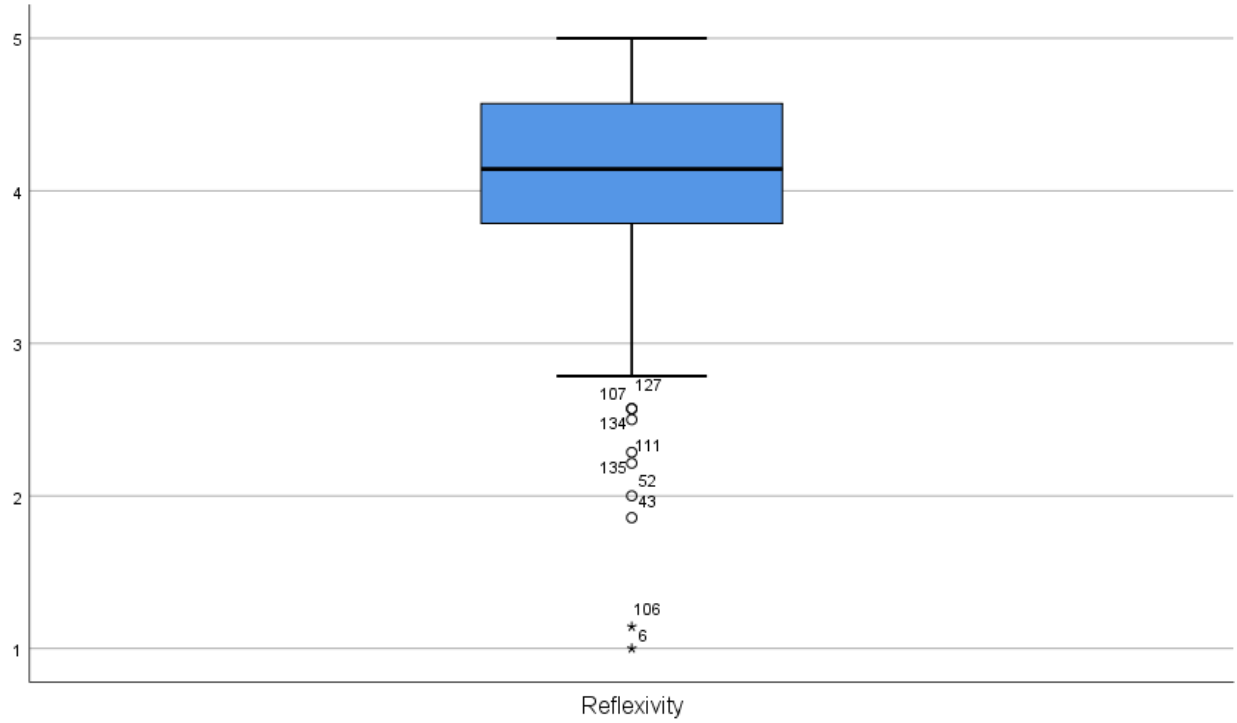

Figure 9. Box plots Reflexivity. Source: Primary Data

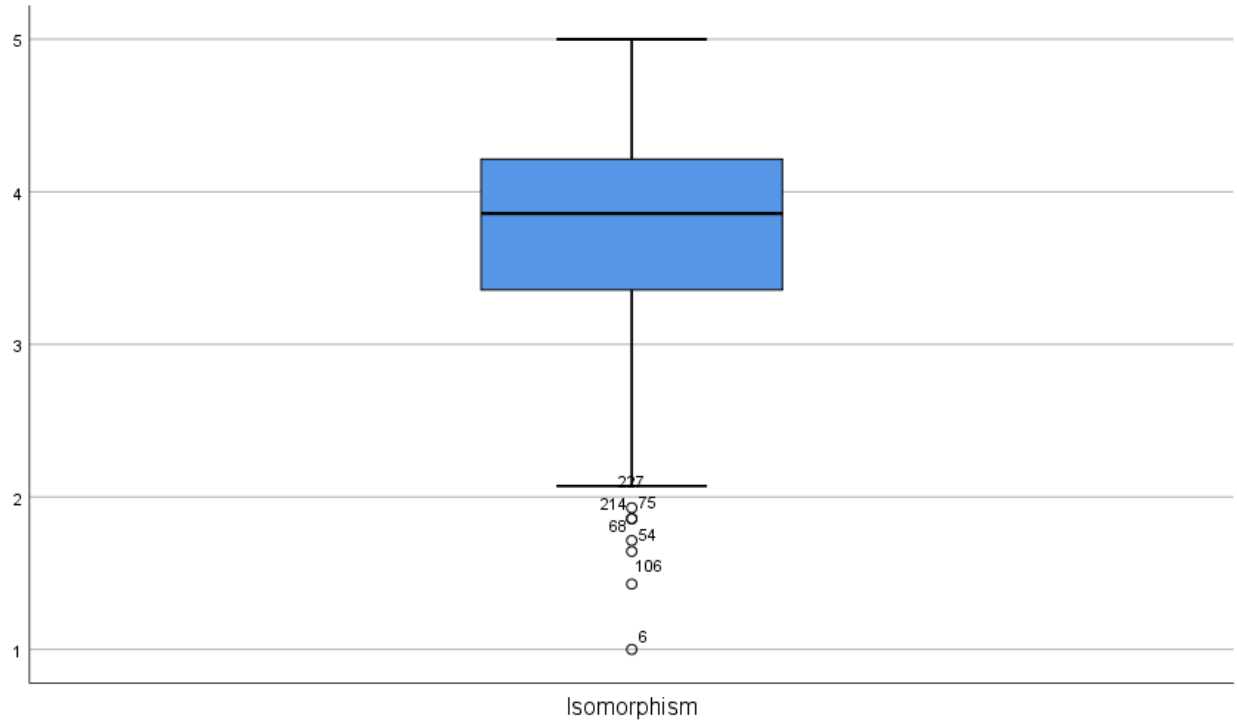

Figure 10. Box plots Isomorphism. Source: Primary Data

4.4.6 Common Method Bias

Common method bias (CMB) can occur when both the independent and dependent variables are measured within one survey, using the same (i.e., a common) response method (Podsakoff et al., 2012). There is a general agreement that common method bias can significantly impact the empirical results and derived conclusions of a study (Kock et al., 2021).

This study used Harman's single factor test to identify common method variance (Harman, 1976). Herman's single factor test is used to check for common method bias (MB) in research data. The argument is that if most of the shared variation between the variables can be explained by just one factor, then CMB is likely present. If one tactor explains more than 50% of the total variance in the data, it means there is a high chance of common method bias in the study. The first factor in an Exploratory Factor Analysis (EFA) always explains the largest portion of the variance (Aguirre-Urreta & Hu, 2019).

The results presented in table thirteen indicate that there is no problem with common method bias in this data since the total variance extracted by one factor is 31%, which is less than the recommended threshold of 50% (Podsakoff et al., 2012).

Table 13.

Harman's single-factor test

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	27.470	30.522	30.522	27.470	30.522	30.522
2	7.252	8.058	38.580			
3	6.833	7.592	46.172			
4	4.559	5.066	51.238			
5	3.256	3.618	54.856			

Note. Extraction Method: Principal Component Analysis. Total components = 90. Only 5 components have been presented for purposes of brevity.

4.5 Hypothesis Tests

4.5.1 Correlation

Before proceeding to carry out multiple regression, Correlation was used to describe the strength and direction of the relationship between the study variables (Tabachnick & Fidell, 2021). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity (Pallant, 2020). Correlation coefficients provide a numerical summary of the direction and the strength of the linear relationship between two or more variables. Correlation between two variables can be negative or positive and is a number between −1 and +1. Correlation values near −1 or +1 indicate a strong linear relationship between variables (Hair et al., 2019).

A Spearman's correlation was conducted to evaluate the relationship between the study variables (Pallant, 2020). There was a significant positive relationship between Reflexivity and Adoption of DTS, ($r = .352$, $p < .05$). There was a significant positive relationship between Institutional Isomorphism and Adoption of DTS, ($r = .473$, $p < .05$). There was also significant positive relationship between Reflexivity and Institutional Isomorphism, ($r = .558$, $p < .05$). The results are presented in table fourteen.

Table 14.

Descriptive Statistics and Correlations for Study Variables

Variable	*N*	*M*	*SD*	1	2	3
1. Adoption	235	3.65	.83	—		
2. Reflexivity	235	4.1	.67	.352**	—	
3. Isomorphism [c]	235	3.72	.70	.473**	.558**	—

*Note: **. Correlation is significant at the 0.01 level (2-tailed).*

4.5.2 Multiple Regression

Multiple regression was used to address two research questions. One, the relationship between Reflexivity and Adoption of DTS, and two, the relationship between Institutional Isomorphism and Adoption of DTS. Multiple regression allows prediction of a single dependent continuous variable from a group of independent variables. It can be used to test

the predictive power of a set of variables and to assess the relative contribution of each individual variable. Multiple regression was used to understand how well Reflexivity and Institutional Isomorphism are able to predict the Adoption of DTS, and which of these independent variables is the best predictor of the Adoption of DTS (Pallant, 2020).

The study used the standard multiple regression technique in SPSSv26 (IBM Corp, 2023), where all the independent variables are entered into the equation simultaneously. Each independent variable is evaluated in terms of its predictive power, over and above that offered by all the other independent variables. The study used this approach so as to find out how much variance that the independent variables of Reflexivity and Institutional Isomorphism would explain in Adoption of DTS, the study's dependent variable. This approach would also inform how much unique variance in the dependent variable, each of the independent variables explained (Field, 2024). This is the most commonly used multiple regression analysis (Pallant, 2020).

R^2 is a goodness-of-fit measure for linear regression models. This statistic indicates the percentage of the variance in the dependent variable that the independent variables explain collectively. R^2measures the strength of the relationship between your model and the dependent variable on a convenient 0 – 100% scale (Pallant, 2020).

The R^2, presented in table fifteen, shows the independent variables of Reflexivity and Intuitional Isomorphism explain 24.2 per cent of the variance in Adoption of DTS, the dependent variable. This is quite a respectable result given that studies that try to explain human behaviour generally have R^2 values less than 50% (Frost, 2025), thus a low R^2 of at least 0.10 is acceptable in social science empirical modelling, provided that some or most of the explanatory variables are statistically significant (Ozili, 2023).

Table 15

Regression Model Summary for direct hypothesis

Model	R	R^2	Adjusted R^2	Std. Error
1	.492	.242	.235	.72387
2	.494	.244	.241	.50590
3	.620	.385	.369	.65773

Note. Model 1. Predictors: (Constant), Isomorphism, Reflexivity. Dependent Variable: Adoption. Model 2. Predictors: (Constant), Isomorph. Dependent Variable: Reflex. Model 3. Predictors: (Constant), Isomorph, Sub-sector, Firm Age, Reflex, Revenue (past 3 years).

The next step was to find out which of the variables included in the model contributed to the prediction of the dependent variable. The results presented in table sixteen, indicate that institutional Isomorphism makes the largest contribution (β = .396) in explaining the variance in Adoption of DTS, the dependent variable, followed by reflexivity (β = .156). finally, for the direct hypothesis, the results presented in table 16 indicate that the relationship between Institutional isomorphism and Adoption of DTS is positive and significant, and there is no zero in-between the confidence intervals, (β =.396, t = 6.01, p < 0.05, 95% CI [.313, .618]), therefore providing support for H_1. The relationship between Institutional Isomorphism and Reflexivity is also positive and significant, and there is no zero in-between the confidence intervals (β =.494, t = 8.68, p < 0.05, 95% CI [.316,.501]), therefore providing support for H_2. The relationship between Reflexivity and Adoption of DTS is positive and non-significant and there is a zero in-between the confidence intervals meaning that H_3 wasn't supported, (β =.156, t = 2.38, p = .018, 95% CI [.038,.407]).

Table 16.

Regression results for direct relationships in the study model

Effect	β	t	p	95% CI		*VIF*	*Decision*
				LL	*UL*		
(Constant)		3.01	.003	.358	1.713		
H1: Isomorphism → Adopt	.396	6.01	.000	.313	.618	1.324	Supported
H2: Isomorphism → Reflexivity	.494	8.68	.000	.316	.501	1.000	Supported
H3: Reflexivity → Adopt	.156	2.38	.018	.038	.407	1.324	Rejected

Note. N = 235. Constant= Dependent Variable: Adoption of DTS. CI = confidence interval; *LL* = lower limit; *UL* = upper limit. Tolerance=.756

4.5.3 Multicollinearity

Multicollinearity denotes when independent variables in a linear regression equation are correlated. Multicollinear variables can negatively affect model predictions on unseen data (Pallant, 2020). The study also performed 'collinearity diagnostics' on the study variables as part of the multiple regression procedure. The results are presented table sixteen, The VIF (Variance inflation factor) values above 10 would be an indication of multicollinearity. This is also supported by the VIF value, which is 1.324, which is well below the cut-off of 10 (Hair et al., 2019). Therefore, the study has not violated the multicollinearity assumption.

4.5.4 Mediation Analysis

In the simplest mediation theory, the investigation of mediation specifies a chain of relations by which an antecedent variable affects a mediating variable, which in turn affects a dependent variable (MacKinnon et al., 2023); (Baron & Kenny, 1986). The one and only requirement to demonstrate mediation is a significant indirect effect by running a bootstrap test (Zhao et al., 2010). The mediation test for the mediating role of reflexivity on the relationship between Institutional Isomorphism and Adoption of DTS using a Bootstrap with 5,000 samples for percentile bootstrap confidence intervals using Hayes Process Macro Procedure for SPSS Version 4.2 with 95% confidence (Hayes, 2022). Mediation analysis summary is presented in table eighteen. The results revealed a Direct-only nonmedication

(Zhao et al., 2010) whereby the Direct effect exists (β =.4658, SE = .0680, t = 6.0145, p < 0.05, 95% CI = .313, .618]), but no indirect effect (β =.0910, SE = .0488, 95% CI = .0003;.1913]), Total Effect exists (β =.5568, SE = .0680, t = 8.1901, p < 0.05, 95% CI = .423,.691]). Hence, Reflexivity doesn't mediate the relationship between Institutional Isomorphism and Adoption of DTS, leading to the rejection of H_3.

Table 17

Total Effects Model for indirect relationships

Effect	β	SE	t	p	95% CI	
					LL	*UL*
(Constant)	1.03	.34	3.01	.003	.36	1.71
Isomorphism	.46	.078	6.01	.000	.31	.62
Reflexivity	.22	.094	2.38	.0183	.04	.41

Note. N = 235. Constant= Dependent Variable: Adoption of DTS. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Table 18

Mediation Effects of Reflexivity on the Relationship between Institutional Isomorphism and Adoption of DTS

					95% CI	
Effect	β	SE	t	p	Lower	Upper
Total	.5568	.0680	8.1901	.000	.4229	.6908
Direct	.4658	.0774	6.0145	.000	.3132	.6184
Indirect (mediation)	.0910	.0488			.0003	.1913

Note = 235. Bootstrap with 5,000 samples for percentile bootstrap confidence intervals using Hayes Process Macro Procedure for SPSS Version 4.2 with 95% confidence (Hayes, 2022)

Chapter Five

Discussion of Results

5.1 Introduction

The purpose of this study was to investigate the relationship between institutional isomorphism, reflexivity, and adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda. Four hypotheses were generated from the literature review, tested, and results validated.

5.2 Discussion of The Research Findings

H_1 stated that Institutional isomorphism has a positive relationship with the adoption of Digital Tax Stamps. The results confirm a positive and significant relationship between institutional isomorphism and the adoption of Digital Tax Stamps. This emphasises the strong influence coercive pressures from regulatory authorities majorly Uganda Revenue Authority and UNBS have in pushing the manufacturing firms to adopt DTS. This is significant as failure to adhere to the URA mandates, the manufacturing firms risk losing their manufacturing licences or face being hit with hefty fines hence adoption of DTS.

Additionally, the favourable perception of customers towards firms that have embraced DTS has pressurised others to comply in order to keep abreast with the competition. These pressures therefore as seen from the findings play a critical role in driving the adoption of DTS by compelling organizations to comply with externally imposed requirements in this case the use of digital tax stamps to maintain legitimacy and operational continuity. This finding is comparable to Mandre et al., (2021), who demonstrated that coercive pressures, such as regulatory mandates and enforcement by government authorities, strongly influence the adoption of management controls such as Income Tax Laws, Social Security contributions and Occupational Health and Safety controls by manufacturing firms. This finding further provides support to institutional theory, which posits that organizations conform to external pressures to achieve legitimacy (DiMaggio & Powell, 1983). As (Scott, 2013) emphasises, these pressures function within the broader institutional framework shaping organisational behaviour thereby reinforcing compliance and ensuring legitimacy in dynamic institutional fields.

H_2 stated that Institutional Isomorphism has a positive relationship with reflexivity. This relationship was positive and significant. This suggests that because of isomorphic pressures such as the mandate issued by URA for these firms to implement the use of Digital Tax Stamps, this in turn influence these manufacturing firms to evaluate their internal practices through reflection and adaptation in order to meet the regulatory demands. The findings indicate that firms actively engage in reflection by reassessing their operational methods in response to changes in the regulatory environment. This reflective process allows firms to anticipate compliance challenges and proactively address them. Additionally, firms demonstrate adaptation by continuously comparing their performance with industry peers to ensure they align with regulatory and competitive expectations. This suggests that institutional pressures not only compel firms to comply but also push them to become more strategic and responsive in their approach to tax compliance. This finding is comparable to (Musimenta et al., 2017) who demonstrated that coercive institutional pressures, such as regulatory mandates and enforcement by government authorities, drive organizations to adopt reflexive practices to ensure compliance with tax regulations. Similarly, (Caputo et al., 2020) found that firms under mimetic and normative pressures in digital transformation processes developed reflexive mechanisms to align their strategies with industry standards and technological advancements.

H3 posited that Reflexivity has a positive relationship with the adoption of Digital Tax Stamps (DTS). However, the study results rejected this hypothesis, revealing that while the relationship was positive, it was statistically insignificant. This indicates that although firms engaged in reflexivity, the extent was minimal and insufficient to drive the adoption of DTS. Reflexivity, which entails organizations critically evaluating their strategies and adapting to environmental changes, was anticipated to facilitate DTS adoption by enhancing firms' abilities to assess compliance needs and implement necessary adjustments. Despite active reflection, reflexivity did not lead to increased DTS adoption, suggesting that other factors, such as institutional enforcement and industry norms, play a more dominant role. The direct influence of isomorphic pressures, particularly coercive ones, led firms to adopt DTS primarily because it is a regulatory requirement. Non-compliance would mean risking sanctions by the tax authorities, leaving firms with no choice but to adopt DTS. Consequently, there was little need for internal reflection, as the guidelines had already been issued by the tax authorities. The situation might have been different if DTS adoption had been voluntary. In such a scenario, internal reflexivity could have perhaps played a more

significant role in the decision-making process. This finding aligns with (Manwaring & Regan, 2024), who found that tax compliance in Uganda is primarily driven by enforcement rather than internal reflexivity, with public disclosure having limited impact without strict enforcement. Similarly, (Economic Policy Research Centre, 2023) highlighted that compliance is influenced more by external pressures, emphasizing enforcement and public disclosure over internal evaluation. These findings contribute to institutional theory by highlighting the predominance of coercive isomorphism in driving compliance behaviours. It underscores that in environments with stringent regulatory requirements, external pressures can diminish the role of internal reflexivity in organizational decision-making (Manwaring & Regan, 2024). This insight adds to our understanding of how institutional forces shape organizational practices, particularly in the context of mandatory compliance.

H_4 stated that Reflexivity mediates the relationship between Institutional Isomorphism and the adoption of Digital Tax Stamps (DTS). However, the results revealed that Reflexivity does not mediate this relationship. This suggests that the firms do not necessarily engage in Reflexivity when responding to external pressures to adopt DTS but rather, they comply directly with the regulatory requirements. Had the adoption been voluntary, firms might have engaged in more reflexive processes, evaluating how DTS aligns with their strategic goals before implementation. However, in this case, the predefined legal obligations set by URA diminishes the role of self-assessment, reinforcing the dominance of regulatory enforcement over organizational learning and adaptation. This finding is similar to a study by (Kabuye et al., 2021) which demonstrated that firms in Uganda align with tax compliance regulations due to institutional mandates rather than through proactive self-evaluation. It further contributes to Institutional Theory, highlighting the dominance of coercive isomorphism in driving compliance (DiMaggio & Powell, 1983).

Chapter Six

Conclusions and Recommendations

6.1 Introduction

This study examined the relationship between institutional isomorphism, reflexivity, and the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda. Drawing from Institutional Theory and Structuration Theory, the study sought to determine how Institutional Isomorphism influence DTS adoption and whether reflexivity mediates this relationship. Specifically, the study sought to; analyse the relationship between institutional isomorphism and DTS adoption, investigate the relationship between institutional isomorphism and reflexivity, evaluate the influence of reflexivity on DTS adoption, and determine whether reflexivity mediates the relationship between institutional isomorphism and DTS adoption. The findings confirmed that institutional isomorphism significantly influences DTS adoption, particularly through coercive pressures from URA. Additionally, institutional isomorphism was found to positively influence reflexivity, as firms reassessed their practices to align with regulatory demands. However, reflexivity did not significantly influence DTS adoption, and mediation analysis confirmed that it did not act as a bridge between institutional isomorphism and DTS adoption.

6.2 Conclusions

The findings confirmed that institutional isomorphism significantly drives DTS adoption. Firms comply to avoid sanctions, fines, or license revocation, supporting Institutional Theory, which emphasizes that organizations align with regulatory expectations to maintain legitimacy. The study established that institutional pressures lead firms to engage in reflexivity. Firms reassess operational strategies and adapt to isomorphic pressures emanating from the institutional environment. Although firms engage in reflexivity, it does not significantly impact their decision to adopt DTS. This suggests that when compliance is mandatory, firms follow directives rather than engaging in internal reflection. The study found that reflexivity does not mediate the relationship between institutional isomorphism and DTS adoption. This reinforces coercive institutional mechanisms as the primary drivers of compliance, highlighting that firms respond to regulatory mandates without necessarily engaging in strategic reflection.

6.3 Theoretical Contributions

This study advances Institutional Theory (Scott, 2013) by demonstrating that coercive pressures, rather than normative or mimetic forces, are the primary drivers of compliance in highly regulated environments. It underscores that firms comply with external mandates due to regulatory enforcement rather than voluntary alignment with industry practices. Scholars studying compliance should prioritize coercive isomorphism as a determinant of adoption in mandatory regulatory settings. The study also extends Structuration Theory (Giddens, 1984) by showing that reflexivity plays little to no role in compliance when regulations are mandatory.

6.4 Policy Recommendations

6.4.1 Recommendations for the Government of Uganda

Since the findings indicate that firms primarily adopt DTS due to coercive pressures from URA, the government should strengthen enforcement mechanisms to ensure uniform DTS compliance across all manufacturing firms. Stricter penalties and sanctions should also be imposed on non-compliant firms to reinforce adherence and deter avoidance.

6.5 Managerial Recommendations

Manufacturing firms should enhance compliance mechanisms by ensuring that regulatory requirements imposed by URA become part of the firms operating procedures. Additionally, firms should engage proactively with URA to ensure they remain updated on evolving DTS requirements, reducing risks associated with non-compliance.

6.6 Limitations of the Study and Directions for Future Research

The study's R^2 value of 24.2% indicates that while institutional isomorphism and reflexivity contribute to DTS adoption, other factors also influence compliance behaviours. This suggests a theoretical limitation, as the study did not incorporate additional organizational and technological determinants that may explain DTS adoption. Future research should include technological readiness, firm size, and leadership commitment in compliance models, as these factors could provide a more comprehensive understanding of firms' DTS adoption decisions (Kabuye et al., 2021).

This study employed a cross-sectional research design, which allowed for the examination of the relationship between institutional isomorphism, reflexivity, and DTS adoption at a specific point in time. A key benefit of this design is that it enables researchers to collect data efficiently from a large sample and identify patterns and associations between variables without manipulation (Creswell, 2018). However, a limitation is that causal relationships cannot be established since it does not track changes over time. As such, a longitudinal study in the future would be better suited to assess how DTS adoption evolves over time and how institutional pressures influence long-term compliance behaviours.

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Appendix 1: Study Questionnaire

UGANDA CHRISTIAN UNIVERSITY

Dear Respondent,

I am carrying out a study on the adoption of Digital Tax Stamps (DTS) by manufacturing firms in Uganda. Thank you for taking the time to fill in this questionnaire; it should take only 10 minutes. Kindly return your completed questionnaire to the receptionist at the reception. Your participation in this survey is voluntary, and your responses will be kept confidential. The information you provide will contribute to a better understanding of how institutional pressures and organizational reflexivity affect the adoption of Digital Tax Stamps (DTS).

Thank you for your participation.

Section A: Personal Information

1. Gender: Male ☐ Female ☐ Age: 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ Above 60 ☐

2. Marital Status: Single ☐ Married ☐ Separated/Divorced ☐ Widowed ☐

3. Highest Education Level: High school ☐ Bachelors ☐ Masters ☐ Doctorate ☐

Professional Qualification (e.g., CPA, ACCA) ☐

4. Department:

a. ☐ Production
b. ☐ Quality Control/Assurance
c. ☐ Research and Development (R&D)
d. ☐ Human Resources (HR)/Administration
e. ☐ Finance/Accounting
f. ☐ Procurement/Purchasing
g. ☐ Sales and Marketing
h. ☐ Logistics/Supply Chain
i. ☐ IT/Information Systems
j. ☐ Compliance/Legal
k. ☐ Other (please specify): _____

5. Work Experience: Less than 5 ☐ 5-10☐ 11-15 ☐ 15-20 ☐ 20 and above ☐

6. Job tenure (time spent in current job): Less than 5 years ☐ 5-10☐ 11-15☐ 20 and above ☐

Section B: Firm Information

1. Name of the Firm:(optional)

2. Firm Size (Number of Employees):
   - ☐ Less than 50
   - ☐ 50-100
   - ☐ 101-200
   - ☐ 201 and above
3. Years of Operation:
   - ☐ Less than 5 years
   - ☐ 5-10 years
   - ☐ More than 10 years

4. Sub-sector
   - ☐ Beer and Spirits
   - ☐ Soft Drinks and Mineral Water
   - ☐ Other Foods
   - ☐ Cement

5. Revenue (past 3 years)
   - ☐ Less than 1 billion UGX
   - ☐ 1 - 5 billion UGX
   - ☐ 5 - 10 billion UGX
   - ☐ 10 - 50 billion UGX
   - ☐ 50 - 100 billion UGX
   - ☐ Over 100 billion UGX

Section C: Institutional Isomorphism (II)

1. Coercive Isomorphism (IIC)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	IIC1. Current and foreseeable regulations are pressuring us to adopt DTS. (Chen et al., 2011)	1	2	3	4	5
2	IIC2. Firms in our industry that do not meet the legislated standards for DTS face a significant threat for legal prosecution. (Dubey et al., 2017)	1	2	3	4	5
3	IIC3. Firms in our industry are aware of the fines and penalties associated with not implementing DTS. (Dubey et al., 2017)	1	2	3	4	5
4	IIC4. If a firm in our industry doesn't implement DTS, the consequence would include negative reports by industry analysts. (Dubey et al., 2017)	1	2	3	4	5
5	IIC5. There are negative consequences for organizations that fail to comply with DTS regulations. (Dubey et al., 2017)	1	2	3	4	5
6	IIC6. We adhere to the DTS guidelines provided by URA. (Nyahas et al., 2017)	1	2	3	4	5
7	IIC7. We adhere to the DTS guidelines provided by UNBS. (Nyahas et al., 2017)	1	2	3	4	5
8	IIC8. We adhere to guidelines provided in the Excise Duty Act, 2014. (Nyahas et al., 2017)	1	2	3	4	5

2. Normative Isomorphism (IIN)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	IIN1. Our industry has a trade association that encourage organizations within the industry to adopt DTS. (Dubey et al., 2017)	1	2	3	4	5
2	IIN2. Our industry has professional associations that encourage organizations within the industry to adopt DTS. (Dubey et al., 2017)	1	2	3	4	5
3	IIN3. Our industry expects all firms in the industry to adopt DTS. (Dubey et al., 2017)	1	2	3	4	5
4	IIN4. Adopting DTS is a requirement for firms to be part of this industry. (Dubey et al., 2017)	1	2	3	4	5
5	IIN5. Our staff are encouraged to adhere to professional codes of ethics of their respective professions. (Nyahas et al., 2017)	1	2	3	4	5
6	IIN6. Our industrial association emphasizes adoption of DTS. (Nyahas et al., 2017)	1	2	3	4	5
7	IIN7. Our organization considers professional qualification in their recruitment policy. (Nyahas et al., 2017)	1	2	3	4	5

3. Mimetic Isomorphism (IIM)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	IIM1. What is the current extent of the adoption of DTS by your organization's competitors. (Chen et al., 2011).	1	2	3	4	5
2	IIM2. Our main competitors who have adopted DTS have benefited greatly financially. (Chen et al., 2011).	1	2	3	4	5
3	IIM3. Our main competitors who have adopted DTS are perceived favorably by customers. (Chen et al., 2011).	1	2	3	4	5
4	IIM4. The leading companies in our industry set an example for DTS adoption. (Dubey et al., 2017)	1	2	3	4	5
5	IIM5. The leading companies in our industry are known for their adoption of DTS. (Dubey et al., 2017)	1	2	3	4	5
6	IIM6. We follow industry leaders when dealing with uncertainties. (Nyahas et al., 2017)	1	2	3	4	5
7	IIM7. We copy industrial peers in adopting DTS. (Nyahas et al., 2017)	1	2	3	4	5
8	IIM8. We benchmark our competitors when coping with uncertainties. (Nyahas et al., 2017)	1	2	3	4	5

Section D: Reflexivity (RF)

1. Reflection. (RFR)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	RFR1. In our manufacturing firm, we usually take well-considered decisions. (Schippers et al., 2007)	1	2	3	4	5
2	RFR2. We review our methods of working as a result of changes in the environment. (Schippers et al., 2007)	1	2	3	4	5
3	RFR3. We talk about different ways in which we can reach our objectives. (Schippers et al., 2007)	1	2	3	4	5
4	RFR4. Problems are discussed only once they have become critical. (Schippers et al., 2007)	1	2	3	4	5
5	RFR5. We examine the implications that changes in the environment may have for the aims of the firm. (Schippers et al., 2007)	1	2	3	4	5
6	RFR6. We work out what we can learn from past activities. (Schippers et al., 2007)	1	2	3	4	5
7	RF7R. Before we get to work, we make sure everyone in the firm has the same problem definition. (Schippers et al., 2007)	1	2	3	4	5
8	RFR8. During task execution, we stop to assess whether the firm is on	1	2	3	4	5

	the right track. (Schippers et al., 2007)					
9	RFR9. If a staff member discovers a problem, he or she will talk about it with other staff members. (Schippers et al., 2007)	1	2	3	4	5
10	RFR10. We examine the long-term consequences of certain activities	1	2	3	4	5
11	RFR11. We question our objectives on a regular basis. (Schippers et al., 2007)	1	2	3	4	5
12	RFR12. Problems are looked at from different points of view in this team. (Schippers et al., 2007)	1	2	3	4	5
13	RFR13. We check whether our activities produced the expected results. (Schippers et al., 2007)	1	2	3	4	5
14	RFR14. In this firm, the results of actions are evaluated. (Schippers et al., 2007)	1	2	3	4	5
15	RFR15. We reflect on the question of whether a pattern can be discerned in events. (Schippers et al., 2007)	1	2	3	4	5
16	RFR16. If things don’t work out as planned, we consider what we can do about it. (Schippers et al., 2007)	1	2	3	4	5
17	RFR17. If we are successful as a firm, we take the time to analyze how we achieved this. (Schippers et al., 2007)	1	2	3	4	5
18	RFR18. After certain activities are completed, we evaluate matters. (Schippers et al., 2007)	1	2	3	4	5
19	RFR19. If things don't work out as they should, we take the time as a firm to find the possible cause of	1	2	3	4	5

	the problems. (Schippers et al., 2007)					
20	RFR20. The firm often reviews its objectives. (Swift & West, 1998)	1	2	3	4	5
21	RFR21. The methods used by the firm to get the job done are often discussed. (Swift & West, 1998)	1	2	3	4	5
22	RFR22. We regularly discuss whether the firm is working effectively. (Swift & West, 1998)	1	2	3	4	5
23	RFR23. The firm often reviews whether it's getting the job done. (Swift & West, 1998)	1	2	3	4	5

2. Adaptation. (RFA)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	RFA1. After agreements have been made in this firm, everyone does things a little differently. (Schippers et al., 2007)	1	2	3	4	5
2	RFA2. In this firm, people keep to agreements. (Schippers et al., 2007)	1	2	3	4	5
3	RFA3. In this firm, people have their own personal interpretation of agreements even when they are written down. (Schippers et al., 2007)	1	2	3	4	5
4	RFA4. What we discuss corresponds with what we do	1	2	3	4	5

	subsequently. (Schippers et al., 2007)					
5	RFA5. After matters have been agreed, it turns out that different interpretations of the agreements exist among team members. (Schippers et al., 2007)	1	2	3	4	5
6	RFA6. We check on how satisfied others are with us. (Schippers et al., 2007)	1	2	3	4	5
7	RFA7. We seek feedback on our methods. (Schippers et al., 2007)	1	2	3	4	5
8	RFA8. We work out how well we are performing in comparison to other firms. (Schippers et al., 2007)	1	2	3	4	5
9	RFA9. We ask for feedback from internal and external customers on our results. (Schippers et al., 2007)	1	2	3	4	5
10	RFA10. We check how well we perform as a firm. (Schippers et al., 2007)	1	2	3	4	5

Section E: Adoption of Digital Tax Stamps (D)

The following questions are general statements about what happens in a firm. We would like to find out their level of agreement with the statements on the following scale. 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree Nor Agree, 4 = Agree and 5 = Strongly Agree.

1. Perceived Usefulness (DPU)

No.		Strongly Agree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	DPU1. Using DTS would improve our performance in our sector. (Davis et al., 1989)	1	2	3	4	5

2	DPU2. Using DTS in our sector would increase our productivity. (Davis et al., 1989)	1	2	3	4	5
3	DPU3. Using DTS would enhance our effectiveness in the sector. (Davis et al., 1989)	1	2	3	4	5
4	DPU4. We would find DTS useful in our sector. (Davis et al., 1989)	1	2	3	4	5

2. Perceived Ease of Use. (DPE)

No.		Strongly Agree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	DPE1. Learning to use DTS would be easy for us. (Davis et al., 1989)	1	2	3	4	5
2	DPE2. We would find it easy to get DTS to do what we want it to do. (Davis et al., 1989)	1	2	3	4	5
3	DPE3. It would be easy for us to become skilful at using DTS. (Davis et al., 1989)	1	2	3	4	5
4	DPE4. We would find DTS easy to use. (Davis et al., 1989)	1	2	3	4	5

3. Actual Usage. (DAU)

DAU1. On a scale from 1 to 7, please indicate how frequently you use DTS? (Davis et al., 1989)

- ☐1 - Very Infrequent
- ☐2 - Infrequent
- ☐3 - Slightly Infrequent
- ☐4 - Neutral
- ☐5 - Slightly Frequent
- ☐6 - Frequent
- ☐7 - Very Frequent

DAU2. Please select the option that best describes your current use of DTS? (Davis et al., 1989)

- ☐ Not at all
- ☐ Less than once a week
- ☐ About once a week
- ☐ 2 or 3 times a week
- ☐ 4 to 6 times a week
- ☐ About once a day
- ☐ More than once a day

Thank you for your participation.

UGANDA CHRISTIAN UNIVERSITY
A Centre of Excellence in the Heart of Africa

Office of the Vice Chancellor
Research Ethics Committee UG-026

19th March, 2025

MARK OKELLO
Uganda Christian University
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UG-REC-026 APPROVAL NOTICE

To: Mark Okello, Principal Investigator

Re: UCU-REC Application titled: *Institutional Isomorphism, Reflexivity and Digital Tax Stamp Adoption By Manufacturing Firms In Uganda.*

Application Number: UCUREC-2025-823

Version: 4.1

Type: [ ] **INITIAL REVIEW**
[ ] Protocol Amendment
[ ] Letter of Amendment (LOA)
[ ] Continuing Review
[ ] Material Transfer Agreement
[ ] Other, Specify:

UGANDA CHRISTIAN UNIVERSITY APPROVED UNTIL 19 MAR 2026 RESEARCH ETHICS COMMITTEE

I am pleased to inform you that the **UG-REC-026;** UCUREC approved the above referenced application.

Approval of the research is for the period from **19th March, 2025,** to **19th March, 2026**
This research is considered minimal risk category.
As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.

2. Changes, amendments, and additions to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes. The REC application number assigned to the research should be cited in any correspondence.
3. Reports of unanticipated problems involving risks to participants or other must be submitted to the REC. New information that becomes available which could change the risk: benefit ratio must be submitted promptly for REC review.

P.O. Box 4, Mukono, Uganda, Plot 67-173, Bishop Tucker Road, Mukono Hill
Tel: +256 (0) 312 350 885 Fax: +256 (0) 4142 90 800 Email: rec@ucu.ac.ug Web: www.ucu.ac.ug
UCUREC is accredited by Uganda National Council for Science & Technology, FDA, and National Institutes for Health of the United States of America

4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by subjects and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits

5. Regulations require review of an approved study not less than once per 12-month period. **Therefore, a continuing review application must be submitted to the REC eight weeks prior to the above expiration date of 19th March, 2026 in order to continue the study beyond the approved period.** Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study, at which point new participants may not be enrolled and currently enrolled participants must be taken off the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. Your research details have been shared with the Executive secretary of Uganda National Council for Science and Technology (UNCST) and you are **not** required to get clearance since you are a Master's Degree research. Refer to UNCST Research registration and clearance Policy and guidelines (July 2016) in Uganda section 6(e).

The following is the list of all documents approved in this application by **UG-REC _026:**

	Document Title	Language	Version	Version Date
1.	Protocol	English	1.0	2025-02-20
2	Data collection tools	English	1.0	2025-02-20
3	Informed consent form	English	1.0	2025-02-20

Signed and Stamped

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Prof. Peter Waiswa.
UCUREC Chairperson,
pwaiswa@musph.ac.ug

UGANDA CHRISTIAN UNIVERSITY APPROVED UNTIL 19 MAR 2026 RESEARCH ETHICS COMMITTEE

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Okello Mark Olwa
J23M15/202
B00152
20/05/2025

Mrs. Susan J.K. Ekadu
Assistant Registrar
School of Business
Uganda Christian University
Office of the Deputy Vice-Chancellor, Academic Affairs

REF: Compliance Report on Comments from my MBA Viva Defense.

Dear Susan,

Please find below my compliance report addressing the comments raised during the MBA Viva Defense held on 15th May 2025. The report outlines the comments provided by the panel and external examiner and the corrections I have made for each.

Comments	**Responses / Corrections made**
Reorganize the background to distinctly separate conceptual, theoretical, and contextual foundations.	I thank the examiner for this comment, and this has been addressed in pages 12-14 in the book.
Strengthen the problem statement by including Uganda-specific DTS adoption statistics.	I thank and appreciate the panel for this comment, and this has been handled in page 14 of the book.
Sharpen the phrasing of objectives, hypotheses, and explicitly formulate both null and alternative hypotheses	I thank the examiner for this comment, and I have addressed this on page 15 of the book.

Deepen critical synthesis of literature by identifying contradictions, unresolved debates, and relevance to Uganda's context.	I thank the examiner for this comment. I have deepened critical synthesis of literature on pages 21-29 of the book
Improve methodological rigor by including pre-testing, more detailed ethical safeguards, and better explanation of statistical methods	I thank the examiner for this comment. I have handled this with my supervisor and made necessary additions on pages 30-38 of the book.
Enrich the discussion of findings with critical reflections and real-world examples.	I am thankful to the panel for this comment which had further enabled me to polish my discussion of findings, and this has been handled on pages 61-63 of the book.
Strengthen conclusions by connecting them back to theoretical frameworks and practical challenges.	I thank the panel for this comment. I have addressed this with my supervisor on pages 64-65 of the book.
Improve recommendations to be specific, actionable, and contextually grounded.	I thank the panel for this comment. This has been improved with the help of my supervisor on pages 65-66 of the book.
Thoroughly audit and correct all APA referencing errors.	I have audited and correct all APA referencing errors throughout the book.
Refine appendices for better professional presentation, including annotated questionnaires and full ethical approval evidence.	With the help of my supervisor, I have refined appendices including annotated questionnaires and full ethical approval evidence in the book.
The student needs to change the naming of his findings into objectives than H1, H2 etc.	I thank the panel for this wonderful comment. I have addressed this on pages 61-65 of the book.
He needs to indicate correlation and regressions as the study is	I thank the panel for this comment. correlation and regressions are presented on pages 56-57 of the book.

directed towards that direction/ effect.	
The student's results show there's insignificant mediation but state there is no mediation in his conclusion.	I thank the panel for this comment. This is addressed on page 64 which states that reflexivity did not significantly influence DTS adoption, and mediation analysis confirmed that it did not act as a bridge between institutional isomorphism and DTS adoption.

NAME OF STUDENT: **OKELLO MARK OLWA**

REG. NO.: **J23M15/202**

Signature: Date: 20/05/2025

NAME OF SUPERVISOR: **DR. JOSHUA MANDRE**

Signature: Date: 20/05/2025