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## Article

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# The moderating role of environmental factors between institutional isomorphic pressures and the adoption of IFRS for SMEs: application of SEM

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## ABSTRACT

The purpose of the study was to assess the effect of institutional isomorphic pressures on the adoption of IFRS for SMEs in Ghana. This study administered a questionnaire to collect primary data to assess the relationship between the variables. Multistage sampling methods were used to select the sample size as the true representative of the 16 regions of Ghana without bias. The study employed factor analysis, and structural equation model analysis to test the null hypotheses in this study. The results revealed that coercive isomorphic and mimetic isomorphic pressures significantly affect the adoption of IFRS for SMEs positively in Ghana. However, normative isomorphic pressure has no significant effect on the adoption of IFRS for SMEs in Ghana. Secondly, the result showed that environmental factors moderate or strengthen the insignificant relationship between normative isomorphic pressure and the adoption of IFRS for SMEs. The study recommends that the government should collaborate with the regulator (ICAG) to give financial accounting education to the SME owners and accounts personnel of SMEs who lack or requisite skills to adopt and implement IFRS for SMEs in Ghana. Secondly, the regulator should create a special window for accounts personnel of SMEs to become members of professional bodies.

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## 1. Introduction

The preparation of financial statements has gone through a wave of reforms worldwide over the years, and the adoption of International Financial Reporting Standards (IFRS) for SMEs was to enhance the quality of the financial statements prepared for decision-making by users. IFRS is a set of accounting rules for the preparation of financial statements to make them consistent, transparent, and easily comparable around the world. IFRS adoption is an issue of global relevance among various countries of the world due to the quest for standardization, uniformity, reliability, and comparability of financial statements of organizations (Okpala, 2012; Palea, 2013). Every business is required to prepare and present financial statements per the requirement of the International Financial Reporting Standards (Ball, 2006).

The International Accounting Standard Board (IASB) recognized the issue of cost and difficulty that small private enterprises will face when asked to comply with the full version of IFRS. Despite these challenges, the IASB argues that a need for a single set of global financial reporting standards is appropriate for SMEs because it would benefit global accounting information and improve upon comparability, improved upon efficiency of capital allocation, create consistency in audit quality, and facilitate financial reporting education and training. For that matter, the IASB developed International Financial Reporting Standards (IFRS) in July 2009 for Small and Medium-sized Entities (SMEs). One of the objectives of IFRS for SMEs was to develop, a single set of high-quality, understandable, and enforceable global accounting set of standards for the SME sector. The standard was designed to prepare the financial reporting needs

of SMEs irrespective of the location. The IASB was of the view that a single set of global financial reporting standards for SMEs is needed because the benefits of global accounting information will increase comparability since the benefits of internationally comparable accounting information are not limited to large businesses whose debt or equity instruments are traded in public capital markets.

In addition to the statutory requirement that the financial statements prepared by SMEs must comply with IFRS SMEs, researchers believed that the adoption of IFRS for SMEs would help SMEs to be diligent and prepare their financial statements well (Thabit & Al-Alnasrawi, 2016). This would avoid financial risks such as liquidity risk, credit risk, and operational risks to enterprises that use the financial statements of SMEs. Therefore, complete adoption and compliance of IFRS for SMEs in Ghana would help to produce accurate and reliable financial statements that are consistent, transparent, and comparable among SMEs across the world. According to the Bank of Ghana [BoG] (2018), a financial statement that does not comply with IFRS standards exposes the banking sector to credit risk as cited as one of the main causes of the collapse of the seven banks in Ghana aside from the breaches of corporate governance.

Since a large proportion of SMEs rely more on debt (loan) than equity financing to run their business, the use of IFRS for SMEs would enhance these SMEs' accessibility to loans from financial institutions and help them attract investors more than firms that are not complying with the standard. This is because when entities prepare their financial statements using the standard, the basis of presentation, disclosure notes, and the report of the auditors will refer to compliance with the applicable reporting framework which is IFRS for SMEs. Currently, the Institute of Chartered Accountants, Ghana (ICAG) has withdrawn the use of Ghana National Accounting Standards (GNAS) for the preparation of financial statements in the country.

Once it is perceived that the adoption and implementation of IFRS for SMEs would enhance the financial statement prepared by the SMEs therefore application of institutional isomorphic pressures is eminent. According to Carroll (2016), institutional theory provides an extensive and comprehensive framework for understanding organizational behavior's mechanisms, causes, and effects on the adoption and implementation of IFRS for SMEs. In a study conducted by Judge et al. (2010), the institutional theory was used to demonstrate that companies must comply with IFRS standards for the financial statements to be acceptable and get continual support from the general public. The institutional theory is widely acknowledged in that it provides a coherent isomorphism pressure and legality for enterprises to adopt and implement IFRS for SMEs.

In spite the role played by institutional isomorphic pressures as a theoretical tool to drive the adoption of IFRS for SMEs. Various studies have revealed the inconsistent relationship between institutional isomorphic pressure and the adoption of IFRS for SMEs. While some studies concluded there was an insignificant relationship, especially between normative isomorphic pressure (Damak-Ayadi et al., 2020; Kossentini & Othman, 2014; Sappor et al., 2023; Sellami & Gafsi, 2018) other studies revealed a significant relationship (Hassan, 2008; Muniandy & Ali, 2012). Again, most of the studies conducted were on the direct relationship between institutional isomorphic pressures and the adoption of IFRS for SMEs without considering the role of the firm's characteristics in conforming to the adoption of IFRS for SMEs. According to Delmas and Toffel (2010), institutional isomorphic pressures and organizational characteristics are tightly linked. Furthermore, several scholars have argued that examining only institutional isomorphic pressures is not sufficient to explain divergent organizational changes (D'Aunno et al., 2000; Kraatz & Zajac, 1996). Relate ably some studies have identified other factors apart from the institutional isomorphic pressures that can influence the adoption of IFRS for SMEs. A study conducted by Aboagye-Otchere and Agbeibor (2012) identified size, sector, legal form, and the number of owners as other factors that influence the adoption of IFRS in Ghana. Another study conducted by Abakah (2017) revealed that entity characteristics or attributes such as types, profitability, and audit types can influence the firm's adoption of IFRS in Ghana. This requires a need to define precisely the extent of the institutional isomorphic pressures in the presence of the firm's characteristics to attain legitimacy in society.

For that matter, this study used five firm characteristics in the form of firm size, sector, legal form, the number of owners and the intention to international as environmental factors to assess the indirect relationship between institutional isomorphic pressures and the adoption of IFRS for SMEs in Ghana. Four out of the five firm's characteristics used were identified by Aboagye-Otchere and Agbeibor (2012) as size, sector, legal form, and the number of owners as other factors that influence the adoption of IFRS

in Ghana. This analysis will require a deeper and more complex analysis involving the interplay of environmental factor (size, sector, legal form, number of owners, and intention to internationalize) as moderating variable between institutional isomorphic pressures and adoption of IFRS for SMEs. The outcome of this moderating analysis would offer some directions for future research.

The authors are motivated in this study to use a Covariance-Based Structural Equation Modeling (CBSEM) to assess the direct and indirect relationship among the variables. Secondly to assess whether the conceptual model fits and supports the data well in this study. Once the model is well-specified for the data, the fit of the model is evaluated to the degree of the CBSEM fits the sample data (McDonald & Ho, 2002). CBSEM is based on covariance matrices and would be used in the paper to explain the relationships between the indicators and the constructs and to confirm the rationale underlying the theory specified in the model. The CBSEM is 'tautologically referred to' as SEM in this paper. According to Nitzl (2016), SEMs offer flexibility and use multiple predictors and criterion variables to be done in a single model. The study adopted and preferred SEM as an analytical tool because it allows the study to model the measurement error for the observed variables (Haenlein & Kaplan, 2004), the model incorporates unobservable constructs (latent variables) to be measured by indication, simultaneously model the relationships among the multiple predictor and criterion variables and combines and test of a priori knowledge and hypotheses with empirical data. The second motivation for this paper is to include environmental factors as a moderating variable to assess the indirect effect of environmental factors between the institutional isomorphic pressures and the adoption and implementation of IFRS for SMEs in Ghana. This study shifts the research focus from a direct relationship to a complex relationship involving institutional isomorphic pressure, environmental factors, and the adoption of IFRS for SMEs in Ghana. The interplay of environmental factors enhances or strains the direct relationship between institutional isomorphic pressures and the adoption and implementation but has received little attention in the research community, especially in a developing country perspective like Ghana. The second motivation is to employ Structural Equation modeling to assess the direct and indirect relationship between the variables.

This study is important because it will provide insight into the role of environmental factors such as the size of the SMEs, the sector of the SMEs, legal form, number of owners and the intention to international the SMEs play in the adoption of IFRS for SMEs by SMEs in Ghana. Another importance of this study is that it assessed the conditional effect between the firm's characteristics, isomorphism pressures, and IFRS compliance by SMEs. Finally, the results from this study will help policymakers concerning the policy on the adoption and implementation of IFRS in the country in general. This study begins with a review of related literature in [section 2](#) and is followed up with a methodology for [section 3](#). [Section 3](#) presents the methods employed to collect data for the study as well as their analysis. [Section 4](#) presents the results and the attendant discussion of the results of the research. Finally, the study ends with some conclusions and limitations for the study.

## 2. Literature review

This section reviewed theoretical literature and empirical literature on International Financial Reporting Standards (IFRS) and Small and Medium-sized Enterprises (SMEs) purposely to support this study.

### 2.1. Theoretical review: institutional theory

This subsection reviewed and discussed Institutional theory as the main theory underlying this study. Institutional theory suggests that an organization's formal structure is inspired and pressurized by institutional isomorphic pressures that the finds itself (Meyer & Rowan, 1977). The institutional theory suggests that entities are formal structures that are inspired by societal expectations within which they find themselves. The theory provides norms, practices, structures, and practices on how entities can establish effective procedures for social behavior that meet societal expectations to become legitimate entities. According to Boxenbaum and Jonsson (2017) institutional isomorphic pressures adopts the norms, practices, structures, and practices of other organizations to meet societal expectations. DiMaggio and Powell (1983) opined that institutional Isomorphism is a medium where institutions in an environment become

more homogeneous for social, political, or legitimacy to succumb to the intensity of societal and political pressure. Consequent to institutional pressures, entities try to conform to the 'best practices' and create 'legitimate coercion' to legitimize themselves to the general public.

DiMaggio and Powell (1983) developed and postulated the concept of institutional isomorphic pressure as a key concept of the institutional theory. The institutional isomorphic provides legitimate pressure on the organization to be accepted legally, socially, and politically by the external society the organization operates. The theory posits that organizations adopt structures and practices that are considered legitimate and socially acceptable by other organizations— regardless of their actual usefulness (Rodrigues & Craig, 2007). The theory emphasizes the importance of institutional pressures (isomorphism) on the institutions/entities' practices and the strategic decisions to seek economics based on legitimate national best practices through accepted global models. The institutional pressure creates a national isomorphism (DiMaggio & Powell, 1983, 2000; Judge et al., 2010). The institutional framework is the mechanisms through which an organization seeks to align the perception of its practices and characteristics with its social environment and how such practices become institutionalized in a particular organization (Deegan & Unerman, 2006).

Coercive isomorphic pressure arises when an institution requires a country to adopt rules and standards. To ensure that financial statements are properly prepared International Accounting Standards Board requires countries to prepare financial statements in conformity with the IFRS. Institutions often influence countries and organizations to engage in growth-enhancing activities. Developing countries depend to a great extent on international norms. Organizations such as the World Bank (WB), the International Monetary Fund (IMF), the United Nations (UN), and the Organisation for Economic Co-operation and Development (OECD) encourage the diffusion of IFRS among developing countries. Their main rationale for doing so is to boost investors' confidence and to increase capital market efficiency worldwide (Mir & Rahaman, 2005).

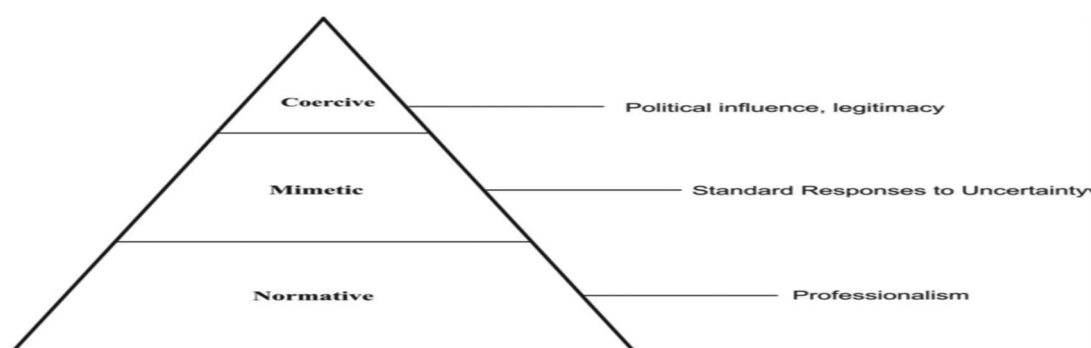
Mimetic isomorphic pressure is the second of the institutional theory and it refers to the tendency of nations to imitate other nations viewed as legitimate or successful. Developing countries may adopt the norms and standards of more developed economies to achieve legitimacy on the international scene (Judge et al., 2010). Countries and organizations are likely to imitate the behavior of other entities that may be viewed as successful or legitimate or have a better experience of the procedure being diffused (DiMaggio & Powell, 1983). Imitation among organizations in the international arena may also arise due to competitive reasons. Countries may be pressured to adopt IFRS because not doing so would disadvantage them relative to the competition and erode their edge in the marketplace. Therefore, mimetic isomorphic pressure causes countries and organizations to imitate successful countries and organizations to gain a competitive advantage in the global business arena.

The last institutional isomorphic pressure identified by DiMaggio and Powell (1983) is normative isomorphic pressure. Normative pressures refer to collective values that bring about conformity of thought and deed within institutional environments. This implies that education directly influences the development of all professions, including accounting. Nations that have a higher level of educational development are often more likely to adopt and implement more rigorous and complex international norms as a result of a higher level of professionalism. Countries that have a higher level of educational development are often more likely to adopt and implement more rigorous and complex international norms as a result of a higher level of professionalism. The main normative isomorphic pressures are professional commitment and educational qualification. According to DiMaggio and Powell (2000), there are three mechanisms through which institutional isomorphism change occurs namely coercive, mimetic, and normative. The three dimensions of institutional isomorphism are illustrated in Figure 1.

Many studies have used institutional theory as a main theory to explain the adoption of IFRS for SMEs globally. The theory is linked to the decision-making process to adopt and comply with IFRS adoption and compliance in the field of Accounting (Judge et al., 2010; Kim et al., 2012). Scott (2013) opined that institutional theory is a widely accepted theory that highlights cogent isomorphism and legitimacy. The different components of the institutional theory expound how this legitimacy is formed, and adopted over time. The theory is considered a treasured tool for identifying the drivers for IFRS for SMEs.

The theory is based on some assumptions as discussed below: First of all, the theory assumes that the organization abides only superficially by institutional pressures and adopts new structures without





**Figure 1.** Framework of institutional isomorphism.

Source: DiMaggio and Powell (1983).

necessarily implementing the related practices. This assumption is referred to as ‘decoupling’ in institutional theory (Moll et al., 2006). Decoupling is a phenomenon where organizations maintain a separation between their formal structures, policies, or practices from their actual day-to-day operations or behaviors. In simpler terms, organizations may adopt certain structures or practices for legitimacy, compliance with institutional norms, or to meet external expectations, but these may not necessarily be fully implemented in their internal processes. Secondly, the theory assumes that organizations tend to become more similar over time by adopting similar structures, practices, and behaviors due to external pressures (DiMaggio & Powell, 1983). Again, the theory assumes that organizations seek to gain and maintain legitimacy in the eyes of their stakeholders by conforming to institutional norms and values to be perceived as socially acceptable (DiMaggio & Powell, 1983; Scott, 1987). Lastly, the institutional theory assumes that organizations resist change due to institutional pressures leading to a certain level of inertia in organizational behavior. This implies that individuals or employees within the enterprises often develop habits, routines, and shared norms over time that make them stable and predictable in their environment. When confronted with change, the individuals may resist due to perceived threats to their established norms.

The first implication of these assumptions to the effective adoption of IFRS for SMEs requires that before any enterprise embarks on the adoption of IFRS for SMEs they should be mindful of these dynamics or assumptions and plan effectively to achieve successful adoption of IFRS. A successful adoption of IFRS for SMEs requires (1) effective communication with employees involved in the adoption of IFRS for SMEs, (2) adopting effective change management strategies, and finally efforts should be made to align the IFRS for SMEs with existing values to help mitigate resistance to change and facilitate a smoother transition to IFRS for SMEs.

It is worth noting that most SMEs especially in Ghana embarked on the adoption of IFRS for SMEs without adequate preparation and without much expertise to handle the tasks ahead resulting in a low level of compliance with IFRS for SMEs in Ghana. This is contrary to the expectation of the theory resulting in decoupling. This position is confirmed by several studies that revealed a low level of adoption of IFRS for SMEs (Aboagye-Otchere & Agbeibor, 2012; Arhin et al., 2017; Judge et al., 2010; Mawutor et al., 2019; Mbawuni, 2018; Sappor et al., 2023). The low level of adoption may be partly due to the assumption of ‘decoupling’ in most developing countries. Factors such as cultural, regulatory, and organizational resistance may contribute to the assumption of decoupling in institutional theory.

Again, it is well mentioned that the local regulatory landscape can influence the adoption of IFRS for SMEs. There should be a regulatory support in the form of a well-structured training program for SMEs that addresses the key issues and requirements that need to be addressed before and after the adoption and implementation of IFRS for SMEs. However, the inadequate local regulatory landscape can create compliance challenges for the SMEs, which will impact the willingness of the SMEs to adapt to IFRS for SMEs.

In summary, institutional theory provides valuable insight into the adoption of IFRS for SMEs. The theory emphasizes on the influences of institutional isomorphic pressures such as structures, norms, regulations, and organizational legitimacy. To effectively consider the adoption of IFRS for SMEs the theory requires that regulatory bodies should examine their capacity; the SMEs should be willing to be

pressurized to adopt the IFRS for SMEs to become legitimized, etc. Again, the theory can help to analyze the effect of isomorphic pressures on the perceived legitimacy and acceptance of IFRS for SMEs within a given framework. However, the adequacy of the theory depends on various factors relating to a specific context: these include the capacity of the local regulator landscape, the organizational characteristics, and the extent to which the SMEs are rooted in the institutional networks.

## ***2.2. Conceptual framework: adoption of IFRS in Ghana and the implication institutional theory***

The World Bank together with the Ministry of Finance and Economic Planning (MoFEP) now known as the Ministry of Finance launched a report on the Observance of Standards and Codes (ROSC) in Ghana (World Bank, 2014). ROSC discovered that Ghana was seriously affected by weak international regulation, compliance, and enforcement of standards (ROSC, 2004). Secondly, ROSC also found weaknesses in the laws and regulations authorizing financial reporting in Ghana. The GNAS that was set up in 1993 was based on International Accounting Standards (IAS). Most of the GNAS were outmoded and were not updated with time and there exist gaps between GNAS and IAS.

The study also found that there is a lack of support from the regulator and professional body which affects the monitoring and control of professional accountants' training and practices in the country (ROSC, 2004).

To arrest the situation, the ROSC suggested that Ghana should adopt fully the IFRS without any changes to replace the already existing GNAS (World Bank, 2014) and ICAG become a member of the International Federation of Accountants (IFAC) in the year 2005. IFAC directed that all member countries should adopt IFRS; as a result, Ghana adopted IFRS on 1 January 2007 (Antwi, 2010). The reasons to adopt IFRS are to enhance transparency, and comparability in financial statements among global peers, attracting foreign investment by aligning with superior standards. Given that, all listed companies, government business enterprises, banks, insurance companies, security brokers, pension funds, and public utilities were required to adopt and implement the full version of the IFRS as of 31<sup>st</sup> December 2007. It is believed that the adoption and implementation of IFRS would foster economic development through a more robust and standardized financial reporting framework.

Later, In July 2009, the IASB decided to move further to publish IFRS for SMEs because the complete set of IFRS was bulky for SMEs to adopt and therefore not suitable for SMEs' needs (Aboagye-Otchere & Agbeibor, 2012).

As a consequence of the publication of IFRS for SMEs by IASB, Ghana announced and officially adopted IFRS for SMEs in January 2012 to entirely replace Ghana Accounting Standards which was set up in 1993 by the ICAG. ICAG on behalf of the government of Ghana directed that all SMEs in Ghana would have to comply with IFRS for SMEs by the end of 2013 if their financial statements are to be globally compatible. The IFRS for SMEs is separate from the full IFRS and is therefore available for any jurisdiction to adopt whether or not the country has adopted the full IFRS. It is believed that the adoption of the IFRS for SMEs would enable Ghanaian company's financial statements to be understood in the global market. Again, it would provide greater comparability of financial information of small private enterprises in Ghana with their peers in another part of the world, as well as enhance investor confidence in financial reporting matters.

However, later after IFRS for SMEs was adopted there were widespread reports of non-compliance regarding the 2013 automaton that the SME's financial reports should comply with IFRS for SMEs. This resulted in an extension of the compliance period to 2015 by the institute (ICAG, 2014). Again, several studies conducted after the adoption of IFRS for SMEs have revealed low compliance with IFRS for SMEs by SMEs in Ghana. A study conducted by Arhin et al. (2017) revealed that the adoption and implementation of IFRS for SMEs in Kumasi was very low and that most of the SMEs in Kumasi Metropolis prepared financial statements using the erstwhile GNAS. Arhin et al. (2017) discovered inadequate skills to successfully implement the IFRS for SMEs, lack of support from regulatory and professional bodies, and the complex nature of IFRS for SMEs which prevents most users from understanding the statements prepared and the implementation cost were some of the challenges being encountered by the SMEs that prevented them from adopted and implementation of IFRS for SMEs in Kumasi Metropolis. Again, a study conducted by Amoako and Asante (2012) showed that most SMEs in Kumasi were not keeping



proper accounting records and they opined that the situation would affect the prudence of financial management, credit accessibility of the SMEs, and the growth of the SMEs.

Another study conducted by Mawutor et al. (2019) revealed a low level of awareness and adoption of IFRS for SMEs of selected SMEs in GA East (Medina) in Ghana. The study found that 60% of the total firms interviewed had no knowledge of IFRS for SMEs. This implies that most of the SMEs in GA East (Madina) have no knowledge that IFRS for SMEs has been adopted on their behalf which is expected to enhance the comparability of the financial reporting with their peers in other parts of the world.

The low level of adoption of IFRS for SMEs by SMEs in Ghana implies the adoption was carried out without careful understanding of the dynamics or assumptions of the institutional theory by the regulator (i.e. ICAG). The IFRS for SMEs was scheduled for implementation without effective communication by the ICAG of the end objective of the adoption, without putting in place change management strategies by the ICAG, and without enough effort to align the new standards with the existing values to mitigate resistance and facilitate a smoother transition to IFRS. This led to decoupling a situation that theory has anticipated that enterprises (i.e. SMEs) will abide superficially by the institutional pressures and adopt the new structures without necessarily implementing the related pressures. The evidence of institutional decoupling from the adoption of IFRS for SMEs was revealed in research carried out by Arhin et al. (2017) Amoako and Asante (2014) and Mawutor et al. (2019) that confirmed that SMEs have adopted the IFRS for SMEs superficially without necessarily implementing the related practices and reporting. Secondly, the regulator (ICAG) did not foresee that some SMEs may not have adequate infrastructure in turn of expertise to effectively implement the IFRS for SMEs. Currently, most SMEs cannot employ professional accountants because of cost. The way in this situation is for the government through the Ministry of Trade and Industry (MoTI) to collaborate with the regulator (ICAG) to give financial accounting education to the SME owners and accounts personnel of SMEs who lack or requisite skills to adopt and implement IFRS for SMEs in Ghana. Secondly, the government through MoTI should create a special window for accounts personnel of SMEs who are not professional accountants to become members of ICAG and be given incentives considering the importance that quality of financial reports serves to investors both locally and internationally.

### ***2.3. Empirical literature and hypotheses development***

This subsection reviewed some empirical studies carried out by Scholars on the relationship between isomorphism pressure (coercive pressure, normative pressure, and mimetic pressure) and IFRS compliance by SMEs. It is a systemic analysis of previous studies to provide answers to this research topic. The purpose is to answers based on observations, measurements, and conclusions settled for this study. The empirical review is organized into two sub-sections: The direct effect between institutional isomorphic pressure and the adoption of IFRS for SMEs and the role of environmental factors as the true representative of the population for the questionnaire to be administered without bias.

#### ***2.3.1. The direct effect between institutional isomorphic pressures and adoption IFRS for SMEs***

The studies identify three components of institutional isomorphic pressures from the institutional theory such as coercive pressure, normative pressure, and mimetic pressure are the main variables that influence SMEs' adoption and compliance with IFRS. Similar variables were adopted in some studies in the past (Albu & Albu, 2012; Damak-Ayadi et al., 2020; Kossentini & Othman, 2014). Based on the aforementioned, the study hypothesized that there is a relationship between institutional isomorphic pressures (coercive pressure, normative pressure, and mimetic pressure) and the adoption of IFRS for SMEs. These hypotheses were designed to assess the null hypotheses based on the conceptual model constructed in Figure 2 of this study. The SEM was used to assess the direct relationship between the variable and the outcome inferred for this study.

**H01:** Coercive Isomorphic Pressure (CISP) has a significant effect on the adoption of IFRS for SMEs in Ghana.

**H02:** Mimetic Isomorphic Pressure (MISP) has a significant effect on the adoption of IFRS for SMEs in Ghana.

**H03:** Normative Isomorphic Pressure (NISIP) has a significant effect on the adoption of IFRS for SMEs in Ghana.

Multiple regression analysis is used to assess the null hypotheses proposed. The null hypotheses (H01) are rejected when the p-value is greater than 5% and the t-statistic is lower than 1.96, else the alternative (HA1) hypotheses are accepted.

### 2.3.2. The indirect effect of environmental factors between the institutional isomorphic pressures and adoption of IFRS for SMEs (conceptual framework for the indirect relationship among the variables)

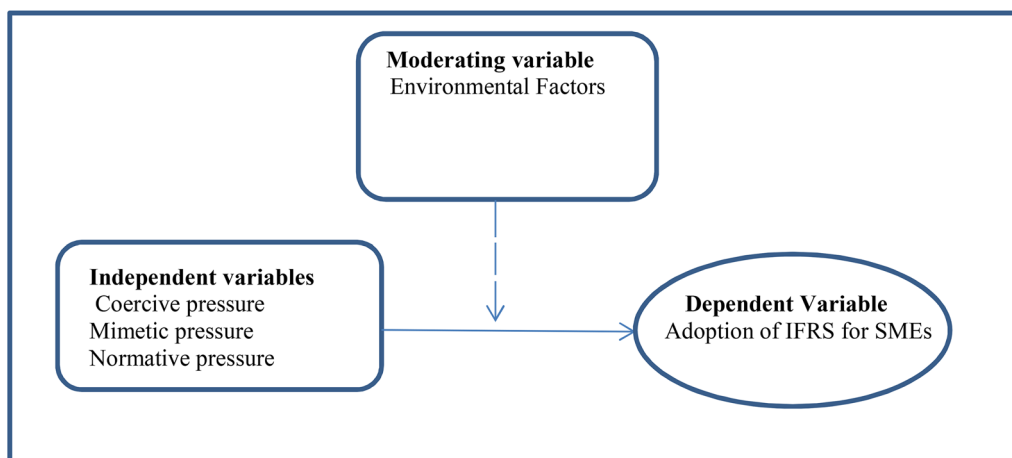
This sub-section develops a conceptual model based on the conditional analysis of the role of environmental factors (ENVI) between institutional isomorphic pressures, and the adoption of IFRS for SMEs in line with the institutional theory outlined in this study. According to institutional theory, institutional isomorphic pressures would exert pressure on SMEs in Ghana to try and conform to the 'best practices' and create 'legitimate coercion' to legitimize themselves to the general public (DiMaggio & Powell, 1983). It implies that institutional isomorphic pressure becomes a driving force for the SMEs in Ghana to adopt and comply with IFRS for SMEs to attain society's legitimate approval. On the contrary, some other studies have revealed other factors that affect the adoption of IFRS (Abakah (2017; Aboagye-Otchere & Agbeibor, 2012).

The institutional theory recognizes the role of organizational characteristics to conform to the isomorphic pressures for organizational legitimacy. In this context, the study included the firm characteristics used as an environmental factor. The environmental factor includes size, sector, legal form, number of owners, and intention to internationalize as the moderating variable in the conceptual model in Figure 2. The study used the moderating variable (ENVI) as a means to assess the indirect environmental factor in the adoption of IFRS for SMEs in Ghana. Given this, the study assesses the indirect relationship involving institutional isomorphic pressures (CISP, MISP, and NISP), ENVI, and IFRS and hypothesized that the moderating terms (CISP\*ENVI), (MISP\*ENVI), (NISP\*ENVI) would either enhance or strain the direct relationship outlined in hypotheses H01, H02, and H03 earlier. The interaction model is used to test the null hypothesis for conditional effect.

**H04:** Environmental factors moderate the relationship between coercive isomorphic pressure (CISP) and the adoption of IFRS for SMEs in Ghana.

**H05:** Environmental factors moderate the relationship between mimetic isomorphic pressure (MISP) and the adoption of IFRS for SMEs in Ghana.

**H06:** Environmental factors moderate the relationship between normative isomorphic pressure (NISP) and the adoption of IFRS for SMEs in Ghana.



**Figure 2.** Conceptual framework for the study variables.  
Author's construct (2023).

Baron and Kenny's (1986) methodology is based on multiple regression analysis to assess the moderating role of environmental factors in the relationship between institutional isomorphism pressures and IFRS for SMEs. The null hypotheses (H05) are rejected when the p-value is greater than 5%.

### 3. Methodology

This study is a quantitative research designed to collect primary data to assess the hypotheses outlined in this study. The study adopted Structural Equation Modeling (SEM) to analyze primary data collected through a structured questionnaire. The main respondents to this study are senior accountants and SME owners who were directly involved in the preparation of the financial statements. The study employed Descriptive statistics, Pearson Correlation Analysis, and Structural Equation Modeling (SEM) as the analytical tools to assess the relationship between the variables. Structural equation modeling is a technique that incorporates measured variables, and latent constructs and explicitly specifies measurement error. Structural Equation Modeling is employed to test the conceptual model in Figure 2 using STATA software to carry out 2,000 bootstrapping of resampling for this study (Hair et al., 2011). The study adopted and preferred SEM as its main analytical tool because it can estimate the structural relationship between measured variables and latent constructs and secondly, it can estimate the multiple and interrelated dependence in a single analysis. The analysis is done using STATA SEM version 16 as the analytical software in this study. STATA SEM is a 'classical' SEM also known as covariance structure analysis and latent variable analysis.

#### 3.1. Population and statistical sample

The target population is the entire spectrum of the elements of interest to the study (Churchill et al., 2010). The target population of the study consisted of all managers or top management of SMEs in Ghana. The target population for this study is the SME population with more than six employees in Ghana. The purpose of excluding microenterprises from the SME population is to ensure SMEs selected for this study are of a certain status and have the requisite skills, qualifications, and experience to answer the questionnaires. Since the sample data will be taken from the target population, it is important to ensure that the target population is properly and accurately defined for this study. Hair et al. (2010) opines that sampling needs to be selected where the target population is high.

The exclusion criteria are based on the recommendation of further studies by Mawutor et al. (2019) to focus on the higher end of the SME definition to reduce the lack of knowledge of IFRS for SME adoption in Ghana. A three-multistage sampling method involving probability and non-probability sampling methods is adopted to select samples based on Table 1. Firstly, the target population is stratified into three strata and then followed up with a simple random sampling technique to select 370 employees to answer the questionnaire using Miller and Brewer's (2003) formula.

The study selects two respondents for each of the 370 SMEs sampled for the study, making 740 respondents or observations for this study.

#### 3.2. Research variables

Three research variables used in this study are classified into broad categories: Dependent, independent, and control variables. The dependent variable is the adoption and implementation of IFRS for SMEs, the independent variables are the three institutional isomorphic pressures (coercive isomorphic pressure, mimetic isomorphic pressure, and normative isomorphic pressure), and the control variables are environmental factors (size, sector, legal form, number owners and intention to internationalize).

**Table 1.** Sample selection based on the target population.

Regional	No. of SMEs	Percentage (%)	Sample size
Very small enterprises	957	15.65%	71
Small enterprises	3,741	61.19%	277
Medium-sized enterprises	300	4.91%	22
Total	4,998	100%	370

Source: Modified Field Data (2023).

### 3.2.1. *Dependent variable (i.e. IFRS)*

IFRS: The dependent variable is the adoption and implementation of IFRS for SMEs and it is measured using a dichotomous value a binary involving a binary code of '1' when the company has adopted IFRS for SMEs and '0' when the company has not adopted IFRS for SMEs.

### 3.2.2. *Independent variables (i.e. CISP, MISP and NISP)*

Several studies opined that institutional isomorphic pressures to force firms to adopt and implement International Financial Reporting Standards (IFRS) (Arhin et al., 2017; DiMaggio & Powell, 1983, 2000; Judge et al., 2010; Mir & Rahaman, 2005; Pricope, 2016). The institutional isomorphic pressures are coercive isomorphic pressure (CISP), mimetic isomorphic pressure (MISP), and normative isomorphic pressure (NISP).

**3.2.2.1 Coercive isomorphic pressure (CISP).** Coercive isomorphic pressure (CISP) is one of the independent variables used in this study. CISP is the ability of a regulating body enforcing firms to adopt and implement IFRS for SMEs when preparing their annual financial statements (DiMaggio & Powell, 1983; Kossentini & Othman, 2014; Pricope, 2016). Several studies conclude that there is a positive and significant relationship between coercive isomorphic pressure (CISP) and the adoption and implementation of IFRS (Albu & Albu, 2012; Damak-Ayadi et al., 2020; Kossentini & Othman, 2014; Rodrigues & Craig, 2007; Touron, 2005).

**3.2.2.2 Mimetic isomorphic pressure (MISP).** Mimetic isomorphic pressure (MISP) is another independent variable used in this study. MISP is the situation in which the firm imitates successful firms of things they deem successful to become successful (DiMaggio & Powell, 1983; Pricope, 2016). We expect a positive and significant relationship between mimetic isomorphic pressure (MISP) and the adoption and implementation of IFRS (Albu et al., 2011; Judge et al., 2010; Ritsumeikan, 2011).

**3.2.2.3 Normative isomorphic pressure (NISP).** Normative isomorphic pressure (NISP) is another independent variable used in this study. NISP is a collective step taken by the professional Accounting association to influence members on the ways to prepare financial statements in line with the adoption and implementation of IFRS. Earlier studies revealed a mixed and uncertain outcome between normative isomorphic pressure and the adoption and implementation of IFRS for SMEs. Some studies revealed an insignificant relationship between normative isomorphic pressure and the adoption and implementation of IFRS for SMEs (Damak-Ayadi et al., 2020; Kossentini & Othman, 2014; Pricope, 2016; Sappor et al., 2023).

### 3.3. *Model specification*

The study uses Baron and Kenny's methodology based on multiple regression analysis to assess the indirect effect or the moderating role of environmental factors (ENVI) between the relationship of institutional isomorphism Pressures and IFRS for SMEs. The model specification for this study is a regression model as shown in equation (1):

$$IFRS = \beta_0 + \beta_1 CISP + \beta_2 MISP + \beta_3 NISP + \beta_4 (ENVI * CISP) + \beta_5 (ENVI * MISP) + \beta_6 (ENVI * NISP) + \varepsilon$$

where the dependent variable is IFRS, the independent variables are CISP, MISP, and NISP. The  $\beta_0$  is the constant,  $\beta_1$  and  $\beta_6$  are the unknown parameters to be estimated and the  $\varepsilon$  is the classical error term which is assumed to be independent and identically distributed in this study. The interaction terms (ENVI\*CISP), (ENVI\*MISP), and (ENVI\*NISP) are the interacting terms used to assess the conditional effect of environmental factors between institutional isomorphic pressures and the adoption and implementation of IFRS for SMEs.

### 3.4. *Data collection instrument*

The research instrument employed to collect the primary data for this study is a structured questionnaire. The structured questionnaire restricts the respondents based on the options available and restricts the respondents to select one option. The questionnaire for this study is designed into six main sections: (A) Construct on the respondents' demographic characteristics, (B) construct on coercive isomorphic

pressure (CISP), (C) construct on mimetic isomorphic pressure (MISP), (D) construct on normative isomorphic pressure (NISP), (E) construct on environmental factors (ENVI), and (F) construct on the adoption and implement of IFRS for SMEs. The total number of questionnaire items is 34 which satisfy the minimum recommended requirement by Hair et al. (2006). The questionnaires on the construct were adopted from various sources as shown in Table 2. One of the advantages of using an adopted questionnaire is that it gives assurance to the study and the study can rely on the validity and reliability test from the previous studies to measure the construct for this study.

Apart from the construct on the respondents' demographic characteristics, a five-point Likert scale questionnaire was deployed to collect data from 685 respondents to measure the constructs under this study. There were a total of 10 questions in Section A and it is data on the gender of the respondents, the qualification of the respondents, the age of the respondents, the number of work experience of the respondents, and the position of the respondents. The five-point Likert scale ranges from (1) strongly disagree, (2) disagree, (3) neutral, (4) agree and (5) strongly agree. Throughout the data collection process, the respondents were asked to participate voluntarily and were assured that their information would be kept confidential.

## 4. Results and discussion

This section presents the results of the main aim of this study and follows up the discussion of the results. The section is divided into three main subsections: The demographic characteristics of the respondents, descriptive statistics, Reliability and Correlation analysis for the constructs, and the structural equation modeling (SEM) results.

### 4.1. Demographic characteristics of the respondents

The results were obtained by analyzing the respondents' responses from the 740 questionnaires that were obtained. After the deletion of outliers and erroneous responses, the study obtained 685 usable questionnaires.

These useable questionnaires or observations are far above the recommendation of Pallant (2005) for the principal component analysis for this study. Therefore, the observation of 685 is acceptable and sufficient observation for most scientific research. The detail of the demographic characteristics is presented in Table 3.

Table 3 revealed the outcome for the demographic characteristics of the respondents which include gender, age group, highest level of education, and number of years with the company. Table 3 shows that males represent about 52.55% as against 47.45% represented by females. Even though the majority of the respondents are represented by males, however, it is fairly balanced. This demonstrates that males are more actively involved in economic activities in Ghana than females. Again, the excess male respondents over the female respondents do not affect the validity of the findings. Table 3 shows that 283 respondents hold a Higher National Diploma (HND) qualification and it represents about 41.31% of the respondents. Again, about 286 of the respondents hold a Bachelor's degree, which represents about 41.75%. Furthermore, about 86 respondents hold a Master's degree, while 30 of the total respondents hold professional qualifications. It is worth noting that the respondents were highly educated with 95.62% holding academic qualifications and only 4.38% holding professional certificates. This therefore suggests that most of the respondents were highly educated and can therefore provide accurate responses that can enhance the quality of this study.

**Table 2.** Adopted research instrument and the scale of measurement.

Sources	Authors	No of Items	Scales
CISP	Perera and Baydoun (2007)	7	5-point Likert scale
MISP	Al-Omari (2010)	5	5-point Likert scale
NISP	Gelb et al. (2008)	5	5-point Likert scale
ENVI	Aboagye-Otchere and Agbeibor (2012)	4	5-point Likert scale
IFRS for SMEs	Cai et al. (2014), Tsilavoutas (2009)	3	5-point Likert scale

Source: Author's Compilation (2023).

**Table 3.** Demographic characteristics of respondents.

Variables		Frequency	Percent	Cumulative percent
Gender	Male	360	52.55	52.55
	Female	325	47.45	100.0
Highest Level of Education	Diploma/HND	283	41.31	41.31
	Bachelor Degree	286	41.75	83.06
	Master Degree	86	12.55	95.61
	Professional	30	4.38	100.007
Age Group	18- 30	20	2.92	2.92
	31- 40	59	8.61	11.53
	41- 50	469	68.41	80.00
	51 and above	137	20.00	100.0
Positions	CEO/Directors	69	10.07	10.07
	General/Op. Managers.	256	37.37	47.45
	Supervisors	125	7.30	65.69
	Accountants	185	28.47	92.70
	Finance Officers	50	16.79	100.00
Number of Work Experience	1-5	25	41.7	41.7
	6-10	20	33.3	75.0
	11-15	10	16.7	91.7
	16 and above	5	8.3	100.0

Source: Modified Field Data (2023).

**Table 4.** Result of descriptive statistical analysis.

Variables	Mean	St. Dev	Min	Max	Skew	Kurtosis	J-B	Prob
CISP	3.763	0.891	3.20	4.40	0.304	1.916	256.03	0.00
MISP	3.668	0.944	3.00	4.60	0.162	1.897	231.44	0.00
NISP	3.446	0.912	3.29	4.29	0.401	2.017	134.38	0.00
ENVI	4.005	0.832	3.00	4.75	0.153	1.943	201.60	0.00
IFRS	3.063	0.699	3.00	5.00	0.176	2.183	104.46	0.00

Source: Researcher's STATA version 16 Compilation.

**Table 3** indicates that 46.57% of the respondents with a frequency of 319 respondents were between the ages of 18 to 30years while 30.66% representing a frequency of 210 respondents were between 30 to 40years. Further, the frequency of 121 respondents representing 17.66% was between the ages of 41 to 50years. Lastly, a minority of 35 respondents representing 5.11% were 51years and above. The age groupings of the respondents suggest that the respondents were highly mature and therefore matured respondents may be highly experienced in life and business affairs (Ghio & Verona, 2018).

## 4.2. Descriptive statistics

Descriptive statistics is a statistical technique used to describe the central tendency of data before inference statistical analysis. It provides insight into the distribution of data around the mean or normality of data. The data is summarized into mean, standard deviation, minimum, maximum, skewness, kurtosis, and Jarque-berra as a precursor to inferential statistical analysis. The means help identify any possible irregularities before inferential statistics, while the standard deviation discloses the dispersion from the mean or the observation. The result from descriptive statistical analysis is presented in **Table 4**. **Table 4** presents the mean, standard deviation, skewness, and kurtosis of the data.

**Table 4** provides information on the mean, standard deviation, minimum, maximum, skewness, and kurtosis of the variables understudy. The second column of **Table 4** indicates the mean values for CISP, MISP, NISP, ENVI, and IFRS were 3.763, 3.668, 3.446, 4.005, and 3.063 respectively, for the ten-year under-study. A mean value greater than 3.5 means the variable or the construct is above the population of 3.5. This indicates that the respondents have agreed to the items of the questionnaire. Therefore, the highest mean is CISP, followed by MISP and the last place of the institutional isomorphic pressures is NISP. The result showed that the mean score for the adoption and implementation of IFRS for SMEs in Ghana (i.e. IFRS) was 3.063 which is lower than 3.5. On a Likert scale, a lower than 3.5 indicates disagreement in response to the question posed. This implies majority have not adopted and implemented IFRS for SMEs. This outcome is consistent with the previous adoption and implementation of IFRS in Ghana (Arhin et al., 2017; Mawutor et al., 2019; Sappor et al., 2023). It is worth to note also that, they recorded



some moderate improvement in the level of adoption and implementation because it excludes the lower ends of the SMEs in Ghana based on the recommendation of Mawutor et al. (2019). Furthermore, it is noted that the highest mean was recorded by ENVI and it indicates the acceptance of the respondents that environmental factors influenced the adoption and implementation of IFRS for SMEs.

The standard deviation measures the spread among the dataset and reveals how close or dispersed the variables are from the means of the dataset. The standard deviation for CISP, MISP, NISP, ENVI, and IFRS were 0.891, 0.944, 0.912, 0.944, 0.832, and 0.699 respectively. A high standard deviation means dispersion from the mean is large, and the variable is volatile. In contrast, a low standard deviation implies the variable cluster around the mean and it is stable. Furthermore, Table 1 provides information on the skewness and Kurtosis of the variables in the dataset. The Information on skewness and kurtosis determines whether the dataset met the normality test assumption (Kline, 2011). The acceptable skewness values should be between  $-2$  and  $+2$ , and the kurtosis should be between  $-7$  and  $+7$  when assessing normality in regression (Byrne, 2010; George & Mallery, 2010). The result shows that CISP, MISP, NISP, ENVI, and IFRS exhibit a positive skewness and are closer to zero. A positive skewness implies that the dataset is positively skewed and that the right tail is longer than the left. Therefore, the skewness for CISP, MISP, NISP, ENVI, and IFRS is approximately symmetrical. The kurtosis for CISP, MISP, NISP, ENVI, and IFRS were 1.916, 1.897, 2.017, 1.943, and 2.183, respectively. Apart from NISP and IFRS that recorded a Kurtosis greater than 1.96, the rest basically around 1.96. There is no universally accepted value for kurtosis but rather it depends on the distribution of the data used for the analysis. Generally, a kurtosis level between  $-2$  and  $+2$  is often considered acceptable to prove a normal univariate distribution (George & Mallery, 2010).

#### 4.3. Correlation analysis of variables

This sub-section of the study employed Pearson correlation analysis to assess whether there are relationships between the variables used in the model. The first step in any regression analysis begins with the generation of a correlation matrix to identify the degree of association between (1) the independent variables and the dependent variable and (2) the degree of association among the independent variables. The result provides insight into the variables or factors that are related to a complex variable (e.g. compliance, achievement, productivity, etc.). The degree of correlation is assessed with the coefficient index ( $r$ ) and the  $p$ -value is used to determine the predictive power and level of significance between the variables, with  $r$  ranging from  $-1$  to  $+1$ .

Table 5 shows the coefficient index ( $r$ ) and  $p$ -values of the variables analyzed. It is worthy of note that there are a positive relationship between institutional isomorphism (i.e. coercive pressure, normative pressure, and mimetic pressure) and IFRS compliance by the SMEs in Ghana. Usually, a cut-off of 0.70 is considered as an ideal level a correlation coefficient greater than 0.70 is considered high and a correlation coefficient lower than 0.70 is considered lower for suitable analysis. A positive relationship between institutional isomorphism pressure and IFRS compliance by the SMEs in Ghana means that when institutional isomorphism increases, the IFRS compliance by the SMEs in Ghana increases and vice versa. Table 5 shows that the correlation between coercive isomorphic pressure (CISP), mimetic isomorphic pressure (MISP), normative isomorphic pressure (NISP), environmental factors (ENVI) and IFRS compliance were ( $r=0.488$ ,  $P<0.000$ ), ( $r=0.442$ ,  $P<0.000$ ), ( $r=0.369$ ,  $P<0.000$ ), and ( $r=0.504$ ,  $P<0.000$ ) respectively. A positive relationship between institutional isomorphic pressures and the adoption of IFRS for SMEs means

**Table 5.** Result from Pearson correlation matrix.

Variables	IFRS	CISP	MISP	NISP	ENVI
IFRS	1.000				
CISP	0.488	1.000			
MISP	0.442	0.595	1.000		
	0.000	0.000	....		
NISP	0.369	0.543	0.491	1.000	
	0.000	0.000	0.000	....	
ENVI	0.504	0.388	0.277	0.304	1.000
	0.000	0.000	0.000	0.000	0.000

Source: Researcher's STATA version 16 Compilation.

an increase in institutional isomorphic pressures is accompanied by an increase in the adoption of IFRS for SMEs in Ghana. Table 5 indicates that all the isomorphic pressures are significantly associated with SMEs' compliance with IFRS in Ghana. The second reason for using Pearson's correlational analysis is to crisscross the relationship between the independent and the control variables to identify traces of multicollinearity problems that may cause a wrong interpretation of the outcomes for this study. Multicollinearity causes the coefficients in regression variance to increase making the model unstable and thus creating difficulty to interpret the coefficients (Keith, 2019; Shrestha, 2020).

#### 4.4. Structural equation modeling results

Structural equation modeling is a technique that incorporates measured variables, and latent constructs and explicitly specifies measurement error. The study adopted and preferred SEM as the main analytical tool because it can estimate the structural relationship between measured variables and latent constructs and secondly, it can estimate the multiple and interrelated dependence in a single analysis. The model is divided into two parts and it is represented as the stages of the analysis: (1) the measurement model and (2) the structural model (it relates the latent variables to one another). A two-step structural equation modeling analysis approach was adopted based on the recommendation of Anderson and Gerbing (1988) and Schreiber et al. (2006) as (1) measurement model and (2) structural model analysis was used to test the hypotheses outlined in this study. The measurement model uses latent variables and clusters of variables to observe variables underlying each construct in the analysis. Again, confirmatory factor analysis (CFA) is used to validate and reduce measurement errors. This validation is done using various fit indices. The SEM result is organized into three sub-sections: (1) the result of the measurement model, (2) the Results of the Pre-SEM fundamental assumptions, and (3) the structural model analysis results.

##### 4.4.1. Factor analysis

The study applied Harmon's one-factor test to examine the existence of potential common method variance bias among the constructs (Chuang & Lin, 2013). To achieve the one-factor test, the study employed exploratory factor analysis as a statistical technique to reduce data to a set of summary variables and to explore the underlying theoretical structure of the phenomena. The exploratory factor analysis (EFA) helped to extract the underlying factors and also to retain items that have high correlations with the variables for SEM analysis. To gather information about the relationship between constructs to reduce redundancy, the Kaiser-Meyer-Olkin (KMO) Sampling Adequacy test, Cumulative Variance Explained (CVE), and Bartlett's test of Sphericity ( $p$ -value) were used. The conventional thresholds for KMO value should be greater than five ( $>0.5$ ), CVE should also be greater than fifty percent ( $>50\%$ ) and Bartlett's test value should be significant at a 5% confidence level. The result from KMO, CVE, and the  $p$ -values from Bartlett's test, that the data or the sample is sufficient for factor analysis. Therefore, Table 6 indicates that the CVE ranged from 61% to 85% which meets the recommended threshold while KMO ranged from 0.61 to 0.87 also meets the recommended threshold. Therefore, all variables met the criteria for Bartlett's Test with all  $p$ -values being significant.

##### 4.4.2. Test of convergent validity (reliability test)

Validity is the precision of the research or the degree to which it has been measured by the researcher (Golafshani, 2003). In quantitative data, validity might be addressed through honesty, depth, richness,

**Table 6.** Summary of results showing factor analysis of the study variables.

Variables	CVE (%)	KMO	Bartlett's Test ( $P$ -value)
Coercive	61.191	.817	0.00
Normative	66.560	.618	0.00
Mimetic	64.352	.614	0.00
ENVI	60.178	.868	0.00
Compliance	85.328	.676	0.00

NB: Acceptable thresholds: CVE=Cumulative Variance Explained,  $> 50\%$ ; KMO=Kaiser-Meyer-Olkin, Minimum value  $>0.6$ , Bartlett's test of Sphericity ( $p$ -value  $< 0.05$ ).

Source: Author's Construct (2021).

and scope of the data achieved. In this study test items were developed to test the conceptual model developed in Figure 2 using STATA-SEM. However, the assessment of the test items was perception-based through a five-point Likert scale with a complex model as well. Therefore, there is a need to evaluate the model based on the reliability analysis test, convergent validity, and discriminant validity of the individual test items designed for this study. The validity of the test items is examined using Cronbach's Alpha ( $\alpha$ ), composite reliability (CR), and Average Variance Explain (AVE) to assess the validity and reliability of the test items or the constructs. Sekaran (2003) specified the various ranges from 0 to 1 of the Cronbach's Alpha ( $\alpha$ ) and their respective interpretations as follows: from 0.90 and above is interpreted as excellent instrument, from 0.80 to 0.89 is interpreted as good instrument, and from 0.70 to 0.79 is interpreted as acceptable instrument, from 0.60 to 0.69 is interpreted as questionable instrument, from 0.50 to 0.59 is interpreted as poor instrument and from 0.50 and below is interpreted as unacceptable instrument. To test for the reliability of the instrument, the returned questionnaire was fed into the statistical software (STATA version 15) to calculate Cronbach's Alpha ( $\alpha$ ), composite reliability (CR) and the Average Variance Extracted (AVE) results are presented in Table 7.

The results in Table 7 indicate that the Cronbach's alpha ( $\alpha$ ) values for the test items are greater than 0.700 and it provides a clear indication that the test items have good reliability and are acceptable (Nunnally, 1970). The lowest Cronbach's alpha value among the test items is normative isomorphic pressure (NISP) with Cronbach's alpha ( $\alpha$ ) value above 0.705 which is above 0.700. Likewise, the constructs had composite reliability (CR) values ranging from 0.782 to 0.896, and the values obtained were greater than the recommended value. The results depict that all the constructs have also demonstrated sufficient composite reliability according to the acceptable threshold by Nunnally (1970). Therefore, all the reliability values obtained for the test items are acceptable and the makeup of the components as a whole was internally consistent (Creswell, 2012; Kline, 2011). The Average Variance Explain (AVE) calculates the level of variance captured by one construct versus the level explained due to measurement errors and was also used to ascertain the data. The AVE calculates the grand mean value of the squared loadings of the indicators and it is the amount of variance that is captured by the construct concerning the amount of variance due to measurement error (Hair et al., 2014). In summary, Table 7 shows that the composite reliability (CR) measure is greater than 0.700 while the average variance explained (AVE) is above 0.50 and it follows the Fornell and Larcker (1981) recommendation. Therefore, the constructs or the test items were valid and trustworthy to assess the adoption and implementation of IFRS for SMEs in Ghana.

#### 4.4.3. Discriminant validity analysis

Discriminant validity is used to differentiate one construct from another construct in the model. The assessment of the discriminant validity is of utmost importance in statistical research that involves latent variables representing the construct. The discriminant validity for this study is assessed using the Fornell-Larcker and Heterotrait-Monotrait ratio (HTMT) criterion. The discriminant validity helps to ensure

**Table 7.** Reliability and validity analyses of study variables.

Variables	Test items	Final items	Alpha ( $\alpha$ )	CR	AVE
CISP	Coerc1	0.974	0.723	0.896	0.685
	Coerc2	0.787			
	Coerc4	0.763			
	Coerc5	0.768			
MISP	Mimetic1	0.801	0.741	0.815	0.595
	Mimetic2	0.723			
	Mimetic4	0.787			
NISP	Norm1	0.708	0.705	0.784	0.548
	Norm3	0.786			
	Norm4	0.724			
ENVI	Env1	0.868	0.769	0.890	0.730
	Env2	0.882			
	Env4	0.811			
IFRS	Comp1	0.768	0.723	0.782	0.643
	Comp2	0.834			

Note:  $\alpha$  = Cronbach's Alpha, CR=Composite Reliability, ACE=Average Variance Explained.

Source: Modified Field Data (2023).

that the same reason cannot account for the variance among different variables. The Fornell-Larcker criterion is a statistical technique used in structural equation modeling to assess the discriminant validity of the measurement model. It compares the square root of the Average Variance Explain (AVE) with the correlation of the latent construct (Hair et al., 2014). Discriminant validity is confirmed to be in existence when the square root of the AVE of the construct is greater than the correlation between one construct and another construct (Fornell & Larcker, 1981; Hair et al., 2010). The outcome from the Fornell-Larcker discriminant validity analysis is presented in Table 8.

Table 8 shows the diagonal of the matrix of the correlation matrix for each construct and the absolute value of their correlation is lower than the square root of the AVE for each construct in all the respective rows and columns for each construct.

This signifies that there is sufficient discriminant validity for each construct for this study. Therefore, all the constructs have demonstrated good discriminant validity and the contextual performance of the test items or the constructs is proven to be discriminately valid. The Heterotrait-Monotrait (HTMT) ratio has become the alternative measure to Fornell-Larcker postulated by Henseler et al. (2015) for assessing the discriminant validity of the construct. The HTMT ratio of correlation is usually used to assess the discriminant validity of the construct. The HTMT ratio measures the similarity between the latent variables and when the HTMT is smaller than one then discriminant validity is considered robust or well specified.

#### 4.4.4. Measurement model: confirmatory factor analysis

The measurement model is also known as path analysis. A path analysis is a set of relationships between the dependent and independent variables. The study used maximum likelihood (ML) estimation to fit the model to the data, which assumes that data is normally distributed in multivariate analysis. To ensure there is a smooth analysis of the structural relationship, the study created factorial scores from the construct by converting the multidimensional constructs to uni-dimensional. This was done to form interactive terms for the moderating analysis. The most acceptable and widely used model fit indices are Chi-square to the degree of freedom (CMIN/df), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Normed Fit Index (NFI), Pclose is the p-value for rejecting the null hypothesis that the model fits the individual subject data, Standardized Root Mean-Squared Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). Hu and Bentler (1999) suggest that a study should use a combination of at least two fit indices. Table 9 shows the results of fit indices for the structural model.

Table 9 provides information on the fit indices, their cut-off criteria (rule of thumb), and the subsequent results of the study model. The Comparative Fit Index (CFI) is equal to the discrepancy function

**Table 8.** Result of Fornell-Larcker discriminant validity analysis.

Variables	CISP	MISP	NISP	ENVI	IFRS
CISP	<b>0.712</b>				
MISP	0.647	<b>0.702</b>			
NISP	0.433	0.477	<b>0.723</b>		
ENVI	0.399	0.406	0.465	<b>0.821</b>	
IFRS	0.338	0.491	0.342	0.318	<b>0.739</b>

Source: Researcher's STATA version 16 compilation.

**Table 9.** Result of measurement model (confirmatory factor analysis).

Fit indices	Cut-off point	Initial measurement model	Modified measurement model	Interpretation
CMIN/DF	≤3.00	2.622	2.481	Excellent
G.F.I	≥0.95	0.806	0.911	Acceptable
C.F.I	≥0.95	0.879	0.914	Acceptable
Pclose	≥0.05	0.038	0.060	Excellent
SRMR	≤0.08	0.022	0.057	Excellent
TLI	≥0.95	0.895	0.913	Acceptable
IFI	≥0.95	0.847	0.867	Acceptable
RMSEA	≤0.06	1.423	0.053	Acceptable

Threshold Sources: Hu and Bentler (1999), and Gaskin and Lim (2016).

adjusted for sample size. The acceptable CFI should range between 0 and 1 with a larger value indicating better model fit. Acceptable model fit is indicated by a CFI value of 0.90 or greater (Hu & Bentler, 1999). The root Mean Square Error of Approximation (RMSEA) is related to the residual in the model. RMSEA and the value should range between 0 and 1 with a smaller RMSEA value indicating better model fit. Acceptable model fit is indicated by an RMSEA value of 0.06 or less (Hu & Bentler, 1999). A preliminary measurement of fit indices showed that: the chi-square ( $\chi^2=317.504$ , degree of freedom (DF) = 128,  $P<0.000$ ) was significant; CMIN/DF = 2.622; Goodness-Fit-Index [GFI]=0.806, Comparative Fit Index [CFI]=0.900, root mean square error of approximation [RMSEA]=1.423. A cursory look at some of the model's fit indices (e.g. GFI, AGFI, IFI) does not seem to be sufficiently optimized for data and therefore some re-specifications and refining are necessary (Anderson & Gerbing, 1988; Byrne, 2010). The revised model of measurement was then analyzed without the problem items being included. The yielded fit indices showed an acceptable increase in the fitness of the updated measurement model; all fit indices were found this time within their recommended level such as CMIN/DF was 2.481, GFI = 0.911, AGFI = 0.818, IFI = 0.867, CFI = 0.914 and RMSEA = 0.057 as in Table 2. The Chi-square to the degree of freedom (CMIN/DF) of 2.481 of the measurement model is a good value within the threshold of 3 as recommended by Hu and Bentler (1999). It showed there is the goodness of fit and adequate quality on all the commonly used fit indices (Hair et al., 2010; Hoyle, 1995; Hu & Bentler, 1999; Kline, 2011). The RMSEA was 0.053 and it satisfies the recommended cutoff point ( $<0.06$ ), suggested by Hu and Bentler (1999) and Hair et al. (2010). Additionally, the structural results strongly support the conceptual model developed in Figure 2. This, therefore, suggests that the model adequately represents the data and the model quality is acceptable.

#### 4.4.5. Results of the Pre-SEM fundamental assumptions

It is very important in the case of parametric statistical analysis to check the regression assumptions before the regression analysis because the data to be used for the analysis is taken from a sample population and at the same time the result obtained from the analysis would be inferred to the larger population. This will allow the study to check the presence of multicollinearity, linearity, normality, homoscedasticity, and autocorrelation assumptions are violated. The first assumption tested is the multicollinearity assumption and the result is presented in Table 10.

Table 10 shows that the Variance Inflation Factor (VIF) values for the variables are lower than 10 and this provides a clear indication that the variables are not suffering from multicollinearity problems. The highest VIF among the variables is the intention to internalize which has a value of 2.674 with a tolerance value above 0.374. This indicates that none of the variables violate the multiple regression assumptions of the model. A multicollinearity problem arises when there is a correlation between two independent and control variables in the regression analysis. Multicollinearity is redundant information in the model that needs to be eliminated. Otherwise, it will cause an unstable estimation of the regression coefficient for the study. The second regression assumption tested was the linearity assumption. Linearity means the correlation between variables used for the analysis should be represented by a straight line. It means the slope of the regression function is constant and it expresses the relationship between the dependent and independent variables in a linear form. According to Hair et al. (2010), linearity is a multivariate technique that is based on co-relational measures of association, including factor analysis and multiple regressions. The linearity assumption is tested using a scatter plot. The scatter plot is used to assess linearity by examining visually the pattern of the data points on the plot. Any departure of linearity may affect the correlation of variables forming the relationship therefore, the linearity

**Table 10.** Variance Inflation Factor (VIF) Index and the Tolerance Level (TL) Index.

Variables	Tolerance level (i.e. 1/VIF)	VIF level
IFRS	0.374	2.674
CISP	0.447	2.237
MISP	0.386	2.591
NISP	0.434	2.304
ENVI	0.472	2.119
Mean VIF		2.385

Source: Researcher's STATA version 16 compilation.

assumption is very important to test the variables to ensure linearity assumption is not violated. The result of the test showed that all the variables are linear with each other.

The third regression assumption tested in this study was the normality assumption. The assumption of normality of data is tested because ML estimation assumes data is normally distributed with a reasonable sample size. Therefore, it is important to test assumptions to ensure it is not violated. The null hypothesis of the Shapiro-Wilk test or Kolmogorov-Smirnov is used to test whether the population of the sample data is normally distributed otherwise data is not. The result for testing whether the data is normally distributed is presented in Table 11.

Table 11 shows that the p-value is 0.143 for the Shapiro-Wilk and greater than a 5% level of significance (i.e.  $p > 0.05$ ). Since the p-value is greater than 5% in the Shapiro-Wilk, it means that the data has not deviated significantly from the normal distribution and therefore, the study can assume that the data is normally distributed.

The final regression assumption tested in this study was the homoscedasticity assumption. The homoscedasticity indicates that the error variance does not substantially change with the values of the predictors (Hair et al., 2010). Homoscedasticity is also known as homogeneity and it is usually tested by Levene's test of homogeneity of variance (Tabachnick & Fidell, 2007). Levene's test of homogeneity uses the *F*-test to test the null hypothesis that the variance is equal across the group and that the homoscedasticity assumption is violated. The decision rule for Levene's test is for the p-value to be lower than 5% to assume the variances are significantly different or the group sizes are unequal. The Levene test of the metric variables was tested across the variables as part of the t-test and presented in Table 11.

Table 12 shows the p-values are higher than 5% and therefore reject the null hypothesis that assumes the variances are significantly different or the group sizes are unequal. When this assumption is violated, the *F*-statistics value will be biased and a large sample size mean will be associated with a small sample size and vice versa. When this happens, the significance level will be underestimated and can cause the null hypothesis to be falsely rejected. The p-values for these variables are higher than 0.05 or 5% and the best homogeneity of variance for these variables is MISp followed by ENVI. This is because they have the smallest Levene's statistics of 1.256 and 1.566 respectively.

#### 4.5. Results of the structural model analysis

This subsection assesses the direct effect of isomorphic pressures (i.e. coercive pressure, normative pressure, and mimetic pressure) and compliance of SMEs to IFRS and the indirect effect of environmental factors (ENVI) between isomorphic pressures (i.e. coercive pressure, normative pressure, and mimetic pressure) and compliance of SMEs to IFRS. The path analysis is used to produce the ML estimation to produce the direct and indirect results in this study. The model predictive power and the path constructs are used to assess the effect of the independent constructs on the dependent constructs respectively.

**Table 11.** Tests of normality distribution.

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig	Statistic	Df	Sig
CISP	0.234	740	0.143	0.845	740	0.345
MISP	0.229	740	0.197	0.891	740	0.423
NISP	0.263	740	0.367	0.770	740	0.541
ENVI	0.213	740	0.233	0.816	740	0.373
IFRS	0.202	740	0.206	0.816	740	0.223

Source: Researcher's STATA version 16 compilation.

**Table 12.** Test of homogeneity of variance (Levene's Test).

Variables	Levene statistics	df1	df2	Sig
IFRS	2.435	2	685	0.247
CISP	2.283	2	685	0.189
MISP	1.256	2	685	0.143
NISP	1.648	2	685	0.236
ENVI	1.566	2	685	0.113

Source: Researcher's STATA version 16 compilation.



The model predictive power is assessed by the R-squared measures within the measurement model as well as the structural model level. Each hypothesis is tested basis of the size, sign, and statistical significance of the coefficient of the latent variable and the dependent variable. The result from the direct analysis is presented as a baseline result in model (1) while the result from the indirect analysis is presented as in model (2) to (4). The analyses were carried out in two steps to select the most suitable independent variables for the model. Again, the control variables involving size and growth are used in all the analyses.

Table 13 presents the estimated coefficients ( $\beta$ ) and the standard errors (in parenthesis) along with the significance levels (p-values) of the coefficients to aid the explanation of the direction and effect on the dependent variable. Model (1) shows the coefficient and the p-value for the Institutional Isomorphic Pressure (CISP, MISP, and NISP) variables and the moderating variables (ENVI) without the interacting terms on the adoption of IFRS for SMEs. Model (1) shows the coefficient values and the p-values for the paths ending to IFRS for SMEs for the coercive pressure was ( $\beta=0.417$ ,  $p<0.05$ ). This implies there is a positive and significant relationship between coercive isomorphic pressure and IFRS for SMEs at a 5% significance level. Therefore, based on the result in Table 13 and the explanations thereof, the study failed to reject the null hypothesis (H01) and concludes that coercive isomorphic pressure affects the adoption of IFRS for SMEs significantly. It implies that all things being equal, a 1% increase in coercive isomorphic pressure increases the adoption of IFRS for SMEs in Ghana by 41.7%. This finding is consistent with previous studies that opined that coercive isomorphic pressure and IFRS compliance (Damak-Ayadi et al., 2020; Kossentini & Othman, 2014) carried out studies on the coercive isomorphic pressure and the adoption of IFRS and concluded that coercive isomorphic pressure is a powerful legal system that SMEs must comply with to secure structural and procedural legitimacy. Again, the coefficient values and the p-values for the paths ending to IFRS for SMEs for the mimetic pressure in Model (1) was ( $\beta=0.279$ ,  $p=0.004$ ). This implies there is a positive and significant relationship between mimetic isomorphic pressure and IFRS for SMEs at a 5% significance level. Therefore, based on the result in Table 13 and the explanations thereof, the study failed to reject the null hypothesis (H02) and concludes that mimetic isomorphic pressure affects the adoption of IFRS for SMEs significantly. It implies that all things being equal, a 1% increase in mimetic isomorphic pressure increases the adoption of IFRS for SMEs in Ghana by 27.9%. This finding is consistent with previous studies conducted by Judge et al. (2010), Kossentini and Othman (2014), Ritsumeikan (2011), Pricope (2016), and Sellami and Gafsi (2018) opined that many companies adopt and implement IFRS due to the pressure to imitate successful organizations that have implemented IFRS. These studies concluded that mimetic isomorphic pressures affect the adoption of IFRS. Therefore, mimetic isomorphic pressure is one of the powerful forces driving SMEs to adopt and implement IFRS for SMEs in Ghana.

**Table 13.** Direct and indirect structural equation modeling results.

Dependent variable: IFRS		Direct analysis		Indirect analysis	
Hypotheses	Regression Path	Model 1	Model 2	Model 3	Model 4
H01	IFRS $\leftarrow$ CISP	0.417*** (0.009)	0.492*** (0.060)	0.488 (0.085)	0.353*** (0.098)
H02	IFRS $\leftarrow$ MISP	0.279*** (0.037)	0.221*** (0.025)	0.218*** (0.031)	0.269*** (0.080)
H03	IFRS $\leftarrow$ NISP	0.249* (0.087)	0.464** (0.146)	0.456 *** (0.153)	0.183*** (0.080)
	IFRS $\leftarrow$ MISP	0.198** (0.089)	0.101** (0.0307)	0.098** (0.031)	0.144** (0.044)
H04	IFRS $\leftarrow$ (CISP*ENVI)		0.020*** (0.067)		
H05	IFRS $\leftarrow$ (MISP*ENVI)			0.024** (0.007)	
H06	IFRS $\leftarrow$ (NISP*ENVI)				0.031** (0.009)
(Constant)		0.124** -0.199	0.572** -0.099	0.331** -0.099	0.065*** -0.024
	R-squared (R <sup>2</sup> )	0.661	0.891	0.764	0.868
	F	247.29	571.76	242.41	493.385
	P-value	0.000	0.000	0.000	0.000
	D-Watson	2.057	2.101	1.999	2.002

Source: Researcher's STATA version 16 compilation.

Additionally, the coefficient value and the p-value for the path ending to IFRS for SMEs for the normative pressure in Model (1) was ( $\beta=0.249$ ,  $p=0.374$ ). This implies there is a positive but insignificant relationship between normative isomorphic pressure and IFRS for SMEs in Ghana. Therefore, based on the result in Table 13 and the explanations thereof, the study rejects the null hypothesis (H03) and concludes that normative isomorphic pressure does not significantly affect the adoption of IFRS for SMEs. This outcome is consistent with previous studies (Damak-Ayadi et al., 2020; Kossentini & Othman, 2014; Pricope, 2016; Sappor et al., 2023) who concluded that there was an insignificant relationship between normative isomorphic pressure and the adoption of IFRS for SMEs. Furthermore, Pricope (2016) concluded that normative pressure is not a significant determinant of IFRS adoption in developing countries. Finally, the coefficient values for the path starting from environmental factors and ending with the adoption of IFRS for SMEs in the model (1) was ( $\beta=0.198$ ,  $p=0.000$ ). This implies there is a positive and significant relationship between environmental factors and the adoption of IFRS for SMEs in Ghana. This implies that environmental factor is significantly related to the adoption of IFRS for SMEs in Ghana. The environmental factor is used in model (1) as a control variable. The predictive power that is R-squared of the model (1) is 0.661 or 66.1% and it is within the acceptable level and closer to 100%. It implies that the independent constructs of the model can explain about 66.1% of the changes that are happening for the IFRS for SMEs for this study. This leaves 33.9% unexplained by the regressive model. Therefore, the null hypotheses: H01 and H02 under the direct analyses were supported while the null hypothesis H03 is not supported at the significance level of 5%.

The next stage of the analysis is to perform the indirect analysis by introducing the interactive terms (ENVI\*CISP), (ENVI\*MISP), and (ENVI\*NISP) into Model (1) to become Model (2), Model (3), and Model (4) and then assess the indirect effect of the interacting terms between the institutional isomorphic pressures and the adoption of IFRS for SMEs in Ghana. It is worth noting that the result from the indirect analysis in model (2) through model (4) showed a significant improvement in model fitness through significant changes in the R-squared from 66.1% to 89.1% in the model summary from (1) to (4). Again, the coefficient values and p-value between the interactive terms (ENVI\*MISP) and the adoption of IFRS for SMEs in the model (3) was ( $\beta=0.198$ ,  $p=0.000$ ). Therefore, environmental factors comprising the size, sector, legal form, number of owners, and intention to internationalize moderate or strengthen the relationship between institutional isomorphic pressures and the adoption of IFRS for SMEs in Ghana. This outcome is consistent with previous studies (Sappor et al., 2023; Aboagye-Otchere and Agbeibor (2012). Aboagye-Otchere and Agbeibor (2012) conclude that environmental factor affects the adoption of IFRS for SMEs. Finally, the coefficient values and the p-values for the moderating term (ENVI\*NISP) paths ending in IFRS for SMEs was ( $\beta=0.031$ ,  $p<0.000$ ) under model (4). The result from the model (4) indicates that environmental factor (ENVI) moderates the relationship between normative isomorphic pressure and the adoption of IFRS for SMEs in Ghana since the p-value is less than 0.05 or 5% significance. Therefore, environmental factors significantly moderate the relationship between normative isomorphic pressure and the adoption of IFRS for SMEs in Ghana. Again, the study observed that with the inclusion of the interaction term (i.e. ENVI\*NISP) in the model (4), the coefficient and the p-value of the normative isomorphic pressure has moved from an insignificant relationship with the adoption of IFRS for SMEs to a significant relationship with the adoption of IFRS for SMEs in Ghana. Therefore, environmental factors comprising the size, sector, legal form, number of owners, and intention to internationalize moderate or strengthen the relationship between institutional isomorphic pressures and the adoption of IFRS for SMEs in Ghana. Furthermore, the study observed a significant improvement in model fitness particularly for model (2) where the R-squared was 89.1%. The coefficient values and the p-values for the moderating term (ENVI\*CISP) paths ending in IFRS for SMEs were ( $\beta=0.020$ ,  $p<0.000$ ) under model (2). This outcome suggests that with the inclusion of the interaction terms (ENVI\*CISP), (ENVI\*MISP), and (ENVI\*NISP) in the model (2), model (3), and model (4) have seen significant improvement in the coefficients, the p-values and predictive powers (R-squares) of the indirect analysis.

This outcome contributes to intuitional theory by explaining that institutional isomorphic pressures can interact with environmental factor to influence the adoption of IFRS for SMEs in Ghana. Most of the studies concluded there is a relationship between institutional isomorphic pressures and the adoption of

IFRS for SMEs. However, this study extends the conclusion that the interplay of environmental factors as a moderating variable enhanced the relationship. Therefore, the null hypotheses: H01, H02, H04, H05, and H06 under the direct analyses were supported while the null hypothesis H03 is not supported at the significance level of 5%.

## 5. Conclusions and recommendations

The paper assesses the direct relationship between coercive isomorphic pressure, mimetic isomorphic pressure, normative isomorphic pressure, and the adoption of IFRS for SMEs and the moderating effect of environmental factors comprising the size, sector, legal form, number of owners, and intention to internationalize. The result showed that there were positive and significant relationships between coercive isomorphic pressure, mimetic isomorphic pressure, and the adoption of IFRS for SMEs in Ghana, while there was insignificant relationship between normative isomorphic pressure and the adoption of IFRS for SMEs. However, when the interactive terms (ENVI\*CISP), (ENVI\*MISP), and (ENVI\*NISP) we observed a positive and significant relationship between all the variables of institutional isomorphic pressures and the adoption of IFRS for SMEs in Ghana. Again, the study observed a significant improvement in model fitness after the introduction of the interactive terms into the direct regression model. This outcome confirmed that institutional theory can co-exist with environmental factor to pressurize SMEs to adopt IFRS for SMEs in Ghana.

These findings have significant implications for structuring the adoption of IFRS for SMEs in Ghana. For instance, the study found that coercive and mimetic isomorphic pressures contribute more to the decision of SMEs to adopt and implement IFRS for SMEs. Considering the importance of SMEs adoption and implementation of IFRS for SMEs, emphasis must be placed on these drivers to get more SMEs to implement IFRS for SMEs in Ghana. Secondly, the study found normative isomorphic pressure is insignificantly related to the adoption of IFRS for SMEs. This revelation requires that the Accountants of the SMEs should be encouraged to belong to professional accountant bodies. The study recommends that the government through the Ministry of Trade and Industry (MoTI) to collaborate with the regulator (ICAG) to give financial accounting education to the SME owners and accounts personnel of SMEs who lack or requisite skills to adopt and implement IFRS for SMEs in Ghana. Secondly, the government through MoTI should create a special window for accounts personnel of SMEs who are not professional accountants to become members of ICAG and be given incentives considering the importance that quality of financial reports serves to investors both locally and internationally. There are two main limitations to this study. The primary limitation of this study is that the research instrument is a structured closed-ended questionnaire and inherently designed to gather specific and quantifiable information. This may limit the respondents to predetermined response options and may not provide in-depth information that may support the study. The second limitation is that the study only looks at moderating analysis without looking at mediating analysis to assess the interaction between a firm's characteristics and the adoption of IFRS for SMEs. Lastly,

With this novel outcome, researchers can now embark on identifying various factors that enhance or strain institutional isomorphic pressures to adopt IFRS for SMEs. In seeking to understand how various factors (i.e. firm characteristics) can co-exist with institutional isomorphic pressures to influence the adoption of IFRS for SMEs. Future research should assess the role of a firm's characteristics as a moderating variable to influence the adoption of IFRS for SMEs. Again, future research should assess the role of mediating variables in influencing the adoption of IFRS for SMEs.

## Author contributions statement

- i. Conception and design: P. Muda & K. Tornyeva.
- ii. Analysis and interpretation: P. Muda, K. Tornyeva & J. MacCarthy.
- iii. Drafting of paper: P. Muda, & K. Tornyeva.
- iv. Revising it critically for intellectual content: P. Muda, K. Tornyeva, & J. MacCarthy.
- v. Final approval of the version to be published: J. MacCarthy & K. Tornyeva.
- vi. All authors agree to be accountable for all aspects of the work.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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## Availability of data and material

Separate data availability upon request.

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