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Global modern slavery and sustainable development goals: Does institutional environment quality matter?

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Abstract

Modern slavery is a persistent human tragedy and a growing organisational risk. The United Nations' sustainable development goals highlight the significance of governments in shaping firms' sustainability agenda and combating modern slavery. However, little is known about the effects of the institutional environment on modern slavery risk. This study, therefore, investigates the crucial policy question of whether the quality of the institutional environment has any effect on modern slavery and whether sustainable human development reinforces this relationship. Using data from 167 countries, we find that institutional environment quality is negatively associated with the prevalence of and vulnerability to modern slavery and positively associated with its modern slavery risk mitigation. Our results suggest that democratically elected governments operating in politically stable societies with higher quality of voice and accountability, higher levels of control of corruption, and stricter rule of law are more accountable and responsive to modern slavery risks. We also find that sustainable human development (HDI) has a moderating effect on the relationship between institutional environment quality and modern slavery, and this effect is mainly noticeable in low HDI countries. These results imply that governance reforms alone might not yield the desired effects for all countries and, hence, have significant implications for policymakers, companies, and societal stakeholders.

KEYWORDS

institutional environment quality, institutional theory, modern slavery risk, stakeholders, sustainable development goals, sustainable human development

1 | INTRODUCTION

The COVID-19 pandemic has increased the existing economic and social inequalities and posed greater risks to those already enslaved and those vulnerable to slavery (Lucas & Landman, 2021; Trautrims et al., 2020). Although slavery was abolished decades ago, it is widespread worldwide in different forms known as modern slavery. Tempted by higher income and better living standards, victims are attracted to wealthy countries to be exploited mainly in the informal economy. In poorer countries, victims are usually exploited as a cheap source of labour or working in inhuman conditions as part of the supply chains of multinational corporations. Although there is no one definition of the phenomenon, modern slavery involves the illegal exploitation of people for personal or commercial gain and is considered a form of human rights violation (Smith & Johns, 2020).

As corporations play a substantial role in the world economy, their role in modern slavery has been examined in many studies from different perspectives, including corporate disclosure and compliance with

national acts (e.g., Christ et al., 2019; Flynn & Walker, 2020; Grolleau et al., 2019; Mcgregor & Smit, 2018; Monciardini et al., 2021; Rogerson et al., 2020; Stevenson & Cole, 2018; Wray-Bliss & Michelson, 2021), reasons of existence and challenges in global supply chains (e.g., Gold et al., 2015; Stringer & Michailova, 2018), and impact on stock returns (e.g., Cousins et al., 2020). Other studies examine modern slavery in the public sector (e.g., Martin-Ortega, 2018), take a historical perspective (e.g., Smith & Johns, 2020), and provide a review of the literature across different disciplines (e.g., Caruana et al., 2021). However, less attention has been paid to institutional pressures where fewer studies examined modern slavery at the country-level, such as its determinants (Hernandez & Rudolph, 2015), the role of corruption (Rauscher & Willert, 2020), and its link to globalisation (Landman & Silverman, 2019).

In its efforts to promote sustainable global social, economic and environmental development, the United Nations (UN) has issued 17 sustainable development goals (SDGs) as guidance for governments (Mio et al., 2020). Recent studies have examined the business implications of the UN's SDGs (e.g., García-Sánchez et al., 2020; Gerged et al., 2018; Grolleau et al., 2019; Miralles-Quirós et al., 2019; Moussa et al., 2021; Pizzi et al., 2021; Roberts et al., 2021; Warmate et al., 2021). Although the SDGs explicitly highlight the significance of governments in shaping firms' sustainability agenda and combating modern slavery, there is a lack of research on the association between modern slavery risk and the institutional environment quality (IEQ), which indicates the role of governments. Specifically, Target 8.7 of the UN's SDGs states that countries need to take "immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, …" by 2030 (United Nations Development Programme [UNDP], 2015). Accordingly, more attention is needed to probe the phenomenon and its determinants at the country-level. In addition, to fulfil their duties and be effective in fighting modern slavery, business organisations need to be aware of country-level determinants and levels of modern slavery to guide their policies, risk management, and due diligence processes and direct their training efforts. It is essential for businesses to be familiar with the level of governments' response to tackle modern slavery in the countries they operate or that form parts of their supply chains.

Given that modern slavery crosses with most of the 17 SDGs, this study provides novel worldwide evidence on the effects of institutional pressures on the risk of modern slavery. Specifically, we examine how IEQ addresses modern slavery risks. IEQ is commonly proxied by the World Bank's Worldwide Governance Indicators, which reflects "the traditions and institutions by which authority in a country is exercised" (Kaufmann et al., 2011, p. 222), and consists of six indicators: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption (Kaufmann et al., 2011). In addition, previous studies suggest a mutually reinforcing relationship between IEQ and sustainable human development and that the role of public governance may be more effective in countries with low Human Development Index (HDI) levels (Nandha & Smyth, 2013). We argue that sustainable human development can play a significant role in the combat against modern slavery. Therefore, the current study seeks to explore how HDI may have a moderating influence on the relationship between IEQ and modern slavery risk.

Overall, our results suggest that IEQ is significantly and negatively associated with a country's prevalence of and vulnerability to modern slavery, and significantly positively associated with its modern slavery risk mitigation. These results suggest that countries with stronger institutions, higher levels of democracy and regulatory quality, more press freedom, and higher levels of control of corruption are more accountable and responsive to modern slavery risks. Our results also indicate that sustainable human development plays a moderating role in the relationship between IEQ and modern slavery. Additional analyses shed light on the impact of another component of the institutional context (i.e., the income level of countries) on addressing modern slavery. The results suggest a more prominent role for IEQ in low-income countries in the fight against modern slavery. Thus, they provide further evidence to global organisations and developed countries to focus their efforts on enhancing the national governance quality in less developed countries.

This study contributes to the existing literature in several ways, as there is a need for more studies on modern slavery, particularly quantitative studies. First, to the best of our knowledge, this is the first study to examine the influence of IEQ on the risk of modern slavery and thus responds to the calls of the UN SDGs to end modern slavery. Second, our study contributes to the growing body of governance literature on the impact of governance on macro-social-level phenomena (e.g., Jindra & Vaz, 2019). Our results suggest that IEQ conveys additional monitoring and accountability requirements on society, including businesses as a key player, and thus encourage them to manage modern slavery risks. Third, our findings add to the literature on the link between IEQ and sustainable human development on one side and the UN's SDG Target 8.7 on the other side. Fourth, as most of the literature on modern slavery is published outside management studies (Smith & Johns, 2020), our study contributes to the efforts within the management domain in response to Cooke's (2003, p. 1895) comment that there is a "denial of slavery in management studies." Finally, on the theoretical side, our findings suggest that formal coercive institutional pressures have a significant and negative impact on modern slavery risk and thus lend support to the legitimisation aspect of the institutional theory.

The remainder of this paper is organised as follows. Section 2 outlines the theoretical framework and develops research hypotheses; it is followed by research methodology in Section 3, and empirical results, and discussion in Section 4. The final section provides our conclusion and a discussion of the research limitations and suggests directions for future research.

2 | THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The 13th Amendment of the US Constitution, "Abolition of Slavery," of 1865 was one of the earliest movements in modern history to

prohibit slavery, stating that "[n]either slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction" (National Archives, 2021). Regardless of its abolition and being condemned as unethical behaviour, modern slavery still exists as a management practice (Crane, 2013), particularly in the global supply chains (Trautrims et al., 2020). Recent studies suggest that 47% of countries have no laws that criminalise slavery (Landman, 2020; Schwarz & Allain, 2020).

There is a consensus among scholars that there is no one definition of modern slavery (e.g., Crane, 2013; Smith & Johns, 2020), and this is probably related to the fact that there is no general agreement on what constitutes slavery (Crane, 2013). Also, this is partially due to the historical development of slavery as it "transformed from an officially approved practice based on legal title and ethnic distinction to one that has been criminalized and relocated to the informal economy" (Crane, 2013, p. 50). In addition, studies with a historical perspective focused on the cultural and legal aspects of slavery when defining the phenomenon (Bales, 2005). An early definition of slavery was provided by the Geneva 1926 Slavery Convention, which defined slavery as "the status or condition of a person over whom any or all of the powers attaching to the right of ownership are exercised" (League of Nations, 1926). The shift from the focus on "legal titles" to "exercise of power" in this definition is argued to be the basis of current definitions of modern slavery (Allain, 2009), as legal titles are almost non-existent in the modern forms of slavery (Crane, 2013).

Consistent with the UN SDG Target 8.7, modern slavery can be seen as the illegal exploitation of people for personal or commercial gain and is usually considered as a form of human rights violation with severe consequences for its survivors (UNDP, 2015). It is argued that the term "modern slavery" started to be widely used in the literature to describe the different forms of unfree labour around the year 2007 (Smith & Johns, 2020). More recently, it has started to be used in states legislations. In response to increasing global pressures, some countries started to legislate against modern slavery risk, for example, the California Transparency in Supply Chains Act 2012, the UK Modern Slavery Act 2015, and Australia's Modern Slavery Act 2018.

2.1 | Institutional theory

The "institution" concept "generally refers to accepted socio-economic beliefs, norms, and practices associated with different aspects of society, such as education, law, politics, religion, and work" (Ntim & Soobaroyen, 2013, p. 469). Institutions can be formal, in the shape of laws and regulations, or informal, such as the norms and traditions within a society. From an institutional theory perspective, all parties within a society seek legitimacy (North, 1990), that is, operating within the boundaries of a society's norms and common beliefs. Institutional pressures "converge to create isomorphism, or similarity of structure, thought, and action, within institutional environments" (Judge et al., 2008, p. 768). DiMaggio and Powell (1983) differentiate between three different types of institutional pressures: coercive (e.g., laws and regulations), mimetic (e.g., copying the behaviour of other entities or individuals), and normative (e.g., best practices agreed on by experts). Scott's (1995) overview of the theory highlights three levels: global institutions, where concepts are formally proposed and informally enacted (Judge et al., 2008); governance structures, such as countries or organisations; and actors, which are made of individuals and groups.

Flynn and Walker (2020, p. 296) advocate that studying modern slavery in an institutional theory context is suitable as it "is imposed on firms from the outside by legislation, non-government organization (NGO) campaigning, professional standards, stakeholder initiatives, media coverage, and consumer activism." These external pressures shape firms' policies and structures (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Furthermore, it is argued that institutional pressures lead to a state of isomorphism where companies tend to react consistently to the common pressures (DiMaggio & Powell, 1983). For example, it was only after the enactment of the UK Modern Slavery Act that UK companies started publishing an annual modern slavery statement on their websites in compliance with the regulation (Flynn & Walker, 2020). Nevertheless, it is also argued that companies can be proactive and resist institutional pressures (Oliver, 1991). Accordingly, the outcome of any institutional pressures cannot be taken for granted.

The introduction of modern slavery acts in the UK and Australia, for example, is a form of formal coercive institutional pressure that forces firms to introduce or revise their internal policies related to modern slavery. On the other hand, informal institutional pressures are usually exerted by civil society groups. The IEQ, formal and informal, shapes the norms in a society. In an institutional theory context, the pressures will shape the norms of society and its tolerance to modern slavery risk. Thus, strong institutional and governance structures can serve as motivations and pressures for market actors to comply with regulations and adopt ethical business practices and thereby minimise the level of modern slavery risk.

The following section highlights the link between modern slavery and the quality of country-level institutions leading to our hypotheses' development.

2.2 | IEQ and modern slavery risk

The notion of institutional quality, or national governance, has a wide range of definitions ranging from the narrow, focusing on public sector management, to the broad, focusing on all sectors within a country (Kaufmann et al., 2011). In 1996, the World Bank introduced the Worldwide Governance Indicators (WGIs) covering over 200 countries. There are six WGIs categorised under three main groups that reflect: how governments are selected and monitored by the public (voice and accountability and political stability); government effectiveness in setting and implementing policies (government effectiveness and regulatory quality); and citizens and the states respect to the institutions (rule of law and control of corruption) (Kaufmann et al., 2011).

Evidence from prior research suggests that higher levels of voice and accountability are negatively related to modern slavery. For example, Landman and Silverman (2019) report a negative relationship between higher levels of democracy and slavery prevalence levels. Elected politicians tend to be more responsive to the voters' expectations, which accordingly, decreases the likelihood of government neglect, including the high prevalence of modern slavery (PREV). The same can be expected for countries with higher levels of political stability. Cuesta (2013) advocates that there are lower crime rates in countries with higher levels of political stability. Thus, as a crime, modern slavery is expected to be negatively related to political stability.

On the role of government effectiveness in an institutional environment context, it is argued that "better institutions provide stronger incentives to behave legally and increase the costs of illegal activities as a consequence of greater institutional accountability." (Torgler & Schneider, 2009, p. 229). Henceforth, if individuals perceive governments as efficient, they will likely comply with laws that combat modern slavery in its various forms (child labour, etc.). Furthermore, individuals' perceptions of governments as legitimate are positively linked to their commitment to follow the rules of society (Tyler, 2006). Moreover, using the "rule of law," Akee et al. (2010, p. 10) find that "higher corruption levels and weaker governance structures in poorer countries are likely to lead these countries to become origins for trafficked victims." Thus, a negative link is expected between the rule of law, government effectiveness, and modern slavery risk.

Other studies examined the link between corruption and different forms of modern slavery, including human trafficking, prostitution, and forced labour (e.g., Akee et al., 2010; Cho et al., 2013; Hernandez & Rudolph, 2015; Rauscher & Willert, 2020). Cho et al. (2013) find a negative association between anti-trafficking policy compliance levels and corruption. Bales et al. (2004, p. 2) claim that "victims of forced labour are reluctant to report abuse to law enforcement personnel because they fear retribution from their traffickers." Rauscher and Willert (2020) suggest a model under which business organisations profit from coerced labour through bribing public servants to ignore any potential cases of law violations. They advocate that "an economy may be trapped in a locally stable high-corruption, high-slavery equilibrium and major changes in government policies may be necessary to move the economy out of this equilibrium" (Rauscher & Willert, 2020, p. 1). They conclude that minor enhancements in regulation can lead to lower levels of slavery.

Examining the determinants of human trafficking, as a form of modern slavery, Hernandez and Rudolph (2015) indicate that victims are more vulnerable in host countries with weak institutions. Exploitation opportunities were lower in host countries with high IEQ and human trafficking activities tend to be higher in countries with a lower probability of detection and conviction (i.e., weak rule of law). This is usually associated with larger shadow economies where victims can work outside the formal economy. Larger shadow economies are usually associated with weak law enforcement and low detection risk (Friedman et al., 2000).

In addition, government response to the risk of modern slavery (i.e., modern slavery risk mitigation) is expected to be positively associated with the quality of the institutional environment. Formal institutional pressures in the form of state legislation, as government response, are assumed to support the victims and take steps to address the structural factors that create vulnerability to exploitation (Broad & Turnbull, 2019; Mantouvalou, 2018). Risk mitigation can be achieved through a series of legal, policy, and programmatic actions. As mentioned earlier, the recent introduction of modern slavery laws in a few countries, such as the United States, the United Kingdom, and Australia, is a good example of governments' response to tackle the problem of modern slavery.

Based on the above theoretical arguments and empirical evidence from prior research, we hypothesise that democratically elected governments operating in politically stable societies with high quality of voice and accountability, higher levels of control of corruption, and rule of law are expected to be more accountable and responsive. Accordingly, we expect a negative (positive) relationship between the quality of the institutional environment and modern slavery risk (modern slavery risk mitigation). Thus, our first hypothesis is that:

H1a. There is a significant negative relationship between IEQ and modern slavery risk.

H1b. There is a significant positive relationship between IEQ and modern slavery risk mitigation.

2.3 | IEQ and modern slavery risk: The moderating role of sustainable human development

In 1990, the UN introduced the HDI to measure a country's social and economic development (ECD) by capturing three main indicators: education, health, and standard of living. Its rationale is to assess a country's development based on its people and their capabilities rather than the traditional focus on economic growth (UNDP, 2021). Empirically, several studies have examined the relationship between IEQ and country-level HDI (e.g., Cheema & Maguire, 2001; Nandha & Smyth, 2013). For instance, Nandha and Smyth (2013) indicate that the relationship between IEQ and sustainable human development is claimed to be mutually reinforcing. Specifically, they suggest that enhancements in governance quality may lead to better sustainable human development. Moreover, their results indicate that the role of governance is more effective in countries with low HDI, such as India and Indonesia. Accordingly, it is crucial to consider the impact of country-level sustainable human development on the relationship between IEQ and modern slavery. The rest of the section discusses prior studies that examined the association between crime, in general, and modern slavery, in specific, and the three HDI components of health, education, and standards of living.

Previous studies suggest that health care workers' roles can be pivotal in the fight against modern slavery by identifying victims (Such et al., 2020). Based on a survey of 782 National Health Services (NHS) professionals, Ross et al. (2015) reveal that 13% of participants had contact with patients they "knew or suspected" to be victims of

human trafficking, and 87% reported lack of knowledge needed to identify victims. Thus, it can be argued that enhancements in health care systems, in general, and in education and training, in particular, will help the fight against modern slavery.

With respect to the education aspect of HDI, Lochner (2020, p. 1) indicates that "[e]conomic theory implies a negative correlation between educational attainment and most types of crime." Education indoctrinates individuals against crime (Usher, 1997). More and better education increases individuals' income from legal sources and potentially avoid the need for illegal returns from crime. In addition, education decreases the likelihood of unemployment which, in turn, is linked to higher crime rates (Gould et al., 2002; Raphael & Winter-Ebmer, 2001). As education usually leads to increased future returns, individuals have an opportunity cost that deters them from engaging in crime (Lochner, 2020). Educated individuals achieving high income will probably assess the risk of incarceration, which may have significant consequences for their future income levels. Accordingly, it is arguable that the higher the education level in a country, the lower the level of crime, including those related to modern slavery.

Finally, regarding the standard of living, the Organisation for Economic Co-operation and Development (OECD) indicates that good governance is crucial for sustainable human development and poverty reduction, mainly in developing countries (OECD, 2014). In the same vein, prior research suggests a strong negative relationship between governance quality and poverty (Dellepiane-Avellaneda, 2010; Jindra & Vaz, 2019). Countries with better governance "are able to develop faster and use available resources more efficiently to help the most vulnerable in the society" (Jindra & Vaz, 2019, p. 658).

Based on the above discussion, we hypothesise that sustainable human development is a crucial factor in controlling modern slavery and is expected to moderate the relationship between IEQ and modern slavery. Thus, our second hypothesis is that:

> **H2a.** Sustainable human development moderates the relationship between IEQ and modern slavery risk.

> **H2b.** Sustainable human development moderates the relationship between IEQ and modern slavery risk mitigation.

3 | RESEARCH DESIGN

3.1 | Sample and data

Our initial sample includes all countries in the Global Slavery Index (GSI), developed by the Walk Free Foundation and ILO for 2016 and 2018. The GSI reflects the extent of modern slavery on a country level and is widely considered a leading source of information about modern slavery prevalence vulnerability and the actions taken by the government to tackle the risk (Landman, 2020; Larsen & Durgana, 2017) and has been utilised in recent research (see, e.g., Bales & Sovacool, 2021). This study uses the aggregate prevalence, vulnerability, and government responses scores integrating all indicators and categories. We start with a baseline sample of 353 country-level observations. We collect the IEQ and macroeconomic data from the World Bank and the UN. We eliminate 60 country-year observations with insufficient data. This results in a final sample of 293 country-year observations for our empirical analyses.

3.2 | Definition of variables

Table 1 presents the definitions of the dependent, independent, and control variables of the empirical model used in this study.

3.2.1 | Modern slavery risk

We measure the extent of modern slavery risk using three different dimensions extracted from the GSI: prevalence (PREV) of modern slavery (62 indicators), vulnerability (VULN) to modern slavery (23 risk factors), and government responses (MSRM) to fight modern slavery (104 indicators). More specifically, PREV is used to measure the country's prevalence rate of modern slavery. VULN measures vulnerability to modern slavery ranging from 0 to 100, with higher scores demonstrating a higher level of vulnerability. It covers 23 risk factors across five broad areas: lack of basic needs, inequality, disenfranchised groups, and effects of conflict. Finally, MSRM measures the government's response rating to tackle modern slavery. This rating provides a comparative assessment of the legal, policy, and programmatic actions that governments are taking to respond to modern slavery, based on five key dimensions: (1) establishing effective criminal justice mechanisms; (2) addressing risk factors; (3) strengthening coordination and hold governments to account; (4) cleaning up government and business supply chains; (5) and identifying and supporting survivors. This score ranges from 1 for the unresponsive government to 100 for the most responsive government.

3.2.2 | IEQ

We measure the IEQ using the World Bank's WGIs, which includes six different indicators: (1) voice and accountability quality (VA), (2) political stability quality (PS), (3) government effectiveness (GE), (4) regulatory quality (RQ), (5) rule of law (RL), and (6) control of corruption (CC) (Kaufmann et al., 2011).[1] The IEQ score ranges from (−2.5) to (+2.5), with a higher IEQ indicating a greater IEQ. The reliability and validity of these indicators have been tested by academics and policymakers (see, e.g., Daniel et al., 2012; Kaufmann et al., 2011; Yamen et al., 2018).

We use correction analysis to assess the validity of IEQ indicators (e.g., Elamer et al., 2020). The Pearson correlation matrix in Table 2 shows that all correlations' coefficients are positive; almost all are

[1]More information and detailed definitions of the six Worldwide Governance Indicators are available on the World Bank's website at https://info.worldbank.org/governance/wgi/.

TABLE 1 Variable definitions

Variables	Symbols	Definitions
Modern slavery prevalence	PREV	% of modern slavery of the population, including, for example, child exploitation, forced labour, commercial sexual exploitation, human trafficking, and forced marriage.
Modern slavery vulnerability	VULN	The overall vulnerability to modern slavery provides a risk score based on an analysis of data covering 23 risk variables across five major dimensions: lack of basic needs, inequality, disenfranchised groups, governance issues, and effects of conflict. This score ranges from 0 to 100.
Modern slavery risk mitigation	MSRM	Measured by the government response index, which provides a comparative assessment of the legal, policy, and programmatic actions that governments are taking to respond to modern slavery. This is based on data collected on five main dimensions: (1) establishing effective criminal justice mechanisms; (2) addressing risk factors; (3) strengthening coordination and hold governments to account; (4) cleaning up government and business supply chains; (5) and identifying and supporting survivors.
Institutional environment quality	IEQ	A composite measure for the overall IEQ six dimensions, which are (1) voice and accountability quality (VA), (2) political stability quality (PS), (3) government effectiveness (GE), (4) regulatory quality (RQ), (5) rule of law (RL), and (6) control of corruption (CC).
Sustainable human development index	HDI	A composite index measuring average achievement in three basic dimensions of human development, healthy life, education, and a decent standard of living.
Economic development	ECD	The annual percentage growth rate of GDP.
Agriculture	AGR	The value-added of agriculture as a percentage of GDP.
Gender	FEM	% of the population that is female.

TABLE 2 Correlation matrix of the IEQ's six dimensions

Variable	(1)	(2)	(3)	(4)	(5)	(6)
(1) VA	1.000					
(2) PS	.663	1.000				
(3) GE	.738	.748	1.000			
(4) RQ	.780	.699	.944	1.000		
(5) RL	.787	.768	.953	.937	1.000	
(6) CC	.773	.752	.931	.899	.956	1.000

Note: The six dimensions of IEQ are defined as follows: voice and accountability quality (VA), political stability quality (PS), government effectiveness (GE), regulatory quality (RQ), rule of law quality (RL), control of corruption quality (CC). All variables are fully defined in Table 1.

statistically significant ($p < .001$), confirming that IEQ and its six indicators are reliable measures for this study. The table also shows that the six IEQ dimensions are highly correlated, which is consistent with the results of previous studies (Daniel et al., 2012; Elamer et al., 2020). In the same vein, we calculate Cronbach's alpha to capture the internal consistency of the six IEQ indicators. The alpha score is .96, implying a strong level of internal reliability for our construct. Consequently, and following prior studies (Elamer et al., 2020; Tunyi & Ntim, 2016), we conducted a principal component analysis (PCA) to create a composite measure for the six dimensions of the IEQ, which reduce the dimensionality of the datasets and increase the interpretability. Table 3 shows the PCA (eigenvectors) and diagnostics of IEQ dimensions. The overall Kaiser–Meyer–Olkin (KMO) measure

TABLE 3 PCA (eigenvectors) and diagnostics of the IEQ's six dimensions

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Unexplained	KMO
(1) VA	0.376	−0.025	0.917	−0.008	0.132	−0.007	0	0.926
(2) PS	0.366	0.912	−0.115	0.122	−0.056	0.052	0	0.949
(3) GE	0.425	−0.186	−0.294	0.188	0.813	0.038	0	0.88
(4) RQ	0.421	−0.312	−0.104	0.628	−0.488	0.286	0	0.874
(5) RL	0.432	−0.135	−0.156	−0.185	−0.231	−0.827	0	0.879
(6) CC	0.424	−0.131	−0.157	−0.721	−0.164	0.48	0	0.901
Eigenvalue	5.129	0.368	0.325	0.1	0.043	0.035	-	-
Proportion	0.855	0.061	0.054	0.017	0.007	0.006	-	-
KMO	-	-	-	-	-	-	-	0.897

Note: The six dimensions of IEQ are defined as follows: voice and accountability quality (VA), political stability quality (PS), government effectiveness (GE), regulatory quality (RQ), rule of law quality (RL), control of corruption quality (CC). All variables are fully defined in Table 1.

of sampling adequacy is 0.897, which is above the recommended threshold PCA of 0.50 (e.g., Elamer et al., 2020; Tunyi & Ntim, 2016).

3.2.3 | Control variables

We follow the literature by using several control variables that may influence the country's modern slavery risks (e.g., ILO, 2017; Lochner, 2020; Lucas & Landman, 2021; Ross et al., 2015; Such et al., 2020). These include the sustainable HDI, ECD, agriculture (AGR), and gender (FEM). HDI measures a country's level of sustainable human development (UNDP, 2021). This proxy reflects the country's achievement in three primary areas of sustainable human development: healthy life, education, and a decent standard of living. We expect to find a negative relationship between HDI and modern slavery risks. Countries with a higher level of HDI are expected to have a better quality of health, education, and standard of living and then lower modern slavery risks than countries with a lower level of HDI (Lochner, 2020; Such et al., 2020).

Moreover, we control for ECD, proxied by country GDP growth rate (Florou & Kosi, 2015). The lower economic growth, the higher the risk of vulnerability to modern slavery as governments struggle to provide appropriate protections and firms seek cheaper labour forms (Lucas & Landman, 2021). We also account for the effect of FEM on modern slavery practices, measured through the ratio of females to the total population. ILO report (2017) shows that women are disproportionally affected by modern slavery. They report that 71% of overall victims of modern slavery worldwide are estimated to be women and girls. Finally, as a source of income, AGR is a factor linked to higher levels of modern slavery compared to other sources of income (ILO, 2017). AGR in some countries is heavily reliant on migrant low-skilled seasonal labour who can be vulnerable to modern slavery and other forms of exploitation.

3.3 | Model specification

To test our hypotheses, we use both univariate and multivariate analyses. Univariate analysis is done through correlations, while the ordinary least squares (OLS) model is employed to conduct the multivariate analysis. Also, all regressions are run with robust standard errors clustered by country and using year-fixed effects to address cross-sectional dependence or time effects (heteroscedasticity). We use the following baseline regression model to examine the relationship between the quality of the institutional environment and modern slavery measures:

$$MS = \alpha_0 + \beta_1 IEQ_{it} + \sum_{i=1}^{n} \beta_i \, CONTROLS_{it} + \varepsilon_{it}, \quad (1)$$

where MS is a proxy of the modern slavery variables, which refers to three measures, namely, prevalence of modern slavery (PREV), vulnerability to modern slavery (VULN), and modern slavery risk mitigation (MSRM), IEQ is a composite indicator of the IEQ. CONTROLS refer to a vector of control variables, namely, sustainable HDI, ECD, AGR, and FEM. Table 1 provides the full definitions of all variables used in the regression model.

To test the moderating role of sustainable human development rating, we examine the following model:

$$MS = \alpha_0 + \beta_1 IEQ_{it} + \beta_2 HDI_{it} + \beta_3 IEQ_{it} * HDI_{it} + \sum_{i=1}^{n} \beta_i \, CONTROLS_{it} + \varepsilon_{it}, \quad (2)$$

where HDI refers to the sustainable human development variable, IEQ * HDI refers to the interaction variables between IEQ and sustainable human development score. The definition for MS, IEQ, HDI, and CONTROLS remains the same as Equation 1.

4 | EMPIRICAL RESULTS AND DISCUSSION

4.1 | Descriptive analysis and bivariate correlation analyses

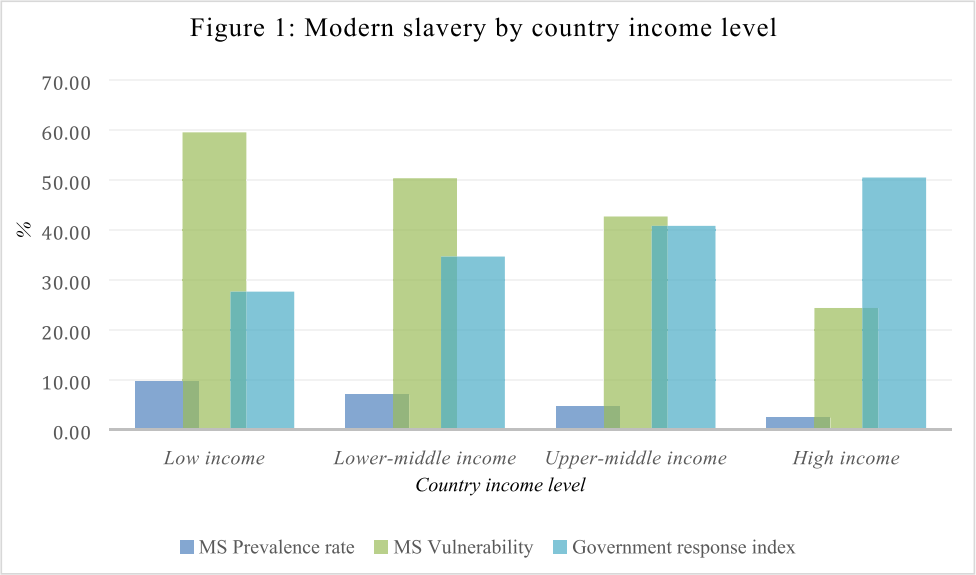
Table 4 reports the descriptive statistics of the variables for the entire sample and each year, respectively. There is a considerable degree of

TABLE 4 Descriptive statistics

	Pooled sample				Year 2016				Year 2018			
Variable	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max
PREV	5.59	5.64	0.18	39.95	5.36	4.96	0.18	39.95	5.83	6.25	0.29	39.95
VULN	42.12	17.62	3.36	92.35	38.68	11.89	17.30	70.00	45.56	21.39	3.36	92.35
MSRM	40.13	15.27	2.50	71.73	39.31	14.26	4.75	71.73	40.93	16.20	2.50	71.73
IEQ	−0.09	0.92	−2.01	1.78	−0.11	0.94	−2.01	1.78	−0.07	0.91	−2.01	1.78
HDI	0.71	0.16	0.40	0.95	0.71	0.16	0.40	0.95	0.72	0.15	0.40	0.95
ECD	3.07	2.94	−6.36	10.83	2.89	3.20	−6.36	10.83	3.24	2.69	−6.36	10.83
AGR	10.55	10.61	0.08	46.35	10.90	10.85	0.08	46.35	10.22	10.41	0.08	46.35
FEM	49.95	3.18	30.64	54.01	49.97	3.21	30.64	54.01	49.93	3.16	30.64	54.01

Note: All variables are fully defined in Table 1.

FIGURE 1 Modern slavery by country income level



variation in the level of modern slavery. For example, the prevalence of modern slavery (PREV) ranges from a minimum of 0.18% to a maximum of 39.95%, with a mean of 5.59%. Similar to PREV, the vulnerability to modern slavery (VULN) ranges from a minimum of 3.36%% to a maximum of 92.35%, with a mean of 42.12%. The sample also shows a slightly increasing trend in PREV and VULN from 2016 to 2018. Table 4 further shows that the mean value of government responses to combat modern slavery (MSRM) is 40.13% and experiences a slight increase from 39.31% in 2016 to 40.93% in 2018. This result suggests a slight improvement in national legal, policy, and programmatic responses to modern slavery. Similar to the main variables of modern slavery, all the independent and control variables distribution generally shows widespread variations. For instance, the IEQ mean is −0.09, with a standard deviation of 0.92. The HDI mean is 0.71, and the ECD mean is 3.07.

Figure 1 shows the mean values of modern slavery measurements (PREV, VULN, and MSRM) across low and high-income countries.[2] There is a higher prevalence and vulnerability to modern slavery in low-income countries and a lower prevalence and vulnerability in high-income countries. Also, we find that government response to modern slavery is weaker in low-income countries, probably due to limited resources, lack of regulations, or conflicts.

Table 5 presents the Pearson pairwise correlation matrix for the variables employed in the regression analyses. PREV and VULN are statistically significant and negatively correlated with IEQ, whereas MSRM is statistically significant and positively associated with IEQ, which provides initial evidence for our hypotheses. This result suggests that the level of modern slavery risk is lower in better-governed countries than their counterparts with poor IEQ. In addition, Table 5 shows no unexpected high correlations amongst the variables,

[2]The World Bank classifies countries based on the estimate of their GNI per capita into four income groups: low, lower-middle, upper-middle, and high income. More information is available on the World Bank's website at https://datahelpdesk.worldbank.org/knowledgebase/articles/378834-how-does-the-world-bank-classify-countries.

TABLE 5 Pearson's correlation matrix for all variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) PREV	1.000							
(2) VULN	.542 (.000)	1.000						
(3) MSRM	−.492 (.000)	−.649 (.000)	1.000					
(4) IEQ	−.544 (.000)	−.847 (.000)	.651 (.000)	1.000				
(5) HDI	−.496 (.000)	−.750 (.000)	.594 (.000)	.766 (.000)	1.000			
(6) ECD	.090 (.120)	.066 (.250)	−.004 (.941)	−.030 (.599)	−.134 (.017)	1.000		
(7) AGR	.462 (.000)	.555 (.000)	−.444 (.000)	−.609 (.000)	−.787 (.000)	.227 (.000)	1.000	
(8) FEM	−.001 (.981)	−.061 (.290)	.158 (.006)	.023 (.680)	−.060 (.281)	.048 (.395)	.118 (.040)	1.000

Note: All variables are fully defined in Table 1.

TABLE 6 Pooled regressions of institutional environment quality on modern slavery

Variables (model)	PREV (1)	VULN (2)	MSRM (3)
IEQ	−0.892*** (−3.941)	−4.836*** (−12.87)	2.434*** (4.298)
HDI	0.502 (0.0957)	−3.605*** (−6.452)	3.910*** (4.588)
ECD	0.0575 (0.673)	0.0753 (0.396)	0.433 (1.501)
AGR	0.0913 (1.637)	−0.130* (−1.719)	0.0958 (1.044)
FEM	−0.0202 (−0.282)	−0.300*** (−3.006)	0.791*** (4.397)
Year effects	Yes	Yes	Yes
Constant	4.607 (0.824)	80.45*** (10.94)	−30.11** (−2.581)
N	293	293	287
R^2	.319	.772	.481

Note: Table 1 outlines variable definition and data source. Robust *t*-statistics are in parentheses.
***p value < .01.
**p value < .05.
*p value < .1.

implying that no significant multicollinearity issues exist. A further test using the variance inflation factors (VIF) procedure is used when estimating our regression models.[3] The results show no VIF exceeds 3, suggesting that multicollinearity is not an issue for the analyses (untabulated for brevity).

4.2 | Multivariate results

4.2.1 | The effect of IEQ on modern slavery

Table 6 contains regression analysis results for the relationship between IEQ and modern slavery measures (i.e., PREV, VULN, and MSRM). Models 1 and 2 show that IEQ is significantly negatively associated with both modern slavery risk indicators (e.g., PREV and VULN) (p < 0.01), implying countries with a good institutional environment experience lower levels of modern slavery risk. This result offers empirical support for H1a and prior studies (Cuesta, 2013; Landman & Silverman, 2019), which suggest that the higher levels of democracy have a negative effect on slavery prevalence levels. In terms of governments' response to the risk of modern slavery, Model 3 shows that the coefficient on IEQ is statistically significant and positively associated with MSRM (p < 0.01), thus providing empirical support for H1b. Among the control variables, HDI shows statistically significant negative (positive) relationships with VULN (MSRM), indicating that enhancements in health care systems, in general, and in education and training may help the fight against modern slavery.

These results indicate that countries with a good institutional environment have a lower level of modern slavery. In particular, this offers new evidence to suggest that better-governed countries are associated with higher levels of rule of law and enforcement methods, greater monitoring, accountability, and better transparency, which reduce the risk of modern slavery. This novel evidence tends to corroborate the evidence of the related literature (e.g., Cho et al., 2013; Cuesta, 2013; Landman & Silverman, 2019; Rauscher & Willert, 2020; Yamen et al., 2018) in that effective IEQ can serve as a governance mechanism that may offer motivations and pressures on firms to engage in ethical business practices and thereby gain social legitimacy and stakeholders' satisfaction. Specifically, this result suggests that solid democratic institutions operating in politically stable societies with high quality of voice and accountability, higher levels of control of corruption, and respect for the rule of law are more accountable and responsive to unethical behaviour such as modern slavery risks.

[3]If the VIF is higher than 10, major multicollinearity problems may occur (Hair et al., 2018).

Our results also support the institutional theory, suggesting that nation-level institutions come under closer scrutiny from different global institutions and stakeholders, and hence, they adopt effective governance to manage modern slavery risk (DiMaggio & Powell, 1983; Judge et al., 2008; Ntim & Soobaroyen, 2013). Formal governance (e.g., laws and regulations) is a powerful institutional mechanism in fighting modern slavery. Such governance mechanisms convey additional monitoring and accountability requirements on businesses and thus encourage them to manage modern slavery risks. This is consistent with the institutional theory that the stronger the laws within a nation, the greater is the perceived legitimacy of its governance and the lower levels of modern slavery (see Judge et al., 2008).

4.2.2 | The moderating effect of HDI

To test our second hypothesis that a country's HDI has a moderating effect on the relationship between IEQ and modern slavery measures, we create interaction variables between the IEQ and HDI variables (i.e., IEQ × HDI) in Table 7. Consistent with the results in Table 6, Models 1 and 2 in Table 7 reveal a significant negative relationship between IEQ and modern slavery risks measures ($\beta = -2.592$, $p < .001$ for PREV, and $\beta = -2.592$, $p < .001$ for VULN), implying that the adoption of a good institutional environment lessens the risk of modern slavery. In addition, Model 3 of Table 7 shows that IEQ has a statistically significant positive relationship with MSRM ($\beta = 6.935$, $p < .001$), as expected. Regarding the interaction between the IEQ and HDI, the coefficients of IEQ × HDI on the three measures of modern slavery (i.e., PREV, VULN, and MSRM) in Models 1–3 of Table 7 are significant ($\beta = 2.037$, $p < .001$; $\beta = 3.389$, $p < .001$; and $\beta = -5.289$, $p < .001$, respectively). It can be noted that HDI has changed both the strength and the direction of the relationship. This suggests that sustainable human development moderates the relationship between the IEQ and modern slavery risks and mitigation by changing the relationship's coefficients and directions, thus providing empirical support for Hypothesis 2.

We also find that the interaction between the IEQ and HDI in Models 1–3 reverses the sign of IEQ, indicating that the combined effect worsens the level of modern slavery. We carry out some further checks to investigate the unexpected sign of the interaction. Following Hölzl and Lobe (2016), we split countries into two subsamples based on the values for our HDI (low and high HDI) and repeat our analyses separately for these two subsamples. This is conducted to assess how HDI will moderate the relationship between the IEQ and modern slavery when considering different HDI levels. The results (not tabulated) show that countries with higher HDI have no significant impact on the relationship between IEQ and the three measures of modern slavery (PREV, VULN, and MSRM). One possible explanation is that in countries with high HDI, where modern slavery tends to be low, the influence of the institutional environment is minimal. However, the results show that the HDI moderates the relationship between IEQ and modern slavery indicators in the correct direction in countries with low HDI. This result is in line with prior research (Jindra & Vaz, 2019; Nandha & Smyth, 2013), indicating that governance is more effective in countries with low HDI but not for high HDI countries. Accordingly, institutional environment enhancements alone do not guarantee an effective fight against modern slavery in all countries.

4.3 | Further analysis: Income level effect

We extend our examination of the link between IEQ and modern slavery to see if the relationship is the same in low-income versus high-income countries. Regarding the determinants of modern slavery, a few studies took a binary perspective, that is, human trafficking from origin/low-income countries, as opposed to destination/high-income countries (e.g., Akee et al., 2010, 2014; Cho et al., 2013; Hernandez & Rudolph, 2015). The expectation of higher income levels and better

TABLE 7 The moderating effect of HDI on the relationship between IEQ and modern slavery

Variables (model)	PREV (1)	VULN (2)	MSRM (3)
IEQ	−2.592*** (−3.926)	−7.664*** (−5.437)	6.935*** (3.380)
HDI	0.169 (0.537)	−3.407*** (−5.057)	3.684*** (4.131)
IEQ * HDI	2.037*** (2.674)	3.389** (2.084)	−5.289** (−2.266)
ECD	0.109 (1.325)	0.160 (0.917)	0.314 (1.317)
AGR	0.0676* (1.865)	−0.169** (−2.188)	0.177 (1.640)
FEM	−0.0142 (−0.207)	−0.290** (−1.987)	0.774*** (4.024)
Year effects	Yes	Yes	Yes
Constant	3.023 (0.698)	77.81*** (8.415)	−26.86** (−2.205)
N	293	293	287
R^2	.335	.775	.490

Note: Table 1 outlines definitions and data sources for all variables. Robust *t*-statistics are in parentheses.
***p value < .01.
**p value < .05.
*p value < .1.

TABLE 8 The effect of institutional environment quality on modern slavery in high and low-income economies

	Low-income economies			High-income economies		
Variables (model)	PREV (1)	VULN (2)	MSRM (3)	PREV (4)	VULN (5)	MSRM (6)
IEQ	−2.138*** (−2.931)	−6.065*** (−7.814)	3.794*** (4.098)	−0.721*** (−4.922)	−5.074*** (−11.27)	2.852*** (3.620)
HDI	0.404 (0.364)	−4.120*** (−4.523)	4.445*** (4.295)	0.030 (0.0912)	−3.139*** (−3.354)	3.655** (2.382)
ECD	0.140 (1.077)	0.168 (0.793)	0.253 (0.787)	0.0781 (0.688)	0.135 (0.457)	0.345 (0.624)
AGR	0.0857 (1.149)	−0.113 (−1.447)	0.0815 (0.818)	0.00747 (0.129)	−0.276 (−1.500)	0.477* (1.683)
FEM	−0.402 (−1.448)	−1.605*** (−2.751)	0.552 (0.725)	0.00533 (0.0726)	−0.184* (−1.716)	0.706*** (3.438)
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
Constant	19.43 (1.445)	141.9*** (4.688)	−16.98 (−0.442)	3.760 (0.783)	74.70*** (7.157)	−26.46 (−1.573)
N	119	119	115	174	174	172
R^2	.184	.738	.377	.299	.721	.352

Note: Table 1 outlines definitions and data sources for all variables. Robust *t*-statistics are in parentheses.
***p value < .01.
**p value < .05.
*p value < .1.

living standards is arguably among the main reasons for immigration to high-income countries (Harris & Todaro, 1970). Immigrants are usually attracted to the informal economy as they have more job opportunities not usually occupied by the citizens of a host country (O'Connell, 2011). Being part of the informal economy and the threat of deportation makes immigrants more vulnerable to exploitation. Thus, we re-run Equation 1 by splitting our sample into low-income and high-income countries.

Many interesting results emerge from the additional analysis (see Table 8): First, and consistent with our results in Table 6, IEQ has a significant negative relationship with modern slavery risks (e.g., PREV and VULN) among the low-income and high-income countries. Second, IEQ has a significant positive relationship with modern slavery risk mitigation (MSRM) among low-income and high-income countries. Finally, we find that the coefficient for IEQ takes the highest values for the low-income countries. In addition, the economic significance of our evidence is that a one-standard-deviation increase (decrease) in the IEQ, for example, can be expected to be associated with a 3.70% (1.73 × 2.138) and 2.07% (2.87 × 0.721) decrease (increase) in prevalence of modern slavery (PREV) in low and high-income countries, respectively. Overall, these results indicate that IEQ is vital in explaining observable differences in modern silvery risk, and this relationship is stronger among low-income countries. This offers new evidence, which suggests that the role of the institutional environment is more prominent in low-income compared to high-income countries.

4.4 | Robustness checks

We carry out several analyses to ascertain the robustness of our results. First, we re-run Equation 1 after replacing the IEQ score with its six individual WGIs to test the associations between these indicators and modern slavery risks. The regression results based on each IEQ measure are reported in Models 1–6 of Table 9. These results remain essentially the same as those shown in Table 6; thus, providing additional support for Hypothesis 2. This indicates that modern slavery risk (mitigation) is generally lower (higher) in countries that have greater democracy and accountability (Model 1), higher levels of political stability (Model 2), more effective government (Model 3), better regulatory quality (Model 4), stronger enforcement environment (Model 5), and higher levels of control of corruption (Model 6).

Second, a further factor that may affect our results is countries' population and GDP sizes, as the data for small countries can represent outliers. Therefore, we re-evaluate the empirical results from Equations (1) and (2) on subsamples: top-25 and top-50 group countries (based on their population size and/or GDP). The results (not tabulated) are similar to the reported results on the whole sample, thereby, suggesting that our results are fairly robust to the use of subsamples.

Third, to check if the change in IEQ affects the change in modern slavery measures, we run an additional analysis for the elasticity of the regression model in the estimation sample. This means the OLS coefficient is rescaled by the predicted value of the outcome and then is averaged. This captured the percentage change in the expected value of modern slavery for a one-unit change in IEQ. The results (not tabulated) remain consistent with our main regression results.

Finally, we take steps to ensure that potential endogeneity is not an issue in our results. Endogeneity may arise due to many reasons, such as possible omitted variables bias and reverse causality. We used the fixed-effect models to detect endogenous regressors in a regression model. The results of the fixed effect model remain significant and thus illuminate the effect for any omitted variables. In addition,

TABLE 9 Pooled regressions of the individual dimensions of IEQ on modern slavery

Variables (model)	PREV VULN MSRM (1)	PREV VULN MSRM (2)	PREV VULN MSRM (3)	PREV VULN MSRM (4)	PREV VULN MSRM (5)	PREV VULN MSRM (6)
VA	−1.908*** (0.322)					
	−7.386*** (0.751)					
	7.030*** (0.860)					
PS		−1.156*** (0.338)				
		−8.982*** (0.697)				
		0.951 (1.041)				
GE			−1.409*** (0.471)			
			−9.024*** (1.094)			
			3.997*** (1.344)			
RQ				−1.650*** (0.413)		
				−8.414*** (0.958)		
				5.686*** (1.151)		
RL					−1.714*** (0.393)	
					−9.040*** (0.884)	
					4.123*** (1.134)	
CC						−1.408*** (0.349)
						−7.703*** (0.792)
						3.222*** (0.994)
CONTROLS	Included	Included	Included	Included	Included	Included

Note: Table 1 outlines definitions and data sources for all variables. Robust *t*-statistics are in parentheses.
***p value < .01.
**p value < .05.
*p value < .1.

TABLE 10 2SLS regression analysis

Variables (model)	PREV (1)	VULN (2)	MSRM (3)
IEQ	−0.892*** (−3.989)	−4.836*** (−13.02)	2.434*** (4.351)
HDI	0.050 (0.0969)	−3.605*** (−6.530)	3.910*** (4.645)
ECD	0.0575 (0.681)	0.0753 (0.401)	0.433 (1.520)
AGR	0.0913* (1.656)	−0.130* (−1.740)	0.0958 (1.057)
FEM	−0.0202 (−0.285)	−0.300*** (−3.043)	0.791*** (4.452)
Year effects	Yes	Yes	Yes
Constant	4.607 (0.834)	80.45*** (11.07)	−30.11*** (−2.613)
N	293	293	287
R^2	.319	.772	.481

Note: Table 1 outlines definitions and data sources for all variables. Robust *t*-statistics are in parentheses.
***p value < .01.
**p value < .05.
*p value < .1.

reverse causality means backward causation, which means our modern slavery risk may drive IEQ. To account for reverse causality, we use the widely used two-stage least squares (2SLS) IV approach because IV regression is one of the most widely used methods in accounting and finance literature to tackle the endogeneity problem (Larcker & Rusticus, 2010). The results presented in Table 10 are

generally consistent with the results reported in Table 6, thus suggesting that our instrument is valid, and our model does not suffer any potential endogeneity problems.

5 | CONCLUSION

In response to the UN's call to address global modern slavery, this study investigates the impact of the IEQ on modern slavery risk and whether sustainable human development reinforces this relationship. Using cross-country data from 167 countries for 2016 and 2018, our results suggest that IEQ is negatively associated with modern slavery risk, suggesting that better national governance can lead to a lower risk of modern slavery. In addition, we find that stronger institutional pressures at the country level are positively associated with its government response to the risk of modern slavery. The findings further suggest that sustainable human development fully moderates the relationship between IEQ and modern slavery risk. Additional analysis reveals that the institutional environment is more prominent in low-income compared to high-income level countries.

Consequently, the results of this study have clear theoretical and policy implications. From a theoretical standpoint, our evidence lends support to institutional theory. Specifically, our results indicate that a good institutional environment in terms of strong institutions, higher levels of democracy and regulatory quality, and higher levels of control of corruption play an essential role in curbing modern slavery, consistent with the legitimisation aspect of the institutional theory.

In terms of practical implications, first, our results suggest that higher-quality institutions and governance can alleviate the level of modern slavery through deterrence and a strict rule of law, as promoted by the UN and the ILO. These results offer regulators and policymakers a strong motivation to formulate an institutional environment to address modern slavery risk. In particular, policymakers can use these results in setting rules and regulations with explicit guidelines that will motivate companies to take serious proactive actions to address modern slavery within their own business, as well as their supply chains. Further guidelines can be issues to persuade companies to be transparent about their response in tackling the risk of modern slavery. Furthermore, our results suggest a more prospective role for national-level institutions in low-income/low-HDI countries in the fight against modern slavery. Thus, this provides further evidence to global organisations and developed countries to direct their efforts to strengthen the governance mechanisms in less developed countries in support of the UN SDGs, Target 8.7. In other words, the fight against modern slavery can be more effective by directing more resources to the epicentre of modern slavery.

This study has some limitations and avenues for future research. First, this paper focuses on the role of formal institutions in addressing modern slavery. Further research can investigate the role of informal institutions. Second, our examination focused on national-level institutional pressures on modern slavery risks. So, scholars can investigate how firm and country-level governance interactively influence modern slavery risks. Third, companies are exposed to pressures from institutions and stakeholders to report and manage their impacts on modern slavery. Given that our study focuses on modern slavery risks at the country level, further research can examine the quality and extent of companies' modern slavery to address this unethical behaviour. Lastly, this study employed a quantitative approach using secondary data; future studies may consider in-depth case studies and interviews with relevant stakeholders, such as board members, regulators, and investors, to examine their views on tackling modern slavery. Despite the above limitations, this study contributes to the literature by providing new crucial insights on the role of IEQ in addressing modern slavery.

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