

# Regulatory compliance and environmental sustainability practices of manufacturing entrepreneurial ventures in Uganda

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## Abstract

**Purpose** – The purpose of this paper is to establish whether all the dimensions of regulatory compliance matter for environmental sustainability practices of manufacturing small and medium entrepreneurial ventures (SMEVs) using evidence from Uganda.

**Design/methodology/approach** – This study is cross-sectional and correlational. Data was collected through a questionnaire survey of 106 manufacturing SMEVs. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 23.

**Findings** – The results indicate that controls, legitimacy and deterrence do matter for environmental sustainability practices of the manufacturing SMEVs in Uganda, unlike social norms and values.

**Originality/value** – This study fosters the understanding of environmental sustainability practices, as it provides insights on whether all the dimensions of regulatory compliance do matter for environmental sustainability practices of manufacturing SMEVs in Uganda.

**Keywords** Environmental sustainability practices, Regulatory compliance, Social norms and values, Controls, Legitimacy, Deterrence

**Paper type** Research paper

## Introduction

In this paper, we aim at testing whether all the dimensions of regulatory compliance matter for environmental sustainability practices of manufacturing small and medium entrepreneurial ventures (SMEVs) using evidence from a developing country where

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empirical studies are still scant. Given environmental conservation relevance, regulatory compliance is an important ingredient required if manufacturing SMEVs are to undertake environmental sustainability practices (Kimuli *et al.*, 2020). As such, SMEVs that comply with environmental regulations exhibit higher chances of undertaking practices that have a net positive impact on the natural environment for the benefit of the current generation without constraining the future generation's ability to meet their needs (Sendawula *et al.*, 2018).

Globally, environmental deterioration issues are of great concern to all stakeholders (Lugovoy *et al.*, 2012). As a result, stakeholders, especially the international community, have put efforts to avert the situation. However, world bodies such as the World Meteorological Organization (WMO) declared 2015 as a year in human history when the atmospheric carbon dioxide levels reached 400 parts per million (World Meteorological Organization, 2016). On the African scene, 20% of Africans are estimated to be at risk of hunger by 2050 because of the natural climate's degradation (World Health Organization, 2020). In Uganda, environmental degradation is largely owing to the unsustainable activities of the manufacturing SMEVs. For example, 600 tonnes of plastic bags are used daily, with 51% of the plastic garbage left uncollected in Kampala city (Kinobe, 2015). These have blocked drainage channels, resulting into floods in Kampala suburbs and health hazards such as cholera and increased malaria incidences, contributing to the 95% persistent malaria transmission in the country (Okia *et al.*, 2018).

Existing literature has widely documented regulatory compliance. Specifically, Harris *et al.* (2019) studied compliance with ivory trade regulations using evidence from the UK; Nkundabanyanga *et al.* (2019) examined how deterrence measures promote public finance regulatory compliance in Uganda; Nakyeyune *et al.* (2016) investigated public finance regulatory compliance in public schools; Ntayi *et al.* (2012) explored regulatory compliance in public procurement entities in Uganda. Other literature indicates that financial literacy and information technology expertise determine the extent of business sustainability (Orobia *et al.*, 2020). However, there seems to be no study investigating the contribution of all the dimensions of regulatory compliance in predicting environmental sustainability practices. Yet, understanding how each dimension of regulatory compliance affects environmental sustainability practices may strengthen regulatory compliance literature.

Upon that backdrop, the study intends to establish whether all the dimensions of regulatory compliance matter for environmental sustainability practices of manufacturing SMEVs using evidence from Uganda. Using a questionnaire survey, we get the results indicating that other dimensions (controls, legitimacy and deterrence) matter for environmental sustainability practices of manufacturing SMEVs in the Ugandan context, unlike social norms and values.

### Literature review and hypothesis development

Environmental sustainability practices involve making feasible decisions and taking appropriate actions that curb a business' adverse effects on the natural environment. This paper focuses on eco-friendly packaging, energy efficiency, waste management, water conservation (Yacob *et al.*, 2019) as vital practices that manufacturing SMEVs can undertake to conserve the natural environment.

#### *Regulatory compliance and environmental sustainability practices*

As underpinned by stakeholder theory, regulatory compliance ensures that businesses follow the rules, principles and guidelines established by the government (Gable, 2005) to promote environmental conservation. In this regard, SMEVs that are natural compliant have

their primary incentive to adhere to the existing regulations that translates into environmental protection (Lynch-Wood and Williamson, 2014). Such businesses seek not to do less or more than is required by law. They feel that compliance is the right thing to do and their management attaches greater value to environmental conservation. Fu and Geng (2019) indicated that regulatory compliance enhances green development associated with environmental sustainability practices. Goyal *et al.* (2019) also revealed that environmental compliance certification is a significant environmental sustainability enabler.

On the contrary, Xing *et al.* (2019) revealed that environmental regulation is not positively associated with the environmental performance in their study of the Chinese manufacturing firm's sustainable development. It is not surprising because SMEVs in developing countries like Uganda face several internal and external constraints that undermine their ability to comply with environmental regulations as a catalyst for adopting environmental sustainability practices (Lynch-Wood and Williamson, 2014). As a result, literature on regulatory compliance and environmental sustainability practices presents mixed findings. It creates room for further studies to validate existing findings in other contexts. Based on the preceding discussion, it is hypothesized that:

*H1.* Regulatory compliance is positively related to environmental sustainability practices.

#### *Social norms and values and environmental sustainability practices*

Social norms and values are defined as the unwritten guidelines, principles and rules of conduct within a society (Meek *et al.*, 2010). Social norms specify the appropriate behaviors, actions, decisions and practices that should be integrated into an organization and the consequences of not following such practices in the community (Rendtorff, 2019). Thus, social norms influence the practices and actions of an organization. This is because undertaking undesirable practices may result in embarrassment and shame in society. Rendtorff (2019) argued that stakeholders, especially the government and the general society, demand businesses to adopt environmental sustainability practices in order to minimize the current environmental problems the world is facing today. However, Park *et al.* (2019) indicated that businesses that undermine social norms and values suffer huge losses from destroying their property and paying fine for noncompliance. We then hypothesize that:

*H2.* Social norms and values matter for environmental sustainability practices.

#### *Controls and environmental sustainability practices*

Although social norms and values encourage businesses to operate in line with societal expectations, having controls is vital in promoting environmental sustainability practices. Controls indicate business managers' knowledge, confidence and familiarity with the existing environmental regulations (Harris *et al.*, 2019). Martin *et al.* (2013) indicated that border control fosters wildlife law enforcement. It suggests that SMEVs are likely to adopt environmental sustainability practices when control measures are put in place. In a study conducted by Aryal *et al.* (2018) on the ban of ivory trade across the globe, it is noted that controls must tackle every step of the supply chain, from the poacher to the retailer. This implies that government laws should regulate all business actions if environmental conservation is to be attained. Basing on the preceding discussion, we hypothesize that:

*H3.* Controls matter for environmental sustainability practices.

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### *Legitimacy and environmental sustainability practices*

In fostering environmental sustainability practices, it has been suggested that businesses need to have legitimacy (Karlsson-Vinkhuyzen and McGee, 2013). Legitimacy involves businesses obeying and following existing environmental regulations, principles, rules and guidelines to conserve the natural environment (Karlsson-Vinkhuyzen and McGee, 2013). In other settings, SMEVs have been engaged in corporate social responsibility (CSR) practices because such activities promote those ventures' legitimacy (Park and Park, 2015). The engagement of SMEVs in CSR is partly attributed to regulatory pressures in some cases. Tyler (2006) indicated that if people feel regulations are appropriate, suitable and just, they are likely to follow them in their effort to undertake environmental sustainability practices. The author further argued that if the business community is encouraged to follow regulations voluntarily rather than fear for punishment, it is likely to foster environmental protection. This view is supported by Ntayi *et al.* (2012), who revealed that the legitimacy of procurement laws is a significant antecedent of regulatory compliance in public procurement entities.

Dickson *et al.* (2017) further indicated that entrepreneurs believe that authority is legitimate when they view the state as competent and fair in exercising its authority to protect the natural environment. It is supported by Rendtorff (2019), who revealed that businesses must comply with regulations and standards to foster their existence and prosperity. This suggests that manufacturing SMEVs should operate their businesses while observing and conforming to the environmental regulations and by doing so, they are likely to adopt and integrate environmental sustainability practices into their operations. Practices such as eco-friendly packaging, energy efficiency, waste management and water conservation enable SMEVs to conserve the natural environment to benefit current and future generations. It can then be hypothesized that:

H4. Legitimacy matters for environmental sustainability practices.

### *Deterrence and environmental sustainability practices*

For rules and regulations to be respected and followed, there is a need for deterrence measures as strategies used to achieve regulatory compliance. Accordingly, punishments are put in place so that people or potential offenders understand the consequences of breaking the law (De Boer, 2019). Thus, if punishments associated with getting caught are severe, the potential offenders are likely to avoid committing such crimes that would have caused environmental degradation. However, if punishments are a mere warning, it promotes noncompliance and undermines uptake of environmental sustainability practices.

The overall intention of punishments is to show other society members that certain actions are unacceptable and punishable (Ismail *et al.*, 2019). In this study, the researcher postulates that threat of punishments is one of the strategies that can be used by the regulatory authorities to achieve compliance with existing environmental regulations to enhance environmental sustainability practices of the SMEVs. Thus, threatening manufacturing SMEVs with severe punishment for undertaking unsustainable practices such as use of polythene bags, cutting trees without replacement and poor disposal of toxic waste may translate into adopting environmental sustainability practices. This is in line with Nkundabanyanga *et al.* (2019), who revealed that deterrence measures such as penalties, oversight organs and procedural justices do enhance public finance regulatory compliance. Nakyeyune *et al.* (2016) further supported this finding when they revealed that deterrence measures significantly explain variances in public finance regulatory compliance

among public secondary schools. Likewise, deterrence measures can foster environmental sustainability practices of SMEVs. We then hypothesize that (Figure 1):

H5. Deterrence matters for environmental sustainability practices.

### Methodology

#### *Research design, population and sample*

This study is cross-sectional and correlational. A cross-sectional research design is a type of study that analyzes data collected from a sample at a specific point in time. The study population is 642 manufacturing SMEVs from which a sample of 242 SMEVs registered with Uganda Manufacturers' Association (UMA) was determined using Krejcie and Morgan's (1970) sampling table. Businesses in Kampala were considered because the district has the highest concentration of business activities in the country (UBOS, 2016). Then 106 usable responses were returned from the physically distributed questionnaires signifying a response rate of 44%. We adopted simple random sampling to select businesses and then a lottery approach was used to pick respondents that finally participated in the study.

#### *Demographic characteristics*

Results in Table 1 show that most of the respondents were male at 65%, suggesting that more males are in the manufacturing SMEs than their female counterparts. Most respondents are in the age bracket of 30–39 years and the least are around 60 and above at 3%. It implies that manufacturing SMEVs in Kampala are dominated by youths in the 30–34 age group who are actively involved in managing these businesses. Concerning the respondents' education levels, most of them have a bachelor's degree at 63% and the least have a certificate and master's degree at 9% and 10%, respectively. It suggests that most SMEV managers have the knowledge and skills needed to undertake environmental sustainability practices by SMEVs in Uganda. Concerning their experience in business, a large number have experience of 6–10 years at 38% and the least with less than two years of experience in business at 8%, indicating that SMEVs managers have enough experience that is crucial if their businesses are to integrate practices that have a net positive effect on the natural environment.

#### *Questionnaire and variables measurement*

We used a self-administered questionnaire with closed-end items anchored on a five-point Likert scale to measure the extent to which the respondents agree or disagree with the items

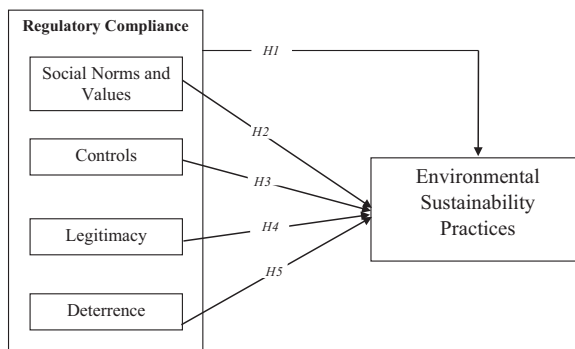


Figure 1.  
Study model

No.	Item	Frequency	(%)	Regulatory compliance of manufacturing SMEVs in Uganda
1	Gender			<b>67</b>
	Male	69	65	
2	Female	37	35	
	Age bracket			
	18–29	29	27	
	30–39	45	42	
	40–49	23	22	
3	50–59	6	6	
	60 and above	3	3	
	Highest level of education			
	Certificate	9	9	
	Diploma	24	23	
4	Bachelor's degree	63	59	
	Master's degree	10	9	
	Experience in business			
	Less than 2 years	8	8	
	2 – 5 years	40	38	
<i>n</i> = 106	6 – 10 years	41	38	
	above 10 years	17	16	

**Source:** Primary data

**Table 1.**  
Respondent characteristics

put to measure study variables. A questionnaire was used because we targeted a large sample and aimed at obtaining the mean ratings of our questionnaire items. The questionnaire was developed after reviewing extant literature on regulatory compliance and environmental sustainability practices. Regulatory compliance was operationalized in terms of social norms and values, controls, deterrence and legitimacy (Harris *et al.*, 2019). On the other hand, environmental sustainability practices were measured using items adapted from (Yacob *et al.*, 2019) and these include eco-friendly packaging, energy efficiency, waste management and water conservation.

#### *Validity and reliability*

Validity assesses the extent to which the items used in the questionnaire relate to the variables being investigated. Validity of the questionnaire was achieved through engaging experts in the field who assessed the appropriateness of the questions used to measure study variables. Their feedback was used to compute the content validity index (CVI). The computed CVI for all study variables was above the threshold of 0.7 (Field, 2009), indicating the instrument was valid. On the other hand, reliability is the degree to which a data collection instrument produces consistent findings over time. We used Cronbach's alpha coefficient to test for the reliability of the instrument. Cronbach's reliability values for the study variables were above 0.7 as suggested by Nunnally (1978), indicating that the instrument was consistent.

#### *Data analysis*

Before subjecting the collected data to any statistical tests, it was thoroughly checked to ensure that it is complete and accurate. It was achieved by checking for missing values in the data set caused either when the respondents erroneously skipped answering particular items in the questionnaire or making errors in data entry. Item entries that had wrong

responses entered were cross-tabulated and corrected by re-entering the correct responses from the corresponding questionnaires, which had been numbered during data entry using frequencies. With the cleaned data, sample characteristics were computed using SPSS, followed by correlation analysis to determine the relationship between the independent and the dependent variables. Then hierarchical regression was used to ascertain the explanatory power of the independent variables on the dependent variable.

**Results**

*Descriptive statistics*

The descriptive statistics of the predictor variables and outcome variables are presented in Table 2. The mean and standard deviation for environmental sustainability practices are 3.60 and 0.46, respectively. The mean and standard deviation for regulatory compliance are 3.96 and 0.51. It means that the standard deviation values are closer to the mean values. According to Field (2009), when the means and standard deviations are closer to each other, the calculated means represent the data.

*Correlational analysis results.* We present our Pearson correlation coefficients in Table 3. Study results indicate a significant relationship between regulatory compliance and environmental sustainability practices of the manufacturing SMEVs ( $r = 0.338^{**}, p < 0.01$ ). It means that a positive change in regulatory compliance will lead to a positive change in environmental sustainability practices.

Results also indicate a significant relationship between controls and environmental sustainability practices ( $r = 0.278^{**}, p < 0.01$ ). These results suggest that a unit change in controls will lead to 0.278 changes in environmental sustainability practices. There is a significant relationship between legitimacy and environmental sustainability practices ( $r = 0.322^{**}, p < 0.01$ ). It implies that a unit change in legitimacy translates into a 0.322 change in environmental sustainability practices. There is a significant relationship between deterrence and environmental sustainability practices ( $r = 0.334^{**}, p < 0.01$ ). It means that a positive change in deterrence will translate into a positive change in environmental sustainability practices. Social norms and values are not positively related to environmental sustainability practices ( $r = 0.124, p < 0.01$ ).

*Regression analysis results*

We performed a hierarchical regression analysis to further substantiate our hypotheses after obtaining preliminary results from the correlations between the predictor and the outcome variables (Table 3). Since we aimed at establishing which of the dimensions of regulatory compliance matter for environmental sustainability practices, a hierarchical regression analysis was suitable. The hierarchical regression analysis effectively evaluates which independent variable contributes more to the changes in the dependent variable and shows

Item	DET	LEG	SNV	CONT	RC	ESP
Mean	3.81	3.95	4.09	3.97	3.96	3.60
SD	0.70	0.55	0.70	0.67	0.51	0.46
Minimum	1.56	1.57	1.50	1.40	1.51	2.48
Maximum	5.00	4.86	8.38	5.00	4.75	4.49

**Table 2.**  
Descriptive statistics

**Notes:** DET: Deterrence, LEG: Legitimacy, SNV: Social norms and Values, CONT: Controls, RC: Regulatory compliance and ESP: Environmental sustainability practices

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
DET	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LEG	0.508**	-	-	-	-	-	-	-	-	-	-	-	-	-
SNV	0.396**	0.387**	-	-	-	-	-	-	-	-	-	-	-	-
CONT	0.507**	0.537**	0.447**	-	-	-	-	-	-	-	-	-	-	-
RC	0.789**	0.760**	0.734**	0.807**	-	-	-	-	-	-	-	-	-	-
Status	0.138	0.004	0.058	0.044	0.083	-	-	-	-	-	-	-	-	-
Age	0.127	-0.030	0.076	0.042	0.076	0.324**	-	-	-	-	-	-	-	-
Size	0.120	-0.029	0.001	0.001	0.034	0.345**	0.333**	-	-	-	-	-	-	-
NB	-0.062	-0.078	-0.263**	-0.063	-0.154	-0.131	0.091	-0.157	-	-	-	-	-	-
EFP	0.163	0.306**	0.087	0.264**	0.257**	0.243*	0.114	0.075	-0.169	-	-	-	-	-
EE	0.315**	0.306**	0.170	0.250**	0.334**	0.185	-0.034	0.039	-0.028	0.242*	-	-	-	-
WM	0.327**	0.172	0.114	0.229*	0.275**	0.194*	0.075	0.156	-0.078	0.289**	0.415**	-	-	-
WC	0.162	0.129	0.000	0.050	0.108	-0.016	-0.057	0.176	-0.145	0.240*	0.288**	0.462**	-	-
ESP	0.334**	0.322**	0.124	0.278**	0.338**	0.213*	0.039	0.163	-0.159	0.664**	0.647**	0.761**	0.727**	-

**Notes:** DET: Deterrence, LEG: Legitimacy, SNV: Social norms and Values, CONT: Controls, RC: Regulatory compliance, Status: Legal Status, Age: Firm Age, Size: Firm Size, NB: Nature of business, EFP: Eco-friendly packaging, EE: Energy efficiency, WM: Waste management, WC: Water conservation and ESP: Environmental sustainability practices

**Table 3.** Correlational analysis results



the incremental influence of an additional independent variable to the already existing variables in predicting the dependent variable (Field, 2009). Accordingly, Field (2009) indicates that variables that explain the dependent variable are entered into the model first and scholars have the authority to decide on the variable to enter first into the model.

In Model I, we enter control variables and find that they are non-significant, the noise is eliminated. In Model II, we add social norms and values. We find that social norms and values do not matter for environmental sustainability practices (standardized  $\beta$  coefficients = 0.096); thus, *H2* is not supported. In Model III, we add controls and find that it matters for environmental sustainability practices (standardized  $\beta$  coefficients = 0.286) and thus *H3* is supported. In Model IV, we add legitimacy and find that it matters for environmental sustainability practices (standardized  $\beta$  coefficients = 0.260) and thus *H4* is supported. However, when legitimacy is introduced into Model IV, controls' predictive power is subsumed in legitimacy. Model V includes all the dimensions of regulatory compliance. We find that among all the dimensions, only two (legitimacy and deterrence) are significant. It means that *H5*, which tests whether deterrence matters for environmental sustainability practices, is supported. Our final model includes the control variables and global variables. It is found that regulatory compliance is a significant predictor of environmental sustainability practices (standardized  $\beta$  coefficients = 0.322) to the extent of 11% (Table 4).

**Discussion**

Based on the stakeholder theory, this study's hierarchical regression results indicate that regulatory compliance dimensions of controls, legitimacy and deterrence matter for environmental sustainability practices, unlike social norms and values. Also, regulatory compliance is a significant predictor of environmental sustainability practices of the manufacturing SMEVs. It implies that a positive change in regulatory compliance causes a positive change in environmental sustainability practices such as eco-friendly packaging, energy efficiency, waste management and water conservation. Therefore, a decline or

Item	Model I	Model II	Model III	Model IV	Model V	Model VI
Constant	3.510	3.236	2.836	2.410	2.405	2.350
<i>Control variables</i>						
Firm age	0.005	0.008	0.007	0.009	0.006	0.027
Firm size	0.140	0.148	0.145	0.147	0.128	0.148
Business nature	-0.137	-0.110	-0.127	-0.128	-0.134	-0.084
<i>Independent variables</i>						
Social norms and Values		0.096	-0.037	-0.086	-0.117	
Controls			0.286**	0.168	0.114	
Legitimacy				0.260**	0.200**	
Deterrence					0.201**	
Regulatory compliance						0.322**
<i>Model summary</i>						
Model F	1.596	1.420	2.689	3.249	3.264	4.295
Adjusted R Square	0.017	0.016	0.074	0.114	0.131	0.112
F change	1.596	0.897	7.406	5.450	2.969	11.882
R Square change	0.045	0.008	0.065	0.046	0.025	0.101
Durbin Watson					1.724	1.864

**Table 4.** Hierarchical regression results using regulatory compliance dimensions

Source: Primary data

improvement in regulatory compliance is likely to cause a significant decline or improvement in environmental sustainability practices of the manufacturing SMEVs. These results are supported by [Fu and Geng \(2019\)](#), who indicated that regulatory compliance enhances green development associated with environmental sustainability practices. However, this finding contradicts [Xing \*et al.\* \(2019\)](#), who revealed that environmental regulation is not positively associated with a firm's environmental and business performance in studying the Chinese manufacturing firm's sustainable development. It could be true because regulatory authorities in some contexts force entrepreneurs to comply with regulations instead of the entrepreneurs considering compliance as their voluntary obligation.

Correlation analysis results also demonstrate that controls significantly matter for environmental sustainability practices. It suggests that business managers who:

- are aware of the potential risks involved in damaging the environment;
- have confidence in their ability to comply with the regulations; and
- are familiar with environmental regulations, are able to support environmental sustainability practices in their business as compared to their counterparts who do not exhibit understanding, buoyancy and familiarity with the existing environmental regulations.

Our results concur with [Martin \*et al.\* \(2013\)](#), who asserted that border control fosters wildlife law enforcement. It suggests that SMEVs are likely to adopt environmental sustainability practices when control measures are put in place.

Furthermore, our results showed a significant association between legitimacy and environmental sustainability practices of the manufacturing SMEVs. It indicates that when environmental regulations are fair and are sufficient to prevent business activities from contributing to environmental damage, environmental sustainability practices will become inevitable in manufacturing SMEVs. Similarly, when the business community is sensitized about the relevance of protecting the natural environment and those that ultimately damage the environment are held accountable, it will motivate the rest to attach value to the integration of environmental sustainability practices into their businesses. These results concur with [Ntayi \*et al.\* \(2012\)](#), who revealed that procurement laws' legitimacy is a significant antecedent of regulatory compliance in public procurement entities.

Concerning the relationship between deterrence and environmental sustainability practices of the manufacturing SMEVs, study results revealed that deterrence is significantly related to environmental sustainability practices of the manufacturing SMEVs. It indicates that when there is a likelihood of being caught by enforcement authorities for damaging the environment and the possibility of being punished if caught can naturally force business owner-managers to undertake practices that have a net positive effect on the natural environment. Additionally, when there are stringent penalties associated with high costs of damaging the environment, it may also foster the uptake of environmental sustainability practices. It becomes true, especially if enforcement officers respond quickly to environmental destruction. Our results agree with [Nkundabanyanga \*et al.\* \(2019\)](#), who reported that deterrence measures such as penalties, oversight organs and procedural justices enhance public finance regulatory compliance.

## Conclusions

This study aimed at testing whether all the regulatory compliance dimensions matter for environmental sustainability practices of SMEVs in Uganda. Results indicate that controls,

legitimacy and deterrence matter, unlike social norms and values. This study offers numerous implications. From the academic perspective, what matters for environmental sustainability practices are controls, legitimacy and deterrence and not social norms and values. Our findings imply that SMEVs can undertake environmental sustainability practices if they exhibit controls, legitimacy and deterrence. It enables them to understand the government's laws and measures to achieve regulatory compliance and conservation of the natural environment.

SMEVs owner-managers may use our results to make practical decisions on whether to undertake activities that adversely affect the natural environment or opt for environmental sustainability practices that positively impact the environment. The implication for policymakers is to use soft measures such as sensitizing the business community about the existing environmental regulations, recognizing and rewarding businesses or entrepreneurs that exhibit pro-environmental conservation behaviors. This will promote regulatory compliance that enhances environmental sustainability practices among SMEVs. Government can use our findings to develop appropriate measures that will encourage businesses to follow existing environmental regulations.

We discuss the limitations of our study in conjunction with the suggestions for further research. This study focused on the manufacturing SMEVs that are members of the Uganda Manufacturers' Association (UMA) and it is possible that the results may not be generalized to other national settings and thus the need for other studies. We used a questionnaire survey which limits the responses that are gathered. Further studies could use a mixed-methods design to obtain more robust results.

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#### **Further reading**

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