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Enhancing green supply chain management of restaurants through government pressure in Tanzania: Does environmental attitude matter?

Emmanuel Albinus Wabanhu
Department of Business, Economics, and Finance, Mwalimu Julius K Nyerere University of Agriculture and Technology, Butiama- Musoma, United Republic of Tanzania and Department of Procurement and Supply Management, Moshi Co-operative University, Moshi, United Republic of Tanzania
Baltazar Mlagara Namwata
Department of Community Development and Gender, Moshi Co-operative University, Moshi, United Republic of Tanzania, and
Faustine Peter Panga
Department of Procurement and Supply Management, Moshi Co-operative University, Moshi, United Republic of Tanzania

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Abstract

Purpose – The purpose of this study was to integrate institutional theory and upper echelon theory in examining how government pressure (GP) influences green supply chain management (GSCM) of restaurants, with environmental attitude serving as a mediator.

Design/methodology/approach – The study was conducted in Tanzania, specifically in the Arusha region. It utilized a cross-sectional survey to collect quantitative data from 386 members of restaurant management teams, including managers and supervisors, through a structured questionnaire. Data were then analyzed using partial least square-structural equation modeling.

Findings – Findings show that environmental attitude partially mediates the positive influence of GP on GSCM.

Research limitations/implications – This study focused solely on governance pressure as institutional pressure. Future research can incorporate competitor, customer and incentive-based pressures that may be needed to enhance GSCM of restaurants.

Practical implications – Policymakers should reform GP to place greater emphasis on restaurants' GSCM. Decision-makers in restaurants should align internal supply chain management policy documents with the prevailing GP and include environmental performance as an element in performance appraisals. Managerial employees should be encouraged to attend trainings and awareness programs that foster attitudes towards environmental protection.

Originality/value – This study provides a novel framework for the GSCM literature by examining how institutional and upper echelon theories may be integrated to enhance GSCM of restaurants in developing countries like Tanzania.

Keywords Government pressure, Environmental attitude, Green, Supply chain management

Paper type Research article

1. Introduction

Green supply chain management (GSCM) is globally recognized as an important strategy for enhancing the environmental sustainability of firms including restaurants (Meager *et al.*, 2020). The situation has made GSCM gain global attention from environmental stakeholders and business practitioners in the hospitality sector (Mughal *et al.*, 2023). The growing popularity of GSCM is driven by its capability to incorporate environmental concerns into the supply chain operations of restaurants (Shukla *et al.*, 2020; Wang *et al.*, 2013). It requires

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restaurant operators to work closely with other supply chain partners to minimize waste emissions and protect biodiversity throughout their supply chain processes.

Despite the significance of GSCM and the increasing attention it receives from environmental stakeholders, its implementation remains limited among restaurants, particularly those operating in developing countries like Tanzania (Elias and Changalima, 2024; Jo *et al.*, 2020). This situation has significantly contributed to environmental pollution, particularly through food waste, plastic waste, harmful chemicals and carbon emissions (Madanaguli *et al.*, 2022). The problem has prompted worldwide efforts, requiring countries to adopt various mechanisms that emphasize the implementation of environmental sustainability strategies among business firms, including restaurants. Government pressure (GP) serves as a key mechanism for promoting the adoption of environmental sustainability strategies across various industries, especially in developing countries (Hamzah *et al.*, 2025; Satchapappichit *et al.*, 2023) and Tanzania in particular (Khamis *et al.*, 2022).

According to institutional theory (IT), GP as an element of the coercive environment plays a significant role in enhancing organization decisions (Meyer and Rowan, 1977). This pressure is conceptually viewed as a set of government laws, regulations and institutions' guidelines that emphasizes green practices (GP2) among restaurants. Thus, GP is assumed to promote and encourage compliance behavior essential for implementing environmental sustainability strategies (Oduro *et al.*, 2024). While GP is critical for the adoption of environmental sustainability strategies such as GSCM, the existing literature remains unclear due to inconsistent findings.

For example, studies by Debnath *et al.* (2023) and Liu *et al.* (2022a) confirmed that laws, regulations and institutional guidelines, as key dimensions of GP, play a significant role in transforming traditional supply chain management into GSCM across industries. Surprisingly, Meager *et al.* (2020) and Saeed *et al.* (2018) reported insignificant relationships. These inconsistencies emphasize the need for further studies into the role of GP in enhancing GSCM. This study focuses on the GSCM that aims at integrating environmental considerations into supply chain operations of restaurants (Abbas and Hussien, 2021; Shukla *et al.*, 2020; Wang *et al.*, 2013). To achieve GSCM targets, restaurants must effectively respond to GP by adhering to laws, regulations and institutional guidelines that emphasize eco-friendly practices. However, the effectiveness of GP in promoting various environmental sustainability strategies, such as GSCM, relies on appropriate responses and support from managers and other leaders of organizations (Huang and Huang, 2024). This is because managerial employees possess cognitive attributes that enable them to effectively handle external pressures (Liem and Hien, 2024).

Environmental attitude (EA) is one of these cognitive attributes that employees should possess to enhance GSCM (Holt and Ghobadian, 2009). This attitude encompasses individuals' beliefs and values regarding environmental issues, sustainability and GP2. The upper echelon theory (UET) highlights EA as a key managerial attribute that shapes organizational strategic decision-making (Hambrick and Mason, 1984). Studies suggest that implementing environmental sustainability strategies depends on individuals' attitudes towards environmental sustainability (Fawehinmi *et al.*, 2024; Kement *et al.*, 2025; Ogiemwonyi *et al.*, 2023; Wu and Chiang, 2023). Similarly, restaurant operators with positive environmental attitudes might be aligned with green values and be able to integrate environmental considerations into restaurants' supply chain operations. In relation to that, Lazarus (2001) claims that GP may influence individuals' attitudes that affect environmental sustainability strategies.

While the literature indicates that the prevailing GP influences the implementation of GSCM in various contexts, there is limited literature on how and to what extent GP predicts the implementation of GSCM in the restaurant industry, especially in developing countries (Acquah *et al.*, 2021). Therefore, this study examines the influence of GP on GSCM of restaurants in Tanzania. Considering the existing inconsistencies surrounding the role of GP in

GSCM, this study further investigates the mediating role of EA in this relationship. Therefore, the following research questions were addressed:

RQ1. Does government pressure influence GSCM of restaurants in Tanzania?

RQ2. Does environmental attitude mediate the role of government pressure on GSCM of restaurants in Tanzania?

This study contributes to the GSCM literature by providing empirical validation of the mediating role of EA in the relationship between GP and GSCM within the restaurant industry, a sector that remains underexplored in GSCM research. The study also builds upon theoretical foundations by integrating IT and UET, offering a novel perspective on how GP and EA interact to drive GSCM of restaurants. This theoretical contribution is complemented by an empirical approach, whereby the study constructs GSCM as the latent variable with indicators related to purchasing, menu planning, food preparation, dining services, packaging and post-treatment, hence reinforcing the robustness of existing GSCM frameworks, particularly in the context of developing economies. Furthermore, the study offers practical insights for policymakers, managers and decision-makers aiming at enhancing GSCM of restaurants in developing countries.

2. Literature review

2.1 Theoretical underpinning

2.1.1 Institutional theory. Meyer and Rowan (1977) propounded the IT, arguing that organizations' actions tend to be influenced by their institutional environments. Based on the theory, firms' decision-making may be influenced by three institutional environments, namely normative, mimetic and coercive environments. Proponents of the theory (Gopalakrishna Pillai *et al.*, 2025) identified GP as an element of coercive environment, as firms are required to comply with laws, regulations and directives relating to environmental protection set and enforced by governments. The sustainability of any organization, including restaurants, depends on their conformity to these laws, regulations and directives (Charles, 2019; Schilling-Vacaflor and Gustafsson, 2024).

Grounded on the IT, restaurants' failure to withstand GP is more likely to face difficulty in achieving their success and legitimacy (Ng and Sia, 2023). Thus, this study has adopted IT to guide the analysis of how the GP originating from the coercive environment can drive restaurants to implement environmental sustainability strategies, particularly GSCM. However, the IT has overemphasized the external pressures, ignoring the internal environment under which the firm is operating. Thus, the UET was adopted to incorporate internal factors and meet the challenges of external pressure.

2.1.2 Upper echelon theory. The UET, developed by Hambrick and Mason (1984), was adopted in this study as a complement of IT to accommodate the internal environment of the firm. According to UET, as organizational strategic decisions become more complex due to complex business environment such as increased external pressures, the influence of top managers' attributes becomes more significant. The study by Gopalakrishna Pillai *et al.* (2025) and Jazairy and von Haartman (2020) recognize top managers as the supporters of IT due to their cognitive, social, and physiological attributes in dealing with external institutional pressure.

While IT focuses on external pressures (Meyer and Rowan, 1977), UET highlights managers' characteristics that assist them to withstand external pressures and attain organizational strategic goals through various strategic decisions (Hambrick and Mason, 1984). Various studies (Kim and Lee, 2022; Park and Lee, 2022) have adopted UET to examine how managers' attributes may enhance restaurants' strategic decisions and performance in the market. However, limited studies have examined the role of managers' attributes on strategic decisions, particularly the implementation of GSCM. Therefore, the

UET is essential in this study, as it provides understanding on how EA can mediate the influence of GP on GSCM of restaurants.

2.2 Hypotheses development

2.2.1 Government pressure and GSCM. Governments play a significant role in enhancing various sustainability strategies of organizations by exerting pressure relating to laws, regulations and institutional guidelines. Previous studies have examined the influence of GP on various dimensions of GSCM across various sectors, including manufacturing (Hebaz *et al.*, 2024; Saeed *et al.*, 2018; Wang and Zhang, 2022) and service (Meager *et al.*, 2020; Shukla *et al.*, 2020). However, findings from those studies provide contradicting findings, raising a critical debate in the literature concerning the extent to which GP drives the implementation of GSCM. For example, Hebaz *et al.* (2024) and Wang and Zhang (2022) confirmed that governance pressure, encompassing environmental regulations, compliance mechanisms and institutional guidelines, acts as the significant factor that contributes to the successful adoption of GSCM. In contrast, Meager *et al.* (2020) and Saeed *et al.* (2018) revealed an insignificant role of the GP in GSCM, suggesting that GSCM of firms may be influenced by individual factors rather than government requirements.

One possible explanation for these discrepancies lies in the sectoral and contextual differences. For example, manufacturing firms operate under stricter environmental regulations due to their higher carbon footprint as compared to the service sector, where restaurants operate (Liu *et al.*, 2022a; Roberts *et al.*, 2021). Moreover, prior studies in the hospitality sector (Meager *et al.*, 2020; Shukla *et al.*, 2020) have predominantly focused on developed economies, where government enforcement is robust (Liu *et al.*, 2022b), leaving a gap in understanding how GP influences GSCM in developing economies. The restaurant industry, in particular, has received limited attention despite the government initiatives to promote sustainability in this industry (Madanaguli *et al.*, 2022). Given the increasing emphasis on environmental sustainability strategies in the hospitality industry, it is imperative to assess how GP influences GSCM of restaurant in the developing countries. Unlike manufacturing firms, restaurants may exhibit varying levels of compliance due to differences in operational scale, consumer demand for sustainability and the perceived benefits of GP2. It is assumed that GP may enhance GSCM of restaurants. Thus, the study hypothesized that:

H1. Government pressure positively and significantly influences GSCM of restaurants.

2.2.2 The mediating role of environmental attitude on the relationship between government pressure and GSCM. Attitude connotes an individual's positive or negative judgment toward a specific issue. Literature has considered attitude as the primary predictor of an individual's decision to act upon actions, particularly environmentally concerned actions (Van Huy *et al.*, 2024). As one form of attitude, EA predicts individuals' decisions to implement green initiatives (Fawehinmi *et al.*, 2024; Ogiemwonyi *et al.*, 2023). Thus, GSCM as an environmental sustainability strategy of an organization may be predicted by EA of employees within an organization. However, Dimitras (2023) and Shah and Asghar (2024) claim that EA is an inducement of GP related to the laws, regulations and institutional setups. The implication is that stakeholders' EA may change depending on GP. Previous studies (e.g. Madrid-Guijarro and Duréndez, 2024; Zheng *et al.*, 2023) claimed that GP relating to environmental laws, regulations and supervision mechanisms fosters managers' EA, which is considered important in enhancing appropriate decisions related to environmental sustainability.

Considering the above arguments, EA plays an important role in the presence of other factors when it comes to influencing green initiatives. Various scholars (e.g. Li *et al.*, 2023; Roxas and Coetzer, 2012; Zhang *et al.*, 2015) report EA to play an important mediating role between various environmental factors and sustainability initiatives among environmentalists. These studies have established the mediation role of EA in various contexts, yet its influence in

the relationship between GP and GSCM remains underexplored, especially in the restaurant industry. This study extends prior theoretical frameworks by integrating EA as a mediator through which GP translates into concrete GSCM of restaurants. It is assumed that GP may effectively enhance GSCM of restaurants when restaurant operators have positive attitude towards the environment. Hence, this study proposes the following hypothesis.

H2. Environmental attitude mediates the relationship between legal framework and GSCM of restaurants.

3. Methods

3.1 Sample and data collection

In ensuring effective sampling and data collection in research, it is essential to have a well-structured research design that serves as a blueprint for choosing suitable sampling techniques and data collection methods. This study employed a cross-sectional design, following the arguments by Elias and Changalima (2024) that the design is flexible in terms of sampling techniques and is particularly well suited for collecting cross-sectional data related to environmental sustainability within the restaurant business context. The design guided the researchers in identifying the suitable sampling frame, applying appropriate sampling techniques and capitalizing on the relevant data collection procedures that ensure reliable and representative results.

The sampling frame for this study included managers and supervisors of restaurants overseeing supply chain operations in Arusha, a region recognized for its growing hospitality sector (Mato and Mosoma, 2022; Njoroge *et al.*, 2020) and relevance to green supply chain studies in sub-Saharan Africa (Suleiman, 2023). A two-stage sampling technique was applied in this study. First, simple random sampling was used to select the surveyed restaurants, therefore minimizing bias and improving generalizability (Noor *et al.*, 2022). Second, purposive sampling was employed to select managers and supervisors, as they possess key insights into operational matters (Kumar *et al.*, 1993).

Since the total population of managers and supervisors involved in supply chain operations of restaurant was unknown, the minimum sample size was determined using Cochran's (1977) formula for infinite populations, with a 5% margin of error. This resulted in a minimum sample size of 384. However, to account for potential non-response, the sample size was adjusted in which 660 structured questionnaires were administered to respondents using the drop-off and/or pick-up method. This is because the Cochran's formula sets the minimum sample size, and there is no restriction regarding the maximum sample to be used in the study. Out of 660 distributed questionnaires, 401 were collected, of which 386 were properly completed and considered valid for data analysis.

Prior to actual data collection, participants were informed about the purpose and objectives of the study, as well as their right to decline participation or withdraw at any point. The authors affirm that the study complied with all applicable ethical standards for research involving human subjects, ensuring participant anonymity and confidentiality at all stages. The research protocol received approval from the Moshi Co-operative University through its ethical committee with the approval reference number HD/T/MoCU/108/21. It was then approved by the Ministry of the President's Office – Regional Administration and Local Government and finally the Regional Administrative Secretary for Arusha.

3.2 Measures

In order to assess the clarity and reliability of the measurement items, professional experts were consulted to pre-test the questionnaire. Likewise, a pilot study was conducted following the procedures stipulated by Viechtbauer *et al.* (2015). Based on the feedback received, minor revisions were made to improve the wording of the items. Five-point Likert scale ranging from

1-Strong disagree to 5-Strong agree was used to measure the three main constructs included in the questionnaire. The construct GP was measured using four items adapted from Dai *et al.* (2021). The five items to measure EA were adapted from the study by Chen *et al.* (2018). Lastly, GSCM was measured using six items inspired by the study of Abbas and Hussien (2021), Wang *et al.* (2013) and Zhang *et al.* (2021).

3.3 Data analysis

Two primary analyses were carried out in this study. The first analysis involved an assessment of the common method bias (CMB), while the second focused on evaluating the measurement and structural models. Harman's single factor test was applied to determine whether there was a CMB (Harman, 1967). Therefore, exploratory factor analysis was conducted to check if there is a dominant factor that contributes to the majority of variance in collected data (Podsakoff *et al.*, 2003). Results show that about 30.02% of explained variance in the model was associated with a single factor. Since this value was below 50%, the CMB did not pose a significant problem in this study (Podsakoff *et al.*, 2003). Furthermore, a full collinearity test was carried out as recommended by Kock (2017) to analyze the variance inflation factor (VIF) for predictor constructs. The VIF values were 1.461 for GP → GSCM, 1.000 for GP → EA and 1.461 for EA → GSCM relationships. Since the VIF values for the predictor variables in the analyzed relationships were less than the recommended threshold of 3.3, there was neither multicollinearity nor CMB, which could pose a threat to the validity of the results. The absence of CMB justified conducting further data analysis using partial least squares structural equation modeling (PLS-SEM), facilitated by SmartPLS 4 software (Hair *et al.*, 2019). Unlike the covariance-based structural equation model, this technique is more appropriate when analyzing complex relationships for prediction purposes. Since the study intended to predict the influence of GP on GSCM, particularly through the mediating roles of EA, PLS-SEM was found to be more appropriate in this study. The analysis involved two steps as specified by Hair *et al.* (2019). First, the measurement model analysis was performed for evaluating reliability and validity of the measurement instrument. Second, the analysis of the structural model was conducted for assessing predictive power, effect size and predictive accuracy. This analysis further tested the main hypotheses of the study.

4. Results

4.1 Measurement model

At first, an evaluation of the reflective measurement model was done to confirm the reliability and validity of the measurement instrument. This study adopted a reflective measurement model because indicators were assumed to be mutually substitutable in measuring the underlying construct (Hair *et al.*, 2019). Indicator reliability, construct reliability, indicators' convergent validity and constructs' discriminant validity are to be determined in reflectively measured constructs. Hair *et al.* (2019) recommend the threshold values for assessing indicator reliability (outer loadings), construct reliability [composite reliability (CR)], indicators' convergent validity [average variance extracted (AVE)] and discriminant validity [heterotrait-monotrait ratio (HTMT)]. According to them, the outer loadings values should be 0.708 or higher, CR should be at least 0.7, AVE should exceed 0.5 and HTMT should be less than 0.85.

The findings in Table 1 indicate reasonable outer loadings and CR values, indicating the existence of indicator and construct reliabilities. The study maintained the indicators (E1 and E5) despite their lower outer loading values since these indicators are conceptually important, and their deletion had no impact on the reliability and validity of their respective constructs. This is based on the argument by Hair *et al.* (2019) that indicators with outer loadings between 0.40 and 0.70 should only be removed if their deletion improves the construct's reliability and validity. On the other hand, convergent validity was established in this study since the values of

Table 1. Constructs' measurement, reliability and convergent validity

Constructs/Indicators	Loadings	CR	AVE
Government Pressure (GP)		0.902	0.698
Environmental law and regulations are set by the government for environmental protection against restaurant operations (GP1)	0.804		
Stringent laws and regulations on recycling and environmental protection motivate our restaurant to embrace green practices (GP2)	0.784		
There is increased supervision by government departments and authorities to ensure that restaurants comply with environmental protection laws, regulations, and standards (GP3)	0.909		
Law enforcement increases the possibilities of environmental penalties of our restaurant (GP4)	0.839		
Environmental attitude (EA)		0.863	0.558
Advocating an environmentally lifestyle is necessary (EA1)	0.680		
Government needs to focus more on environmental protection (EA2)	0.801		
Promoting restaurants' attention to environmental issues is highly needed (EA3)	0.775		
It is important to control environmental pollution (EA4)	0.771		
The earth's resources are limited, so environmental protection is important (EA5)	0.700		
Green Supply chain management (GSCM)		0.931	0.692
Our restaurant selects food ingredients that produce the least pollution while saving water and energy during food preparation (GSCM1)	0.810		
As part of our menu planning and cooking, our restaurant is dedicated to thoroughly assessing whether food products and their packaging are easy to recycle, reuse, or decompose (GSCM2)	0.824		
Our restaurant prioritizes post-treatment activities such as waste recycling, and disposal as the key aspects of our supply chain operation (GSCM3)	0.793		
Our restaurant provides specifications to suppliers, including environmental criteria for purchased items (GSCM4)	0.829		
Our restaurant cooperate with customers for eco-friendly practices (GSCM5)	0.858		
Our restaurant integrate supply chain management processes with kitchen and dining environment to meet environmental friendly needs (GSCM6)	0.875		

Source(s): Developed by authors (based on PLS-SEM output)

AVE, as indicated in Table 1 are above 0.5. It means that the indicators used to measure a particular construct correlate and consistently represent the same underlying construct.

In addition, the results indicated the attainment of discriminant validity since values in the HTMT matrix (Table 2) are less than the recommended threshold value of 0.85, meaning that each construct does not capture the phenomenon already explained in the other construct (Hair *et al*., 2019). For comparison purposes, the values of the Fornell and Larcker criterion and cross-loadings were assessed. The results of the Fornell and Larcker criterion and cross-loadings (Table 2) further justified the existence of discriminant validity. For example, the Fornell and Larcker criterion's results (Table 2) indicate that the square root of the AVE for each construct is greater than its highest correlation with any other construct in the model, while the cross-loadings results (Table 2) demonstrate greater factor loadings on their intended construct than on all other constructs.

4.2 Test of research hypotheses

Prior to testing of hypotheses, it was very important to assess the effectiveness of the structural model by examining the predictive power (R^2) for endogenous constructs, the effect size (f^2) and the predictive accuracy of the research model. R^2 values indicate how well the model explains the variance in the endogenous constructs. For example, the R^2 values in the blue cycle (Figure 1) show the predictive power of the model, reflecting the proportion of variance in EA and GSCM. Specifically, the R^2 value of 0.424 reveals the amount of variance in the

Table 2. Discriminant validity results

	Heterotrait-Monotrait (HTMT) matrix	
	Environmental attitude (EA)	Government pressure (GP)
Government pressure (GP)	0.674	
Green supply chain management (GSCM)	0.722	0.551

Fornell-Larcker criterion			
	GP	EA	GSCM
GP	*0.85*	0/45	0.50
EA	0.45	*0.79*	0.49
GSCM	0.52	0.54	*0.83*

Cross-loading			
	GP	EA	(GSCM)
GP1	*0.804*	0.305	0.203
GP2	*0.784*	0.401	0.391
GP3	*0.909*	0.410	0.441
GP4	*0.839*	0.644	0.290
EA1	0.403	*0.680*	0.273
EA2	0.331	*0.801*	0.333
EA3	0.541	*0.775*	0.278
EA4	0.230	*0.771*	0.506
EA5	0.551	*0.700*	0.256
GSCM1	0.303	0.366	*0.810*
GSCM2	0.461	0.522	*0.824*
GSCM3	0.510	0.371	*0.793*
GSCM4	0.444	0.441	*0.829*
GSCM5	0.300	0.299	*0.858*
GSCM6	0.571	0.300	*0.875*

Source(s): Developed by authors (based on PLS-SEM output)

GSCM contributed by GP and EA. This means that 42.4% of the variation in GSCM can be contributed by the variables included in the model.

Moreover, it was important to assess f^2 values indicating the effects of the exogenous variables on their respective endogenous variables. Hair *et al.* (2019) state that f^2 values of 0.02, 0.15 and 0.35 represent large, small and medium effects, respectively. The results (Table 4) show f^2 values of 0.047, 0.461 and 0.318 for the effects of GP on GSCM, GP on EA and EA on GSCM, respectively. These statistics confirm that the effects of exogenous variables GP on GSCM, GP on EA and EA on GSCM are "small," "large" and "medium," respectively, if they were taken out of the research model.

In assessing the predictive accuracy of research model, PLSpredict analysis was conducted to assess predictive relevance (Q^2) with corresponding root mean square error (RMSE), and mean absolute error (MAE). The results (Table 3) show positive predictive relevance (Q^2) for all indicators of the study's constructs, particularly EA and GSCM. Furthermore, the results indicate Q^2 values of 0.66 and 0.59 for the constructs EA and GSCM, respectively. Since Q^2 values are more than zero, the exogenous variables are considered to have predictive relevance for the endogenous variable in the research model (Hair *et al.*, 2019). In addition to that, the root mean square error values for indicators and constructs in the PLS-SEM model are less than the values in the linear regression benchmark, confirming higher predictive accuracy of the model.

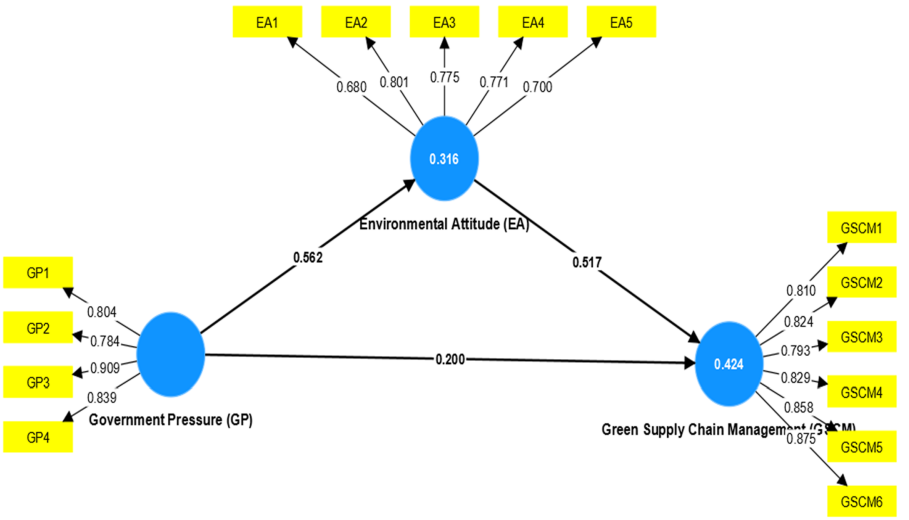

Figure 1. R^2 values and relevance of path coefficients. **Source**: Developed by authors (PLS-SEM output)

Table 3. PLSpredict results

Endogenous construct's indicators	PLS-SEM predictive errors of the model			Linear regression model (LM) predictive errors of the training sample naïve benchmark		Construct level PLS-SEM predictive summery		
	Q^2predict	RMSE	MAE	RMSE	MAE	Q^2predict	PLS-SEM RMSE	PLS-SEM MAE
EA1	0.36	0.68	0.46	0.69	0.44	0.66	0.57	0.39
EA2	0.40	0.64	0.43	0.69	0.44			
EA3	0.53	0.51	0.37	0.55	0.35			
EA4	0.51	0.51	0.36	0.54	0.34			
EA5	0.52	0.50	0.38	0.58	0.36			
GSCM1	0.46	0.51	0.37	0.54	0.36	0.59	0.63	0.43
GSCM2	0.43	0.59	0.39	0.62	0.39			
GSCM3	0.37	0.64	0.40	0.69	0.41			
GSCM4	0.47	0.60	0.39	0.64	0.41			
GSCM5	0.43	0.58	0.38	0.61	0.39			
GSCM6	0.33	0.69	0.49	0.73	0.51			

Source(s): Developed by authors (based on PLS-SEM output)

After confirming the acceptable explanatory and predictive power of the structural mode, the study tested hypotheses. First, the study performed an assessment to unveil the influence of GP on GSCM. The hypothesis was formulated to test how existing GP positively influences GSCM of restaurants. The findings (Table 4) revealed that GP significantly and positively influences GSCM ($\beta = 0.200$, $t = 9.304$, $\rho = 0.001$). Hence, we accept H1 that GP positively influences GSCM of restaurants. This implies that the increase in one unit of GP predicts the likelihood of implementing GSCM by 20%. Second, the study tested if EA can mediate the

relationship between GP and GSCM of restaurants. The hypothesis (H2) was that EA mediates the relationship between GP and GSCM of restaurants. In analyzing the relationship between GP and EA as a mediator, the claim is that employees' attitudes towards the environment can be influenced by existing GP (Madrid-Guijarro and Duréndez, 2024; Zheng *et al.*, 2023). This has been confirmed by the findings (Table 4) that GP positively and significantly affects EA of managers and supervisors of restaurants ($\beta = 0.562$ $t = 11.279$, $\rho = 0.000$). Correspondingly, EA inclines managers' positions to have concerns for the environmental and thus be motivated to implement environmental sustainability strategies in their firms (Fawehinmi *et al.*, 2024; Ogiemwonyi *et al.*, 2023). This is evident from this study's findings (Table 4), which indicates a positive and significant influence of EA on GSCM of restaurants ($\beta = 0.517$ $t = 9.381$, $\rho = 0.000$).

The significant relationship of GP with EA and EA with GSCM justifies the significant role of EA in the relationship between GP and GSCM. The findings (Table 4) confirm the positive and significant mediation role of EA in the relationship between GP and GSCM ($\beta = 0.291$, $t = 7.786$, $\rho = 0.000$). Hence, H2 was accepted. Since the findings (Table 4) revealed a significant and positive effect of GP on GSCM ($\beta = 0.200$, $t = 9.304$ $\rho = 0.001$), EA partially mediates the influence of GP on GSCM of restaurants.

5. Discussion and conclusion

The results indicate that GP positively influences GSCM. These findings concur with the arguments laid out by Dai *et al.* (2021), Hebaz *et al.* (2024) and Wang *et al.* (2022) that governance pressure plays an important role in enhancing various GSCM dimensions. The implication is that the GP encompassing laws, regulations and institutional guidelines plays a pivotal role in influencing green purchasing, green menu planning, green cooking, green services, green packaging and green post-treatment of restaurants.

Compliance with environmental laws drives restaurants to incorporate eco-friendly practices by purchasing sustainable food ingredients, designing and cooking food that minimizes waste and using green technologies that enhance green service and packaging. In addition, the presence of environmental regulations institute restaurants to implement green initiatives in their post-treatment activities and ensure proper waste management efforts. Regulatory authorities, institutions and agents should create enforcement and supervision mechanisms that incentivize restaurants to develop restaurant environments that facilitate GSCM and reduce adverse environmental impacts. The findings further reveal the significant role of EA as the mediator in the relationship between GP and GSCM. These findings support the ideas of Li *et al.* (2023), Roxas and Coetzer (2012) and Zhang *et al.* (2015), who reported that EA may intervene in the influence of various external pressures on environmental sustainability initiatives among environmentalists. The results of this study indicate that effective GSCM of restaurants relies not only on existing GP but also on the environmental attitudes of managers and supervisors of restaurants. Attitudinal factors such as a commitment

Table 4. Results of structural path model

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*t*-statistics (|O/STDEV|)	*p*-values	f^2
EA → GSCM	0.517	0.519	0.055	9.381	0.000	0.318
GP → EA	0.562	0.562	0.050	11.279	0.000	0.461
GP → GSCM	0.200	0.490	0.053	9.304	0.001	0.047
GP → EA → GSCM	0.291	0.292	0.037	7.786	0.000	

Source(s): Developed by authors (based on PLS-SEM output)

to eco-friendly living, environmental protection, concerns about environmental issues and pollution control significantly enhance the genuine commitment to complying with environmental laws and regulations, thereby embracing GSCM as a fundamental aspect of restaurant business strategy.

5.1 Conclusions

This study provides critical insights into the role of GP in advancing GSCM within the restaurant industry. It reveals that environmental laws, regulations and institutional frameworks as elements of GP are not merely compliance tools but serve as strategic levers that can shape environmentally responsible behaviors linked to restaurant operations from purchasing and storage to food preparation, service, packaging and waste management. Importantly, the effectiveness of GP towards GSCM of restaurants becomes more effective when restaurant managers and supervisors hold positive environmental attitudes. This interaction suggests that GP alone may be insufficient to enhance GSCM unless accompanied by initiatives that foster internal EA among employees of restaurants.

5.2 Theoretical implication

GSCM literature in hospitality and tourism sectors demonstrates various GSCM performance outcomes (Astawa *et al.*, 2021; Do *et al.*, 2020), drivers and barriers of GSCM (Alreahi *et al.*, 2023) and best practices in GSCM strategy (Migdadi, 2023). However, these studies paid less attention to how and to what extent various factors may influence GSCM of restaurants in developing countries. This study expands the GSCM literature in hospitality and tourism sectors by examining how GP influences GSCM of restaurants in developing economies. The findings demonstrate that GP and environmental attitudes of managerial employees are pivotal in driving GSCM of restaurants, offering new insights into how restaurants in developing countries respond to environmental sustainability demands. The study challenges conventional assumptions that GP alone dictates GSCM adoption (Hebaz *et al.*, 2024; Wang and Zhang, 2022). Instead, it reveals that the positive environmental mind-set of managerial employees plays a crucial role in shaping organizational decisions, suggesting that restaurants do not just comply with external pressures but also actively engage in GSCM based on EA of employees.

The findings of this study further advance the applicability of IT and UET in explaining how different factors may interact to drive GSCM of restaurants in developing countries like Tanzania. Based on IT, this study demonstrates how GP originating from a coercive environment influences managerial decisions on implementing GSCM. Specifically, government laws, regulations and enforcement mechanisms as elements of GP compel restaurants to align their supply chain operations with green concerns to remain compliant and avoid penalties. From the perspective of the UET, the findings demonstrate how EA, as characteristics of managerial employees, plays a crucial role in shaping organizational strategic decisions such as embracing GSCM, particularly in the presence of GP.

5.3 Practical implication

Based on the findings, managers and supervisors in restaurants are more likely to adopt GSCM when they develop a positive EA. Therefore, regulatory bodies should make reforms to existing legislation by either introducing specific legislation, mandating the implementation of GSCM or amending existing legal and regulatory frameworks to place greater emphasis on GSCM of restaurants. These reforms matter because they ensure GSCM becomes a standard practice for restaurants, rather than just an option, ultimately reducing adverse environmental impact.

Decision-makers in restaurants should align their internal supply chain management policy document with prevailing GP and collaborate with industrial stakeholders like government

authorities to stay updated on regulatory changes. For enhancing positive EA among employees of restaurants, decision-makers should frequently organize green leadership training and awareness programs, including environmental performance as an element in employees' performance appraisals and rewarding employees who practice positive thinking and develop resilience on dynamics of GSCM. In relation to that, managers and supervisors of restaurants should be encouraged to update their knowledge on environmental issues that foster positive environmental attitudes towards implementation of GSCM. Enhancing EA ensures that sustainability efforts are not merely compliance driven but embraced as part of the corporate culture.

5.4 Limitations and future research

This study focused on governance pressure as among the institutional pressures. Future research can build on this by including competitors, customers, suppliers and incentive-based pressures. Addressing these additional pressures can offer a more comprehensive view of the external drivers of GSCM in the restaurant industry, thus providing deeper insights for policymakers and practitioners seeking to effectively implement environmental sustainability strategies such as GSCM in hospitality and tourism sectors where restaurants operate.

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Corresponding author
Emmanuel Albinus Wabanhu can be contacted at: emmanuelwabanhu@gmail.com