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# Do Government Interventions and Transformational Leadership Matter? A Moderation-Mediation Analysis of SME Performance During COVID-19 in Ghana

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### ABSTRACT

The COVID-19 pandemic has caused massive economic shocks, hurting companies and disrupting global production and consumption of markets, organizations, and commodities. This study investigates the effect of government intervention and transformational leadership on the relationship between COVID-19 containment measures and the performance of SMEs in Ghana's beverage manufacturing sector. Employing exploratory and cross-sectional design, we gathered empirical data using a quantitative research method. Participants completed research questionnaires independently, without any assistance from researchers, to provide data for the study. The questionnaires were self-administered. The data was collected from 100 SMEs, each with 500 leaders, owners, or CEOs. A structural equation model was used to analyze the data. The results showed that COVID-19 containment measures positively influenced SMEs' beverage businesses and transformational leadership. Results showed that transformational leadership significantly impacted the performance of SME beverage firms. The finding also indicated that government interventions significantly influenced the performance of SME beverage firms. The results showed that the performance of SME beverage firms and COVID-19 containment measures were mediated by transformational leadership style. However, government interventions have had a positive effect but did not moderate COVID-19 containment measures and the performance of SME beverage firms. The study contributes to the body of knowledge in the literature by establishing empirical evidence about how COVID-19 containment measures affect the performance of beverage manufacturing SMEs through the moderating effect of government intervention and the mediating effect of transformational leadership as limited studies have been conducted in this area in a single study.

### Keywords:

COVID-19 containment measures, Government interventions, Transformational Leadership, Moderated-mediating, Performance of SME beverages enterprises, Ghana

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The COVID-19 pandemic caused widespread disruptions for small and medium-sized businesses (SMEs) globally, leading to production halts, reduced consumer demand, and economic shocks (OECD, 2020; Ozili, 2021). Governments worldwide implemented containment measures such as public gathering bans, closures of workplaces and schools, stay-at-home mandates, and travel restrictions to curb the virus's spread (Pleninger et al., 2022). These measures varied in efficacy based on the strategies employed (Pleninger et al., 2022). Globally, the pandemic resulted in a significant and rapid decline in flows, affecting trade, foreign direct investment, and international tourism (Altman, 2020; Hall et al., 2020). The world's GDP declined by 3.4% in 2020 (Asare & Barfi, 2021). Around 72% of SMEs in Italy were impacted by the pandemic, and roughly 63% of companies believed that there were severe risks to their operations due to the outbreak. Whereas 75% of the SMEs in the USA expressed concerns about the disease, the SMEs in Japan reported 39% disruptions in their supply chains and a 26% decrease in orders and sales (OECD, 2020).

In Ghana, the pandemic adversely impacted SMEs, led to business closures, a loss of employees, and decreased revenues (Asare & Barfi, 2021). Even a year after the crisis, academics, practitioners, and researchers continue to explore its effects and recovery solutions (Asare & Barfi, 2021; Ozili, 2021; Verma & Gustafsson, 2020). Leadership, particularly transformational leadership, gained attention for its positive impact on business outcomes during the pandemic (Muliati et al., 2022; Verma & Gustafsson, 2020). Transformational leaders collaboratively work with their teams, presenting challenges and motivating positive change through idealized influence, intellectual stimulation, inspiration, and individualized consideration (Khan et al., 2020). Government interventions played an essential role in reducing the virus's spread, including diagnostic improvements, isolation measures, social distancing enforcement, and lockdowns (Pleninger et al., 2022). Government intervention, as a moderating variable, can influence the relationship between COVID-19 containment measures, transformational leadership, and organizational performance (Lee et al., 2020). Effective government support aligning with transformational leadership values enhances positive outcomes for beverage manufacturing SMEs (Lee et al., 2020).

Despite some studies employing transformational leadership to mitigate pandemic impacts (Koh et al., 2022; Lee & Kim, 2021; Kloutsiniotis et al., 2022; McCombs & Williams, 2021; Santoso et al., 2022), there is insufficient literature on the moderated-mediating role of government interventions and transformational leadership in the context of COVID-19 containment measures and SME performance. More research is needed, particularly in emerging markets like Ghana, where previous studies mainly focused on developed economies (Manzoor et al., 2019; Mathende & Yousefi, 2021; Thanh et al., 2022). Additionally, existing research predominantly examined individual effects rather than the interactions among containment measures, government interventions, and transformational leadership on SME performance (Adams & Clark, 2022; Koh et al., 2022; Santoso et al., 2022; Thanh et al., 2022).

The study's objectives are to address these gaps by investigating the impact of COVID-19 containment measures on the performance of beverage manufacturing SMEs in Ghana, with a focus on government interventions as a moderator and transformational leadership style as a mediator.

## **Theoretical Framework**

The theoretical reviews that underpin the study are contingency leadership theory and transformational leadership theory.

### **Contingency Leadership Theory**

The contingency leadership theory emphasizes the need to tailor leadership philosophies to situational circumstances (Fiedler, 1964). It implies that effective leadership depends on how well the leader's style and the circumstances at hand. The contingency leadership theory contends that a leader's effectiveness depends on how well they can adapt their leadership style to the moment's demands. Fiedler (1967) states, "A leader's effectiveness depends on the match between the leader's style and the situational demands". This argument highlights the importance of assessing situational variables, such as task structure, leader-member relations, and position power, and selecting an appropriate leadership style.

Contingency leadership theory can provide a contextual understanding of how various leadership styles, such as transformational leadership, can be applied to improve COVID-19 containment measures and the performance of SME beverages manufacturing. It recognizes that the effectiveness of transformational leadership may vary depending on the situational demands, cultural context, and resource availability. This theory can help identify whether transformational leadership is more suitable for successfully implementing COVID-19 containment measures and the performance of SME beverages manufacturing in these contexts.

### **Transformational Leadership Theory**

Transformational leadership promotes employee flexibility, accountability, ownership, dedication to organizational goals, and a desire to help the business succeed in the future (Boer et al., 2016). The leader serves as a mentor to the followers, paying close attention to their inter-individual differences. To increase followers' maturity levels and strengthen their capacity to deal with their objectives and roadblocks, followers are treated as unique individuals (Bass & Stogdill, 1990). When leaders adopt a transformational leadership style, employees and followers can participate in alternative problem-solving techniques (Bass & Stogdill, 1990). Transformational leaders have expressive, distinct visions and display behaviors followers desire to imitate. This leadership approach assumes managers may encourage staff to prioritize group and organizational goals over individual ones.

Transformational leaders have faith in their followers and have high standards for them. Transformational leadership focuses on developing the morale and motivation of followers collaboratively, resulting in overall improvement. Transformational leaders show followers that reaching goals is more than just their interests. Changes brought about by a transformational leadership style may influence employees' desire to exert more effort to meet performance expectations. Having a transformative leader can enhance staff performance at the organization. Through transformational leadership theory, researchers can investigate how transformational leadership influences COVID-19 and the performance of SME beverage manufacturing through hypothesis development and empirical testing.

## **Literature Review and Hypothesis Development**

### **COVID-19 Containment Measures**

The COVID-19 containment techniques were employed to prevent the disease from spreading and postpone its peaking. Some of these measures include school closures, social gathering bans, work-from-home agreements between employees and employers, and implementing curfews and lockdowns (Kaimann & Tanneberg, 2021). Although many measures were put in place to stop the disease's spread, studies show that some nations only implemented one or a few of them while others combined several of them at once (Kaimann & Tanneberg, 2021; Pleninger et al., 2022). Kaimann and Tanneberg (2021) analyzed the impact of COVID-19 pandemic containment measures using a sample of 68 and found that COVID-19 containment measures were essential for regulating the spread of the disease.

Pleninger et al. (2022) looked into the relationship between behavioral patterns, non-pharmaceutical interventions, and the spread of COVID-19 in Switzerland. The findings demonstrated that non-pharmaceutical strategies, including remote work policies and company closures, considerably benefited in the fight against COVID-19. Regina et al. (2022) investigate the connection between public behavior, non-pharmaceutical containment methods, and the spread of COVID-19 in Switzerland. They discovered that limiting the spread of COVID-19 with containment measures was successful. In their evaluation of the research on the effectiveness of non-pharmaceutical measures to combat infectious diseases, Kosfeld et al. (2021) placed a particular emphasis on COVID-19 studies. The authors discovered that COVID-19 containment methods have successfully slowed its spread.

### **COVID-19 Containment Measures and SME Performance**

Baumüller et al. (2021) highlighted the impact of COVID-19 control measures on African food and beverage companies. The study reported a range of pandemic adaptation strategies, such as remote work and enhanced cleanliness standards. However, the pandemic adversely affected these enterprises, causing a decrease in sales, disruptions in the supply chain, and increased costs; isolating the effects of COVID -19 from other factors. Baumüller et al. (2021) study did not consider how the role of government policy interventions and transformational leadership style could influence COVID-19 control measures on African food and beverage companies.

The study conducted by Alsamhi et al. (2022) sought to determine how the pandemic (COVID-19) affected the financial performance of a few chosen Indian industries. The research was quantitative, and the results showed that the pandemic had a detrimental effect on the financial performance of the chosen Indian industries. However, Alsamhi et al. (2022) did not consider other factors that may influence financial performance, such as government policies and transformational behavior.

Mwangi (2022) explored the effects of COVID-19 control strategies on SMEs in Nairobi, revealing that containment measures like travel bans and lockdowns hurt SMEs' financial performance. The study did not explore the long-term effects of COVID-19 on SMEs' financial performance, nor did it compare the impact of COVID-19 across different regions or countries. The study also did not examine the role of transformational leadership and government interventions in influencing SMEs' financial performance during the pandemic. Dai et al. (2021) study looked into how COVID-19 affected the sustainability of SMEs. The study discovered that COVID-19 strongly impacted how much sustainable performance small

enterprises achieved. The study did not investigate the long-term effects of COVID-19 on SMEs' sustainability. The majority of academic scholarly publications, including those by Mwangi (2022), Alsamhi et al. (2022), and Dai et al. (2021), hardly ever discussed how COVID-19 containment strategies helped to stop the disease's spread and its impact on the performance of SMEs, particularly SMEs in the beverage industry. Grounded on this, we hypothesize that:

**H1:** COVID-19 containment measures have a positive and significant effect on the performance of SME beverage enterprises.

### **COVID-19 Containment Measures and Transformational Leadership**

Research by McCombs and Williams (2021) indicated that COVID-19 anxiety reduced the impact of transformational leadership on well-being. The author did not explore the potential drawbacks of transformational leadership and compare its effects with other leadership styles. Transformational leaders, incorporating spiritual principles, maintained organizational viability during the crisis (Santoso et al., 2022). The study focused on how COVID-19 anxiety reduced the impact of transformational leadership on well-being, but it did not thoroughly investigate any negative consequences or unintended outcomes associated with employing a transformational leadership style during a crisis.

Koh et al. (2022) highlighted the significant impact of remote work on employee performance, emphasizing the need for supportive guidance from leaders during the pandemic. Their study lacks exploration into the specific strategies employed by leaders to provide supportive guidance during remote work and how these strategies may vary across different organizational contexts or industries. We hypothesize that:

**H2:** COVID-19 containment measures positively impact transformational leadership.

### **Transformational Leadership and Performance of SMEs**

Transformational leadership, known for inspiring and mentoring team members, enhances work value and encourages creativity and innovation (Manzoor et al., 2019; Muliati et al., 2022). Thanh et al. (2022) found that individualized consideration in transformational leadership facilitated organizational learning, improving SMEs' performance. The study did not explore the mediating or moderating variables that could explain how transformational leadership, competency, and self-efficacy affect SME performance. Mathende and Yousefi (2021) also identified a positive correlation between transformational leadership and increased business performance in the drinks sector in Zimbabwe. However, their study did not explore the moderating effects of other variables such as government interventions, organizational culture, employee motivation, or job satisfaction on the relationship between transformational leadership, and work performance. Based on this we postulate that:

**H3:** Transformational Leadership has a positive and significant impact on the performance of SME beverage enterprises.



## **Government Interventions, Transformational Leadership on COVID-19 Containment Measures Leadership**

Mahmoud et al. (2022) examined the impact of government support on the relationship between the COVID-19 epidemic and SME performance in Nigeria. Government support was found not to moderate this relationship positively. While the study establishes a positive moderating effect, it does not delve deeply into the specific mechanisms or channels through which government support operates as a moderating variable.

Akhtar and Yousaf (2020) explored the role of transformational leadership in moderating the relationship between leadership and COVID-19 containment measures and organizational performance in Pakistani beverage-manufacturing SMEs in Pakistan. The study discovered that transformational leadership positively moderated COVID-19 containment strategies and organizational performance. The study focuses on Pakistani beverage-manufacturing SMEs, and while it provides valuable insights within this specific context, it may not sufficiently consider broader contextual variations, especially in Ghana.

Li et al. (2021) focused on Chinese SMEs and found that transformational leadership and government action positively influenced the association between COVID-19 containment measures and organizational performance. The study focuses specifically on Chinese SMEs, limiting the generalizability of findings to other regions or types of businesses. The impact of transformational leadership and government action on organizational performance may vary across cultural, economic, and institutional contexts.

Lee and Kim (2021) in South Korean SMEs similarly discovered that governmental involvement and transformational leadership positively mediated the relationship between COVID-19 containment measures and organizational performance. The authors did not explore other factors that may affect the relationship between COVID-19 leadership measures and organizational performance. Their study lacks exploration into potential contextual or industry-specific factors that might moderate the observed relationships. While the study establishes a positive mediating role of governmental involvement and transformational leadership between COVID-19 containment measures and organizational performance, it would be valuable to investigate whether these relationships vary across different industries or organizational contexts. We therefore hypothesize that:

**H4:** Government interventions have a positive and significant influence on the performance of SME beverage enterprises.

**H5:** Government interventions significantly moderate the relationship between COVID-19 containment measures and the performance of SME beverage enterprises.

**H6:** Transformational Leadership significantly mediates the relationship between COVID-19 containment measures and the performance of SME beverage enterprises.

## **Research Gaps Summary**

The current state of scholarly exploration into the dynamics of Ghanaian SMEs reveals an obvious void in the literature. A scarcity of research dedicated to understanding the interplay between government interventions, transformational leadership, and the performance of Ghanaian SME beverages during pandemics exists. While existing studies have shed light on diverse geographical and industry contexts, a notable gap persists, necessitating targeted

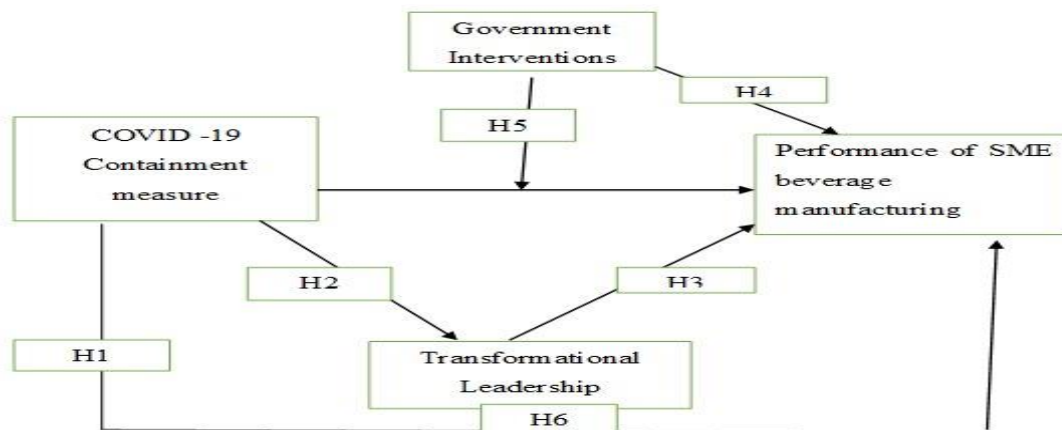
empirical investigations to unveil insights uniquely relevant to the challenges faced by Ghanaian SMEs.

## Conceptual Framework

The conceptual model depicts the relationships between COVID-19 containment measures, transformational leadership styles, and SME performance. The operationalization of the variables utilized in the study is listed in Table 1. The variables are the performance of SMEs as the dependent variable, COVID-19 containment measures as the independent variable, government interventions as the moderating variable, and transformational leadership style as the mediating variable. Performance, in the context of this study, is a multidimensional construct encompassing reduction measures, revenue base expansion, operational efficiency enhancement, growth in returns, and organizational market share (Abubakari et al., 2022). Various measures, including financial outcomes, market outcomes, fundraising efficiency, and utilization of resources, can be employed to gauge performance (Aboramadan & Borgonovi, 2016). Aboramadan and Borgonovi (2016) advocate for a holistic approach, considering both financial and non-financial aspects such as operational efficiency, transparency, employee productivity, service quality, partnerships, and overall organizational outcomes. In this study, financial and non-financial metrics will be used to measure organizational performance in SME beverage manufacturing during the COVID-19 pandemic. Figure 1 displays the diagram of the study variables.

**Figure 1**

*Conceptual Framework*



## Method

### Research Approach and Design

The research employed a quantitative approach, as it facilitates the identification of hypotheses for cause-and-effect interactions through numerical data (Sturmborg & Marcum, 2023). This method was chosen for its ability to conduct population-based surveys quickly and at a relatively low cost, enabling accurate outcome forecasting (Saunders et al., 2017). The research design utilized both exploratory and cross-sectional elements. The cross-sectional design, an observational approach, evaluated population exposures and outcomes at a specific point in

time, offering a cost-effective and time-efficient method for data collection (Elkind, 2020). The exploratory design was employed to reveal the effect relationships among the study variables.

### Sampling

The research focused on employees in the SME beverage manufacturing firms in Ghana, specifically targeting 600 managers/executives, including owners and CEOs, from 100 registered SME beverage manufacturing firms in the greater Accra area. The sampling technique involved a combination of purposive and stratified random sampling methods. Out of the 100 chosen SMEs, 500 senior managers and owners/CEOs were selected using stratified random sampling. The strata included 500 top managers/leaders and 100 owners/CEOs from the identified SMEs. To ensure representation across different leadership roles, five top managers/leaders and one owner/CEO were randomly chosen from each of the 100 SMEs. This approach aimed to capture diverse perspectives within the target population, facilitating more precise generalizations and insights.

### Instruments

The structured questionnaire was used in this study. The questionnaire's primary goal is to gather first-hand information from the respondents about COVID-19 containment measures, government interventions, transformational leadership, and the performance of SME leadership. The six hundred (600) questionnaires were created for the study with closed-ended questions, limiting the respondents' options for responses. As firm executives, they are thoroughly aware of their businesses and are crucial in making strategic decisions. Therefore, a questionnaire was utilized to gather data from senior leaders/managers, owner CEOs, and those directly involved in decision-making. A five-point Likert scale was used to help the participants provide their answers. Before the distribution, the questionnaires were tested on 60 leaders/managers from different SME beverage businesses in Accra to ensure they were relevant and suitable for the research. The study assessed the reliability of the questionnaires in the study using the Cronbach Alpha coefficient. As depicted in Table 1, measurement variables used in the study were derived from previous research, with necessary adjustments made to align with the present study.

**Table 1**

*Measurement of Variables*

COVID-19 Containment Measure-Construct	Code	Source
indicators		
Nation-wide curfews	CM 1	Kaimann, & Tanneberg (2021)
Restricted movements	CM2	
Remote-working pacts	CM3	
<b>Transformational Leadership construct</b>		Thanh et al. (2022)
Indicators		
Source of Inspiration	TL1	
Personal/Institutional values	TL2	
Vision articulation	TL3	
Mentoring and coaching	TL 4	
<b>Government Interventions</b>		OECD (2020)
<b>Indicators</b>		
SMEs subsidies	G11	
Shortened work hours	G12	
Structural policy interventions	G13	



Performance of SMEs beverage enterprises		(Abubakari et al., 2022)
Indicators		
Profitability	ONPF 1	
Efficiency operations	ONPF 2	
Customer Services Value	ONPF3	
Work Environment	ONPF 4	

## Procedures

This study made use of primary data for the administration of questionnaires to 600 staff members. Recruitment of research assistants was done for survey distribution. To administer the test to the participants, we sought authorization from 100 SMEs selected from the beverage industry. We requested their permission to be part of the survey and assured them of their anonymity. With the help of research assistants, we handed over the questionnaire to the managers, leaders, and owners/CEOs in their workplaces.

## Sample Size

Five hundred participants were included in the data analysis, with 100 questionnaires discarded due to incomplete or missing responses. At the time of this study, the total number of registered manufacturing SMEs with GEA was 35,124. A sample size of 396 was determined using Yamane's sample size determination formula with 5% precision and 95% confidence level [ $n = N/1+N(e)^2$ ]. To calculate the sample size using Yemane's (1967) formula, we need to substitute the values into the formula:  $n = N / (1 + N(e)^2)$  Where:  $n$  = sample size  $N$  = population size  $e$  = margin of error. Given:  $N = 35,124$  (total number of registered manufacturing SMEs with GEA).  $e = 0.05$  (5% precision or margin of error). Substituting the values into the formula:  $n = 35,124 / (1 + 35,124(0.05)^2)$ .  $n = 35,124 / (1 + 35,124(0.0025))$ .  $n = 35,124 / (1 + 87.81)$ .  $n = 35,124 / 88.81$   $n \approx 395.5$ . Rounding up to the nearest whole number since sample size cannot be fractional:  $n = 396$ . Therefore, the calculated sample size using this formula with a 5% precision and 95% confidence level is approximately 396. Thus, the chosen sample size of 500 for the study is adequate. Researchers expected a certain level of non-response or attrition in their studies. To ensure an adequate final sample size, we chose to over-sample initially. Increasing the sample size can improve the study's statistical power, increasing the likelihood of detecting small but meaningful effects or relationships.

## Results

The statistical analyses of measurement and structural models were conducted using the structure equation model (Smart-PLS) to test the hypotheses in this section.

### Measurement Model

The degree to which each item in the correlation matrix correlates with the specified principal component is called factor loading. The factor loading result is presented in Table 2. When the AVE is more than .5, it is possible to maintain an indication with a factor loading of .5 (Hair et al., 2016). Even if specific individual component loadings are relatively low, a high AVE shows that the latent variable explains significant variance in the indicators. The factor loadings for profitability (ONPF 1) and inspiration (TL 1) were removed/deleted.

The construct quality of the study is assessed based on the analysis of the measuring strategy. Factor loadings (FL), Cronbach alpha (CA), composite reliability (CR), and average

variance extracted (AVE) were used to evaluate the validity and reliability of the dataset. Because the FL, CA, CR, and AVE values are more than the respective threshold values of .5, .7, .7, and .5, [Table 2](#) outcome shows that the measurement items are accurate and have achieved convergent validity (Hair et al., 2016; Sarstedt et al., 2017). [Table 2](#) displays the reliability results for CA and CR. According to Sarstedt et al. (2017), the CA and CR values, which are more significant than the recommended requirements of .7 and .7, prove the measuring items' validity and dependability.

According to Hair et al. (2016), when the AVE values are more significant than the proposed cut-off point of 0.5, it shows the measurement items' convergent validity and reliability. Because the measurement items' values are more significant than .5, the AVE findings are presented in [Table 2](#).

This study demonstrated good discriminant validity when a construct's square root of AVE (*italic bold*) was more significant than its relationship to other constructs (Fornell & Larcker, 1981). [Table 3](#) displays the discriminant validity results.

**Table 2**

*Measurement Model*

Construct	Code	Factor Loading	CA( $\alpha$ )	CR	AVE
COVID-19 containment measure	CM1	.58	.67	.80	.58
	CM2	.91			
	CM3	.76			
Transformational Leadership style	TL 2	.65	.60	.78	.55
	TL3	.81			
	TL4	.74			
Gov't Interventions	G11	.78	.65	.81	.59
	G12	.82			
	G13	.69			
Performance of SMEs Beverage enterprises	ONFP 2	.65	.60	.78	.55
	ONFP 3	.81			
	ONFP 4	.74			

**Table 3**

*Discriminant Validity-fornell-Larcker Criterion (1981)*

	CM	GI	PERF	TL
CM	<b>.76</b>			
GI	.14	<b>.77</b>		
PERF	.25	.27	<b>.74</b>	
TL	.24	.27	.59	<b>.74</b>

### Model Fit Analysis

The standardized root mean square (SRMR) method for model fit analysis is used in this current study (Henseler et al., 2014). The ideal SRMR value for fitting the data is between 0 and 1, with a value close to 0. In [Table 4](#), model fit summary, the SRMR is .14, more closely associated with 0. According to Dijkstra and Henseler (2015), if the values of unweighted least squares discrepancy (d\_ULS) are more than .05, then d\_ULS value is significant to show a robust model fit. The model fits this study as the values are more than .05 (d\_ULS = 1.59).

**Table 4**  
*Model Fit Analysis*

	Saturated Model	Estimated Model
SRMR	0.14	0.14
d_ULS	1.59	1.59

## **Structural Model**

### *Hypothesis Testing-Direct Effect*

The research presents the results of the hypothesized structural relationships in [Table 5](#) and [Figure 2, 3, 4, and 5](#). The study tested six hypotheses as follows.

H1: COVID-19 containment measures have a positive and significant effect on the performance of SME beverage enterprises.

The result shows that COVID-19 containment measures had a positive coefficient and statistically significant influence on the performance of SME beverage manufacturing enterprises ( $\beta = .005$ ,  $t = 5.05$ ,  $p < .001$ ); hence, H1 was supported.

H2: COVID-19 containment measures have a positive and significant effect on transformational leadership

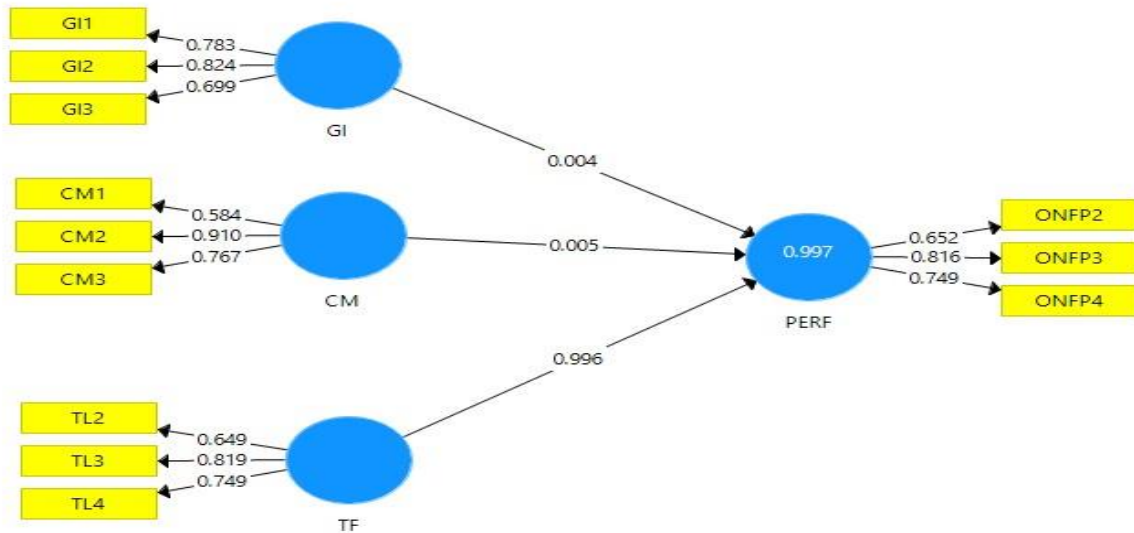
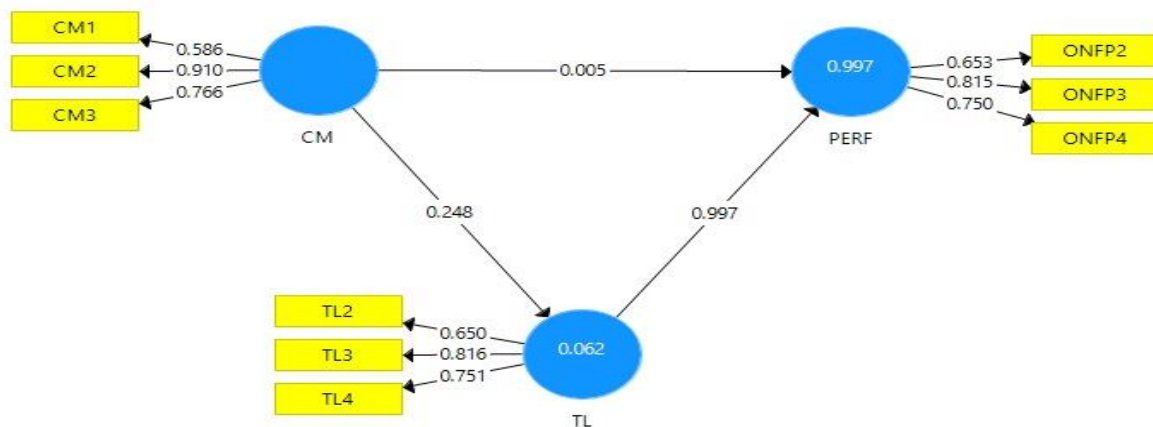
The second hypothesis evaluates whether COVID-19 containment measures positively and significantly affect transformational leadership. The result shows that COVID-19 containment measurements had a positive coefficient and statistically significant effect on transformational leadership ( $\beta = .24$ ,  $t = 5.75$ ,  $p < .001$ ). H2 was supported.

H3: Transformational Leadership has a positive and significant influence on the performance of SME beverage enterprises

The results also reveal that transformational leadership had a positive coefficient and significant impact on the performance of SME beverage manufacturing enterprises ( $\beta = .99$ ,  $t = 8.75$ ,  $p < .001$ ). Therefore, the H3 was supported.

H4: Government interventions have a positive and significant influence on the performance of SME beverage enterprises

The fourth hypothesis evaluates whether government interventions have a positive and significant effect on the performance of SME beverage enterprises. The result indicated that government interventions had a positive coefficient and statistically significant impact on the performance of SME beverage enterprises ( $\beta = .004$ ,  $t = 5.96$ ,  $p < .001$ ). H4 was supported.

**Figure 2***Measurement Model Result***Figure 3***Direct Effect*

### *Hypothesis testing -Moderating effects (government intervention)*

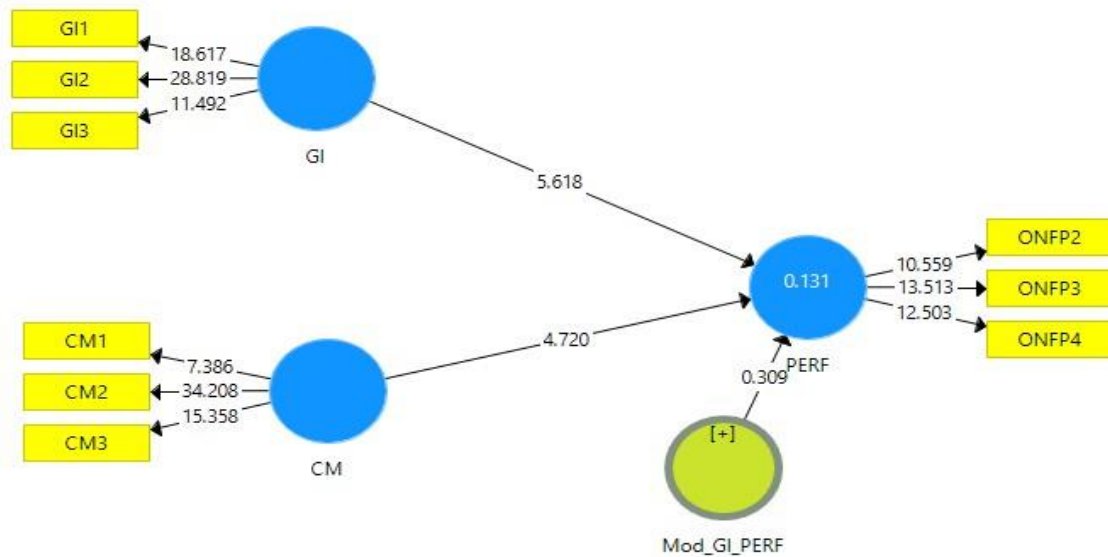
The analysis was conducted to determine the moderating impact of government interventions on the relationship between COVID-19 containment measures and the performance of SME beverage enterprises.

H5: Government interventions positively and significantly moderate the relationship between COVID-19 containment measures and the performance of SME beverage enterprises.

The results reveal that government interventions show a positive coefficient but statistically insignificant moderating effects between COVID-19 containment measures and the performance of SME beverage enterprises ( $\beta = .30, t = .05, p > .001$ ). H5 was not supported. The study concludes that the relationship between the performance of SME beverage manufacturing firms and COVID-19 containment measures was not strengthened by government actions acting as moderators.

**Figure 4**

Structure Model Analysis Result (Government interventions moderated)



**Hypothesis testing -Mediation effects (transformational leadership)**

The study examines the effect of COVID-19 measures on the performance of SMEs in beverage manufacturing through mediation analysis of transformational leadership.

H6: Transformational Leadership significantly mediates the relationship between COVID-19 containment measures and the performance of SME beverage enterprises.

The result reveals that transformational leadership mediates between COVID-19 Containment measures and the performance of SME beverage enterprises ( $\beta = 5.57, t = 1382.59, p < .001$ ). The H6 was supported, as shown in Table 5. The study concludes that transformational leadership improves COVID-19 containment measures and the performance of SMEs' beverage enterprises.

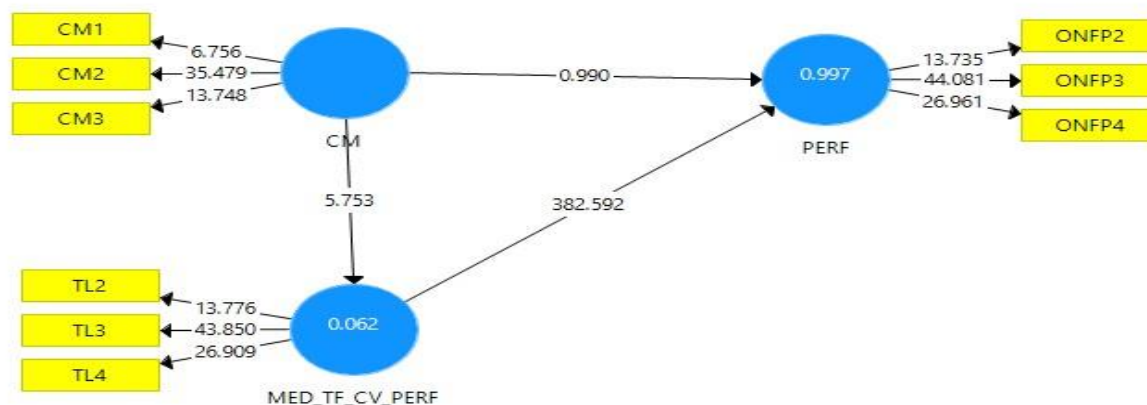
**Table 5**

Hypothesis Testing Results

Hypothesis	Variables	$\beta$	$t$	$p$	Decision
H1	CM -> SMEs PERF	.00	5.05	.000	Supported
H2	CM -> TL	.24	5.75	.000	Supported
H3	TL -> SMEs PERF	.99	8.75	.000	Supported
H4	GI -> SMEs PERF	.00	5.96	.000	Supported
H5	GI_MOD-> CM -> SMEs PERF	.30	0.05	.959	Not Supported
H6	TL_MED -> CM -> SMEs PERF	5.573	382.59	.000	Supported

**Figure 5**

Structure Model Analysis Result (transformational leadership style mediation)



## Discussion

This study examines the impact of COVID-19 containment measures on the performance of SME beverage enterprises with a focus on government intervention as moderator and transformational leadership style as mediator. The finding of H1 shows that the performance of SMEs in the beverage industry was positively and statistically significantly influenced by COVID-19 containment measures. The study's findings contradict some existing literature, suggesting a negative and statistically significant influence of COVID-19 containment measures on the performance of SMEs in the beverage industry. However, some studies (Alsamhi et al., 2022; Baumüller et al., 2021; Dai et al., 2021; Fairlie, 2020; Juergensen et al., 2020; Ma et al., 2021; Mwangi, 2022) prompt the need for further exploration. Possible explanations could include the classification of beverage businesses as essential, the adaptability of SMEs to remote work, and a sustained demand for beverages during the pandemic.

The outcome of H2 showed that the containment strategies for COVID-19 have a direct, significant impact on transformational leadership. This outcome is consistent with Koh et al. (2022) and Santoso et al. (2022). However, McCombs and Williams (2021) disagreed with the conclusion. According to McCombs and Williams (2021), COVID-19 anxiety reduced the positive effects of transformative leadership on wellbeing.

The outcome of H3 showed that transformational leadership had a positive significant impact on the performance of SME beverage enterprises. The findings align with previous research by Thanh et al. (2022), Manzoor et al. (2019), and Mathende and Yousefi (2021),

The findings show that the association between the COVID-19 containment measure and the performance of SMEs in the beverage industry is not significantly moderated by government interventions. This finding contradicts earlier research by Li, 2021; Lee and Kim, 2021; and Hassan et al. (2021). This challenges the theoretical expectation of government



interventions playing a pivotal role during crises. SMEs are advised not to solely rely on such interventions, emphasizing the importance of internal factors like operational efficiency and adaptability.

The study also acknowledges the mediating role of transformational leadership between COVID-19 containment measures and SME performance, reinforcing the notion that strong transformational leadership can mitigate external challenges. This finding is consistent with a study by Lee and Kim (2021), who found that transformational leadership mediated the relationship between SME performance and COVID-19 containment measures.

The findings of this study align with aspects of Transformational Leadership Theory and Contingency Leadership Theory. Transformational Leadership Theory emphasizes the positive impact of transformational leaders on organizational performance, particularly in times of crisis. The study supports the idea that transformational leaders can inspire, motivate, and foster employee well-being, ultimately influencing SME performance. The Contingency Leadership Theory is reflected in the study's acknowledgment that the effectiveness of government interventions may vary based on the specific context and industry, highlighting the need for adaptive strategies by SMEs.

### **Implications**

The result aligns with the tenets of transformational leadership theory. Transformational leaders are known for inspiring and motivating their teams during challenging times. The result suggests that external challenges like a pandemic can create an environment where transformational leadership qualities become more pronounced and effective.

The study implies that SMEs in the beverage industry demonstrated resilience and adaptability during the pandemic. Their ability to adjust to remote work, maintain production, and potentially benefit from stable or growing demand for beverages showcases their ability to navigate crises. Diversifying strategies, focusing on internal factors, and not solely relying on external government support are suggested approaches for SMEs.

Policymakers are urged to critically evaluate the effectiveness of government interventions during crises. The study proposes a potential need for a revision in the current approach, encouraging policymakers to explore alternative or supplementary strategies to effectively support SMEs. This aligns with the call for a better understanding of how governmental measures interact with various industries during crises.

The study's support for the positive relationship between transformational leadership and organizational performance has implications for leadership development programs. Organizations, particularly SME beverage manufacturers, are encouraged to prioritize leadership development that fosters transformational leadership skills. Transformational leaders are seen as capable of inspiring, motivating, and enhancing employee satisfaction and loyalty, contributing to improved organizational performance.

The study supports the idea that crises, such as the COVID-19 pandemic, create an environment where transformational leadership qualities become more pronounced and effective. Transformational leaders, by encouraging new ideas, promoting flexibility, and fostering continuous improvement, may play a crucial role in navigating uncertainty and ensuring the well-being of their teams.

Policymakers are encouraged to support SMEs by providing tools, directives, and regulations that facilitate transformational leadership techniques. This includes financing leadership development courses, offering professional counsel, and creating platforms for information exchange and collaboration. The study suggests that governments can play a role in enhancing the leadership capabilities of SMEs in the beverage industry during times of crisis.

### **Limitations**

Applying the findings to other industries, nations, or regions should be done with caution since they may be context-specific to the beverage business in Ghana. The findings might be context-specific to the beverage manufacturing sector and not necessarily applicable to other industries or sectors. The study's results can be constrained by the research methodology's sample size choices, data collection procedures, or statistical methods. Since the study used cross-sectional data, proving causality with certainty is too much work. Longitudinal or experimental designs could be used in future studies to investigate the causal links between variables more thoroughly. The quality and reliability of the data used in the study could be a limitation. The results' accuracy depends on the data's accuracy and completeness. The study relied on self-reporting by SME leaders; there could be a bias in the data, as respondents might provide socially desirable or biased responses. The study's findings might need to accurately represent how the COVID-19 pandemic and associated containment strategies are changing. The situation and responses of SMEs could change over time. There might be a bias in the available literature and data the study uses. Contradictory findings may not be included in the analysis, potentially leading to a skewed perspective. Acknowledging these limitations is essential for understanding the boundaries of the study's findings and interpreting the results cautiously and rationally. Researchers and readers should consider these limitations when drawing conclusions and making practical or policy recommendations based on the study's results.

### **Future Suggestions**

Future longitudinal studies will examine how government intervention and transformational leadership affected leadership performance during and after the COVID-19 epidemic. Conduct in-depth case studies of SMEs within the sector to explore their strategies to leverage transformational leadership and government interventions to enhance leadership performance during the pandemic. Complement quantitative data with qualitative research to gain a deeper understanding of SMEs' experiences, challenges, and successes and their leaders during the pandemic. Qualitative interviews and surveys can provide rich, context-specific information.

### **Recommendation**

Since transformational leadership significantly influences the Leadership of SMEs in the beverage manufacturing sector, it is essential to focus on developing and enhancing transformational leadership skills within the organization. This can be achieved through leadership programs, training, and coaching. Continuously monitor and comply with local health guidelines and regulations to prevent the spread of the virus and maintain a healthy workforce. In times of crisis, effective communication and collaboration are crucial. Encourage open and transparent communication channels within the organization, ensuring that employees are well-informed about the company's strategies, goals, and changes due to

COVID-19. Foster a collaborative work environment where employees can share ideas, collaborate on problem-solving, and support each other. The pandemic has accelerated the digital transformation of businesses. Consider investing in technologies that streamline operations, enhance productivity, and improve customer experiences. This could include implementing e-commerce platforms, digital marketing strategies, data analytics, and remote collaboration tools.

## **Conclusion**

In conclusion, the study has provided valuable insights into the relationships between COVID-19 containment measures, transformational leadership, government interventions, and the performance of SMEs in the beverage manufacturing sector. The study's findings emphasize that implementing COVID-19 containment measures can positively and significantly impact the performance of SMEs Beverage enterprises. This highlights the crucial role of public health measures in managing the effects of a global health crisis. SMEs in the beverage manufacturing sector and other industries should recognize the importance of adhering to these measures to protect public health and ensure the long-term sustainability of their businesses.

It was found that transformational leadership significantly impacted the performance of SME beverage firms, while government interventions also played a significant role. The results showed that the performance of SME beverage firms and COVID-19 containment measures were mediated by transformational leadership style. However, government interventions have had a positive effect but did not moderate COVID-19 containment measures and the performance of SME beverage firms. The study contributes to the body of knowledge in the literature by establishing empirical evidence about how COVID-19 containment measures affect the performance of beverage manufacturing SMEs through the moderating effect of government intervention and the mediating effect of transformational leadership as limited studies have been conducted in a single study.

The study's findings provide guidance for SMEs, policymakers, and researchers in enhancing SME resilience and performance during crises. The finding emphasizes the crucial role of adhering to COVID-19 containment measures in maintaining SME performance during the pandemic. Additionally, the findings underscore the significance of transformational leadership and government support, highlighting factors that influence SME success in challenging times. The study also underscores the significance of transformational leadership in influencing SME performance and leadership during crises like the COVID-19 pandemic. Transformational leaders inspire and motivate their teams, fostering a positive work environment that contributes to improved outcomes. Government interventions, while not a panacea, can positively impact SMEs. Policymakers should design and implement support programs that address the specific needs of SMEs, considering the unique challenges businesses face in the beverage manufacturing sector. Furthermore, the study highlights the complexity of factors influencing SME performance during crises. It is not just about containment measures, leadership, or government support in isolation. Leaders should consider how these elements interact and mediate each other's effects.

## Declarations

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## References

- Aboramadan, M., & Borgonovi, E. (2016, December 15). Strategic management practices are a key determinant of superior non-governmental organizations' performance. *Problems of Management in the 21st Century*, 11(2), 71–92. <https://doi.org/10.33225/pmc/16.11.71>.
- Abubakari, A., Abdulai, M. S., & Adam, A. (2022). The influence of funds on the organizational performance of SMEs in the Tamale Metropolis of Ghana. *Journal of Entrepreneurship, Business and Economics*, 10(1), 109–140.
- Adams, J., & Clark, P. (2022). Government intervention and organizational performance: A systematic review. *Journal of Business Research*, 78, 296–305.
- Akhtar, S., & Yousaf, S. (2020). Role of transformational Leadership in moderating the impact of COVID-19 leadership performance of beverage manufacturing SMEs in Pakistan. *International Journal of Environmental Research and Public Health*, 17(21), 793.
- Alsamhi, M. H., Al-Ofairi, F. A., Farhan, N. H., Al-Ahdal, W. M., & Siddiqui, A. (2022). Impact of Covid-19 on firms' performance: Empirical evidence from India. *Cogent Business & Management*, 9(1), 2044593.
- Altman, S. A. (2020). Will Covid-19 have a lasting impact on globalization? *Harvard Business Review*, 20.
- Asare, P., & Barfi, R. (2021). The impact of the Covid-19 pandemic on the Global Economy: emphasis on poverty alleviation and economic growth. *Economics*, 8(1), 32–43.
- Bass, B. M., & Stogdill, R. M. (1990). *Bass & Stogdill's handbook of Leadership: Theory, research, and managerial leadership*. Simon and Schuster.
- Baumüller, H., Kubik, Z., Dallimore, A., Getahun, T. D., & Velia, M. (2021). *Impact of Covid-19 on Africa's food and beverage manufacturing companies: Evidence from selected African countries* [Paper presentation]. The virtual 2021 International Conference of Agricultural Economists on 17-31 August 2021

- Boer, D., Deinert, A., Homan, A. C., & Voelpel, S. C. (2016). Revisiting the mediating role of leader–member exchange in transformational leadership: the differential impact model. *EurLeadershipnal of Work and Organizational Psychology*, 25(6), 883–899.
- Dai, R., Feng, H., Hu, J., Jin, Q., Li, H., Wang, R., ... & Zhang, X. (2021). The impact of COVID-19 on small and medium-sized enterprises (SMEs): Evidence from two-wave phone surveys in China. *China Economic Review*, 67, 101607.
- Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS Quarterly*, 39(2), 297–316.
- Elkind, J. (2020). *A cross-sectional fMRI study of obesity risk factors in emerging adult women and the moderating role of childhood maltreatment* [Doctoral dissertation, University of Pennsylvania].
- Fairlie, R. W. (2020). *The impact of COVID-19 on small business owners: Evidence of early-stage losses from the April 2020 current population survey*. National Bureau of Economic Research.
- Fiedler, F. E. (1964). A contingency model of leadership effectiveness. *Advances in Experimental Social Psychology*, 1, 149–190. Academic Press.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. McGraw-Hill series in management.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research*, 18, 39–50.
- Hair, Jr., J. F., Babin, B. J., & Krey, N. (2016). Covariance-based structural equation modelling in the Journal of Advertising: Review and recommendations. *Journal of Advertising*, 46(1), 163–177.
- Hall, M. C., Prayag, G., Fieger, P., & Dyason, D. (2020). Beyond panic buying: Consumption displacement and COVID-19. *Journal of Service Management*, 32(1), 113–128. <https://doi.org/10.1108/JOSM-05-2020-0151>
- Hassan, H., Kamaluddin, A., Saad, S., & Samad, N. (2021). The effect of leadership style and innovation capital on SMEs sustainability performance from a managerial perspective. *Journal of Emerging Economies and Islamic Research*, 9(3), 83–97.
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., ... & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on Rönkkö and Evermann (2013). *Organizational Research Methods*, 17(2), 182–209.
- Juergensen, J., Guimón, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: assessing impact and policy responses. *Journal of Industrial and Business Economics*, 47(3), 499–510.
- Kaimann, D., & Tanneberg, I. (2021). What containment strategy leads us through the pandemic crisis? An empirical analysis of the measures against the COVID-19 pandemic. PubMed. <https://pubmed.ncbi.nlm.nih.gov/34106959/>.
- Khan, H., Rehmat, M., Butt, T. H., Farooqi, S., & Asim, J. (2020). Impact of transformational leadership on work performance, burnout and social loafing: A mediation model. *Future Business Journal*, 6, 1–13.
- Kloutsiniotis, P. V., Mihail, D. M., Mylonas, N., & Pateli, A. (2022). Transformational Leadership, HRM practices and burnout during the COVID-19 pandemic: The role of personal stress, anxiety, and workplace loneliness. *International Journal of Hospitality Management*, 102, 103177.
- Koh, Y., Soepriyanto, G., Aljuaid, M., & Hasan, F. (2022). The effect of transformational leadership and remote working on employee performance during COVID-19 pandemic. *Frontiers in Psychology*, 13, 919631–919631.
- Kosfeld, R., Mitze, T., Rode, J., & Wälde, K. (2021). The Covid-19 containment effects of public health measures: A spatial difference-in-differences approach. *Journal of Regional Science*, 61(4), 799–825.
- Lee, V. J., Chiew, C. J., & Khong, W. X. (2020). Interrupting transmission of COVID-19: lessons from containment efforts in Singapore. *Journal of Travel Medicine*, 27(3), taaa039.
- Lee, S., & Kim, B. (2021). The impact of government intervention and transformational leadership on the relationship between COVID-19 leadership measures and organizational performance in South Korean beverage-manufacturing SMEs. *Sustainability*, 13(3), 1079. <https://doi.org/10.3390/su13031079>.
- Li, Z., Anaba, O. A., Ma, Z., & Li, M. (2021). Ghanaian SMEs amidst the COVID-19 pandemic: evaluating the influence of entrepreneurial orientation. *Sustainability*, 13(3), 1131.
- Ma, Y., Liu, Y., & Gao, Y. (2021). The impact of COVID-19 on small and medium-sized enterprises: Evidence from China. *Journal of Small Business Management*, 59(4), 688–702. <https://doi.org/10.1080/00472778.2021.1912397>
- Mahmoud, M. A., Mahmoud, A., Abubakar, S. L., Garba, A. S., & Daneji, B. A. (2022). COVID-19 operational disruption and SMEs' performance: The moderating role of disruption orientation and government support. *Benchmarking: An International Journal*, 29(9), 2641–2664.

- Manzoor, F., Wei, L., Nurunnabi, M., Subhan, Q. A., Shah, S. I. A., & Fallatah, S. (2019). The impact of transformational leadership on job performance and CSR as mediator in SMEs. *Sustainability*, *11*(2), 436. <https://doi.org/10.3390/su11020436>
- Mathende, T., & Yousefi, M. (2021). Transformational leadership role and means efficacy on work performance under volatile uncertain complex and ambiguous environment. *Open Journal of Leadership*, *10*, 277–299.
- McCombs, K., & Williams, E. (2021). The resilient effects of transformational leadership on wellbeing: examining the leadership of anxiety during the COVID-19 crisis. *Leadership & Organization Development Journal*, *42*(8), 1254–1266.
- Muliati, L., Asbari, M., Nadeak, M., Novitasari, D., & Purwanto, A. (2022). Elementary school teachers performance: How the role of transformational leadership, competency and self-efficacy? *International Journal of Social and Management Studies*, *3*(1) <https://doi.org/10.5555/ijosmas.v3i1.97>
- Mwangi, W. (2022). *Effect of crisis mitigation strategies on performance of Small and Medium Enterprises in the manufacturing sector in Nairobi County* [Doctoral dissertation, Strathmore University].
- OECD. (2020). OECD Policy Responses to Coronavirus (COVID-19) Coronavirus (COVID-19): SME policy responses
- Ozili, P. K. (2021). Covid-19 pandemic and economic crisis: The Nigerian experience and structural causes. *Journal of Economic and Administrative Sciences*, *37*(4), 401–418. <https://doi.org/10.1108/JEAS-05-2020-0074>
- Pleninger, R., Streicher, S., & Sturm, J. E. (2022). Do COVID-19 containment measures work? Evidence from Switzerland. *Swiss Journal of Economics and Statistics*, *158*(1), 5.
- Regina, P., Sina, S., & Jan-Egbert, S. (2022). Do COVID-19 containment measures work? Evidence from Switzerland. *Swiss Journal of Economics and Statistics*, *158*(1).
- Santoso, N. R., Sulistyanningtyas, I. D., & Pratama, B. P. (2022). Transformational leadership during the COVID-19 pandemic: Strengthening employee engagement through internal communication. *Journal of Communication Inquiry*, 01968599221095182.
- Sarstedt, M., Hair Jr, J. F., Matthews, L. M., & Matthews, R. L. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, *1*(2), 107–123.
- Saunders, M. N., Gray, D. E., & Bristow, A. (2017). Beyond the single organization: Inside insights from gaining access for extensive multiorganization survey HRD research. *Human Resource Development Quarterly*, *28*(3), 401–425.
- Sturmberg, J. P., & Marcum, J. A. (2023). From cause and effect to causes and effects—*Journal of Evaluation in Clinical Practice*. <https://doi.org/10.1111/jep.13814>
- Thanh, D. C., Nhung, P. L., Nghiem, L. T., & Phat, L. T. N. (2022). Study on the impact of transformation leadership on the performance of small and medium enterprises in can Tho City, Vietnam. *Science & Technology Development Journal - Economics - Law and Management*, *6*(2), 2357–2372.
- Verma, S., & Gustafsson, A. (2020). Investigating the emerging COVID-19 research trends in business and management: A bibliometric analysis approach. *Journal of Business Research*, *118*, 253–261. <https://doi.org/10.1016/j.jbusres.2020.06.057>