

# Factors Affecting Environmental Performance during the Covid-19 Period in the Leather Industry: A Moderated-Mediation Approach

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## Abstract

Like many different and relevant sectors, the leather industry is currently facing a major environmental issue that may affect the competitiveness of all the stakeholders across the value chain. Drawing the conceptual model on the natural resource-based view (NRBV), this study seeks to examine the mediating role of individual green values (IGV) between green transformational leadership (GTFL) and environmental performance (EP). Furthermore, government regulations are used as a moderator concerning the relationship between GTFL and EP. An online survey was randomly distributed to Pakistan's leather industry employees to test the hypothesis by collecting data from 205 respondents. Partial Least Square Structural Equation Modeling (PLS-SEM) has been used to analyze data. The results demonstrate that green transformational leadership (GTFL) positively affects EP. Moreover, this study also reveals that GTFL significantly contributes to developing the IGV that consequently affects EP. Thus, the current study provides a significant sequential GTFL, IGV and EP path. However, surprisingly, the results show that government regulations do not moderate the relationship between GTFL and IGV. This study significantly contributes to the theory and stakeholders and leaders in a vast variety of manufacturing industries. It suggests that all organizations should adopt GTFL principles that encourage employees to engage in environmentally friendly activities by developing green values at the individual level to enhance EP. With this regard, GTFL, IGV, and government regulations may thus play a vital role for organizations and industry for better EP and competitiveness.

*Keywords: green transformational leadership, environmental performance, individual green values, government regulations, Covid-19, Natural Resource-Based View*

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## 1. INTRODUCTION

The shutdown in the economic activity because of the COVID-19 pandemic reduced carbon

emissions in the short term, but the situation is not clear in the longer run. The decreased economic activity in the COVID-19 pandemic results in low carbon emissions, low pollution levels, improved air quality, and a better ozone layer on earth (Tomar & Gupta, 2020). However, it caused a decline in economic activities, job loss and contraction of overall output (Talwar et al., 2021). Environmental policymakers, researchers, and industrial practitioners did not focus on the environment because they assumed their products did not influence it (Kraus et al., 2020). However, environmental decline is considered a major global problem (Rehman et al., 2021d). Researchers and practitioners agree that resource depletion, climate change, rising water, air pollution, dangerous materials usage, and air emissions cause environmental decline (Kraus et al., 2020). Also, the business trends rapidly changed globally due to the competitive environment. Thus, organizations must concentrate on the environment to provide better financial returns or growing revenues (Dhir et al., 2021). The literature confirmed that manufacturing organizations produce waste and pollution that intimidate the survival of life on this planet (Rehman et al., 2021d).

Environmental problems have increasingly emerged worldwide, the greatest challenge facing humanity. The firms face pressure from stakeholders, including the government, customers and other non-governmental organizations, to minimize an environmental decline (Kraus et al., 2020; Talwar et al., 2021), but at the same time, the organizations that are faster in dealing with it may be more competitive and improving performances. In this regard, environmental performance (EP) is the organizations commitment to protecting the environment. The literature argued that organizations must focus on nature conservation and environmental tasks (Kraus et al., 2020). However, no more than 120 empirical articles examine the relationship between COVID-19 and the environment; no review on environmental concerns of the COVID-19 pandemic is available (Sharma et al., 2021). Moreover, researchers suggest that focusing on “green” issues has been a great motivation (Bresciani et al., 2016; Rehman et al., 2021d; Suki, 2016; Sun et al., 2022; TM et al., 2021; Woo & Kim, 2019). Thus, this study focuses on what predictors determine EP.

Top-level employees’ roles become crucial as they affect the firm’s EP. Some researchers reveal that greening the workforce increases EP (Umrani et al., 2020). Despite this, researchers found that greening the workforce does not influence EP (Rehman et al., 2021d). On the other hand, GTFL indirectly affects firms’ performance (Singh et al., 2020), and the researchers used GTFL to measure green creativity (Mittal & Dhar, 2016) and green team resilience (Çop et al., 2021). However, researchers paid less attention to determining EP through GTFL. From the above evidence, it is clear that there were very few empirical studies conducted on EP and transformational leadership; some of them elaborated that GTFL increases EP, but what mediates in between the relationship of these two variables is the point of interest for researchers as, it is still unresolved, and of great value (Singh et al., 2020). Furthermore, we posit that GTFL also plays a pivotal role in developing employees’ green values, attitudes and behaviors (Mittal & Dhar, 2016; Bhutto et al., 2021) that contributes to achieving higher EP (Rizvi & Garg, 2020). A particular leadership style in an organization manifested by the leaders has a significant impact on employees doing their work in terms of developing values, norms, culture and behavior at all levels of the organization, including functional and operational (Banerjee et al., 2003). Recent literature unfolded the studies that examined the relationship between GTFL and EP (Rizvi &



Garg, 2020). However, these studies neglected the missing link between GTFL and EP, which are individual green values as an intervening variable.

Green value is the overall value consumers gain by using the green product and services. Norms activation starts when an individual awareness of possible harmful impacts of their acknowledgment of responsibility for not doing environment-friendly acts. This awareness triggers a personal norm due to which they act in an environment-friendly way. Prior researchers paid scant focus to GTFL, IGV, and government regulations in examining EP (Rizvi & Garg, 2020; Singh et al., 2020; Yang et al., 2015). GTFL is deemed a crucial predictor for organizations. Researchers suggested that organizations focus on GTFL to enhance their performance (Rizvi & Garg, 2020) and their competitive position in the market (Singh et al., 2020). Individuals with high values congruence with firms' green values are expected to reveal positive environmental behavior. Moreover, researchers show that governmental regulations encourage or motivate to change the behavior of firms for the sake of green implementations (Yang et al., 2015). So, leadership teams may take care of GTFL, IGV, and government regulations in determining EP and overall organization competitiveness.

In social science, values are considered an abstract motivation that provides or justifies norms, attitudes, beliefs, actions, and opinions. The GTFL could facilitate fresh ideas by providing clear vision, intellectual stimulation, and motivation to their followers (Mumford, 2000). From a natural resource-based view (NRBV) perspective, green culture could increase EP (Hart, 1995). This study proposed that GTFL can determine IGV that could lead to EP. Hence, this study used IGV as a mediating variable between GTFL and EP. Environmental regulations related to the government have been disregarded mainly in developing countries. This study tries to shed the pieces of light on this important research area by studying governmental regulations (GR) as the moderator that we believe will have importance in the current study. This study has practical and social relevance. It adds to Kim & Seocks (2019) and subsequent developments, which said that environmental norms are developed by telling them the harmful influence of their work on the environment and can be used in industrial EP. Less attention has been paid to determining EP through IGV. This study also makes some remarkable theoretical contributions. It used IGV as a mediator between GTFL and EP. Moreover, researchers shed light on an essential role of government in this relationship, whether regulations either enhance or undermine the influence of GTFL on IGV.

## **2. THEORY AND HYPOTHESES DEVELOPMENT**

### **2.1 Natural Resource-Based View (NRBV)**

The study utilized NRBV to build the theoretical framework. The NRBV is the extended form of RBV theory which hypothesized that organizations could attain sustainable competitive advantage to respond to environmental issues (Hart, 1995). The RBV theory has few omissions. For example, RBV overlooks the interaction between firms' natural environment and firms themselves (Hart, 1995). A few decades ago, this omission was reasonable, but now it is clear that natural environment support is getting a sustainable competitive advantage (Kraus et al., 2020). The NRBV has also emerged as a crucial theoretical lens in operation research. The

prior literature revealed a broader discussion pertinent to NRBV and argued that firms should focus on economic and social attributes to attain sustainability advantage (Hart & Dowell, 2011). The NRBV theory recommended that competitive advantage should be gained from capabilities and environmental policies, i.e., waste prevention systems. The researchers may follow NRBV to measure EP through sustainable leadership and green culture. RBV and contingency theory were used to see the influence of internal (i.e., managerial and organizational) and external (i.e., government policies) factors on export performance (Safari & Saleh, 2020). Researchers paid scant concentration to measure EP through GTFL, IG, and government policies/regulation by using NRBV theory.

## 2.2 Green Transformational Leadership and Environmental Performance

There are very few empirical studies conducted on EP and transformational leadership; these studies elaborated that GTFL increases EP, but does not cover what mediates between GTFL and EP (Singh et al., 2020). GTFL plays a crucial role for organizations in improving EP (Rizvi & Garg, 2020). Nowadays, green topics (GTFL or performance) are the point of interest for researchers. However, with such a concern about poisoned/harmful/unhealthy environments for life, research into this area has paid little attention to developing individual green values to increase EP. GTFL has been discussed in many studies associated with different aspects but has not been used in this model. How should the leather industry leaders lead their employees to develop IG in government regulations and achieve EP by developing IG?

As transformational leadership increases, firm performance is a known fact but what mediates in between them is the interest of the researchers because it is still unresolved. Hence, the researcher wants to see this mystery (Singh et al., 2020). GTFL significantly enhances green performance (Chen et al., 2014). GTFL inspires the firm's internal values and increases the firm's EP (Mittal & Dhar, 2016). The above evidence clearly shows that GTFL always enhances a firm's EP. Other researchers also gave us evidence about this relationship. So, the following hypothesis is formed:

H1: There is a significant relationship between green transformational leadership and environmental performance.

## 2.3 Green Transformational Leadership and Individual Green Values

Our cultural values are that every leader has a follower, and the follower inspired from leader (Muralidharan & Pathak, 2018). Literature stated that leaders significantly impact cultural values within organizations (Chen et al., 2016). Green transformation leaders encourage green employee values (environmental beliefs and environmental norms), due to which employees become more responsible towards environmental protection, which helps employees gain EP (Zhou et al., 2018). The proposed hypothesis is as follows:

H2: There is a significant relationship between green transformational leadership and individual green values.

## 2.4 Individual Green Values and Environmental Performance

Doran & Larsen (2016) have researched the influence of specific environmental norms and



beliefs. Moreover, the social and personal norms influence behaviors (Kim & Seock, 2019), and the behavior is the antecedents of outcome (i.e., EP). However, the relationship between IGV and EP has not been studied yet too much. Therefore, there are few shreds of evidence on this relationship. Although the research literature supports this relationship (impact of values on EP), there is also evidence that values do not impact EP (Pepper et al., 2009). Environmental values were strongly related to product recycling or minimizing waste and protecting nature (EP). Therefore, the following hypothesis has been formed:

H3: There is a significant relationship between individual green values and environmental performance.

## 2.5 Individual Green Values as a Mediator

It is better to focus and practice your values than hang like decorative items to achieve competitive advantages. Leaders have to create core values of treating people well to make a positive working environment. Employees do what their leaders guide them, and leaders develop values in them and increase performance. The prior literature sufficiently indicates that employees' green values, norms, culture, motivation and behavior are crucial for producing green products, services and green management systems (Graves & Sarkis, 2018) that improve organizations' EP and competitiveness in the fiercely competitive market. Furthermore, Singh et al. (2019) also validated the arguments pertinent to the green employee values and EF relationship as they found employee environment ethics positively related to EP.

Leaders are responsible for showing companies acknowledged values in daily activities. The researchers used GTFL to measure green team resilience (Çop et al., 2021) and green creativity (Mittal & Dhar, 2016). The researchers paid less attention to GTFL and EP. From the evidence mentioned above, it is clear that there were very few empirical studies conducted on EP and transformational leadership. Several researchers that apply the VBN theory find it operative for forecasting environmental behavior (Steg et al., 2005). According to this study, leadership explains the harmful impacts of the acts that activate the norms that are green values of individuals that inspire the individual to act pro-environmental, due to which EP increases.

H4: Individual green values mediate the relationship between green transformational leadership and environmental performance.

## 2.6 Government Regulations as a Moderator

Due to the emergence of various environmental issues, many governments have taken the serious initiative to mitigate and solve the environmental problems by formulating and implementing rules and guidelines (Park & Yoo, 2021), e.g., the Canadian government implemented regulations regarding fewer energy consumptions, recyclable packages in Zimbabwe.

In Pakistan, a ten billion-tree tsunami plantation is to curtail greenhouse gases and CO<sub>2</sub> emissions. Based on the evidence from above, it is clear that the government's role in curtailing environmental issues is critical (Hafezi & Zolfagharinia, 2018). However, governmental regulations must explicitly address the key aspect of the development of green leadership in organizations that create green norms and values among their labor force that may lead to

higher EP. Literature found that governmental regulations encourage or even motivate firms to change the behavior of firms to apply green implementations (Wu et al., 2020). Influencing toward the green environment may occur due to penalties for pollution. According to Steg et al. (2005), support for environmental regulations can be enhanced by increasing awareness about environmental responsibility by increasing biosphere values, personal norms regarding the environment, and understanding consequences created by more energy consumption or by showing non-environmental behavior, in short, by developing IGV. Government policies influence to act green due to the penalties. Government regulation is an external fact. If it is present, then this will be done better. On the other hand, if it is not present, it cannot impact this relationship too much.

H5: Government regulations moderate the relationship between GTFL and IGV.

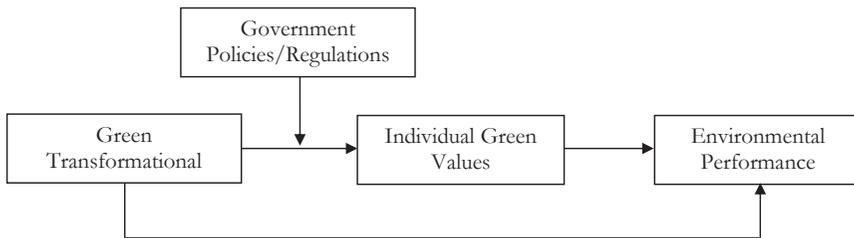


Fig. 1 – Research model. Source: own research

### 3. METHODOLOGY

#### 3.1 Participants and Procedure

The research design refers to an arrangement, structure, and strategy to solve the research problem. Research methodology plays a crucial role in attaining research objectives. Literature confirmed that an appropriate technique is needed to achieve research objectives and solve theoretical and practical issues (Dezi et al., 2019; Rehman et al., 2019). Hence, our research is quantitative, cross-sectional, and collected through questionnaires. A quantitative and cross-sectional technique was used for this study as researchers use population-based surveys, and usually these studies are relatively faster and inexpensive (Sekaran & Bougie, 2016). The data were collected from the managers and employees of the leather industry of Pakistan during the Covid-19 pandemic. The leather industry is the 2nd largest export earning industry of Pakistan. About 800 tanneries actively produced the best quality finished leather of Cow, Buffalo, Sheep & Goat skins in Pakistan. A pre-test was conducted before actually distributing questionnaires among respondents. A total of six individuals were chosen for the pre-test, three persons have industry experience, and the remaining have academic experience. Data were gathered via an online close-ended structured questionnaire survey due to the COVID-19 situation in Pakistan. The survey questionnaire was developed in English as English is the second official language in Pakistan, which corporate managers easily speak and understand. The survey questionnaire contained the cover page explaining the objectives statement, assuring the confidentiality of the



responses and statements related to defining the four research latent constructs. The respondents asked twenty-nine questions attached to the study's latent constructs. According to Comrey & Lee (1992), the sample size 50 is very poor, sample size 100 is poor, sample size 200 is fair, sample size 300 is good, sample size 500 is very good, and 1,000 or more is deemed excellent. Hence, a total of 1,000 questionnaires were distributed among respondents. To maximize the response rate, the study planned to complete the data collection in May 2021. However, only fifty questionnaires were received during that period. To follow up, reminders were made to the respective contact persons. The third step to maximize the response rate was slating an additional 45 days (i.e., June and July 2021) to continue with follow-up, making the duration of the data collection. Several approaches were employed during this additional period, such as phone calls, short message services, and LinkedIn ids. After these efforts, the total number of useable questionnaires was 205. The overall sample size was low due to the COVID-19 situation in Pakistan, as the majority of the industrial units were closed. From a gender perspective, most of the respondents were male, which equals 179 or 83.3%, and females were 26 or 12.6%. From age perspectives, most of the respondents were greater than 50 years which equals 72 or 35.12%. The respondents between 30 to 35 years old were 13 or 6.34%, between 36 to 40 years old 21 or 10.24%, between 41 to 45 years old were 35 or 17.07%, and respondents between 46 to 50 years old were 64 or 31.21%. From an experience perspective, most of the respondents have experience of 21 to 30 years, which equals 76 or 33.07%. The respondents have experience of 1 to 10 years, which equals 43 or 20.97%, 11 to 20 years were 69 or 33.65%, and more than 30 years were 17 or 8.29%.

### 3.2 Measures

A six-item scale of GTFL was developed by Chen & Chang (2013). IGV was measured with 17 items (8 items for environmental beliefs and nine items for environmental norms) developed by Chou (2014). Five items to measure governmental regulations from Carter & Carter (1998) and Darnall (2006). EP was measured by a six-item scale developed by Zhu & Sarkis (2004). Respondents had to select options amongst “to no extent” to “to a very great extent” using a five-point Likert scale. Only established variables from prior studies have been used, measuring variables in five-Likert scales (Ferraris et al., 2020; Rehman et al., 2021a; Rehman et al., 2021b; Rehman et al., 2021e; Rehman et al., 2021f).

## 4. RESULTS

### 4.1 Measurement Model Assessment

This study used PLS-SEM (using SmartPLS 3.3.3 version) to test hypotheses. The previous. PLS model outcomes are more reliable than the OLS model, where data is small, has multicollinearity issues, and has some missing values. PLS also provides accurate results on small sample size (Hair et al., 2014). The two-stage model was adopted, including the measurement and structural model. Tab 1 demonstrates that the smallest loading is 0.650 and the upper is 0.895, greater than the standardized value, i.e., 0.5 literature confirmed that PLS-SEM is appropriate when data do not meet normality assumptions (Kraus et al., 2020; Rehman et al., 2021d; Rehman et al., 2021c)

0 (Hair et al., 2014). Internal consistency was examined through composite reliability (CR), greater than 0.70 for all latent constructs, as shown in Table 1, establishing internal consistency. Moreover, researchers recommend computing average variance extracted (AVE) for convergent validity. The current study fulfills this criterion as the AVE value is greater than 0.50 for all latent constructs (Hair et al., 2014).

Tab. 1 – Convergent validity. Source: own research

Constructs	Items	Factor Loading	CR	AVE
<b>Green Transformational Leadership</b>	GTFL1 GTFL4 GTFL5 GTFL6	0.650	<b>0.834</b>	<b>0.559</b>
		0.787		
		0.806		
		0.737		
<b>Individual Green Values</b> i) Environmental Beliefs	EB1 EB2 EB3 EB4 EB6	0.712	<b>0.879</b>	<b>0.593</b>
		0.807		
		0.793		
		0.768		
		0.767		
ii) Environmental Norms	EN1 EN2 EN4 EN6	0.820	<b>0.856</b>	<b>0.600</b>
		0.848		
		0.668		
		0.749		
<b>Governmental Regulations</b>	GR1 GR2 GR3	0.871	<b>0.903</b>	<b>0.756</b>
		0.895		
		0.883		
<b>Environmental Performance</b>	EP1 EP2 EP3 EP4 EP5 EP6	0.845	<b>0.921</b>	<b>0.661</b>
		0.858		
		0.750		
		0.755		
		0.857		
		0.804		

To ensure the discriminant validity, the Heterotrait-Monotrait Ratio (HTMT) criterion was adopted. It shows that all diagonal values of latent constructs are less than 0.90; hence, establishing the discriminant validity as shown in Table 2.

Tab. 2 – Heterotrait-Monotrait Ratio (HTMT). Source: own research

	EP	GR	GTFL	IGV
Environmental Performance				
Governmental Regulations	0.842			
Green Transformational Leadership	0.678	0.742		
Individual Green Values	0.699	0.769	0.801	



## 4.2 Model Fit Analysis

The current study employed the Standardized root mean square (SRMR) technique as suggested by (Henseler et al., 2014) for model fit analysis. It is described as the differences between the observed and expected correlations. SRMR value should be within 0 to 1, and the value near to 0, known as the model, fits perfectly. Table 3 represents the Model Fit Summary showing SRMR value 0.111, nearer to 0 offerings acceptable range. In addition, SmartPLS also provides another criterion NFI to ensure the model fits a path model. A value closer to 1 is better to fit. Table 3 highlights that the model is perfectly fit.

Tab. 3 – Models Fit Evaluation. Source: own research

	Estimated Model
<b>SRMR</b>	0.111
<b>NFI</b>	0.910

## 4.3 Structural Model Assessment

The following test has to be performed in the structural model: coefficient of determination ( $R^2$ ), effect size ( $f^2$ ), and the significance of path coefficients. The coefficient of determination ( $R^2$ ) value indicates the variance in a dependent variable explained by the independent variables. In other words, it is the proportion of variability in the data that the measurement model explains. Chin (1998) suggested that the R-square value of 0.19 is considered weak, 0.33 is moderate, and 0.67 is deemed to be substantial. Table 4 shows the  $R^2$  values. The  $R^2$  value of IGV is 0.543 reveals that the predictive accuracy appears between the moderate and substantial determination. The predictive accuracy of EP is given as 0.426, which is also considered moderate. In addition, the method of calculating effect size ( $f^2$ ) is provided in the equation below (Chin, 1998). Effect sizes are categorized as 0.02, which is considered weak, 0.13 as moderate, and 0.35 as strong.

Tab.4– Effect Size. Source: own research

Relations	$f^2$	Results
GTFL->IGV	0.228	Moderate
IGV->EP	0.066	Weak
GTFL->EP	0.209	Moderate
(Moderating relation)		
Relations	$f^2$	Results
GTFL*GR->IGV	0.005	Weak

Table 4 shows direct paths showing moderate and weak effect sizes ranging from 0.005 for the moderator (GR) to 0.228 for GTFL to IGV. In addition, to test the hypotheses of this study, PLS-SEM has been employed to examine the proposed hypotheses. Bootstrapping technique was applied with 500 samples and 205 cases through which the results of path coefficients were achieved, giving the required values such as  $\beta$  value, t-value, and p-value (Preacher & Hayes, 2004). Table 5 presents the relationships, including the hypothesized model's direct and indirect

relations. The H1 shows the significant relationship between GTFL and EP ( $\beta=0.257$ ,  $t=3.228$ ,  $p=0.001$ ); therefore, it is accepted. The H2 also reveals the significant relationship between GRTFL and IGTV ( $\beta=0.414$ ,  $t=6.771$ ,  $p=0.000$ ), hence accepted. Similarly, the H3 also shows a significant relationship between IGTV and EP ( $\beta=0.456$ ,  $t=6.186$ ,  $p=0.000$ ).

Tab. 5 – Structural model. Source: own research

Direct relations						
Hypothesis	Structural Relations	$\beta$	SD	T-stat	P-value	Results
H1	GTFL -> EP	0,257	0.080	3.228	0.001	Accepted
H2	GTFL -> IGTV	0.414	0.061	6.771	0.000	Accepted
H3	IGTV-> EP	0.456	0.074	6.186	0.000	Accepted
Mediation Effect						
Hypothesis	Structural Relations	$\beta$	SD	T-Stat	P-value	Results
H4	GTFL->IGTV->EP	0.189	0.040	4.760	0.000	Accepted

Furthermore, H4 postulated that IGTV mediates the relationship between GTFL and EP ( $\beta=0.189$ ,  $t=4.760$ ,  $p=0.000$ ), thus accepted for the current study. Moreover, the result of H5 in Table 6 reveals that GR does not moderate the relationship between GTFL and IGTV ( $\beta=-0.016$ ,  $t=0.927$ ,  $p=0.354$ ). Therefore, H5 is rejected.

Tab. 6 – Structural equation model results for moderation. Source: own research

Hypotheses	Structural Relations	$\beta$	SD	T-Stat	P-value	Results
H5	GTFL * GR -> IGTV	0.016	0.017	0.927	0.354	Rejected

## 5. DISCUSSION AND CONCLUSION

The current study draws a conceptual framework and hypothesized relationships based on the NRBV. NRBV theory suggested that competitive advantage can be gained from capabilities and environmental policies, i.e., waste prevention systems. Five hypotheses were postulated and examined that unfold mixed results. As per expectations, the result of H1 establishes the relationship between GTFL and EP in the leather industry during the COVID-19 period. The result corroborates prior literature that GTFL is an important antecedent to enhance EP. For instance, GTFL significantly increases its green performance in Taiwan’s electronic industry (Chen et al., 2014). Furthermore, GTFL inspires the firm’s internal values and increases the EP of the firm (Mittal & Dhar, 2016). To gain EP, leadership helps develop green strategies and green policies and implements these policies. Ramus (2001) postulated that in giving up the organization’s barriers to environmental well-being. Leadership plays a significant role in increasing the organization’s EP. Similarly, the second hypothesis assumed that GTFL has a considerable relationship with IGTV. The result of H2 also explains that GTFL has a significant relationship with IGTV. This result also aligns with the prior literature as green transformation leaders encourage green employee values (environmental beliefs and environmental norms). Employees become more responsible for environmental protection, which helps gain green

performance (Zhou et al., 2018). According to Chen et al. (2016), cultural values impact the behavior that forms cultural expectations of perfect leadership, and leaders lean towards behaving within these expectations.

In a similar vein, H3 proves that IGV enhances EP. The relationship between IGV and EP has not been extensively studied yet. However, a limited notion of the relationship between IGV and EP may be traced in the previous literature. Environmental norms influence consumer behavior in the USA (Kim & Seock, 2019), and the behavior is the antecedent of the outcome, i.e., EP. Environmental values were strongly related to product recycling or minimizing waste and protecting nature, i.e., EP. The H4 hypothesized that IGV significantly mediates the relationship between GTFL and EP. It is evidenced that green transformation leaders encourage green employee values (environmental beliefs and environmental norms). Due to that, employees become more responsible for environmental protection, which helps to gain EP (Zhou et al., 2018). The current findings also validate the previous studies that highlight the important role of GTFL to develop pro-environment values in employees of organizations (Umrani et al., 2020) that are correlated with higher firm competitiveness (Singh et al., 2020). Moreover, GTFL also significantly affects employees working in a team towards the environment (Çop et al., 2021). The distinguished researchers also highlight the important implication of leaders in developing positive attitudes and values regarding preserving the environment that enhances EP.

The current study does not find any evidence of a moderating role of GR in the relationship between GTFL and IGV; therefore, H5 is rejected. However, the current result contrasts with the prior literature as it unfolds the important role of GR. Previous studies have found that governmental regulations encourage or motivate to change the behavior of firms for the sake of green implementations (Yang et al., 2015). The influence towards green environment may occur due to penalties for pollution. The rationale for rejecting H5 may be put forward as a developing country where environment preservation and EP have not been the area of interest for previous governments. Therefore, Pakistan is among the five top countries being severely harmed due to rapid environmental deterioration. Nevertheless, the current government implements government regulations, yet the employees are not entirely aware and follow them.

## 5.1 Theoretical Implications

Workforce management is one of the crucial areas of management research that researchers and practitioners have emphasized over the years. However, the COVID-19 pandemic has many affecting spheres of the industry and competitive dynamics, including financial attitude (Talwar et al., 2021), adoption postponement of mobile payment (Khanra, et al., 2021), purchasing behavior (Laato et al., 2020) and especially organizations' EP (Guérin & Suntheim, 2021). Therefore, current research aims to examine the factors that affect the EP of the leather industry in the COVID-19 period. This study presents various theoretical implications that fulfill the gap in the prior literature of GTFL, EP and NRBV. In this way, this study contributes to broadening the NRBV theory by revealing that GTFL is an important construct to enhance EP. Prior researchers used mainly ability-motivation-opportunity and RBV theory to develop GTFL and EP (Singh et al., 2020). However, this study extends NRBV theory by utilizing it as an essential lens to empirically examine the hypothesized path of GTFL and EP in the COVID-19 pandemic. The

NRBV has been proved as a critical theoretical lens to underpin the hypothesized model in the current ongoing pandemic of COVID-19. Furthermore, the idiosyncrasy of this study is further extended to examine the mediating role of IGV between GTFL and EP, which is still scant in the existing literature (Rizvi & Garg, 2020), especially when it comes to developing hypothesized model based on the NRBV which is found to be elusive. It is established that transformational leaders develop and share a green vision and mission that create green values and culture to enhance the overall organizational EP. More specifically, it suggests that when GTFL exists in the organization, it contributes to creating green value at the individual employee's level, consequently enlightening the employees to preserve the natural environment to enhance EP. Finally, to strengthen the relationship between GTFL and IGV, GR was examined as a moderator, assuming that in the effective implementations of GR, GTFL better plays its role in developing IGV. Although GR is a moderator in the relationship between GTFL and IGV, it is novelty of the current study. The present study cannot establish GR as a moderator between GTFL and EP. Prior researchers used NRBV theory with GTFL, IGV, and EP in different articles (AlNuaimi et al., 2021; Rizvi & Garg, 2020). This study also extends NRBV theory by adding governmental regulations to the research model.

## 5.2 Practical Implications

The current study provides various managerial implications to different stakeholders to improve the competitiveness of the whole value chain in an emerging market. Firstly, this study suggests that firms should develop GTFL to enhance EP. It will contribute to developing employees' pro-environment values and behavior, and they will be more keen to preserve the environment and mitigate environmental degradation. Secondly, since organizations are under immense pressure to mitigate the adverse impacts of business to earn maximum profits (Kraus et al., 2020), this study suggests that the entire workforce of organizations, including top management and employees working on an operational level should show commitment and passion for preserving and own environment that will lead to better EP. In addition, we also suggest that top management should include environment preservation as one of the core agendas and goals of the organization that should be reflected in vision, mission and core values. It will help to draw strategic goals and strategies based on enhancing EP. Moreover, this will also be helpful to create a green culture that contains green norms, values and behaviors. In other words, these initiatives are likely to carry effectively triad of profit, society and environment. It is also suggested that top managers invest in employees' "green" training to develop and enhance green skills for making operations and surroundings green. These kinds of green training will enhance green knowledge, green capabilities and motivation in employees to be environmentally friendly and engage them in other green activities to increase EP. Knowledge is considered crucial for organizations in determining their performance (Santoro et al., 2020; Santoro et al., 2019). It also suggests that top management should implement such a hiring system that may help identify potential candidates who have a propensity and inclination towards environmental safety. Such potential candidates are trained and motivated to indulge in green organizational processes to enhance EP. This study suggests that firms in the leather industry encourage employees to adopt a green management system by giving rewards based on their green performance during working hours. Furthermore, it suggests that firms conduct sessions about GR pertinent to the environment as employees



working in the industry are largely unaware of the GR related to environmental protection. This may help improve the competitiveness of the single firms and the whole value chain.

### 5.3 Limitations and Future Recommendations

No study is complete without limitations. Thus, this study also has some limitations, and these limitations further lead to future recommendations. Firstly, this survey was conducted in the leather industry with specific competitive dynamics. The conceptual framework should be empirically tested in other sectors with competitive forces that are different in intensities, e.g., food (Nirino et al., 2020) and countries, e.g., developed countries. Secondly, this study is cross-sectional in nature and survey-based. We recommend that further research should be longitudinal. Thirdly, this study has a limited sample size due to the COVID-19 pandemic. Other studies recommend using a diverse and larger sample size to generalize the findings. Thus, future researchers also concentrate on GTFL, green policies/regulations, and IGV to determine the performance of green hotels in developing and developed countries.

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