



Leader Green Behaviour as an Outcome of Followers' Critical Thinking and Active Engagement: The Moderating Role of Pro-Environmental Behaviour

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1. Introduction

Temperature around the globe has risen by 1°C at present as compared to pre-industry (Allen et al., 2018). Global climate models highlighted a continuation of human-caused climate change during the 21st century and beyond and by the end of this century, the global average temperature is likely to rise by nearly 5°C. To mitigate and cope with the rising issues of global climate change, 197 countries signed an agreement in Paris in 2015, that offers a roadmap for developed nations to help developing countries in climate control efforts. Therefore, companies around the globe are proactively trying toward better environmental responsibility and stewardship (Aguilera et al., 2007; Aguinis and Glavas, 2012; Kim et al., 2017). Organizations that promote environmental sustainability through different activities are called green organizations, and individual behaviours that are related to environmental sustainability are termed as green behaviours (Andersson et al., 2013; Renwick et al., 2013).

Providing leadership is an essential aspect of organizational success, finding which particular behaviours and capabilities must be present there is important. For the organization, it is difficult to comprehend the outcomes of leadership without articulating the behaviours/capabilities required. Thus, in the last 50 years, leader-centric perspective of leadership has dominance among research scholars who think followers' attitude and motivation as the results of leaders' behaviour (Bass & Stogdill, 1990; Bass et al., 2003; Judge & Piccolo, 2004; Jiang et al., 2017; Lowe et al., 1996; Para-González et al., 2018;). Particularly, in most of the Green HRM scholarship, the dominance of leader-centric approach of followers' outcomes such as PEB, has been observed (Afsar, 2018); environmental sustainability (Cop, 2021); workplace green behaviour (Kim et al., 2017); harmonious environmental passion (Robertson & Barling, 2013); green performance (Tuan, 2019) and green product development performance (Zhang et al., 2020). But there is one question: what makes these leaders effective in addition to their personal qualities/traits? Responding to the question, Riggio, Chaleff, and Lipman-Blumen (2008) articulated that irrespective of who is honoured as founder, no organization is built without the combined effort/support of a silent yet enthusiastic groups of followers.

Kelley's (1992) in his book "The Power of Followership" presented a model based on two dimensions: 1) independent critical thinking (ICT) and 2) active engagement (AE). Based on

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3 these two dimensions, Kelley highlighted a positive view of followers. Different authors
4 incorporated these two dimensions in order to highlight different followership types. For
5 example, Challey (1995) conceptualization of courageous followership highlighted that
6 follower having courageous behaviour assume responsibility, accept challenges, and take
7 moral actions. Which are similar to the Kelley (1992) conceptualization (Blanchard et al.,
8 2009). Recently, Carsten et al. (2018), investigated the role orientation (co-production
9 orientation and passive orientation) perspective of followership to determine leadership
10 outcomes. Co-production orientation highlighted followers with active engagement
11 capabilities, provide constructive feedback and work as a partner with leader (Carsten et al.,
12 2010). Therefore, this research articulates leader's outcomes of followership behaviour; and
13 investigate how followership dimension or characteristics (critical thinking and active
14 engagement) shape LGB and how FPEB affects the proposed relationship.

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24 Moreover, to examine the considerable impact of follower environmental behaviour on
25 corporate environmental outcomes, leadership behaviour considers as an important link
26 between organizations and their human capital and exerts a profound effect on green
27 management. Studies have confirmed that leadership support for environmental protection
28 enhance green management practices among employees (Afsar, 2018; Cop, 2021; Islam et al.,
29 2020a; Islam et al., 2020b).

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34 The three main sectors of Pakistan's economy are agriculture, industry, and services. The
35 number of small and medium enterprises (SMEs) in Pakistan is almost 3.3 million. These are
36 comprised of manufacturing units, business start-ups, and service providers. These SMEs
37 consist of 78% of the non-agricultural employment, which contribute as much as 25% exports
38 and over 30% of the GDP (Khan, 2020).

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43 In recent years, the Pakistani Government has started the Billion Trees Tsunami
44 Afforestation Project (BTTAP) to counter the negative effects of global warming. BTTAP is
45 considered a significant step for promoting land use and forest restoration (Kamal et al., 2018).
46 From 2014 to 2018, BTTAP increased social responsibility by 69% and the overall social
47 impact was satisfactory and beneficial (Khan et al., 2019). Additionally, BTTAP has positively
48 influenced the economic condition of people. Apart from BTTAP, in 2019, there was another
49 important step taken by the Pakistani government: banning plastic bags and making it
50 mandatory to use degradable shopping bags for daily shopping purposes. These initiatives show
51 that the Pakistani government and institutions are taking considerable steps towards sustainable
52 development of the overall system. Currently, in Pakistan, SMEs are continually engaged in
53 sustainable practices and most of them believe that they are trying to minimize waste, carbon
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3 emission and energy consumption. Government intervention is considered as an important
4 factor to adopt green technology in SMEs (Kasi et al., 2019; Kousar et al., 2017). Therefore, it
5 is pertinent to examine the most important determinants of Green HRM in order to encounter
6 complex environmental challenges (Krueger et al., 2000; Engle et al., 2010; Pihie and Bagheri,
7 2011; Shabbir, 2014).

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12 In a nutshell, this paper adopts the role-based approach of followership to see relationship
13 between LGB and Followers' AE and ICT (Shamir, 2007). First, a thorough review is
14 articulated on role-based perspective, Kelley's followership model, LGB and FPEB. Second, a
15 theoretical framework and research hypotheses are presented, while in the third section,
16 methodology and analysis are discussed followed by the conclusion and contribution of the
17 study.

22 **2. Literature review**

23 **2.1 Role-based View**

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26 Traditionally, in leader-centric approaches, followers were treated as passive individual
27 who remained at the disposal of leader, but in the late 20th century, this was realized and
28 articulated that in the leadership process followers were deemed as active participants (Kelley,
29 1992; Shamir, 2007). Role-based perspective highlights that in the leadership process the role
30 of followers is active, not passive. This approach advocates for the active role of followers in
31 a hierarchical context. According to Collinson (2006); Lord and Brown (2004) and Uhl-Bien
32 et al. (2014), this approach is based on followers' styles, implicit followership theories,
33 identities and how all these shape leadership intentions and behaviour. Moreover, Shamir
34 (2007) argued that contrary to the leader-centric approaches, this approach augments the active
35 role of followers in the leadership process and support the notion that followers are the causal
36 agent of leaders' outcomes or behaviour (Uhl-Bien et al., 2014).

37 **2.2 Leader Green Behaviour**

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Green behaviour involves practicing environment-friendly behaviour at work in a friendly
environment. Green behaviour is among those several strategies that are followed by
organizations to achieve sustainable targets and to enhance their environmental performance.
Leaders engrave values in their behaviour. Leading by example is a mechanism through which
leaders transmit their values to their followers (Dragoni, 2005; Yaffe and Kark, 2011). In a
typical work environment leader is considered to be a source of information related to
appropriate and important workplace behaviour (Mayer et al., 2007). Similarly, LGB could be
influential in exhibiting the same behaviour on part of their followers.

LGB highlights the importance of environmental stewardship and inspire employees to perform activities such as green process & product innovation (Andriopoulos and Lewis, 2010), to improve environmental performance (Dranev et al., 2018), FPEB (Afsar, 2018) and green employee performance (Tuan, 2019). Recently, a number of studies attempted to highlight the role of leader green behaviour in studying green outcomes (Luu, 2020; Roeck and Farooq 2018; Sing et al., 2020), and the focus of these studies was green transformational leadership.

2.3 Theoretical Framework and Hypotheses Development

According to Blau (1964), Social Exchange Theory (SET) provides a base for comprehending managers and organization's role in producing fruitful outcomes and the feelings of followers' obligations. The notion of SET highlights the indefinite favorable exchange or action between an organization and its members, with the belief that such treatment will be eventually returned back [reciprocal] (Blau, 1964; Gould-Williams and Davies, 2005). In the leadership domain, this theory is based on the notion of relationship and opposes the traditional leader-centric approaches. The theory focuses on how to establish favorable relationship among leaders and followers (Graen & Uhl-Bien, 1995; Northouse, 2013). However, from the perspective of followership, the followers' role remains passive in SET. Leader acts as an initiator and a follower obediently follows the instructions received by the leader to establish and enjoy long term relationship (Grant, Gino, & Hofmann, 2011; Kark, Shamir, & Chen, 2003). On the other hand, ICT dimension highlights followers with critical thinking ability, provide constructive feedback and the courage to question leader's decision with alternative solutions. Similarly, AE dimension represents followers having abilities to support and actively engage to argument leadership process (Brumm & Drury, 2013; Kelley, 1992, 2008; Khan et al., 2019). Moreover, followership role orientation perspective highlights the belief that individuals have, regarding the role/position of followership and its effectiveness (Carsten et al., 2017). Leader and follower identities and role orientation are important as they affect one's behaviour in performing a role in the leadership process. Carsten et al., (2017) found that followers' co-production role orientation is positively associated to leaders' outcomes (motivation and perceived followers support). While passive role orientation was witnessed as less supportive by leaders. Therefore, this study underpinning SET, attempts to offer theoretical foundation to the role of ICT and AE in leadership outcome. Extending SET to reflect upon empirically, it is assumed that neither followers are always on the receiving end nor passive in the relationship, but they also actively contribute their level best to leadership process to achieve mutual benefits for the success of organization.

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3 **2.3.1 Independent Critical Thinking and Leader's Green Behavior:** The inclusion of
4 followers in the leadership process has revealed that followers are capable of influencing
5 leadership effectiveness leading toward overall organizational positive outcomes (Oc, 2018).
6 Chaleff (2009) pointed out that courageous followers could lead the organization towards
7 success by helping their leaders and taking responsibility for their work by themselves as the
8 courageous followers do not follow the leaders blindly, instead, they challenge the decisions
9 of the leader with their ICT, whenever needed. Moreover, it has also been proved in the
10 previous research studies that courageous followership leads to exemplary leadership where
11 the leaders are encouraged to accept the followers' ideas and also promote their rational
12 thoughts in order to contribute to the process of decision-making (Hage & Posner, 2015).
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Khan et al. (2019) proposed that transformational leaders were a source of support by
helping identify problems with their respective solutions. New substitute ideas for changes or
projects are then communicated, intending to act as their partners in order to achieve their
unified goals. So, in a more conclusive way, it is supported that a higher level of ICT in
followers led them to encourage their leaders to evoke a sense of internal drive, intrinsic
motivation, charisma and effectiveness towards their followers.

Therefore, when the organization faces lots of changes, these followers assist leaders to
propose viable substitute solutions. Furthermore, their proactiveness in programs leading
change inevitably encourages leaders and fosters a healthy, trust-based relationship which in
turn leads to fruitful change implementation (Khan et al., 2019). Likewise, according to
Carsten, Uhl-Bien & Huang, (2018) and Fairhurst and Uhl-Bien (2012), those organizations
which pay greater attention to the development of followers in order to translate into productive
followership outcomes, which can eventually be a support to develop the transformational
leaders and produce wide-ranging positive outcomes in an organization so as to excel in this
competitive era.

Additionally, followers with ICT are always inclined to provide sophisticated information
to their leaders in order to enhance work unit effectiveness and its performance (Gatti, Ghislieri
& Cortese, 2017). In addition, the ability of ICT in followers has proved to be a reliable support
to the leaders in order to retain effectiveness in the leadership process as well as increase work
quality so that organizational goals could be achieved with the more efficiency (Boothe, Yoder-
Wise & Gilder, 2019). Followers who fall in this category, believe that they carry the onus to
gather and make available crucial information to their leaders as well as provide constructive
criticism to the leader's decision when apt and also be a source of identifying and solving
problems (Carsten et al., 2018).

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3 According to Howell and Shamir (2005), a leadership role is strongly supported by
4 followers' endorsement and their openness to back up their leaders. This is because, this gesture
5 uplifts the self-confidence of leaders, their readiness to make sacrifices and their spirit of unity.
6 Therefore, followers' involvement in form of their critical thinking is mandatory to shape the
7 charismatic behaviour of leaders (Howell & Shamir, 2005). Recently, Jiang, Gao, and Yang
8 (2018) reported a significant relationship between followers' ICT and leaders' inspirational
9 motivation as an outcome, which influenced followers' voice Behaviour through voice
10 efficacy. Therefore, follower ICT is a cognitive ability which influences follower engagement
11 and Behaviour as driving factors when interacting and supporting the leaders within an
12 organizational setup. Therefore, based on the above discussion the following hypothesis has
13 been proposed:
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22 *H1: Independent critical thinking is positively related to leader's green Behaviour*

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24 **2.3.2 Active Engagement and Leader's Green Behavior:** Khan et al. (2019) bring into
25 limelight the followers' active role and elaborates on how the engagement level plays an
26 important role in defining transformational leadership Behaviour. Stern (2021) is of the opinion
27 that followers are equally accountable for collecting and disseminating crucial information to
28 the leaders, categorically singling out and proposing solutions, and helping the leader to
29 constructively reach their true potential. For example, Guenter et al. (2017) recommends that
30 followers could directly impact leaders, subsequently, the active participation and engagement
31 of followers could be justifiably recognized as a primary constituent of effective leadership
32 (Yip and Walker, 2021). According to Kohles, Bligh, & Carsten (2012), followers' AE and
33 their strong role is essential to help leaders meet their organizational objectives (Mamaril,
34 2021). Similarly, followers who are deeply involved with their leader, are more mindful of the
35 leadership's vision and overarching objectives. The follower is inadvertently expected to be
36 cognizant of the information and time limitations that leaders face and act in a way to facilitate
37 agenda of the leader (Yip and Walker, 2021). In lieu of the claims by Parker et al. & Bligh
38 (2011), when followers adopt a proactive work attitude, it inevitably influences both the work
39 unit outcomes and the perception of the leader. For instance, AE may manifest in voice
40 behaviour aimed at providing ideas and suggestions in a way that makes the leader feel
41 supported and motivated. Followers with AE beliefs are also expected to proactively solve
42 problems rather than passing them on to the leader through upward delegation.
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56 Research conducted by Carsten, Uhl-Bien & Huang (2018) to inspect the secondary effects
57 of followers' co-production (co-producing leadership outcomes) and passive (deferring to
58 leadership influence) role orientations on leader-rated outcomes of perceived follower support,
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3 leader motivation, and follower's contribution to goal attainment through followers' voice and
4 upward delegation behaviour. Study results revealed enough that followership role orientations
5 and behaviour positively influence the perception of leaders in relation to the support to be
6 provided by the followers, assistance in goal fulfillment and the motivation level of leader.
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10 According to Gerards, De Grip and Baudewijns (2018), highly competent followers always
11 show AE, and they use critical thinking skills as valuable resources to assume their
12 responsibilities in order to perform efficiently and effectively in the leadership process. Given
13 that stronger involvement from the followers entails brewing creative ideas and having a
14 problem-solving approach (Carsten, 2017), it has been expected that AE from followers' side
15 would be positively promoting the LGB (Singh, Del Giudice, Chierici & Graziano, 2020).
16 Therefore, based on the above statement, the following hypothesis has been proposed:
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22 *H2: Followers' active engagement is positively related to leader's green Behaviour*
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24 **2.3.3 Moderating Role of Followers' Pro-environmental Behavior (FPEB):** The rapid
25 evolution of environmental problems and their harmful impacts around the world indicate the
26 importance of finding immediate solutions. Since FPEB encourages a behaviour that mitigates
27 environmental harms while considering societal actions for protection of the environment
28 (Quoquab, Mohammad and Shahrin, 2020). On the other hand, the contradictions in the
29 relationship between the dimensions of followers and LGB, suggest that individual factors may
30 moderate these relationships (Li, Zhao, Müller and Shao, 2020). Accordingly, followers with
31 AE and ICT positively affect leader behaviour (Khan et al., 2019). FPEB is a person's voluntary
32 behaviour that contributes to organizational sustainability (Kim et al., 2017; Latif et al., 2017).
33 On the other hand, many authors believe that all pro-environmental behaviours' are not
34 discretionary, as they depend on organizational procedures and practices (i.e. ISO 14001
35 environmental management system, emphasizes follower participation) (Boiral, 2007b; Ones
36 and Dilchert, 2012b; Paille and Boiral, 2013). Therefore, for actively engaged employees
37 environmental concern may not be an essential ingredient of their engagement in the
38 organizational activities, while for employees' pro-environmental behaviour environmental
39 concern is a basic and major contributor to their behaviour. Furthermore, Biga, Dilchert,
40 McCance, et al. (2012), highlighted that employees who were more engaged and satisfied with
41 their job and committed to their organization were more likely to display direct PEB on the
42 job.
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56 Nevertheless, several studies suggest a positive association between leaders and Behaviour
57 (Groselj, Cerne, Penger and Grah, 2021; Rahaman, Stouten and Guo, 2019; Bakar and
58 Omillion, 2019), in the context of PEB as a moderator, even though this relation is not yet clear
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which brings forth the need for further research. In this study, employee's PEB towards the environment is explained as a potential moderator. The study proposed that prediction of AC and ICT might be improved, if people's existing relevant behaviour are considered at the workplace. In previous research, it has been found that employees were willing to thinking critically and engage in PEB, when they perceive they are supported from their employer (Cantor, Morrow, and Montabon, 2012; Tian and Robertson, 2019). Therefore, in accordance with the social exchange framework, employees are willing to help their organization become greener and sustainable, if they are encouraged. Followers' support and engagement could boost leaders' self-confidence, their willingness to self-sacrifice and their sense of collectivity and achieving certain mission (Howell and Shamir, 2005). Since, followers' responses within PEB approach are mandatory to explain the relationship of AE, ICT and LGB. Therefore, it is proposed that:

H3: Pro-Environmental Behaviour Significantly moderates the independent critical thinking and leader's green Behaviour.

H4: Pro-Environmental Behaviour Significantly moderates the relationship between active engagement and leader's green Behaviour.

2.4 Conceptual Model

Conceptual framework of the study is shown in Figure 1. In this framework, LGB is an endogenous variable, while two outcomes of followers are potential exogenous variables. Thus, SET used in the study to provide the theoretical foundation and to investigate the relationship between them. Additionally, straight lines show a direct relationship between independent and dependent variables and PEB shows the moderation relationship between independent and dependent variables.

[Figure 1 Near Here]

3. Methods

3.1 Measures

In developing the instrument, all the measurement items were selected from validated questionnaires used in previous research studies. Kelley's (1992) instrument of followership dimensions was adopted to collect data about ICT and AC (10 items each). Example items for ICT and AE are "Does your work help you fulfill some societal goals or personal dream that is important to you?" (ICT); "Are your personal work goals aligned with your department's priority goals?" (AE). EPEB was measured by using the instrument, as previously used by Roberson et al. (2017), which consisted of six items scale. Example of sample item included: "I print double sided whenever possible". Finally, LGB was measured by using five items scale

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3 which was developed by Kim et al. (2014). The sample item for this scale is '*sorting recyclable*
4 *materials into their appropriate bins when other group members do not recycle them*'.

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6 A 5 points Likert scale was used to collect the data where 1 represented strongly disagree
7 and 5 denoted strongly agree. The questionnaire consisted of four parts: the first part contained
8 information about the demographics of the participants, followed by measures of followership
9 dimensions (ICT and AE), FPEB and LGB, respectively.

13 **3.2 Reliability and Validity**

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15 Before conducting the comprehensive survey, as recommended by Hinkin (1998), the
16 authors performed a pilot study in order to test the feasibility, clarity, and appropriateness of
17 the questionnaires. The pilot study involved the data from 35 employees working in different
18 SMEs. The internal reliability of the study and the research instrument for the pilot study was
19 measured through Cronbach's Alpha (α). The pilot test revealed that the Cronbach alpha for all
20 the constructs exceeded the acceptable range of 0.7. Hence, it suggested that the proposed
21 questionnaire instrument is understandable, clear and could be answered in 7-8 minutes
22 approximately.

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24 For the assessment of content and face validity, the initial questionnaire was prepared and
25 reviewed by academic experts who specialized in the areas of human resource management
26 and specifically to the leadership domain before distributing the link among the respondents.
27 They thoroughly reviewed the content of the questionnaire; however, positive comments were
28 received from all the experts. Therefore, no further changes were incorporated in the instrument
29 used for the pilot study, and the same was carried forward for the comprehensive study.

33 **3.3 Population and Sampling**

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35 For data collection, questionnaires were distributed among the employees working in
36 different SMEs that were involved in BTTAP project. To decide about the sample size, the rule
37 for effective research was adopted to measure the variables including independent, dependent,
38 mediating, moderating, and control variables with more precision (Sekaran & Bougie, 2016).
39 Therefore, authors distributed 470 questionnaires among the employees of different SMEs in
40 Pakistan.

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42 Since it was not possible to get accurate information about the total number of employees
43 who were working in different SMEs and were involved in BTTAP project, it was preferred to
44 follow a convenience-based sampling technique to collect the data. The given sampling
45 technique had also been considered as an ideal approach when the whole population was not
46 accessible (Malhotra & Dash, 2011).
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Demographic variables in the study included the name of respondents, gender, age, education and experience. The demographic profile of the respondents was as follows: 68.5% were males, and 31.5% were females; 24.40% of staffs were between the age of 21 to 30 years; 21.25% of staffs were between the age of 31 to 40 years; 25.70% of staffs were between the age of 41 to 50 years and 28.60% of staffs were above the age of 50 years; 54.30% of staffs were holding a bachelor's degree and 52.20% of staffs were holding a master's degree and 4.20% of staffs were holding an MS/ MPhil degree; 51.20% of staffs were having experience of 1-3 years; 28.10% of staffs were having experience of 4-7 years and 20.70% of staffs were having experience of more than 7 years in SMEs industry. See Table 1 for detailed demographic information of respondents.

[Table 1 Near Here]

3.4 Data Collection Method

Data were collected through structured questionnaire by using a Web-based platform, i.e., Google Form during the period of Covid-19 from the employees of SMEs who were involved in BTTAP project. At the very firsthand, permission was sought from the organization's human resources department to conduct the study within their workplace premises. Furthermore, the authors also requested for their professional email addresses to have personal contact with them at any later stage of research as per need. To endure impartiality in responses, a cover letter was attached with a questionnaire that explained the purpose of the research and ensured respondents that their response would remain anonymous and their participation in this study is complete voluntary.

Standardized self-administered questionnaire were distributed through email to 470 respondents (as due to Covid-19, it was difficult to approach the employees individually and outsiders were also not allowed to enter the company). At the first hand, only 235 filled questionnaires were returned after three weeks. To collect the data from the remaining respondents, the soft reminder calls through email were made again and effectively 196 more responses were received. After removing unusable questionnaires (excluded during the data screening process due to incomplete or unviable responses), 381 useable questionnaires were obtained with a response rate of 81.06%. The given response rate is an indirect indication of the relevance and rigor of a study in the opinion of the respondents if the response rate is moderate. Respondents are more likely to return a questionnaire if they perceive that the study is important, and it warrants their cooperation. Finally, 381 completed responses were analyzed with Structural Equation Modeling (SEM) by using partial least squares software (Smart-PLS v. 3). The process of data collection took around eight to ten weeks. Then, participants were

asked to give their feedback on different given statements about followership dimensions (ICT and AE), FPEB and LGB by choosing the number that was as close as possible to their opinion, as per the given scale.

3.5 Analytical Approach

PLS-SEM was used to analyze the data. PLS-SEM has gained extensive admiration across numerous fields such as human resource management, strategic management, accounting, operations management, management information systems, marketing, supply chain management, hospitality, and tourism (Cheah et al., 2018; Hair et al., 2017). Cheah et al. (2018) and Hair et al. (2011) argued that examining complex latent variables models, PLS-SEM is considered as the Holy Grail and silver bullet of advance research analysis. According to Hair et al. (2017), it has a high predictive power to examine complex high order models. PLS-SEM offers advantages of examining latent constructs through path analysis and offers an accentuated explanation of variance in dependent variable while assessing the structural equation model (Hair et al., 2011). There are two models through which PLS-SEM analyzes the data. First is measurement model which provides information about the relationship between observed and latent variables. Second is structural model which examines the relationships between the latent variables (Hair et al., 2019).

4. Assessment of Measurement Model

The first step in reflective measurement model assessment involves examining the indicator loadings. The acceptable values to achieve indicator reliability are 0.5, 0.6 and 0.7 (Ramayah et al., 2018). Table 2 shows the result of indicator reliability and most of the factor loadings are greater than 0.7. which means that indicator reliability has been achieved. The second step is assessing internal consistency which explains the degree to which each item of the underline construct is interrelated to each other. In other words, it shows the inter-correlation of the indicators. Composite reliability (CR) is used to measure internal consistency (Gefen, Straub & Boudreau, 2000). For example, CR values between 0.60 and 0.70 are considered “acceptable in exploratory research,” and values between 0.70 and 0.90 range from “satisfactory to good.” Values of 0.95 and higher are problematic, as they indicate that the items are redundant, thereby reducing construct validity (Diamantopoulos et al., 2012; Drolet & Morrison, 2001). Table 2 indicates that the Value of CR of each construct is greater than 0.70 which means that all items under single construct have higher inter-item correlation.

For the purpose of obtaining convergent validity each construct should explain at least 50% variance ($AVE \geq 0.50$) by the assigned items/indicators values (Hair et al., 2017). Table 1 shows

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3 the value of AVE for each construct and all the values are higher than 0.50., it shows that
4 convergent validity is achieved.
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7 **[Table 2 Near Here]**

8 To check the discriminant validity Fornell and Larker's (1981) criterion is used. It states
9 that the square root of the AVE on the diagonal should be higher than the correlation on the off
10 diagonal. Table 3 indicates that on diagonal values are higher than the off-diagonal values.
11 Which means that discriminant validity has been achieved.
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15 **[Table 3 Near Here]**

16 17 **4.1 Assessment of Structure Model**

18 After the satisfactory results of measurement model, the next step is to examine the
19 structural model which highlights the path coefficient of the relationships. (Hair et al., 2017).
20 The criterion for the significant relationships produced are t-values and lower and upper-level
21 confidence intervals (Hair et al., 2017). The standardized beta (β) evaluates the path
22 coefficients of regression results. Based on t-values to examine the significance of the
23 constructs, values should be greater than 1.64 at 0.05 level of significance (Hair et al., 2017;
24 Henseler et al., 2014). Moreover, to test the significant relationship with bootstrapping, the
25 upper and lower levels confidence intervals should not include 0 in between. Therefore, to
26 generate confidence intervals 5,000 bootstrap samples are used. The bootstrapping analysis
27 (Table 4) indicates that direct effects, (β .13, β .46), are significant ($H1$, $H2$), because both
28 confidence intervals (LLCI ULCI) are positive and do not include 0, highlighting that AE and
29 ICT significantly affect LGB. Additionally, FPEB significantly moderate (β -.20, $t > 1.64$)
30 supported $H3$. On the other hand, there is no moderation effect of FPEB found between
31 follower AE and LGB. To assess the effect size of individual construct, Cohen's f^2 is applied.
32 The f^2 analyzes the effect of an independent (exogenous) construct on dependent (endogenous)
33 construct. Particularly, it measures how strongly one independent variable contributes to
34 certain dependent variable in terms of R^2 (Ramayah et al., 2018). According to Cohen (1988),
35 values of 0.35, 0.15, and 0.02 indicates large, medium, and small effects. Table 3 further
36 highlights that follower ICT shows larger effect ($f^2 = .31$), while follower active shows smaller
37 effect ($f^2 = .02$).
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54 **[Table 4 Near Here]**

55 Table 5 highlights R^2 , also known as the coefficient of determination. The R^2 shows the
56 proportion of variation in the dependent variable that is explicated by one or more independent
57 variables. In the context of PLS-SEM, R^2 value of 0.26 is considered weak, 0.50 moderate and
58 0.75 substantial (Hair et al., 2019). The R^2 obtained in this study is 0.35 which can be
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3 considered as slightly moderate. The predictive relevance of the model is a recommended
4 supplementary assessment test. This study applied the Q^2 for assessing the predictive model.
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6 The model is predictive if the $Q^2 > 0$ (Hair et al., 2019). The Q^2 of this model is 0.20 and this
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8 suggests that the model has adequate predictive power.
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10 [Table 5 Near Here]

11 5. Conclusion and Discussion

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13 This study attempted to determine the moderating role of FPEB between the relationship
14 of followership dimensions (ICT and AE) and LGB. The structural analysis presented a
15 significant positive impact of followership dimensions on LGB. This confirms Shamir (2007)
16 “reversing the lens” viewpoint of followership which entails that a followership assumes an
17 essential role in leadership behavior. Moreover, Vincent and Ayoko, (2017) argued that
18 leadership is a process of social interface among leaders and followers whereas followers have
19 a fundamental part in shaping a leader’s activities. The findings also support Carsten et al.
20 (2010), who claimed that proactive followers do not just simply follow the leader but serve as
21 a support system. Their input in the form of opinions and ideas help brainstorm the cause and
22 solution of the problem (ICT) and work collaboratively to achieve overall goals. It is believed
23 that when followers are engaged on a deeper level, the leadership process is boosted to
24 challenge the decisions of their leaders with their critical thinking (Carsten et al., 2010). AE
25 and ICT have also been found to have a favorable impact on inspiring motivation. According
26 to the role orientation literature, followers who play a more positive and active part in carrying
27 out the leader's purpose are more likely to impact the leader's view and work unit goals.
28 According to Carsten et al. (2018), followers who hold stronger AE and ICT (exemplary
29 followers) beliefs are more likely to handle difficulties themselves rather than passing them on
30 to the leader. This encourages the leader to achieve more good results and improves his or her
31 capacity to effect positive change and increase performance. It was also discovered that both
32 IE and ICT had a good effect on intellectual stimulation. Furthermore, intellectual stimulation
33 is linked to critical thinking features because it encourages followers' intellectual curiosity and
34 promotes new ideas and critical thinking (Bass and Riggio, 2006). It suggests that leaders
35 provide followers with AE and critical thinking skills greater opportunity to think critically and
36 produce creative and innovative ideas. Finally, both IE and ICT have a good impact on
37 individual consideration. Individualized attention is considering each follower as an individual,
38 addressing their specific needs, and recognizing them as valuable members of the group or
39 team. Leaders will pay greater attention to followers' opinions if they actively engage in
40 decision-making and give constructive feedback for the advancement of group and
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3 organizational goals. In conclusion, it appears that leaders respond more favorably to engaged
4 and involved followers who provide alternative solutions with critical thinking, as well as
5 transformational leaders' outcomes such as motivation, goal attainment, and support that are
6 related to followers' co-production orientation or exemplary followership.
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10 In several previous research studies, it has also been discovered that that courageous
11 followership leads towards green practices within their leaders' actions such as FPEB (Uddin,
12 Biswas, Bhattacharjee, Dey & Mahmood, 2021); environmental sustainability (Alheet, Adwan,
13 Areiqat, Zamil & Saleh, 2021); workplace green behavior (Chen & Chang, 2013); harmonious
14 environmental passion (Robertson & Barling, 2013); green performance (Jahanshahi,
15 Maghsoudi & Shafighi, 2021) and green product development performance (Sharma, Prakash,
16 Kumar, Mussada, Antony & Luthra, 2021). According to Kohles, Bligh and Carsten (2012),
17 follower's AE is connected with the opinion that a resilient and energetic follower's role along
18 with their higher ICT is crucial to make leaders feel supported in order to accomplish the green
19 organizational goals and vision (Mamaril, 2021). Likewise, followers with a conscious
20 involvement and interest are more aware and accepting of the leadership objectives and
21 mission. In brief, it is narrated that past research studies on the role of followers have revealed
22 that followers could affect leaders' outcomes vigorously, subsequently followers' active
23 participation along with high ICT has been accepted as a significant antecedent of green
24 leadership behavior at the workplace (Ahmad, Islam, Sadiq & Kaleem, 2021).
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36 Furthermore, it is found that ICT is a more important element than AE to create an
37 association with GLB as ($\beta=0.46$) of ICT is higher than AE (see in Table 3). This might be
38 explained by the fact that critical thinkers are better at processing and interpreting information,
39 as well as displaying higher levels of innovation and creativity than those who are simply
40 engaged. They are also more assertive and proactive when it comes to assisting their leaders in
41 making well-informed judgments and providing profitable alternatives in challenging
42 situations (Burriss, 2012). Jiang, Gao, and Yang (2018), on the other hand, asserted that
43 followers with critical thinking abilities stand out and commit themselves to the role of
44 followership, allowing leaders to better understand their own obligations.
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51 Regarding specific to the green leadership behavior, Rodgers (2010) argued that an
52 environmentally conscious leader, who has a high affinity for employees' efforts to the
53 community with the aid of green behaviors, may uplift their sense of self. This would establish
54 them as a pro-environmental leader in an organization that believes in CSR. Alternatively, it
55 clears to state that by instilling pro-environmental values, the environmentally responsible
56 leader uplifts positive evaluation and their constructive criticism, in order to achieve the
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mission of socially responsible organization. Hence, when followers play their part in decision making and giving positive criticism to promote environmental sustainability through different activities, leaders will automatically recognize their voices and would strive to encourage and promote green HRM practices (Afsar, Cheema & Javed, 2018).

With respect to leader-centric perspective, nowadays, many researchers make an endeavor to study the moderating role of FPEB between the relationships of different constructs. For example, Carfora, Caso, Sparks and Conner (2017) stated that pro-environmental self-identity moderates the relationship between pro-environmental intentions and behavior. Another study conducted by Bissing-Olson, Iyer, Fielding and Zacher, (2013), witnessed that pro-environmental attitude performs as a moderator between the relationship of daily affect and pro-environmental behavior at work. Saleem, Qadeer, Mahmood, Han, Giorgi and Ariza-Montes (2021) have examined that how pro-environmental attitude contingency strengthens the indirect impact of ethical leadership on employee green behavior (EGB) at work in an organization. However, attempts to understand the value of FPEB in the relationship of ICT, AE, and LGB are scarce. As a result, this study investigated the moderating function of FPEB to comprehend the importance of FPEB in the relationship of ICT, AE, and LGB. As a result, it has been postulated in the current study that a rise in FPEB may strengthen the link between ICT, AE, and LGB.

Results of the study indicated that FPEB significantly moderates the relationship between ICT and LGB ($\beta = -0.20$) (see in Table 3). In contrast, FPEB has not revealed a substantial moderating impact between the AE and LGB association. From the followership perspective, this may be due to the fact that the followers who are already actively engaged with a high level of eagerness and proactiveness in assisting the leader to achieve their mission, are inadvertently known to have an effect on their LGB significantly regardless of having PEB at the workplace. Similarly, Carsten et al. (2018) also elaborated that follower with a higher level of AE are expected to take the front seat in resolving problems instead of assuming that the leader is responsible for it. This enables the leader to produce more surefire results which is known to help the leader to be an agent of positive change and uplift performance of an organization by incorporating green HRM practices (Al-Ghazali & Afsar, 2021).

On the other hand, there is significant and negative moderating effect of FPEB between the relationship of ICT and LGB which indicates that the presence of FPEB could weaken the relationship of ICT and LGB. It demonstrates that followers who have previously accepted PEB, which strives to reduce any negative effects on the natural environment, may have a large impact on their LGB, resulting in an overall beneficial impact on the environment. Because

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3 both parties' aims in terms of green practices are comparable, followers with PEB might
4 supplement LGB. As a result, leaders and followers collaborate to attain common goals.

5.1 Theoretical Contribution

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8 The theoretical perspective regarding the active role of followership in the leadership
9 process is gaining momentum in the recent times because it opens up new possibilities for
10 studying leadership from a followership perspective and recognizes the useful function of
11 followers in problematizing and conceptualizing leadership from a followership perspective
12 (Carsten et al., 2010; Carsten et al., 2017; Khan et al., 2019). This study supports the notion of
13 Uhl-Bien et al., (2018); Uhl-Bien et al., (2014); Carsten et al., (2018) that the development of
14 followership theory and the positioning of followership in the leadership equation is the need
15 of time. This study attempts to address an important aspect of the leadership process that is
16 currently overlooked in research on how followership dimensions or characteristics shape
17 green leadership behavior, and to what extent the level of followers' PEB influences the
18 proposed relationship. Our findings back up this argument by demonstrating that followers
19 with greater AE and ICT help leaders feel more driven, supported, charismatic, and effective
20 in the eyes of their followers. As a result, a strong leader–follower connection emerges.

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Particularly, the dominance of leader-centric approaches in the domain of green human
resource management (GHRM) hinders the contribution of followers as active agents of
leadership outcomes (Afsar, 2018; Cop, 2021; Kim et al., 2017). It is concluded that for
establishing a leader-follower relationship the exemplary role of follower is essential. This limit
previous understanding of the leader-centric perspective (Grant et al., 2011). It shows that
constructive feedback, motivation, and engagement augment LGB. Hence, it is evident that for
successful reciprocal leader-follower relationship not only leaders, but AE and constructive
feedback of followers are also important. As a result, this research contribute to the field is
that followers are neither passive participants nor always on the receiving end of the
relationship; rather, their active role is critical in developing a strong reciprocal relationship
with their leaders in order to produce better outcomes for a green and sustainable working
environment.

5.2 Practical Contribution

According to Abid et al. (2016), the prolonged period of abnormally low rainfall from 1999
to 2003 and the uninterrupted floods from 2010 to 2014 are the common examples of climate
change in Pakistan. On the other hand, Pakistan is one of the most populated countries in the
world, with an estimated population of 227 million by 2025. Surprisingly, 63% of the total
population consists of young people with less than 30 years of age (World Bank, 2018;

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3 Planning Commission of Pakistan, 2015). Therefore, this is a dire need to support and practice
4 sustainable development by adopting green practices in working environment to achieve
5 Sustainable Development Goals (SDGs). SMEs are the backbone of Pakistani economy
6 comprised of 78% of the non-agricultural labor force (Khan, 2020). Many businesses still place
7 a premium on leadership development from a leader-centric perspective, with followers seen
8 to be passive. This study emphasizes followers' active engagement and illustrates that
9 followers' responses are critical in influencing green leadership behavior. Conclusively, this
10 study articulates that follower's ICT and AE are important determinants of LGB.

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17 In practise, SMEs in Pakistan need to pay more attention to the development of followers
18 in order to achieve better followership outcomes, which will help to build strong relationships
19 with leaders and create a green and sustainable working environment (Carsten et al., 2017;
20 Fairhurst and Uhl-Bien, 2012). Furthermore, as the needs of the environment change, followers'
21 AE and ICT assist leaders in providing better alternative solutions, and their active participation
22 in change programmes motivates leaders and builds a trusting relationship, resulting in the
23 successful creation of a green working environment at the workplace (Khan et al., 2018).
24 According to the findings, followers help green leaders by recognizing challenges and
25 solutions, as well as communicating innovative alternative ideas for attaining a sustainable
26 environment with better perspectives, all with the purpose of collaborating with green leaders
27 to achieve common goals. Constructive criticism, feedback and participation of followers
28 enhance leader initiative towards the implementation of GHRM practices in SMEs. Therefore,
29 in SMEs, the managers must focus on followership development in order to enhance their
30 contribution in the leadership process which could ultimately lead to attainment of
31 organization's goals set for sustainable environment. As a result, the findings of this study will
32 assist managers and subordinates in Pakistani SMEs and other companies in achieving green
33 leadership results by developing a followers–leader connection.

34 35 36 37 38 39 40 41 42 43 44 45 46 47 **5.3 Limitations and Suggestions for Future Research**

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Despite the untiring and concrete efforts of the researchers in the field to provide robust
proof and evidence to support the study, the need to highlight certain limitations remains a
necessity so that it could be avoided in future research avenues. First, this study has been
conducted in developing country context which limits its generalizability to other cultural
backgrounds. So, there is a need to further test the role of followership in different leadership
contexts by using different samples and methods. Second limitation of this research is that only
one variable has been incorporated as a moderator i.e., FPEB to see a relationship between the
given variables. In order to grasp an even greater understanding and to see some unique

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3 interpretations of the correlation and association between followership dimensions and LGB,
4 future researchers could focus on many other moderators such as personality traits,
5 organizational justice, and perceived organizational support.
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8 Moreover, for this study, employees were the only source of data to analyze the different
9 measures so any inefficiency/deficiency in that source may pollute all the measures and thus,
10 give rise to imprecise results for the study. Therefore, in future, to mitigate the effects of any
11 such discrepancy, it is suggested that the data to be surveyed should be taken from multiple
12 sources. Lastly, this study lies in the cross-sectional nature of the study. Cross-sectional studies
13 cannot establish a strong cause and effect relationships and hence, we need to conduct
14 longitudinal studies in future to authoritatively claim the cause-and-effect relationship among
15 the follower's critical thinking, active engagement and leader's green behavior.
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Table 1: Demographic characteristics of Respondents (N = 381)

		Male	261	
Gender		Female	120	381
		21-30	93	
		31-40	81	
Age		41-50	98	
		51- Above	109	381
		Bachelor	207	
Education		Master	158	
		MS	16	381
		1-3 Years	195	
Work Experience		4-7 Years	107	
		7-above	79	381

Table 2: Items loading, Composite Reliability and convergent validity

Constructs	Items	Loading	CR	AVE
F. Active Eng	FAE 1	0.776	0.899	0.529
	FAE 2	0.822		
	FAE 3	0.771		
	FAE 4	0.790		
	FAE 5	0.670		
	FAE 6	0.657		
	FAE 7	0.658		
	FAE 8	0.641		
F. Critical Thinking	FCT 1	0.830	0.890	0.539
	FCT 2	0.723		
	FCT 3	0.761		
	FCT 4	0.776		
	FCT 5	0.729		
	FCT 6	0.723		
	FCT 7	0.572		
Leader Green Beh	LGB 1	0.712	0.889	0.616
	LGB 2	0.782		
	LGB 3	0.809		
	LGB 4	0.828		
	LGB 5	0.788		
Pro-Enviro Beh	PEB 1	0.619	0.847	0.530
	PEB 2	0.876		
	PEB 4	0.715		
	PEB 5	0.645		
	PEB 6	0.756		

Items FAE9, FAE10, FCT8, FCT9, FCT10, and PEB3 deleted due to low factor loading

Table 3: Discriminant Validity using Fornell and Larker Criterion

	F. AE	F. CT	LGB	PEB
F. AE	0.727			
F. CT	0.014	0.734		
LGB	0.163	0.499	0.785	
PEB	0.130	0.161	0.275	0.728

F. AE = follower active engagement, F. CT = follower critical thinking,
LGB = leader green behavior, PEB = pro-environmental behavior

Table 4: Structure Model: Hypothesis testing

Hypotheses	Beta	STDEV	T Statistics	P Values	LLCI	ULCI	F²
F. AE > LGB	0.13	0.04	3.23	0.00	0.05	0.18	0.023
F. CT > LGB	0.46	0.04	10.93	0.00	0.38	0.52	0.311
PEB > LGB	0.20	0.04	4.95	0.00	0.13	0.26	
PEB*FCT >LGB	-0.20	0.05	4.51	0.00	-0.27	-0.13	0.07
PEB*FAE>LGB	0.02	0.05	0.48	0.32	-0.06	0.09	

F. AE = follower active engagement, F. CT = follower critical thinking, LGB = leader green behavior, PEB = pro-environmental behavior

Table 5: R² and Q²

	R²	Q² (=1-SSE/SSO)
Leader Green Behavior	0.35	0.208

Figures

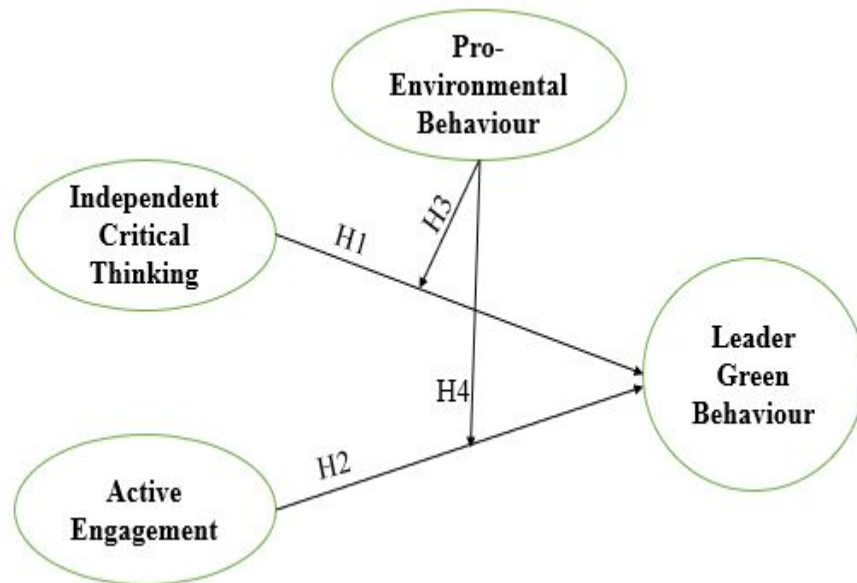


Figure 1: Conceptual Framework

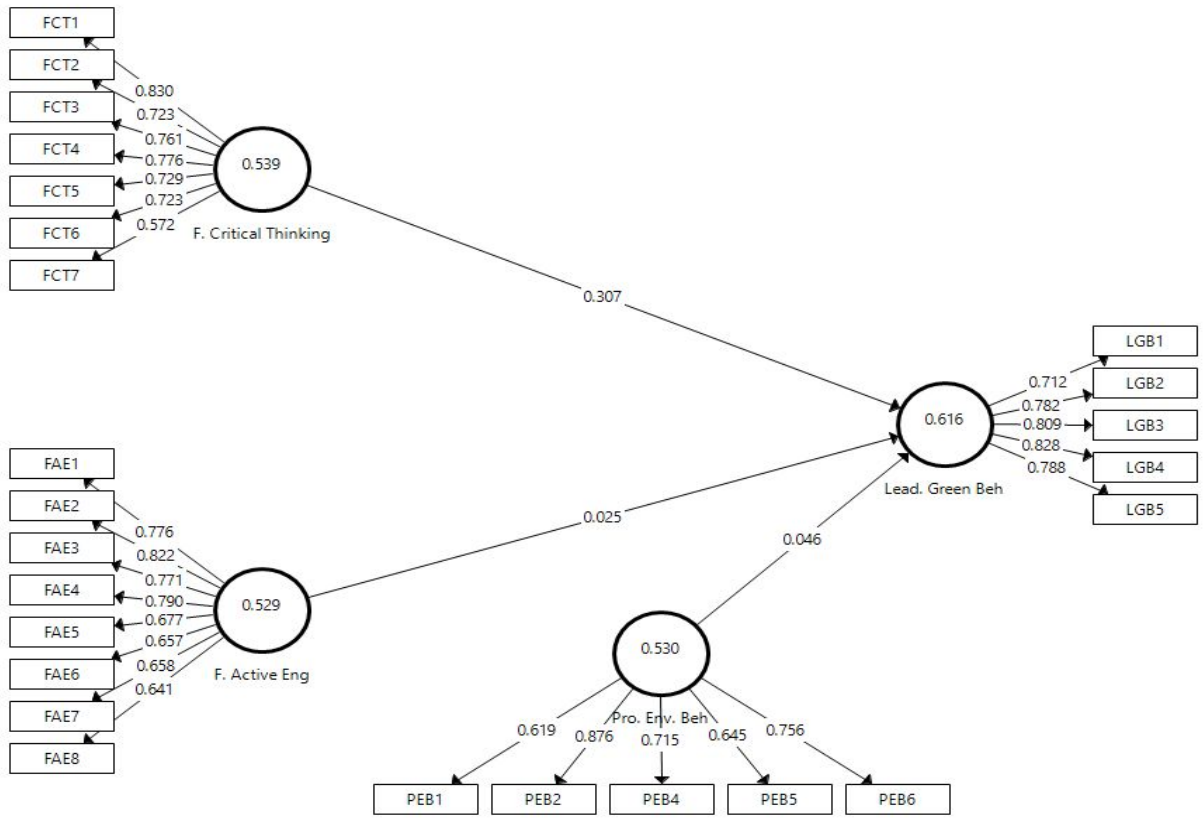


Figure 2: Measurement Model

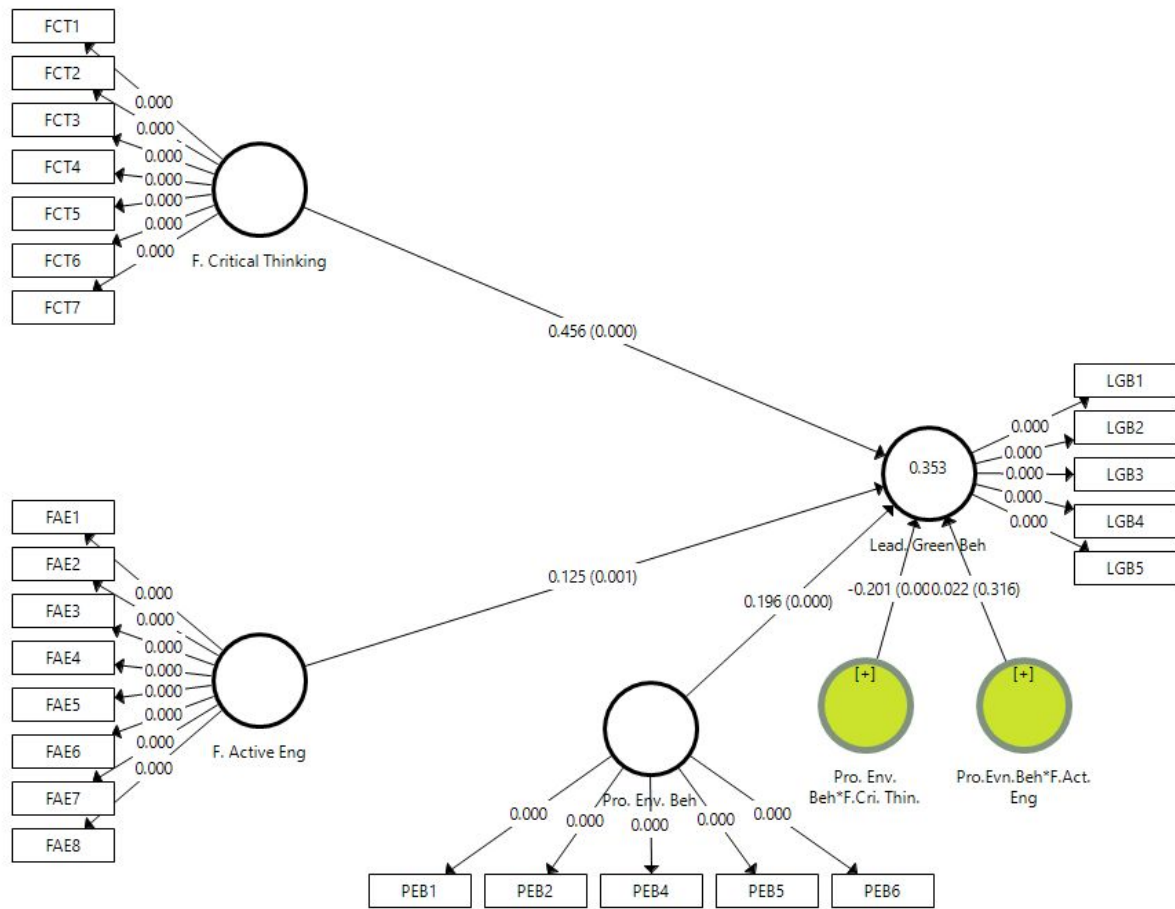


Figure 3: Structural Model