

**Augmenting environmental sustainability through the exchange of green creative ideas –  
Evidence from an emerging economy.**

Abstract

Leader trustworthiness and perceived green reputation is becoming increasingly important for driving the exchanges of green creative ideas within a team. Effective exchanges of green creative ideas is relevant for building organisational strategies that align with the United Nations global compact environmental sustainability principles and it further helps advance the achievement of the sustainable development goals (SDG). Evidence from emerging countries though, is limited. This paper contributes by investigating the case of the Nigerian manufacturing sector, wherein organisations have achieved little success in cultivating the effective exchange of green creative ideas. Through the lens of the social exchange and stakeholders' theories, this study investigates the predictive powers of leaders' trustworthiness and perceived green reputation on green creative ideas exchange among their respective team members. We utilised a cross-sectional (time lag) data collection method, totalling 350 participants from 21 different manufacturing organisations. Results indicate that perceived green reputation, integrity and benevolence are positive predictors of green creative ideas exchange. Surprisingly, we find that perceived green reputation attenuates the positive relationships between benevolence, integrity and green creative ideas exchange. Furthermore, we find that perceived green reputation reinforces the link between ability and green creative ideas exchange. Based on our findings, leaders and practitioners may therefore, consider augmenting and exhibiting more benevolence that could support the increase of team members' perception of their green reputation. Policies can be instituted to further ensure that leaders maintain perceived green reputation that is grounded on all trustworthiness dimensions.

**Keywords:** Leaders' Trustworthiness; Ability; Benevolence; Perceived Green Reputation; Green Creative Ideas Exchange.

## 1. Introduction

Corporate environmental responsibility is becoming a critical area of research (Hamdoun, Jabbour, & Othman, 2018; Jabbour, 2013; Van der Waal & Thijssens, 2020). This growing concern for environmental sustainability and its attendant impact on global warming and climate change has led to calls for manufacturing organisations around the globe to reconsider and advance their green centred initiatives (Renwick, Jabbour, Muller-Camen, Redman & Wilkinson, 2015; Sikdar, 2019). Similarly, the quest to achieve competitive advantage whilst taking into account several organisational environmental impacts by manufacturing organisations in the global market place has emphasized the need for constant generation and exchange of green creative ideas (Fields, 2017; Khan, Hussain, Gunasekaran, & Ajmal, 2018; Teixeira, Jabbour, & de Sousa Jabbour, 2012). Evidence from emerging countries though, is limited. That said, recent work is now concentrating on sustainability from an emerging country perspective. For example, see work by Sundarakani, Pereira, and Ishizaka (2020, forthcoming) on location decisions for resilient sustainable supply chain performance in the face of disruptions in the context of One Belt One Road (Chinese: 一带一路) (OBOR for short), which is a global infrastructure development strategy adopted by the Chinese government. Similarly, Chahal, Pereira and Gupta (2020) investigate sustainable business practices for rural development and the role of intellectual capital in the context of India.

Green creative ideas and the exchange of them amongst teams are important as they support organisations in their quests to simultaneously strive to sustain competitive advantage

whilst taking into account several social responsibilities towards the environment. They are relevant for helping organisations to not only boost profitability, but also to ensure long term survival and continuous commitment towards cleaner production and environmental sustainability (Ogbeibu et al., 2020; Sikdar, 2019). Nevertheless, recent reports advocating conformity to the world sustainable development goals (SDG) argue that several manufacturing organisations in emerging economies in Africa (Botswana, Mauritius, Ghana and others) yet struggle to align their green related initiatives to the tenets of the Kyoto Protocol (Sachs et al., 2019; Sanni, 2018). Nigeria, being one of the strongest emerging economies in Africa, provides a case for garnering substantive insights into green creative ideas exchange, and could thus be studied to better understand how organizations in other emerging economies may better contribute towards environmental sustainability (Ogbeibu, Senadjki & Tan, 2018b; Sanni, 2018).

Studies argue that many creative ideas for advancing green initiatives originate from team members (Jia, Liu, Chin & Hu, 2018; Pinto, 2017). Team members' exchange of green creative ideas is relevant for promoting environmental sustainability, organisational competitive advantages, and for mitigating risks associated with issues of climate change (Heidenreich & Breukers, 2020; O'Neill & Gibbs; Jabbour, Santos, Fonseca, & Nagano, 2013). However, extant research has shown that team members often withhold exchanging green creative ideas due to intimidation from their leaders (Mitchell & Walinga, 2017; Wenxing, Pengcheng, Jianqiao, Po & Jianghua, 2016). Similarly, in several Nigerian manufacturing organisations, the exchange of green creative ideas are frequently repressed, and green creative ideas are subsequently lost (Ogbeibu, Senadjki, & Gaskin, 2018a). The reason for this is because such ideas are often unsolicited by leaders whose perceived reputations and tenuous job positions are thought to be threatened by advancement of team members' creative ideas (Akume & Abdullahi, 2013;

Owolabi & Abdul-Hameed, 2011). A parallel case is that many leaders fail to exhibit acceptable levels of trustworthiness to support or encourage effective exchange of green creative ideas (Gabriel & Kpakol, 2014; Ndaliman, Kamariah, Chikaji, & Mohd, 2015; Ogbeibu et al., 2018a). Studies thus assert the need for organisational leaders, through implicit and explicit communication, to constantly support and drive the generation and exchange of green creative ideas that are congruent with the environmental sustainability tenets of the United Nations Global Compact (UNGC) network (Chams & Garcia-Blandon, 2019; Paille & Meija-Morelos, 2019).

Moreover, prior research has shown that leaders who are trustworthy are more likely to evoke ideas exchange among team members (Jiang et al., 2016; Ogbeibu et al., 2018b). Thus, for a leader to achieve effective exchange of green creative ideas, it is relevant to consistently augment team members' perceptions of their trustworthiness (Song & Yu, 2017; Tastan, 2015). Nevertheless, a fact that a leader is trustworthy is unlikely to solely augment effective exchange of green creative ideas among team members (Caldwell & Hayes, 2007; Jia et al., 2018). Congruent with distinct theoretical assumptions of the social exchange theory (SET) evidenced by prior research, we are led to suspect that trustworthiness and perceived green reputation are two missing antecedents of green creative ideas exchange (Aguinis & Glavas, 2012; Holthausen, 2013; Homans, 1958). Most interpersonal relationships require an iota of trustworthiness to establish grounds for social exchanges to occur (Dingler & Enkel, 2016). Equally, having a strong perception that a leader has a reputation for green initiatives could help to further stimulate willingness among team members to engage in the exchange of green creative ideas (Ogbeibu, Emelifeonwu, Abdelhak, Gaskin & Kaivo-oja, 2020; Pay, Balaji & Kok, 2015).

Although the literature is replete with research on trustworthiness, there's scant research that deepens insights into how its multidimensional predictive powers influences green creative ideas exchange (Ogbeibu, Senadjki & Peng., 2018c). Equally, there is lack of empirical insights that advance knowledge on the role(s) of trustworthiness to advance environmental sustainability tenets via its influences on green creative ideas exchange. This may be partly because, over the years, a good number of studies have mostly favoured the traditional approach of solely examining trustworthiness as a construct, without further investigating its multidimensional attributes (Jiang et al., 2016; Reiersen, 2019). This has led to a conventional bias among extant literature, with an increased propensity of limiting a further holistic analysis of the trustworthiness phenomenon (Heyns & Rothmann, 2015). Moreover, this might have subsequently led to prevention of in-depth empirical investigations that could otherwise produce more useful and practical implications for sustainability and could pioneer more rigorous theoretical developments of the trustworthiness undergirding (Ogbeibu et al., 2018c). This clear gap is a part of what our study aims to fill.

Additionally, recent research further highlights the need for organisational leaders to build and foster a corporate-wide reputation for being supportive of environmental sustainability tenets (Abdelzaher & Newbury, 2016; Ogbeibu et al., 2020). By not solely focusing on making profits, leaders perceived to have a green reputation often consciously comply with the postulations of the stakeholders' theory (Clarkson, 1995; Ranangen, 2015). This theory advocates an interaction of organisations and stakeholders towards ensuring that the expectations and needs of all stakeholders are met (Clarkson, 1995). Yet, several prior works on perceived reputation have overlooked the relevance of curbing environmental sustainability challenges through the lens of another scarcely examined and emerging research concept known as

*perceived green reputation* (Giffin, 1967; Reiersen, 2019). Perceived green reputation reflects a behavioural tool that leaders could deploy to help advance the motivation to achieve the environmental sustainability expectations of the SDG (Banerjee, Gupta & McIver, 2019; Shin & Ki, 2019). Although, the construct “perceived reputation” has been examined from the lens of corporate identities, organizational brands, images, consumer perceptions of online sellers’ reputation and as a corporate level phenomenon (Feldman, Bahamonde & Bellido, 2014; Golgeli, 2014; Muda, Mohd & Hassan, 2016). The concept of perceived reputation has also been consequently argued to influence social exchange processes further positively (Abdelzaher & Newburry, 2016; Clark, 2017). However, the emerging conceptualisation of a leader’s perceived green reputation, is yet to receive substantive attention that deepens prior insights into how it fosters environmental sustainability (Abdelzaher & Newburry, 2016; Nunes & Park, 2017). It is also unclear from prior research how perceived green reputation influences green creative ideas exchange under distinct dimensions of trustworthiness. Our study seeks to also contribute by closing these gaps.

Furthermore, research in emerging economies that examine creative ideas exchange are limited and have yet to simultaneously examine the SET and stakeholders’ theories in a defined cultural context. Regardless of the several applications of SET and the stakeholders’ theories, very little consideration has been given to sufficiently examine the trustworthiness and perceived green reputation phenomenon (Abdelzaher & Newburry, 2016; Xerri, 2012). Although both theories explore the roles of actors and interactions in a business environment, they overlook how leader trustworthiness and especially perceived green reputation act to influence the exchange of green creative ideas. Given the relevance of environmental sustainability growth

and global warming concerns impacting today's business environment, these contextual and theoretical gaps thus call for closer attention.

Our study, therefore, attempts to contribute by studying an emerging economy context like Nigeria, to deepen insights into the predictive powers of trustworthiness dimensions and perceived green reputation on green creative ideas exchange within teams. Our study does not investigate “*trust*” which is often at times confused for “*trustworthiness*” when in fact they are two distinct constructs and relay very dissimilar interpretations (Mayer & Davis, 1999; Ogbeibu et al., 2018b, c). Furthermore, our study examines how perceived green reputation acts to influence the relationship between trustworthiness dimensions and green creative ideas exchange. This is to eventually fathom the trustworthiness conditions at which perceived green reputation may reinforce or dampen green creative ideas exchange. Our study consequently attempts to bridge the gap between team members' perceptions of trustworthy leaders and leaders' perceived green reputation for driving effective exchange of green creative ideas, particularly in a developing country like Nigeria. Consequently, by understanding how perceived green reputation and trustworthiness dimensions, act as drivers of exchange of green creative ideas in the Nigerian manufacturing industry, this study endeavours to deepen insights into how to close similar gaps in other developing economies.

## **2. Literature review**

### *2.1 Contextual and theoretical undergirding – An emerging economy context*

The Nigerian manufacturing industry contributes substantially to the nation's gross domestic product (GDP) and creates jobs for its citizens (Dike, 2014; Edomah, 2018; Malik, Teal, & Baptist, 2016). Likewise, it exemplifies a platform for the generation of green creative ideas

relevant for fostering green initiatives that can help achieve the expectations of the SDG (Sanni, 2018). Hence, the works of Ogbeibu et al. (2018a) and Sanni (2018) emphasize the necessity of the Nigerian manufacturing industry to go green. However, despite several efforts put in by the Nigerian government to combat global warming threats, recent evidence in the work of Sachs et al. (2019) reveals that challenges posed by global warming concerns and climate change in Nigeria yet remain, and thus calls for closer attention. Additionally, at a score below 25% in assessments that closely capture the greening of creativity related initiatives, the Nigerian manufacturing industry yet experiences major challenges which put it off track towards achieving the expectations of the SDG. Furthermore, Nigeria ranks 159<sup>th</sup> out of a total of 162 countries that have yet to fully achieve the expectations of the SDG (Sachs et al., 2019). This consequently provides evidence that Nigeria is still far from achieving and or fully conforming to the UNGC environmental sustainability principles (Sachs et al., 2019; Sanni, 2018). The Nigerian “greening” experience within its manufacturing industry, therefore, demands closer attention so as to consequently engender environmental sustainability initiatives that can help combat the effects of climate change. To effectively achieve this, our study draws on the SET and stakeholders’ theoretical underpinnings and discourse of Homans (1958), Holthausen (2013), and Clarkson (1995).

SET is anchored on the principle that exchange of tangible or intangible resources and activities are products of human behaviours or social interactions (Aboramadan, 2020; Nunkoo, 2016). SET in this study, typifies the internal interactions which encourage exchange of resources such as green creative ideas between leaders and their team members (Wang, Xiang, Yang & Ma, 2018). Ap (1992) and Zoller and Muldoon (2019) posit that SET informs an exchange of resources between leaders and their team members in a situation involving



interaction (for further reading on SET, see Byrd, Bosley & Dronberger, 2009; Nunkoo, 2016). Additionally, this is in view of achieving and satisfying the needs and expectations of the stakeholders (de Camargo, Mendonca & de Olivera, Jabbour & Jabbour, 2019; Silva, Nuzum & Schaltegger, 2019). While SET informs organizational internal relationships that support exchange processes of green creative ideas so as to produce anticipated green outcomes; the postulations of the stakeholder theory help undergird the probable green outcomes in ways that are beneficial for profit and achieving environmental sustainability (Suhi, Enayet, Haque, Ali, Moktadir & Paul, 2019; Wang et al., 2018). Furthermore, employing the stakeholders' theory in this study could help to provoke probable solutions for organizations to undergird and align their activities in more environmentally sustainable ways that complies with the UNGC principles and achievement of the SDG (for further readings, see Freeman, Phillips & Sisodia, 2018 and Clarkson, 1995).

## *2.2 Conceptualisation of green creative ideas exchange, trustworthiness and perceived green reputation*

*Green creative ideas exchange* deals with the sharing of value added insights by which a team produces astute mechanisms for fostering creativity in any given green initiative, through a confluence of cognitive processes (experiences, emotions, memories and or intuitions) in order to produce green centred results (Litchfield, Gilson & Gilson, 2015; Ogbeibu et al., 2018b; Ogbeibu et al., 2020). Thus, exchange of green creative ideas in a team may often appear within the diverse spectrum of creative thinking processes of respective team members. This could be during moments of relaxation, studying, exercising, or workplace focus groups discussions. Likewise, exchange of green creative ideas may be perceived as a result of creative thinking that is both original and divergent in nature (Joshi & Dhar, 2020; Runco, Plucker & Lim, 2001). The

works of Litchfield et al. (2015) and Ogbeibu et al. (2020) find that the ability to generate and exchange green creative ideas is a useful skill that leaders ought to possess in order to drive organisational green objectives successfully. Moreover, studies (Ogbeibu et al., 2020; Ogbeibu et al., 2018b) emphasise that the exchange of green creative ideas often consists of team members who are bound by the perception that trustworthiness is a relevant and needed value for fostering exchange relationships. This convergence between trustworthiness and the exchange of green creative ideas therefore aligns with the tenets of SET (Nunkoo, 2016).

*Trustworthiness* (not trust) which this study investigates, is an antecedent of trust that determines the extent to which a trustor perceives the trustee to be honest, caring or capable of meeting certain expectations of the trustor (Baker & Kim, 2019; Caldwell & Hayes, 2007; Mayer et al., 1995). Studies also advocate the confluence of the trustworthiness dimensions, which are ability, benevolence, and integrity, as possible facilitators of teams' effective exchange of green creative ideas (Jiang et al., 2016; Levine, Roberts & Cohen, 2019; Poon, 2013). *Ability* deals with leaders' aptitude and set of skills that are essential for supporting and stimulating success of organisational objectives (Carnevale et al. 2017). Congruent with Mayer et al.'s (1995) work, the extent to which leaders are perceived to hold and exhibit moral intents and care towards team members is noted as *benevolence*. Carnevale et al. (2017) argued that *integrity* manifests as honest and reliable expressions by leaders, particularly in initiatives that deal with exchange of valuable information and fulfilment of promises. Studies have stressed the positive relationship between ability and creative ideas (Lin et al., 2016; Wang & Cheng, 2010). Ogbeibu et al. (2018a) have also argued that benevolence plays a positive and meaningful role in creative ideas exchange. Likewise, the works of Fields (2017) and Peng and Wei (2016) support that integrity relates a positive association with the exchange of creative ideas.

As another probable antecedent of green creative ideas exchange, leaders' *perceived green reputation*, is the stakeholder-specific and '*perceived*' assessments of leaders' green related proficiencies to produce and add green value to the organization, based on their innate green qualities and extrinsic green characteristics (Golgeli, 2014; Griskevicius, Tybur & Van den Bergh, 2010). It may also be considered as a set of green related attributes that could serve as a reference point for leaders when there is a need for scrutiny or reassurance concerning green related initiatives (Cabral & Dhar, 2020; Griskevicius et al., 2010; Muda et al., 2016). However, there is yet a lack of research that has investigated the concept of *perceived green reputation* (Abdelzaher & Newburry, 2016). Similarly, to the best of our knowledge, leaders' *perceived green reputation* is yet to be given empirical considerations especially with regards to how leaders' perceived green reputation predicts green creative ideas exchange (Shin & Ki, 2019; Zinko et al., 2012).

#### *Association between ability, benevolence, integrity and creative ideas exchange*

As a trustworthiness dimension, ability reflects leaders' aptitude and set of skills essential for supporting and stimulating successful accomplishment of organisational objectives (Carnevale, Huang, Crede, Harms & Uhl-Bien, 2017; Okada, 2019). Thus, in our study, leaders' ability deals with leaders' task performing skills, specialised qualities, and expertise which can be employed to effectively drive team members' exchange of green creative ideas (Mayer & Davis, 1999). It may also relay a display of certain expertise by leaders to guide their team members' green creative ideas from ideation to fruition (Ritter et al., 2012). Consequently, team members may have to be able to benefit from their leaders' ability to promote effective and efficient communication, interactivity, coordination of knowledge sharing activities, improved learning systems, and social cohesion (Cooper-Thomas, Paterson, Stadler & Saks, 2014; Ilyas,

Abid, & Ashfaq, 2020). Conversely, absence of such benefits of leaders' ability can raise doubts among team members as to whether they can rely on their leaders' ability or not (Mittal & Dhar, 2016). Therefore, leaders ought to have the required ability necessary to stimulate team members' exchange of green creative ideas (Carnevale, Huang, Crede, Harms & Uhl-Bien, 2017).

Equally, benevolence is a trait which needs to be visible and operationalized by leaders (Heyns & Rothmann, 2015). The intention of leaders to serve their team members' interests is relevant for motivating team members to become willing to exchange their green creative ideas (Kark et al., 2017; Liu et al., 2016). Ogbeibu et al. (2018a) emphasized that a benevolent leader is expected to refrain from self-serving deviousness and provide support to team members. The authors highlight a need for a leader to exhibit non-judgmental attitudes as this may help relay express considerations towards team members' welfare. This also could be initiated through empathy (Beaussart et al., 2013). By allowing for a controlled sense of familiarity that may hinge on nationality, expertise or languages between leaders and team members, the importance and need for benevolence consideration could be reinforced (Castro et al., 2012; Poon, 2013). By exhibiting benevolence, leaders may be able to adapt to team members' personality differences and further appeal to their creative thinking processes to produce green creative ideas (Dane et al., 2011; Oedzes et al., 2018; Ritter et al., 2012). This could help boost team members' willingness to participate in the exchange of green creative ideas (Ogbeibu et al., 2020)

Additionally, Carnevale et al. (2017) postulated that integrity emanates from expressions of honesty, exchange of valuable information, and reliable promises. It is identified by values such as respect, discipline, sense of strong commitment, openness and even team members' responsibilities (Heyns & Rothmann, 2015). Integrity is an inward trait which usually takes time

to build and requires constant reflection and application of relevant values (Poon, 2013). Thus, leaders have a duty to demonstrate integrity during everyday interactions with team members (Ogbeibu et al., 2018c) so that team members with green creative ideas might be more comfortable, convinced and willing to engage in green centred social exchange interactions with their leader (Beaussart, Andrews & Kaufman, 2013; Carey & Matlay, 2010).

Leaders' ability, benevolence, and integrity are thus, important determinants for earning team members' trust in any green creativity related social exchange (Carnevale et al., 2017; Zoller & Muldoon, 2019). However, should a leader's trustworthiness be found questionable, team members' strong perceptions of their trustworthiness may slowly deteriorate or become adversely impaired (Kim & Kuo, 2015; Ogbeibu et al., 2018b).

Hypothesis 1a: Ability positively predicts green creative ideas exchange.

Hypothesis 1b: Benevolence positively predicts green creative ideas exchange.

Hypothesis 1c: Integrity positively predicts green creative ideas exchange.

### *2.3 Perceived green reputation and green creative ideas exchange*

Leaders' perceived green reputation is a sum of components emanating from perceptions of reality surrounding them (Golgeli, 2014; Muda et al., 2016). Equally, leaders' perceived green reputation may be closely associated to reliability of perceptions which has remained consistent over time. This could be that a leader demonstrates high reliability regarding their ability, benevolence, or integrity to exhibit support for, and facilitate exchange of team members' green creative ideas. A consistent exhibition of leaders' trustworthy behaviours might have a way of building up reputation that positively influences team members' perceptions of them (Ogbeibu et al., 2018c). This is because constant exhibition of trustworthy behaviours by leaders tends to

create good memories that can be tied to the thinking processes of team members (Ritter, Baaren & Dijksterhuis, 2012). Equally, team members may eventually become psychologically guided into making personal or collective judgments that extend beyond an assumption that their leaders are not only trustworthy, but they also have a reputation that further buttresses their reliable position. This could engender further exchange of green creative ideas as team members get on with the perception that their leaders have a green reputation which reflects strong support for exchange of green creative ideas (Chang, 2013; Muda et al., 2016).

Hypothesis 1d: Perceived green reputation positively predicts green creative ideas exchange.

#### *2.4 Moderating role of leaders' perceived green reputation*

Hackett, Wang, Chen, Cheng & Farh (2018) highlight that expertise, expressions of goodwill and integrity are important elements that should be reflected in leaders' capabilities to achieve creative results. Thus, team members are often aware of leaders that exhibit unique abilities, benevolence and integrity, even in dire cases that require exceptional characteristics, and behaviours to produce green creative results (Kaiser, LeBreton & Hogan, 2013). It could be logical to infer that the effective exchange of green creative ideas among team members may require established trustworthiness behaviours of their leaders (Litchfield et al., 2015; Ogbeibu et al., 2018b). This, of course, might often be observable by team members who are left with diverse perceptions of the degree to which their leaders' ability, benevolence and integrity are exhibited (Mi et al., 2019; Willems, 2016). It is also important to note that team members might be more enthusiastic, and willing to share green creative ideas on grounds of having strong perceptions of their leaders' perceived green reputation to engender effective exchange processes (Abdelzaher & Newbury, 2016; Fransen, Delvaux, Mesquita & Van Puyenbroeck, 2018;

Litchfield et al., 2015). It can also be postulated that a possible decline in team members' perceptions of their leaders' perceived green reputation may negatively affect the magnitude of exchange of green creative ideas (Shin & Ki, 2019). This is in view that team members might desist from sharing their green creative ideas with their leader if they perceive their leaders' green reputation to be questionable (Abdelzaher & Newbury, 2016; Pillay, Park, Kim & Lee, 2020). Consequently, it may be assumed that leaders no longer have the required trustworthiness to support the exchange of green creative ideas (Kiyonari, Yamagishi, Cook & Cheshire, 2006; Ogeibu et al., 2018b). Figure 1 summarises these hypotheses.

Hypothesis 2a: Perceived green reputation strengthens the positive relationship between ability and green creative ideas exchange.

Hypothesis 2b: Perceived green reputation strengthens the positive relationship between benevolence and green creative ideas exchange.

Hypothesis 2c: Perceived green reputation strengthens the positive relationship between integrity and green creative ideas exchange.

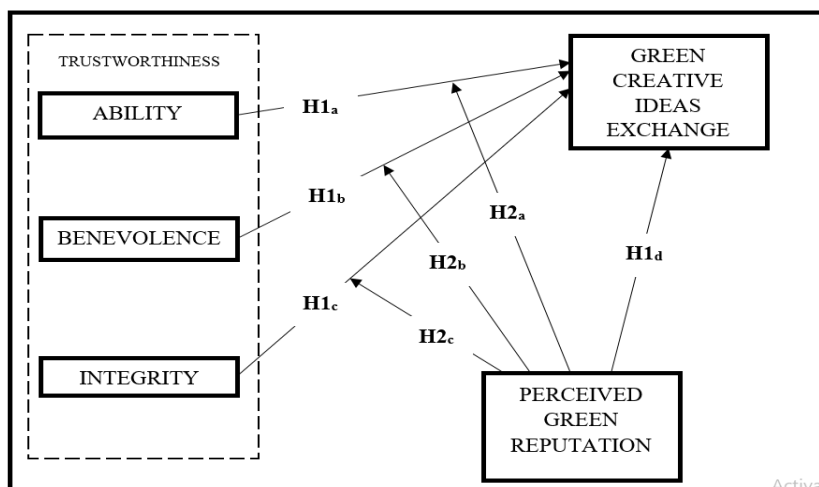


Figure 1: The conceptual model

### 3. Methods

#### *3.1 Sample size and data collection procedure*

The target population of this study is situated in the headquarters (HQ) of 21 different manufacturing organisations. The manufacturing organisations are situated in seven different states. The seven states portray a hub of manufacturing organisations in Nigeria (Usman & Amran, 2015; Uwalomwa & Jafaru, 2012). Similar to the approach of prior related research in similar contexts (Ogbeibu et al., 2018a), we employed a stratified proportionate sampling technique in which different strata in our population were identified. Then, in the different strata, the number of elements drawn was proportionate to the relative number of elements identified in the respective stratum. This was done purposively in seven different states of Nigeria which are the nation's established hub for manufacturing organisations (Ogbeibu et al., 2018a). Despite the disparate locations of the target population, the systems of operations exemplified in the HQ of each manufacturing organization are similar to what is applied in their branches nationwide (Usman & Amran, 2015; Uwalomwa & Jafaru, 2012). Hence, the results obtained in light of our sampling technique may also be generalized (Ogbeibu et al., 2018a). The 21 manufacturing organisations are indexed in the Nigerian Stock Exchange commission (NSEC) (The Nigerian Stock Exchange, 2016). Using the NSEC to identify the list of 21 manufacturing organisations is considered appropriate by extant studies (Ogbeibu et al., 2018a). To aid in getting a stratified proportionate sampling of total respondents in each manufacturing organisation, Krejcie & Morgan (1970) determinant of sample size was applied to guide the measurement of this study's sample size.

Three research assistants were recruited for data collection purposes. Six experts and senior researchers from the fields of environmental sustainability, management, and psychology



were consulted for questionnaire items evaluation. Fifty respondents were used to conduct the pilot study, and this is congruent with the approach of extant literature (Artino, La Rochelle, Dezee & Gehlbach, 2014). Collection and analysis of pilot study data was from three dissimilar branches of three different manufacturing organisations. SPSS software version 22 was utilized to analyse pilot test results. After initial data cleaning and analysis, poorly loaded items were consequently dropped (Yong & Pearce, 2013). Results of KMO (0.910) and Bartlett's test of Sphericity (Approx. Chi-Square = 7574.142; df = 153; Sig. = .000) further indicates that our study's overall sample and data is adequate and useful for further Factor analysis (Habibi, Yusop, & Razak, 2020). Moreover, in both the pilot study and actual data collection processes, teams ranged from 4-8 team members including their respective team leaders. Data collection processes for this study involved contacts with Human Resources Managers (HRM) of each manufacturing organisation, respectively. An official request to each HRM helped the research assistants to engage in a quick 5 minutes meeting with all teams and their leaders respectively. This was regarding the aims, distribution and collection processes of the questionnaire. Overall, we distributed a total of 410 questionnaires. Only 350 questionnaires were returned and found sufficiently complete for analysis. This reflects an 85% response rate, and it is congruent with that of extant research (Ogbeibu et al., 2018a). Overall, respondents aged between 20 to 60 years. Female and male respondents comprised 46.7% and 53.3% respectively. 44.6% of respondents were within the R&D departments as compared to 55.4% of respondents who were from IT departments. 55.7% of respondents were degree holders, 31.5% were master's degree holders. Only 12.8% had a PhD degree.

To mitigate common method bias (CMB) prone to perceptual questionnaires, this study followed the guide of Podsakoff, MacKenzie and Podsakoff (2012), which stressed that assuring

participants of their anonymity aids to dampen apprehension evaluations and response behaviours reflecting dishonesty. Additionally, as recommended by Ogbeibu et al. (2020), this study employed a time lagged data collection method. Thus, questionnaires of green creative ideas exchange were distributed nine weeks after the distribution of questionnaires for all trustworthiness dimensions and perceived green reputation. This helped to dampen the probable effects of CMB and allowed for the capturing of more valid judgements regarding the way green creative ideas were exchanged over the period, and for team members' deeper collection of more reliable perceptions about the perceived green reputation of their leader (Stone-Romero & Rosopa, 2008). Likewise, an item in the measure for the integrity construct was reverse coded (Podsakoff et al., 2012). As a further measure, Kock (2015) convincingly elucidated that estimation of full collinearity assessment of Variance Inflation Factor (VIF) in which the VIF values are not greater than 3.3 indicates that a defined model is not substantively influenced by CMB. The highest VIF value (2.599) in Table 1 shows that participants' responses have not been unduly influenced by CMB. Moreover, to mitigate against common source bias, the questionnaire was designed to ensure leaders rated themselves and their teams by answering the measures of green creative ideas exchange while measures of perceived green reputation of leaders and all trustworthiness dimensions were rated by team members. Further, the researchers ensured participants were from completely different manufacturing organisations, and each manufacturing organisation reflects distinct practices (Crede, 2010; Roese & Vohs, 2012). Thus, responses based on participants' perceptions originated from diverse knowledge of practices associated with their respective leader's trustworthiness, perceived green reputation, and exchange of green creative ideas exchange (Podsakoff et al., 2012).

**Table 1:** SmartPLS3 Measurement Model Factor Analysis, Reliability, Validity and Prediction Oriented Assessments

Construct	Composite reliability (CR)	VIF Values	rho_A	AVE	PLS PREDICT RMSE	LM RMSE	q2 effect size (Q2)
<b>ABILITY</b>	0.977	2.575	0.969	0.913			0.393 (large)
<b>BENEVOLENCE</b>	0.975	2.165	0.962	0.928			0.362 (large)
<b>GREEN CREATIVE IDEAS (GCI)</b>	0.948		0.928	0.821			
<b>GCI ITEMS</b>							
• <b>CI2</b>					0.727	0.753	
• <b>CI3</b>					0.777	0.823	
• <b>CI4</b>					0.787	0.815	
• <b>CI5</b>					0.746	0.751	
<b>INTEGRITY</b>	0.962	1.271	0.948	0.865			0.378 (large)
<b>PERCEIVED GREEN REPUTATION</b>	0.953	2.599	0.930	0.870			0.382 (large)

Note: AVE (Average variance Extracted); VIF (Variance Inflation Factor)

### 3.2 Measures

This study utilized questionnaires prepared in English for data collection. A 7-point Likert scale ranging from strongly disagree to strongly agree was used. To investigate trustworthiness, 17 statements were adapted from Mayer and Davis (1999). Reliability for this measurement scale ranges from 0.88 to 0.89. Six statements were adapted to examine leader's ability and an example is, "My leader is very capable of performing set tasks". Five statements were adapted to examine leader's benevolence and an example is, "My leader is very concerned about team members' welfare." Six statements were adapted to examine leader's integrity and an example is, "My leader has a strong sense of justice."

To measure leader's perceived green reputation, five statements were carefully developed based on Zinko, Ferris, Humphrey, Meyer and Aime (2012) study. This helped to transform the items in ways that closely identify with a green centred context. This action was also relevant for allowing precise capture of perceptions associated with leader's green reputation. An example of the statements is, "This leader is perceived as someone who undertakes green initiatives." To measure exchange of green creative ideas, five statements were self-developed based on the works of Litchfield et al. (2015) and Runco et al. (2001). An example of the statements is, "This team member shares with the team, new and meaningful green ideas that generate solutions to problems associated with environmental sustainability." (See supplementary information/appendix for full measurement scales.)

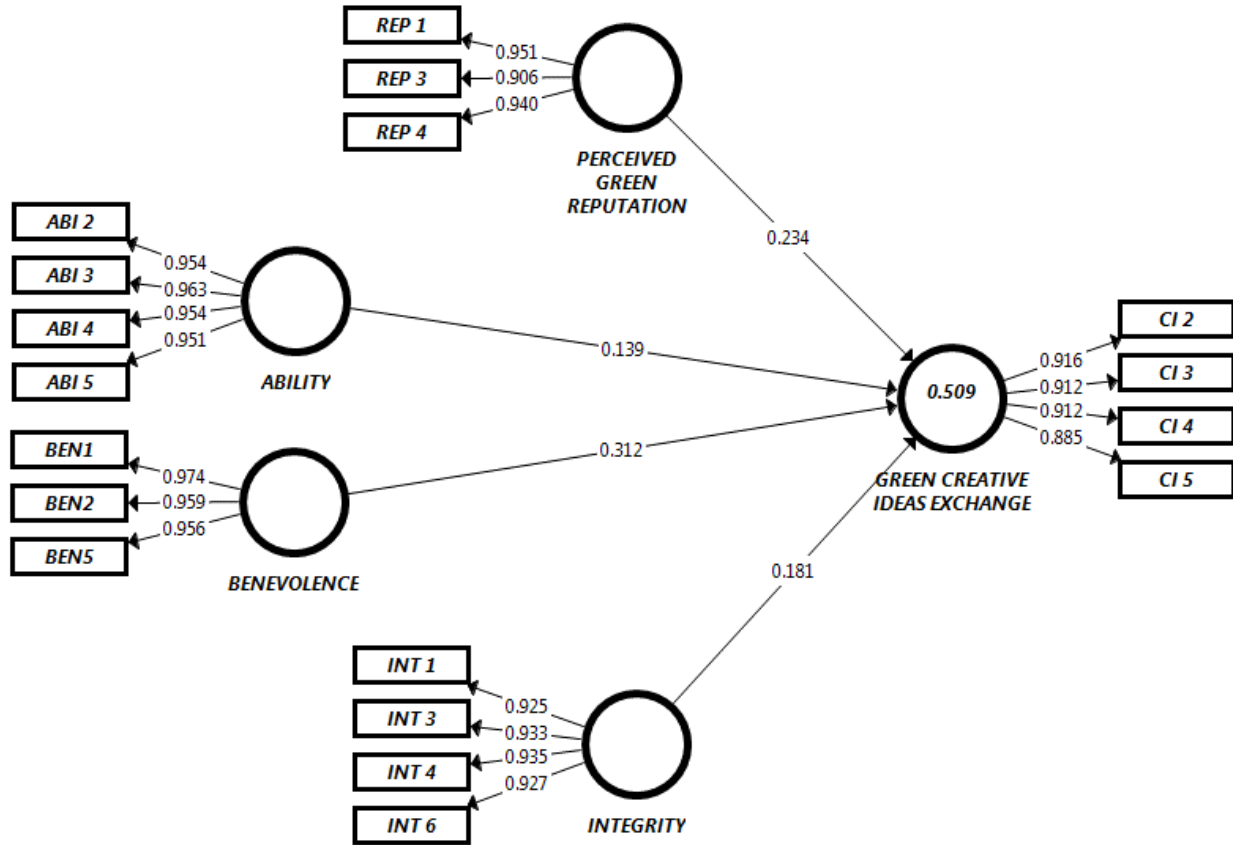
### *3.3 Analysis*

This study employs the recommendations of Sarstedt, Ringle, & Hair (2017) in utilizing the Variance Based Structural Equation Modelling (VB-SEM) technique. Sarstedt et al. (2017) emphasised that VB-SEM should be used when predicting and explaining a major specific construct, or when identifying relevant constructs' antecedents (Ringle et al., 2018; Sarstedt et al., 2016). VB-SEM is recommended given that the primary objective of this study is grounded on prediction, rather than confirmation of theory found in co-variance based SEM (Ogbeibu et al., 2020). Therefore, the SmartPLS 3 software is employed to investigate how perceived green reputation and trustworthiness act as probable antecedents which could be used to predict and explain green creative ideas exchange. It is employed to further determine the predictive accuracy, power and statistical relevance of this study's exogenous and endogenous constructs, and to foster a more accurate estimation of interaction effects, simultaneously (Ringle et al., 2018; Sarstedt et al., 2017).

#### 4. Results and discussion

The standard deviations and means range from 0.94 to 1.06 and 5.25 to 6.6 respectively. Equally, results of skewness and kurtosis range from -0.6 to 0.2 and -0.2 to -0.7 respectively. It could thus be resolved that the constructs have been evenly dispersed, and therefore, suggests data distribution normality (Yong & Pearce, 2013).

As identified by the constructs and their respective indicators, metrics of initial output are applied to assess the outer model measurement characteristics (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). Figure 2 shows that all indicator items exceed the threshold of 0.7. This suggests that all the indicator items contribute substantially to their respective constructs. The rho\_A and composite Reliability (CR) results range from 0.93 to 0.96 and 0.94 to 0.97 respectively (Table 1). This exceeds the minimum requirement of 0.7 and thus confirms all constructs' internal consistency and reliability (Henseler, Hubona & Ray, 2016). The Average Variance Extracted (AVE) for all constructs also exceeds 0.50, thus indicating convergent validity (Hair, Sarstedt, Ringle & Mena, 2012).



**Figure 2.** Measurement Model

In Table 1, the VIF has also been examined to test for possible issues of multi collinearity and has a range of 1.27 to 2.59. This confirms sufficient construct validity (Yong & Pearce, 2013). In order to test for discriminant validity, the Heterotrait-Monotrait Ratio (HTMT) has been applied (Henseler et al., 2015). As an estimate for factor correlation, HTMT must be less than 0.850 to clearly differentiate between two factors (Henseler et al., 2016). HTMT values evidenced in Table 2 indicate that the requirement for discriminant validity has been met for all factors.

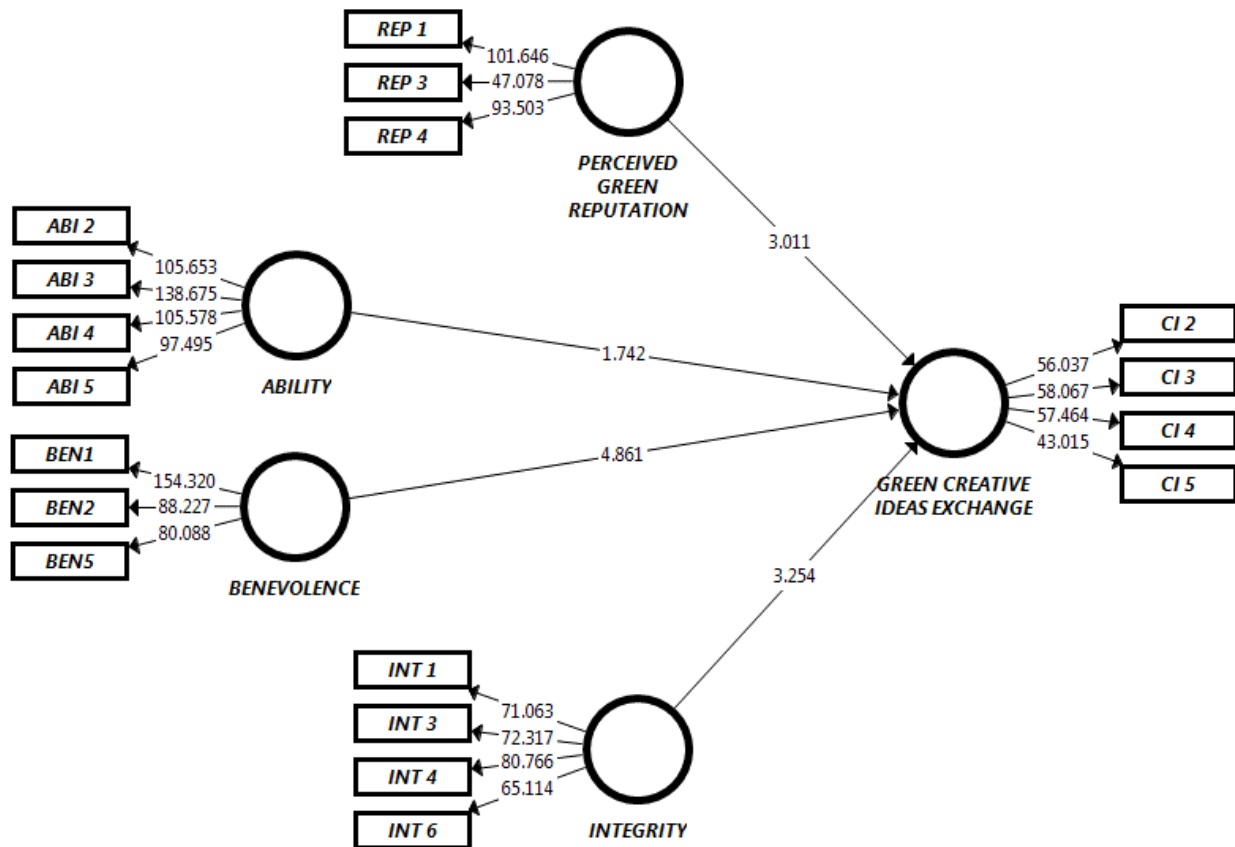
**Table 2.** Heterotrait-Monotrait Ratio (HTMT) Test

	ABILITY	BENEVOLENCE	GREEN CREATIVE IDEAS	INTEGRITY	PERCEIVED GREEN REPUTATION
<b>ABILITY</b>					
<b>BENEVOLENCE</b>	<b>0.704</b>				
<b>GREEN CREATIVE IDEAS</b>	<b>0.635</b>	<b>0.667</b>			
<b>INTEGRITY</b>	<b>0.456</b>	<b>0.355</b>	<b>0.477</b>		
<b>PERCEIVED GREEN REPUTATION</b>	<b>0.775</b>	<b>0.726</b>	<b>0.676</b>	<b>0.450</b>	

In light of model fit, Hair, Risher, Sarstedt and Ringle (2019) firmly recommends against the use of model fit indices in VB-SEM as the recently provided assessments criteria are yet incomprehensive and tentative and their value are consequently questionable in VB-SEM generally. Supported by Ogbeibu et al. (2020), Sarstedt et al. (2017) advocate that VB-SEM estimations ought to maintain a causal-predictive approach and should therefore rely on the predictive accuracy, relevance and power of a model ( $Q^2$ ,  $\beta$ ,  $R^2$ , and lesser VB-SEM RMSE values).

Therefore, to examine prediction oriented structural models, path coefficients,  $t$ -statistics,  $R^2$ ,  $Q^2$ , effect sizes ( $f^2$ ) and prediction errors assessment values are considered (Ogbeibu et al., 2020). A threshold of  $t$ -statistics  $> 1.65$  at  $p \leq .1$  has been recommended by Hair, Ringle and Sarstedt (2011). Likewise, effect sizes of 0.35, 0.15, and 0.02 signify a large, medium, and small effects respectively (Lowry and Gaskin, 2014). Sarstedt et al. (2014) highlighted that  $R^2$  values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak values respectively. Likewise, Sarstedt et al. (2017) advocates that  $Q^2$  values larger than 0 for a respective endogenous

construct signifies an acceptable path model’s predictive accuracy for that respective construct. By using 5000 subsamples, the consistent PLS bootstrapping option has been initiated to obtain the significance levels (Hair et al., 2014). As shown in Figure 2, the  $R^2$ -value of 0.509 ( $t = 8.919$ ,  $p \leq .000$ ) indicates a 50% degree of variance explained in the exchange of green creative ideas. This suggests a significant moderate  $R^2$ . Additionally, all four exogenous constructs demonstrate significant explanations of the variance in green creative ideas exchange, and are consequently considered meaningful for further interpretations (Hair et al., 2014).

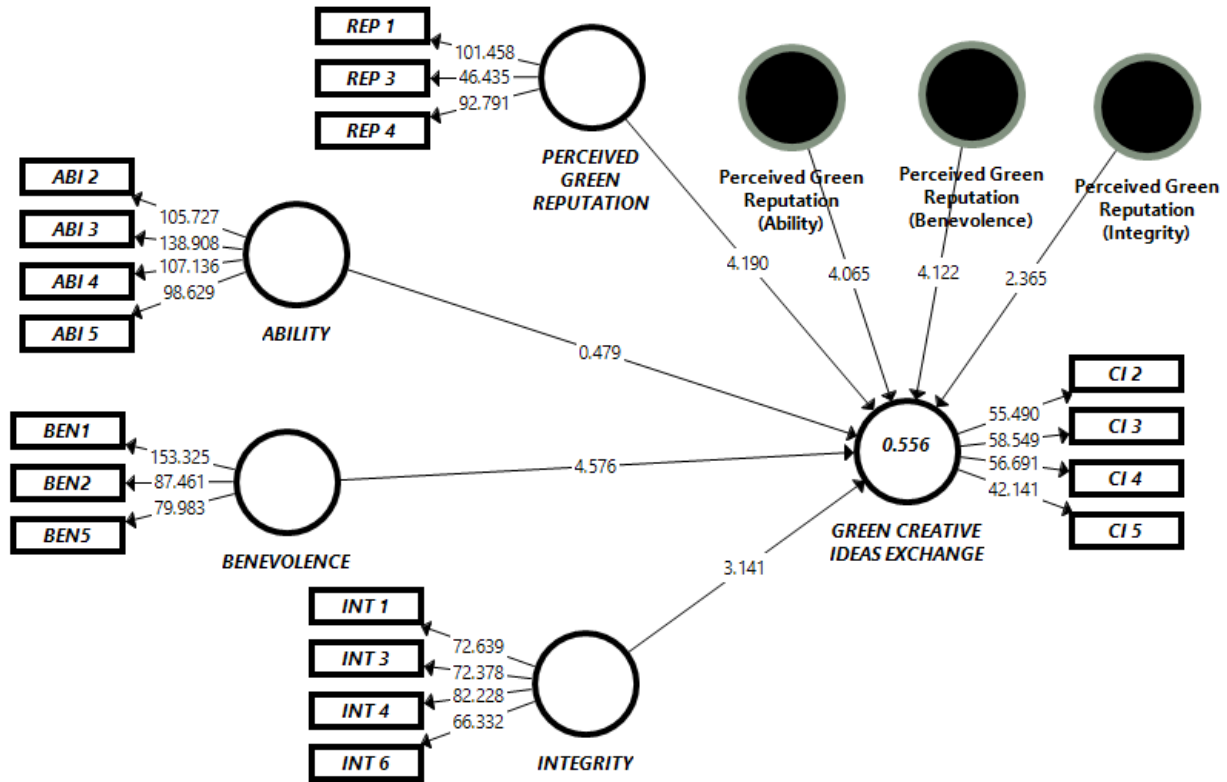


**Figure 3.** Structural model with T-Statistics test

Based on the results summarized in Figure3, benevolence demonstrates the strongest positive prediction ( $\beta = 312$ ,  $t = 4.861$ ,  $p \leq 0.000$ ) of green creative ideas exchange. This is followed by perceived green reputation ( $\beta = 234$ ,  $t = 3.011$ ,  $p \leq 0.003$ ), integrity ( $\beta = 181$ ,  $t =$



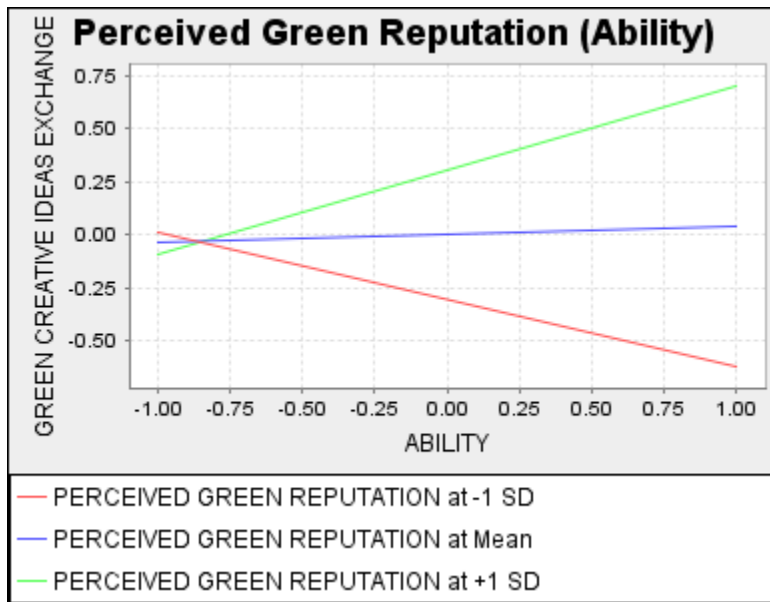
3.254,  $p \leq 0.001$ ), and ability ( $\beta = 139$ ,  $t = 1.742$ ,  $p \leq 0.082$ ). The postulations of **H1<sub>a</sub>**, **H1<sub>b</sub>**, **H1<sub>c</sub>**, and **H1<sub>d</sub>** are therefore, **supported**. However,  $f^2$  values for benevolence (0.092), perceived green reputation (0.043), integrity (0.053), and ability (0.015) suggests small, small, small, and no effects respectively. For moderation analysis, note that the green, blue, and red lines exemplify the moderator (perceived green reputation) at high, mean, and low levels respectively. Results showing the moderation or interaction effects are evidenced in Figure 4. To shed deeper light into the kinds of interaction effects from Figure 4, we draw further support from Figures 5, 6 and 7. Figure 5 indicates that with a small effect size, leaders' perceived green reputation positively moderates ( $\beta = 0.358$ ,  $t = 4.065$ ,  $p \leq 0.000$ ,  $f^2 = 0.081$ ) the relationship between ability and green creative ideas exchange. This means that perceived green reputation amplifies the positive influence which leader ability has on the exchange of green creative ideas. However, the degree of influence that perceived green reputation has on this relationship is small. This confirms the initial prediction of **H2<sub>a</sub>**, and is thus, **supported**.



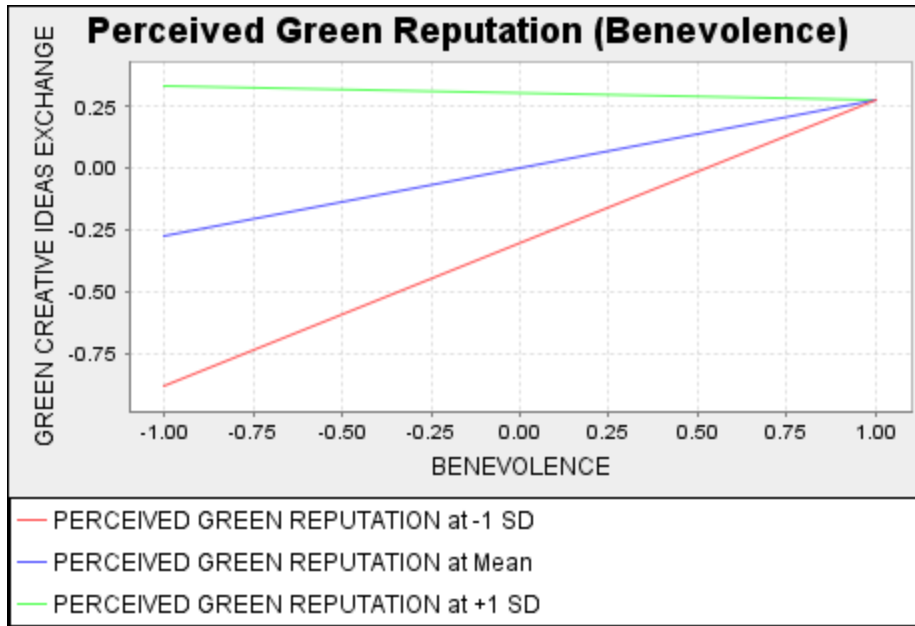
**Figure 4.** Moderation model indicating significance of product terms

Nevertheless, Figures 6 and 7 suggest that with small effect sizes, leaders’ perceived green reputation has negative moderating effects on the associations between benevolence ( $\beta = -0.303, t = 4.122, p \leq 0.000, f^2 = 0.072$ ), integrity ( $\beta = -0.115, t = 2.365, p \leq .01, f^2 = 0.038$ ) and green creative ideas exchange. This also means that perceived green reputation weakens the positive influences which leader benevolence and integrity has on the exchange of green creative ideas. However, the degree of influence that perceived green reputation has on their respective relationship is also small. This counters the early predictions of **H2<sub>b</sub>** and **H2<sub>c</sub>**, which are therefore, **not supported**. Finally, to compliment this study’s model’s overall predictive accuracy and relevance, the  $Q^2$  value of 0.398 and values of  $q^2$  effect sizes (Table 1), further indicates that this study’s path model is largely accurate and relevant, and therefore acceptable (Sarstedt et al., 2017; Ringle et al., 2018). Moreover, with regards to this study’s out-of-sample

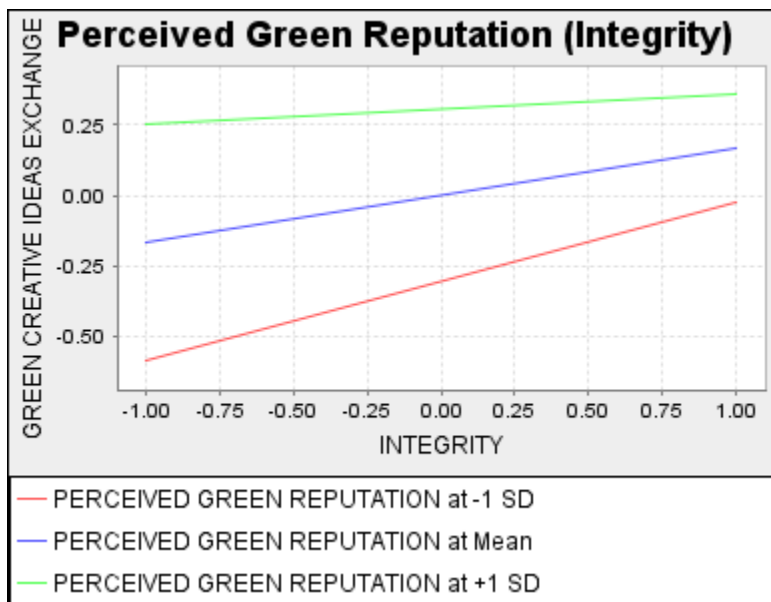
predictive power, the ten folds and ten replications predict procedure is employed to compare PLS-SEM RMSE values against those from a naïve linear benchmark (LM RMSE). Results from Table 1 shows that all PLS-SEM RMSE values have lesser prediction errors compared to those of LM RMSE, therefore, offering ample support for the model's large predictive power (Ogbeibu et al., 2020; Shmueli, Sarstedt, Hair, Cheah, Ting & Vaithilingam, 2019).



**Figure 5.** Moderating role of leaders' perceived green reputation on the relationship between ability and green creative ideas exchange.



**Figure 6.** Moderating role of leaders’ perceived green reputation on the relationship between benevolence and green creative ideas exchange.



**Figure 7.** Moderating role of leaders’ perceived green reputation on the relationship between integrity and green creative ideas exchange.

*4.1 Discussion of findings*

This study investigates some newly emerging concepts that reflect the need for team leaders to take into consideration the importance of demonstrating ability, integrity, benevolence, and perceived green reputation in green initiatives requiring exchange of green creative ideas. This study found that leaders' benevolence exhibits the strongest positive prediction of green creative ideas exchange. This finding is congruent with the debate of extant research that has relatively stressed the importance of not overlooking the positive roles of benevolence on green creative ideas exchange (Lin, Ma, Zhang, Li & Jiang, 2016; Wang & Cheng, 2010). Equally, this study found that leaders' perceived green reputation positively predicts green creative ideas exchange. This is also consistent with the discourse of studies that have emphasised the need for a strong development of good reputation, as this can aid to provoke positive convictions that may engender exchange of green creative ideas (Muda et al., 2016; Ritter et al., 2012). As evidenced in this study, the positive predictive power of leaders' integrity on green creative ideas exchange, highlights a need for leaders to maintain a justifiable personality of honesty, sincerity, reliability to actions and words, and commitment to organisational defined standards (Peng & Wei, 2016). Studies (Beaussart et al., 2013; Peng & Wei, 2016) argue that such attributes help to relay strong perceptions of leaders' integrity to team members, and this could consequently engender exchange of green creative ideas. This debate is thus consistent with this study's finding of a positive link between integrity and the exchange of green creative ideas. Similarly, this study shows that leaders' ability positively predicts the exchange of green creative ideas. This finding is consistent with the relative debate of extant research that has argued the positive effect of ability (Dingler & Enkel, 2016; Mayer et al., 1995). Moreover, prior research shows that leaders with the required aptitude and set of skills excel at driving meaningful exchanges associated with creativity (Ogbeibu et al., 2018c). Nevertheless, this study's findings stand in dissonance to the

debate of Wenxing et al. (2016). In their work, leaders' ability was found to exhibit a negative impact.

Results of this study reinforces the need for leaders to not compromise their strong standards of benevolence and integrity when engaging their teams in an exchange of green creative ideas. Consistent with extant research (Ogbeibu et al., 2018a; Peng & Wei, 2016), questionable evidence of perceived green reputation of leaders that identify with their benevolence or lack of integrity could limit the degree to which team members may be willing to engage in the exchange of green creative ideas. This notion is consistent with the negative moderating influence of perceived green reputation on the associations between benevolence, integrity and green creative ideas exchange. Contrary to a logical assumption that high perceived green reputation of leaders ought to increase green creative ideas exchange in a team, our study finds that it dampens the positive relationship between benevolence, integrity and green creative ideas exchange. A plausible rationale for this could be that, due to the drive for increased competitiveness and financial uncertainties, unpredictable events may cause a leader to behave unethically in order to constantly maintain team members' green creative ideas exchange. This is evidenced in the accounts of extant research (Chien & Ann, 2015; Ogbeibu et al., 2018b; Soderberg, Sallis & Eriksson, 2014) that reflect leaders' unethical business practices, deceitful, and dishonest behaviours of leaders who strive to maintain strong reputations via untrustworthy behaviours.

Despite probable consequences, desperate leaders who are dishonest and self-centred may demonstrate benevolence and integrity as a mask to further ensure constant exchange of team members' green creative ideas (Ogbeibu et al., 2018b; Paulus, 2000). However, since perceptions of benevolence usually take time to form (Hackett et al., 2018; Poon, 2013), it could

be challenging for a leader to keep up a mask of deceit (Soderberg et al., 2014). Subsequently, displeased team members who may uncover the schemes of a dishonest leader could develop a poor perception of their leader's green reputation. Hence, team members' judgements about their leader's integrity and benevolence may tend to form swiftly when their leader's reputation is impaired (Gorondutse & Hilman, 2013; Poon, 2013). This might further diminish team members' willingness to commit towards the exchange of green creative ideas. A lack of team members' reciprocity in terms of reliability and benevolence towards a leader could thereby cause team members' diffusion of green creative ideas to be set at a decline (Peng & Wei, 2016; Poon, 2013). Additionally, this study found that perceived green reputation is a positive moderator of the relationship between ability and green creative ideas exchange. Results of this study thus, harmonise with and challenge the discourse of extant research that have also contributed to the SET's and stakeholders' further theoretical development (Choi, Lotz & Kim, 2014; Hazarika & Zhang, 2019). This is in terms of considering the relevance of trustworthiness dimensions in social exchange relationships, their impacts on the nature of resources exchanged and how such confluence simultaneously engender organisational profit making and environmental sustainability demands.

Furthermore, given the nature of this study's findings, by leveraging the trustworthiness dimensions, the exchange of green creative ideas can be further engendered between team members and their leaders within manufacturing organisations in Nigeria. This could equally be possible across manufacturing organisations in other emerging economies with similar contexts and conditions as relayed concerning the Nigerian context in this study. In light of extant debate (Aboramadan, 2020; de Camargo et al., 2019; Suhi et al., 2019) other emerging economies such as Brazil, Bangladesh, Palestine and India may also be able to benefit from fostering an effective

exchange of green creative ideas when executing green related initiatives. As implicitly supported by de Camargo et al. (2019), this is even more so when driving socially-oriented projects that involves organisational members (team members) as part of the decision making processes that foster green initiatives – social projects. Additionally, to nurture and sustain environmental sustainability, emerging economies may want to not overlook the importance of driving green creative ideas exchange. Insights from Suhi et al.'s (2019) study across diverse industries in Bangladesh, mirrors the need for driving environmental sustainability tenets as manufacturing organisations in Bangladesh continue to struggle with how sustainability goals can be achieved. Any attempt to help resolve this struggle would emanate from the exchange of green creative ideas which actually sits at the heart of any green initiative associated with continuity and long term survival (Aboramadan, 2020; Ogbeibu et al., 2020). To help mitigate this struggle, this study's findings relay the need for all trustworthiness dimensions and the varying influences of perceived green reputation to be given apt attention as manufacturing organisations may be able to successfully drive the exchange process needed to further engender environmental sustainability. This argument hinges on this study's earlier discussed findings.

## **5. Conclusion**

This study offers novel insights and contributions which cast light into sub-Saharan Africa and taps a population and an emerging economy context not frequently found in prior related research. This study, thus, brings additional clarity to team members' exchange of green creative ideas, the trustworthiness dimensions and leaders' perceived green reputation underpinnings, by demonstrating the predictive powers of benevolence, integrity, and perceived green reputation on green creative ideas exchange. Hence, this study suggests a probable solution to issues that may arise when perception of leaders' trustworthiness is not strong enough to initiate and foster green



creative ideas exchange. Building upon the SET and stakeholders' theoretical lenses, this study compliments and challenges the relative theoretical postulations of extant research that has examined their respective undergirding. This is also typified in the positive and negative moderating roles of perceived green reputation which has fostered novel insights that challenge prior and contemporary understandings in several extant studies undergirded by SET and stakeholders' theories.

This study therefore reinforces prior knowledge by investigating trustworthiness as a multidimensional construct compared to the one-dimensional approach exemplified by extant research (Jiang et al., 2016; Pay et al., 2015). This study has, therefore, attempted to fill this theoretical gap by further investigating the core of social exchange relationships. In doing so, this study has deepened the insights into the powers of perceived green reputation on the relationship between trustworthiness dimensions and green creative ideas exchange. Another major contribution is that this study exemplifies perceived green reputation as a positive predictor of green creative ideas exchange. Further, this study provides evidence that typifies the distinct trustworthiness conditions in which leaders' perceived green reputation exhibits positive and negative moderating influence. Consequently, the findings of this study reflect substantive complimentary and contrasting contributions to the SET and stakeholders' theoretical assumptions. This study, therefore, provides evidence that could help manufacturing organisations understand the gap between team members' perceptions of a trustworthy leader and the predictive powers of leaders' perceived green reputation for driving exchange of green creative ideas in developing economies like Nigeria. Consequently, by understanding how leaders' perceived green reputation and trustworthiness act as drivers of green creative ideas

exchange in Nigeria, this study's findings are relevant for deepening insights into how to close similar gaps in developing economies with related context.

Additionally, grounded on the philosophy of social exchange of green creative ideas, the findings of this study suggest that leaders and practitioners should consider exhibiting more benevolence that could support the increase of team members' perception of their green reputation. This is because benevolence and perceived green reputation demonstrate the strongest predictive powers to engender effective exchange of green creative ideas. Therefore, policymakers ought to consider instituting strategies and initiatives that would inspire more benevolent practices among organisational members. Additionally, agencies currently governing business ethical practices might need to review the perceived green reputation profiles of leaders as a way of re-examining, and further ensuring that leaders maintain perceived green reputation that is grounded on all trustworthiness dimensions. This is important because having a perceived green reputation that is not entirely trustworthy, and being trustworthy without a supporting perceived green reputation for it, may hamper effective exchange of green creative ideas. On this note, practitioners should not overlook the respective negative moderating effects of leaders' perceived green reputation on the relationships between benevolence, integrity and green creative ideas exchange. Efforts should therefore be made by policymakers to provide green initiatives that could help train leaders on how to avoid having impaired green reputations, considering its probable negative consequences on the perceptions of team members. Equally, practitioners can take comfort in the knowledge that building, and maintaining a strong perceived green reputation of leaders' ability, can further foster the engendering of team members' exchange of green creative ideas. Consequently, policy makers may consider strengthening standards that have been put in place to help develop leaders' abilities.

Notwithstanding the contributions of this study, and potential application in similar contexts across emerging economies, it still has certain limitations. This study did not directly investigate perceptions of other stakeholders such as suppliers, customers, corporate level, community or societal factors, as such deviation would have adversely altered the focus of this study's aims and scope. Future researchers are consequently advised to incorporate the noted stakeholder groups in similar investigations. With reference to this study's scope, the focus has been on the predictive powers of leaders' ability, benevolence, integrity, and *perceived* green reputation on the exchange of green creative ideas. Future researchers may try to examine *actual* green reputation as an antecedent variable of trustworthiness. In this wise, measures for actual green reputation could be based on verifiable and established evidences of leaders' green reputation that is also supported by a long standing track record of their successful green related initiatives. Likewise, congruent to the aims and objectives of this study, mainly leaders' *perceived* green reputation has been examined. Therefore, future studies may try to examine leaders' *actual* green reputation impact on organisational level exchange of green creative ideas. Additionally, studies might endeavour to investigate the predictive power of teams' perceived green reputation, and trustworthiness on green creative ideas exchange from an organisational level perspective. This present study has mainly focused on investigating leaders' perceived green reputation and trustworthiness. Furthermore, longitudinal studies should be carried out on a cross national context, to further draw causality regarding probable effects of ability, benevolence, and integrity on green creative ideas exchange, and thus, advance the generalizability of this present study's results.

### **Research funding**

This study was not funded by any grant.

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**APPENDIX****Measurement Scale for Team members' Exchange of Green Creative Ideas**

1. This team member shares with the team, new and meaningful green ideas that generate solutions to problems associated with environmental sustainability.
2. This team member welcomes any green creative ideas from the team.
3. This team member shares green creative ideas with the team despite their evaluations or possible rejections of this team member's green creative ideas.
4. This team member goes the extra mile to share green creative ideas that could promote green initiatives.
5. This team member shares constructive feedbacks that could improve other team member's green creative ideas.

**Measurement Scale for Perceived Green Reputation**

1. Regarding green related initiatives, this leader is regarded highly by the team.
2. This leader is perceived as someone who undertakes green initiatives.
3. This leader is perceived by the team to have a status for driving green centred initiatives.
4. The team perceive this leader will consistently demonstrate the highest performance in green related initiatives.
5. The team perceive this leader will produce high-quality green related initiatives.

**Measurement Scale for Leader Ability**

1. My leader is very capable of performing set tasks.
2. My leader is known to be successful at executing defined tasks.
3. My leader has much knowledge about the task that needs to be done.

4. I feel very confident about the skills of my leader.
5. My leader has specialised capabilities that can improve our performance.
6. My leader is well qualified.

#### **Measurement Scale for Leader Benevolence**

1. My leader is very concerned about team members' welfare.
2. Team members' desires and needs are very important to my leader.
3. My leader would not knowingly do anything to hurt team members.
4. My leader actually looks out for what is essential to team members.
5. My leader will go the extra mile to help team members.

#### **Measurement Scale for Leader Integrity**

1. My leader has a strong sense of justice.
2. I never have to wonder whether my leader will abide by his or her words.
3. My leader tries hard to be impartial in dealings with others.
4. My leader's behaviours and actions are not very consistent. (Reverse coded)
5. I like my leader's values.
6. Sound ethics seem to guide my leader's behaviour.