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Big Data Analytics' Influence on Competitive Advantage: Mediating Green Creativity and Green Commitment, Moderated by Individual Green Values and Green Psychological Climate

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Abstract

This study explores the influence of big data talent capability, business analytics and capacity management on competitive advantage through mediating role of green creativity and green commitment and moderating role of individual green values and green psychological climate. For the current research, a quantitative survey with 400 respondents was conducted as part of the investigative strategy. Data were investigated through SPSS Version 26 and SEM by utilizing Smart PLS Version 4 software. The integration of data-driven tools and methodologies, specifically big data analytics (BDA) talent capability, business analytics, and BDA capacity management, has been shown to have a substantial and beneficial influence on green human resource management (GHRM). GHRM has optimistic impact on green creativity and green commitment. Individual green values positively moderate the impact of GHRM on green creativity and green commitment. Green psychological climate positively moderates the impact of GHRM on green creativity and green commitment. Green creativity and green commitment have significant influence on competitive advantage.

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Keywords: Big Data, Green Human Resource Management, Individual Green values, Green Psychological Climate, Green Creativity, Green Commitment, Competitive Advantage.

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INTRODUCTION

Big data analytics emerged from the large amounts of data created by new technologies and their operations. BDA and business analytics (BA) are emerging topics in literature that are drawing academics and specialists. BDA and BA tools significantly contribute to the industrial sector's expansion (Nižetić et al., 2019; Wamba et al., 2017). Usually BDA has five Vs: worth, quantity, range, accuracy, and speed. These five Vs encourage realistic ideas, meet environmentally friendly objectives, improve eco-operative efficiency, and gain CA in a turbulent marketplace (Tao et al., 2018). Yet, some experts believe that two key BDA views might improve manufacturing excellence in operations. First, gather big data from the industrial industry's internal and external environments in volume. When compared to the standard information handling structure,

this sort of information will show improvements and advantages (Frank et al., 2019; Arshad et al., 2022). Second, BA uses big data to communicate decision changes and manage operations. Thus, combining the two perspectives created a comprehensive BDA paradigm. BDA Talent Capability (TC), BA, and BDA Management Capability (CM) promote economic and social progress. Fast economic expansion and vast manufacturing can harm the environment. Today, ecological issues are drawing authorities and the public worldwide (Zameer et al., 2020b; Ali & Asim, 2023). Thus, manufacturers are addressing environmental challenges (Ghisetti et al., 2017). Thus, researchers discussing BDA-TC, BA, BDA-CM, and green innovation are debating these tendencies.

Globalization is also accelerating green and ethical production concerns (Qiu et al., 2020; Faisal & Iqbal, 2023). GI technologies encourage sustainable goods and procedures growth, gaining CA ethically and conserving natural resources efficiently. In the present competitive context, businesses may balance revenue and ethical behavior by coordinating society, economics, and ecology (Li et al., 2018; Hayat, 2022). Thus, manufacturing enterprises that prioritize legal obligations and environmental protection may not benefit from incorporating ecological criteria in their goods or procedure development. As the planet has gotten more complicated and natural resources are less plentiful, industrial enterprises have found success using GI and GHP to obtain and maintain CA. GI growth and development in new manufacturing processes are crucial to accomplishing equitable growth objectives. More customers want greener characteristics in new items and offerings (Zameer et al., 2020a). Thus, global manufacturers have invested in BDA and developing innovations to increase EP throughout their manufacturing lifecycle. BDA-TC, BDA-CM, and BA might be important in production.

Many companies use GHRM to engage their socially conscientious workers. GHRM aligns HRM methods with corporate ethical and environmental goals in many sectors (Alreahi et al., 2023) according to a study. Including ecological and social problems into HRM processes and rules has gained acceptance in modern HRM as a way to support a company's green efforts, such as CSR. Green HRM emphasizes environmental education and competitiveness based on ecological considerations Zada et al. (2023). Companies whose environmental influence has been acknowledged as detrimental by most people in the previous three decades need GHRM (Swanson et al., 2020).

Sustainability and eco-friendly goods and services distinguish green innovation from traditional invention (Karatepe et al., 2020). Innovative green ideas is crucial for addressing global environmental concerns and achieving strategic benefits (Pham et al., 2019). Long-term macro growth relies on distinct initiatives (Tuan, 2020). Green creativity has been studied at the private (Wan et al., 2017) or collaborative (Pham et al., 2019) stages only after merging the two. Sustainable innovations may boost the debate about environmentally friendly methods, but the majority of research has concentrated on green attitude and conduct (Franke & Sarstedt, 2019; Iqbal et al., 2023), ignoring green creativity, a finer form of green actions. Particular inventiveness may promote longevity (Gabards et al., 2018). Other ways that promote ecological consciousness in many industries are studied in academia (Roscoe et al., 2019). This research examines how big data talent capabilities, business analytics, and capacity management may affect

competitive advantage via green creativity, commitment, and individual green values and psychological climate.

LITERATURE REVIEW

BDA Talent Capability and GHRM

Global production companies must address workforce potential in the BDA environment due to rapid technology advancements. BDA-TC-based specialists execute or accomplish the specified work in the organizational context due to their analytical expertise and expertise. Shah et al. (2017) discovered that the substantial amount of data includes each operational stage in the production sector, which has made employee growth harder. Zhong et al. (2016) explored the usage of BDA in production, money & economy, and medical care and discovered that BDA will soon focus on innovative advances and cloud-based platforms. The latest (Bag et al. 2020; Kousar et al., 2023) research revealed that BDA-TC and BDA-CM may improve sustainable development, instruction, and supply chain efficiency in the South African mines sector. BDA when producing may also improve the company's green image, green production, competitive advantage, and preservation of the environment, allowing firms to access new markets with green images Zameer et al. (2020).

H1. BDA talent capability has positive influence on GHRM.

Business Analytics and GHRM

A few researchers have examined and confirmed the relationship between BA along with additional parameters like sustainable development (Zameer et al., 2020b), knowledge-driven HRM methods (Al-Qaralleh and Atan, 2021), the food chain (Wu and Huang, 2018; Mastoi, 2022), and marketplace choices (Albright and Winston, 2014). According to Kamble et al. (2018), implementing BDA and BA in the health sector is to produce new information and develop fundamental managerial abilities in developing nations based on BDA Zameer et al. (2020b). Thought BA boosted green innovation and competitive advantage in Chinese manufacturing enterprises (Wu and Huang, 2018). used the BA to turn complicated data into food supply chain management knowledge to improve environmental sustainability (Niebel et al. 2019) BA and green innovation in German production as well as services were examined and validated (Aydiner et al., 2019). Al-Qaralleh and Atan (2021) examined how BA adoption affects company performance by mediating business procedure performance in the Turkish industrial and facility part. BA, knowledge-driven HRM, teamwork, and green innovation efficiency in Jordanian hotels were examined.

H2. Business Analytics has beneficial influence on GHRM.

BDA Capability Management and GHRM

BDA-CM requires an expenditure on logical, project leadership, data presentation, solutions, and network administration courses (Akter et al., 2019). Singh and El-Kassar (2019; Muhammad Aqib et al., 2023) found an important beneficial connection between BDA, green HRM practices, and sustainable supply chain management procedures. Bag et al. (2020) concentrated on BDA-CM and BDA-TC to gain green creativity and education efficiency and sustainable supply chain efficiency through mediating role of

creative inventions and worker growth and moderating role of supply chain innovativeness in development in vocational training improves workers' abilities and builds managers who can influence BDA use in firms (Niebel et al., 2019). In this investigation (Akter et al., 2016), BDA-CM, BDA-TC, BDA technology ability, and big data analytics capability were proposed to enhance company efficiency by moderating role analytics capability corporate policy arrangement in US production companies.

H3. BDA Capability Management has beneficial assessment on GHRM.

GHRM and Green Creativity

GHRM helps change employees' conduct, implement green initiatives, and achieve green company objectives. Green HR methods including green instruction, evaluations of achievement, and reward schemes demonstrate that the company prioritizes workers' environmental awareness and waste avoidance (Aboramadan et al., 2022). Studies indicate that green training can enhance staff environmental awareness, instruct them novel procedures, and progress their green services (Cop et al., 2021; Kim et al., 2019; Schminke et al., 2015; Nosheen & Danya, 2022). GHRM may also encourage employee conduct by attaching it to job assessment, advancement, salary, and incentives (Anwar et al., 2020).

GHRM research mostly attentions on ecological sustainability (Renwick et al., 2013). GHRM methods demand green employee engagement, which encourages enterprises to adopt sustainable practices for sustainable strategy development (Shen et al., 2018). Previous studies (Dumont et al., 2017; Hameed et al., 2020) found that GHRM practices can affect individuals' sustainability concerns, ethical conduct, and sustainable innovation. Since green creativity drives creativity, executives may generate new and innovative sustainable products and service concepts (Jia et al., 2018). AMO is essential to employee green innovation, according to previous research (Bos-Nehles, Renkema, & Janssen, 2017; Mastoi, 2022). The AMO theory states that GHRM improves people's green creativity by enhancing their abilities (via green schooling and expanding) by engaging in sustainable workouts, enabling their inspiration (via rewards and reimbursement linked to green purposes), and creating rewards (via green worker empowerment) to carry out green duties in an effective way. The research (Jia et al., 2018) supports our claim that GHRM methods boost green innovation. GHRM is linked to a psychological green climate (Dumont et al., 2017), eco-friendly task-related actions (Chaudhary, 2019), green knowledge and comprehension measures Rubel et al. (2021), employees successful and sustainable behaviors (Kim et al., 2019), green expression acts (Aboramadan et al., 2022), and ecological commitment actions. The Ahmad et al. (2022) study is one of few on GHRM and green activities.

H4. GHRM has positive influence on Green Creativity.

GHRM and Green Commitment

According to Setyaningrum & Muafi (2023), GHRM's evaluation of its environmental commitment is favorable. Gomes et al.'s earlier research from 2023 showed that GHRM had a major impact on employees' emotional commitment. The topic's freshness may account for this discrepancy, but researchers examining HR's ecological component have found no evidence backing the idea that green HRM practices improve workers'

emotional commitment (Kusi et al., 2021; Zhao et al., 2021). According to Jnaneswar (2023), green commitment serves as a helpful intermediary in the relationship between worker environmentally conscious conduct and GHRM. According to Ly (2023), there is a positive correlation between GHRM and organizational commitment.

H5. GHRM has optimistic influence on Green Commitment.

Individual Green Values as a Moderator

Dumont, Shen, and Deng (2017) used psychological green environment as a mediator and individual green values as a moderator to examine the association between GHRM and in-role and other behavior. Further investigation is required to explore the impact of other contextual and affective elements on the association between GHRM and green results (Hameed et al. 2020; Pham et al. 2020; Tanova & Bayighomog, 2022; Roshana et al., 2023). Values, according to Karadag and Kayabasi (2013), are "what humans consider to be fundamentally either correct or incorrect." Thus, according to Schmidt, Arnaud, and Taylor (2015), they are "relative to 'basic aspects of action' in that they set a foundation for views, which in turn offer conditions for action." Social skepticism has a significant impact on people's conduct (Chou, 2014). IGVs are critical to the expansion of advanced concepts for the progress of the industry and ongoing creativity aimed at the achievement of organizations (Chou, Chen, & Wang, 2012; Shafiq et al., 2023). According to Cheema et al. (2020), individual green values affect both extended and in-role behaviors. When personal green beliefs and corporate goals are fully matched, good environmental leadership results. Individual values continue to play a important character in the conception and development of novel ideas for the success of organizations, according to Cohen (1988). Individuals with more green (pro-environment) views are more likely to strengthen the link between performance motivation and HRM culture (Gilal, Ashraf, Gilal, & Channa, 2019). Dumont et al. (2017) claim that extra-role green performance and green workers' views are positively correlated when it comes to green values. (Afsar & Umrani, 2020) state that when a business adopts environmentally conscious practices, employees' psychological requirements seem to be satisfied. The primary findings of the supply value fit theory (Edwards, 1996) will thus support a framework within this study in that an organization creates a culture that aligns with the values of its workers. As a result, the firms' and the employees' green values aligned. Workers could be more likely to exhibit creativity, environmental consciousness, and behavioral purpose.

H6. Individual Green Values positively moderates the impression of GHRM on Green Creativity.

H7. Individual Green Values positively moderates the effect of GHRM on Green Commitment.

Green Psychological Climate

As the medical field concentrates more on environmental security and pollution control, it is becoming more and more important (Agrawal & Puri, 2021). The organization's aims are linked to environmental goals based on the current circumstances. Businesses contribute to enhancing and establishing resilience in both nature and culture. Directors in human resources may have an impact on how green policies and procedures are

implemented and carried out (Yusliza et al., 2017) According to De Stefano et, who is Bagdadli, & Camuffo (2018) and Podgorodnichenk et al. (2022)). GHRM has garnered a great deal of attention. GHRM strategies prioritize biological concerns while upholding significant goals and presumptions via HR management. This framework covers a variety of dimensions, as shown by the widespread adoption of ecologically approachable HR practices (Tang et al., 2018). According to Chou (2014), the idea of a "psychological green climate" implies that companies should implement a wide variety of environmentally conscious projects in order to fulfill their short-term objectives and desires. Employees' attitudes about being green are naturally influenced by the psychological green environment (Dumont et al., 2017). Similar to this, employees are urged to learn about their jobs, and environmentally friendly practices may foster a green workplace culture (Nisar et al., 2021; Qamar et al., 2023). Employee behavior is affected by the climate (Dumont et al., 2017; Pham et al., 2020). Environmental efficiency may be continuously improved by considering green HR practices.

Green behavior is influenced by a wide range of psycho-social elements, such as attitudes, command structures, mindsets, and sustainable administrative structures (Dumont et al., 2017; Norton et al., 2015). Scholars have carefully examined GPC in this context to confirm its impact on creative and ecologically conscientious conduct in the workplace. Tahir, Athar, and Afzal (2020), for example, mentioned the positive influence of GPC on environmentally conscious worker industrial behavior. Furthermore, Zhou et al. (2018) contended that employees' perceptions of the environmentally friendly environment at work had a significant impact on their environmental actions. Employees at GPC were inspired to take part in eco-friendly actions such as trash elimination, producing electricity, and decreasing and recycling Khan et al. (2019). Workers will engage in less green activities if they think that the strategies and developments of their company do not support ethical, ecologically friendly conduct (Luu, 2019). According to Mittal and Dhar (2016), GCRT is an excellent example of green employee behavior; good views of the travel and hospitality sector, or GPC, will stimulate employee innovation. Workers might adopt eco-friendly behaviors since the sector is a supplier, and this is reinforced by their favorable impression of the company's environmentally conscious activities and procedures.

H8. Green Psychological Climate positively moderates the impact of GHRM on Green Creativity.

H9. Green Psychological Climate positively moderates the impact of GHRM on Green Commitment.

Green Creativity and Competitive Advantage

The capacity for original thought is what makes someone creative. In a comparable vein considering ecological sustainability and creating green goods may be considered creative in a setting of green business. According to resource-based theory, an organization's resources are crucial to its success. Should a business has the necessary resources and competencies, it will enhance and fortify its innovation, so serving as a resource that bolsters its core competitiveness rather than the other way around. According to Martin et al.'s (2015) investigation of the competitiveness of cities, using creative tactics may be crucial to increasing competitiveness. Ferreira et al. (2018)

discovered that a business's competitive edge may be strengthened by innovation. According to Setyaningrum et al. (2023), green inventiveness considerably increases competitive advantage.

H10. Green Creativity positively increases Competitive Advantage.

Green Commitment and Competitive Advantage

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H11. Green Commitment has positive influence on Competitive Advantage.

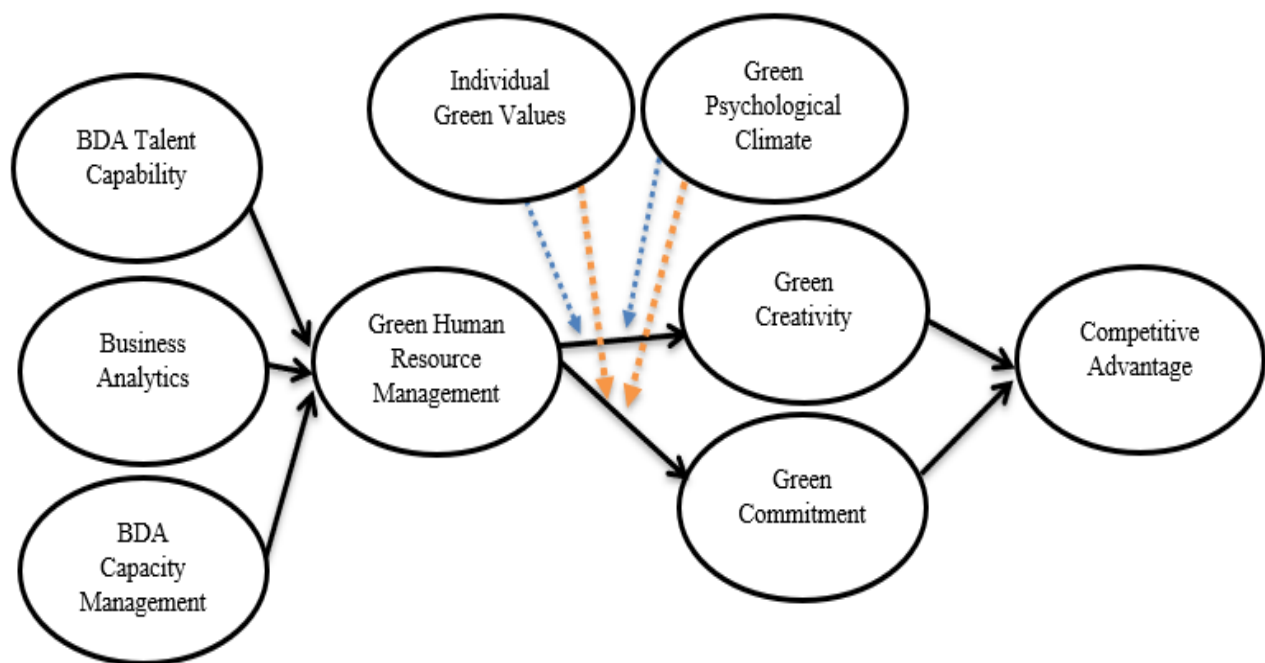


Figure 1.
Research Frame work

RESEARCH METHODOLOGY

The objective of this study is to examine the impact of big data on the attainment of competitive advantage. In this context, a web-based survey methodology is employed

for the purpose of collecting data. It was assured that the data was obtained from participants who had a comprehensive understanding of the specified variables within every element of the conceptual framework. Convenience sampling was employed in this study since it is a commonly used sample approach in questionnaire studies to ensure the collection of a sufficient number of responses. Nevertheless, the investigation's sample size was determined by using students, personal connections, acquaintances, and online platforms. Upon finalizing the probable intended demographic schedule, the individuals were invited to engage in the questionnaire. Following their authorization, they were summoned prior to the distribution of the form. Both local and internet survey alternatives were taken into consideration. Additionally, the majority of the data was obtained via a web-based digital poll. The survey and its corresponding link were distributed over several communication channels, including Facebook, WhatsApp, and personal email correspondence. The researchers administered a total of 450 questionnaires, consisting of 150 printed versions and 300 digital surveys, to individuals in various managerial positions, including upper-level leadership, lower-level leadership, lower-level executives, and managers, inside many institutions situated in Pakistan. Three hundred eleven complete forms were received back. This is because it is considered by many as the best method for gathering customer data at a reduced cost, especially when the sampling frame is not available. Additionally, convenience selection makes it simple for investigators to contact participants and share questionnaires. This selection method has also been used in several previous investigations to gather information from clients in numerous industries (e.g. Shafiq et al. 2023; Aqib et al. 2023).

Instrument Development

This study utilized indicators derived from p investigations. Specifically, a set of seven questions was applied to assess the BDA-TC structure, while a separate set of eight questions was used to evaluate the BDA-CM structure. The scale implemented in this study was borrowed from Bag et al. (2020). The measurement of the BA component was conducted using a set of five factors derived from a previous study conducted by Zameer et al. (2020b). The measurement of GHRM was conducted by Dumont (2017) using a scale consisting of six items. In order to measure the magnitude of IGTV, three components were altered based on the study conducted by Chen and Jin in 2014. The GPC measure was developed based on the work comprising Norton et al. (2014), who proposed a set of five items. The GC scale was developed based on the data collected by Chen and Chang (2013) utilizing a set of six questions. The present investigation included five questions on green commitment that were derived from the earlier research conducted by Shie et al. (2022). Additionally, the concept of competitive advantage (CA) was assessed using four questions obtained from the earlier research conducted by Zameer et al. (2020b).

ANALYSIS

The proposed framework is evaluated using exploratory factor analysis and structural equation modeling techniques. The process of exploratory factor analysis involves the identification and analysis of latent structures within a given set of data. Furthermore, the use of Structural Equation Modeling (SEM) allows for the assessment of the most recent communication model inside online settings. The primary analytical aim of a Structural

Equation Model (SEM) is to examine a set of interrelationships that include diverse solutions. This differs from regression evaluation as well as dependency investigations, which aim to elucidate linkages by mathematical means (Hair et al., 2006). The applications used in this study are Smart PLS 4 and SPSS (version 26).

DATA ANALYSIS

Demographics Analysis

The data show the sampling frequency and gender breakdown of the population. 64% of 311 respondents were male, while 36.0% were female, the age assessment shows the majority of responders are 18-30 years' age perimeter grouping with 51.1%, and 32.0% are of in age group of 31-45 and participants of 46-60 age group are 16.9% of total sample. The statistics show that 53.0% of respondents have bachelors or lower degrees, 27.3% have master's degrees, and 14.4% have M.Phil degrees, and 5.3 have PhDs.

Table 1. Demographics Analysis (N = 311)

Variable	(%)
Gender	
Male	64.0
Female	36.0
Ages	
18-30	51.1
31-45	32.0
46-60	16.9
Education Level	
Bachelors	53.0
Masters	27.3
MS/M.Phil.	14.4
PhD	5.3

Reliability and Validity

In order to get a head, start on the investigation, an exploratory factor analysis (EFA) was carried out first to investigate the concepts' primary structure. Following the suggestions made by (Harrigan et al., 2018), in order to get knowledge that later be evaluated with SEM, the EFA was carried out using the most excellent probability for extract and Promax for rotation. This was done following the instructions. The EFA uncovered eight aspects contributing to a better understanding the model's underlying variables. The pattern matrix of the EFA's resultant factors may be found shown in Table 2. In addition, the reliability of the measures was shown by the fact that every item on the scale had a value that was more than the 0.7 cutoffs for Cronbach's alpha coefficient (Cronbach, 1970). Examine factor loadings to evaluate a reflecting measurement model. The construct should account for more than 50% of the gauge's changeability and offer measure dependability with loadings of 0.708 or above. Inside uniformity dependability is assessed using Cronbach's Alpha and Composite dependability. This research used CR for accuracy and item weights (Werts, Rock, Linn, & Jöreskog, 1978). AVE values of 0.50 or above indicated convergent validity (Werts et al., 1978). VIF values enhanced collinearity

between formative factors. VIF values over 5 indicate substantial collinearity difficulties, while even values below 3 may raise concerns. VIF values below 3 reduce collinearity (Becker, Rai, Ringle, & Völckner, 2013). Table 2 shows good VIF values.

Table 2.

Construct & Convergent Validity

Variable	No. of Items	Factor Loading	CronBach's Alpha	Composite Reliability	AVE	VIF
BDA Talent Capability	BDATC1	0.847	0.863	0.877	0.576	1.89
	BDATC2	0.792				1.54
	BDATC3	0.816				1.64
	BDATC4	0.781				1.89
	BDATC5	0.798				1.83
	BDATC6	0.772				2.10
	BDATC7	0.814				2.09
BDA Capability Management	BDACM1	0.801	0.740	0.768	0.559	1.65
	BDACM2	0.853				1.83
	BDACM3	0.842				1.75
	BDACM4	0.840				1.64
	BDACM5	0.842				1.99
	BDACM6	0.826				2.16
	BDACM7	0.823				2.56
	BDACM8	0.745				1.98
Business Analytics	BA1	0.846	0.835	0.852	0.573	1.67
	BA2	0.870				1.88
	BA3	0.820				1.73
	BA4	0.806				2.10
	BA5	0.866				1.98
Green Human Resource Management	GHRM1	0.852	0.822	0.848	0.529	1.68
	GHRM2	0.789				1.77
	GHRM3	0.831				1.95
	GHRM4	0.790				1.79
	GHRM5	0.802				1.52
	GHRM6	0.772				1.65
Green Creativity	GC1	0.837	0.884	0.893	0.596	1.58
	GC2	0.811				1.84
	GC3	0.824				1.93
	GC4	0.841				1.57
	GC5	0.797				1.94
	GC6	0.810				2.11
Green Commitment	GCOM1	0.842	0.850	0.874	0.583	1.76
	GCOM2	0.868				1.54
	GCOM3	0.824				1.65
	GCOM4	0.835				1.74
	GCOM5	0.780				1.82
	GCOM6	0.859				1.47
Individual Green Values	IGV1	0.855	0.785	0.802	0.566	2.10
	IGV2	0.846				1.59
	IGV3	0.857				1.70
Green Psychological Climate	GPC1	0.844	0.833	0.856	0.582	1.90
	GPC2	0.831				1.77
	GPC3	0.815				1.68
	GPC4	0.816				1.57
	GPC5	0.841				1.51
	GPC6	0.795				1.84

Competitive Advantage	CA1	0.860	0.834	0.862	0.563	1.85
	CA2	0.832				1.66
	CA3	0.844				1.93
	CA4	0.897				

Structural Equation Model

SEM has drawn the interest of academics and researchers across several scientific fields. As a multidimensional statistical technique, SEM may concurrently "test and predict complicated causal connections between factors, regardless of whether the connections are hypothetical or not noticeable" (Hair et al., 2010). Rendering to Hu et al. (1999), the subsequent restriction approximations display moral data fit: $\chi^2/df = 2.416$, SRMR = 2.289 and NFI = .947, the structural model's links demonstrate the validity for every of the major model predictions.

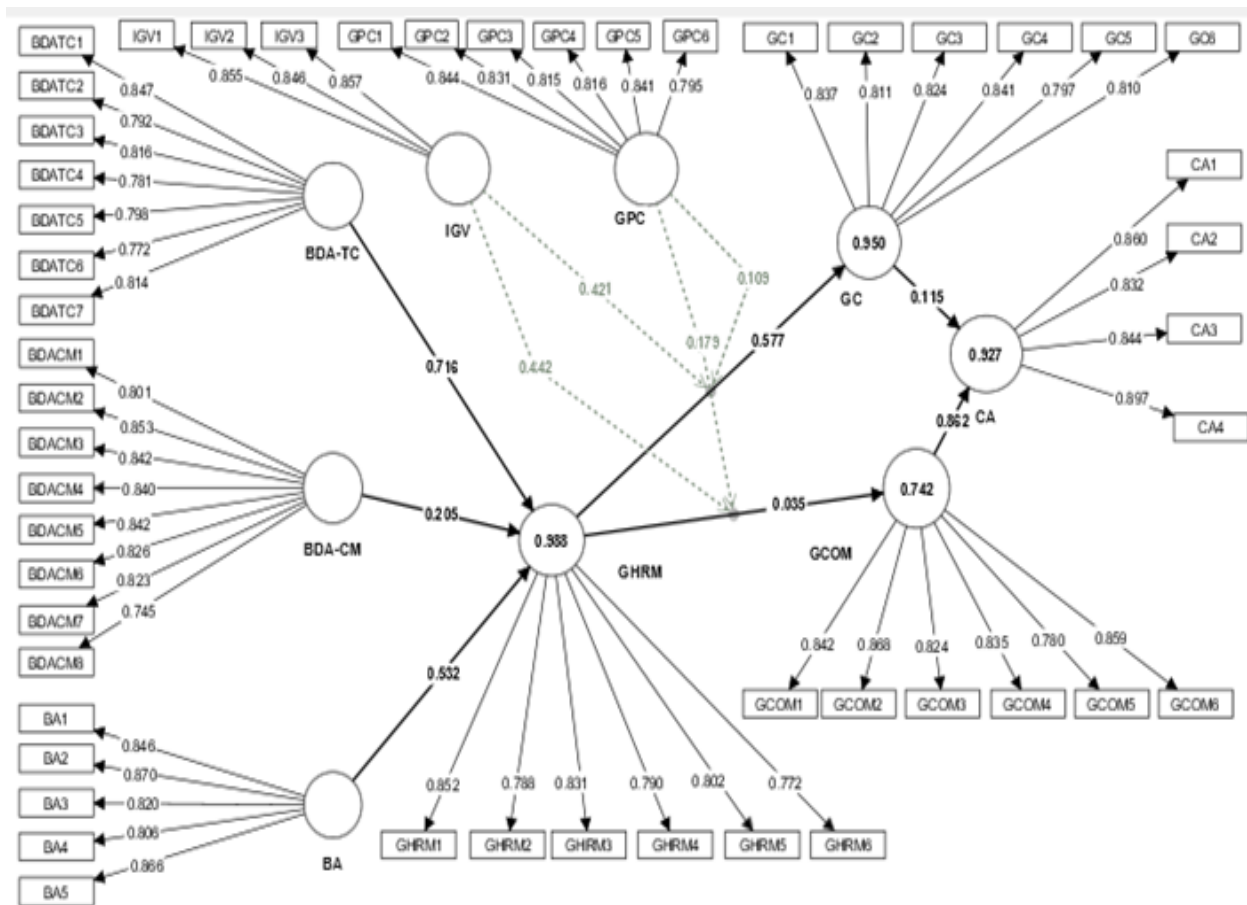


Figure 2.

Table 3.

Summary of Direct Hypotheses

Relationship	Mean	SD	Beta	T	P	F2	Outcome
BDATC => GHRM	0.365	0.051	0.716	16.363	0.003	0.17	Approved
BDACM => GHRM	0.341	0.061	0.205	10.347	0.000	0.23	Approved

BA => GHRM	0.337	0.085	0.532	9.116	0.032	0.19	Approved
GHRM => GC	0.411	0.074	0.577	8.567	0.002	0.27	Approved
GHRM => GCOM	0.316	0.058	0.035	11.723	0.000	0.25	Approved
IGV*GHRM => GC	0.302	0.074	0.421	12.519	0.000	0.17	Approved
IGV*GHRM => GCOM	0.421	0.066	0.442	12.873	0.000	0.19	Approved
GPC*GHRM => GC	0.412	0.045	0.109	7.663	0.000	0.22	Approved
GPC*GHRM => GCOM	0.325	0.067	0.173	10.374	0.000	0.26	Approved
GC => CA	0.311	0.081	0.862	9.873	0.002	0.25	Approved
GCOM => CA	0.347	0.066	0.862	11.488	0.000	0.19	Approved

DISCUSSION AND CONCLUSION

GHRM is transformed by BDA talent capability, capacity management, and business analytics. Big data analytics (BDA) and corporate analytics assist firms manage their global workforce in today's talent-driven corporate climate. Data-driven talent selection by BDA talent capability is key. It helps firms identify top people and match strategic goals. A more skilled and agile team results from talent acquisition, development, and retention. By optimizing labor resources, BDA capacity management helps. Data analysis ensures firms have enough competent people in the right places by matching labor capacity to demand. This minimizes skill shortages and labor costs that delay operations. BDA Capacity Management helps HR professionals proactively arrange their workforces, making firms more flexible and cost-effective. GHRM uses data-driven business analytics to understand trends, employee behavior, and market conditions. Data-driven decision-making enhances HR resource allocation, performance management, and compensation methods. Thus, organizations may better manage global workforces, exploit local knowledge, and adapt to markets. The analytical approaches make GHRM more responsive, cost-effective, and agile. Organizations must use BDA talent capability, Capacity management, and business analytics to remain competitive and maximize their global workforce in an era of top talent attraction, development, and retention. BDA skill capacity promotes GHRM, say Mahmood et al. (2023). Gravili et al. (2023) discovered BDA capacity management boosts GHRM. Chau et al. (2023) verified Obeidat & Abdalla (2022)'s business analytics GHRM improvement. Green HRM promotes green innovation and devotion. GHRM and a strong commitment to sustainability and environmental responsibility may greatly increase workers' eco-friendliness and green initiative attitudes and actions. First, GHRM practices may boost company innovation and environmental awareness, encouraging green creativity. By encouraging sustainable ideas and creating a supportive and inclusive workplace, GHRM may inspire people to think creatively about eco-friendly solutions, products, and behaviors. Creativity may produce environmentally friendly products, services, and processes for the company. Second, GHRM may increase employee green commitment by aligning with environmentalists. When employees feel their company is sustainable, they are more inclined to practice green practices at work and home. GHRM may encourage green initiatives, provide eco-friendly training and development, and incorporate sustainable practices into the business culture. GHRM increases green inventiveness and devotion, conferring to Ahmed et al. (2022) and Malik (2021). GHRM with personal values boosts

green innovation and devotion. Sustainable companies require GHRM, but incorporating workers' green ideals into workplace processes fosters eco-friendly behavior and attitudes. Personal green convictions drive innovation. Workers that appreciate environmental sustainability and GHRM activities are more likely to propose green solutions. GHRM activities are boosted by sustainability motivation, leading to new green solutions that benefit the company and environment. GHRM increases greenness. Environment-conscious employees enjoy GHRM's sustainability initiatives. They promote sustainability, green practices, and business green objectives. GHRM and organizational principles foster belonging and commitment. Individual green values boost GHRM's effect on green innovation, say Shafiq et al. (2023). Green psychological environment improves GHRM's inspiration on corporate green innovation and commitment. A green psychological environment promotes eco-friendly behavior and attitudes, and GHRM integrates HR and sustainability goals. Green psychological climates, such as organizational cultures that prioritize environmental responsibility, inspire green solutions. If GHRM processes reflect this atmosphere, workers are motivated to suggest unique sustainability ideas because they believe they will be acknowledged and involved in the company's green initiatives. Green psychological climate and GHRM promote environmental innovation and creativity. Psychological greenness boosts commitment. Greening is more probable if workers believe their company encourages sustainability. GHRM and a green psychological climate improve workers' environmental responsibilities because they believe their employer shares their values and wants to help. Previous research showed that green psychological environments encourage green innovation and dedication. Environmentally aware businesses benefit from green innovation and devotion. Sustainability drives consumer choices, legal constraints, and stakeholder expectations, therefore green innovation and commitment will benefit companies. Innovative green solutions may create eco-friendly goods, services, and processes. These solutions benefit an eco-conscious market, save money, boost resource efficiency, and boost brand image. Green innovation helps companies satisfy consumer needs and compete sustainably. Second, green employee commitment important. Sustainable and ecologically responsible organizations attract and retain great personnel. Committed workers are more productive, engaged, and motivated to reach green goals, improving productivity and presentation. Zameer et al. (2020) found green innovation boosts competitiveness. Commitment boosts competitiveness (Siagian et al. 2022; Kusuma & Muafi 2022).

Practical Implications

Integrated BDA talent capability, business analytics, and BDA capacity management into an organization's HR operations helps improve green HRM. This immediately promotes an eco-friendly workplace and a sustainable corporate culture, which has major ramifications. Data-driven insights help firms find, train, and retain green talent, matching employee skills and values with environmental goals. This promotes GHRM, which boosts employee green creativity and dedication. Organizations must promote green ideals to get these advantages. Green idea development and problem-solving are more probable among environmentally conscious workers who understand their organization's GHRM commitment. This implies the need for an inclusive workplace that promotes green actions. Creating a green psychological environment is also necessary. In an environmentally aware workplace, people are encouraged to innovate and be

sustainable. Sustainability must be integrated into the company's beliefs, operations, and culture. This holistic strategy has additional benefits. Green inventiveness and devotion position the company as a sustainability leader, serve a rising eco-conscious customer base, and save operating costs via creative and efficient practices. In conclusion, integrating BDA talent capability, business analytics, and BDA capacity management into GHM, while emphasizing individual green values and nurturing a green psychological climate, benefits the environment and gives companies a competitive edge in today's eco-aware business landscape.

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