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Impact of Personality Traits on Green Budgeting: The Mediation Role of Environmental Concern and Locus of Control

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A B S T R A C T

This study examines the influence of environmental concern and locus of control on the relationship between personality traits and the intention to implement green budgeting. Data was gathered through questionnaires distributed to 269 managers of regional organizations in Bali Province. The analysis utilized the partial least squares method. The findings indicate a positive impact of personality traits on the intention to implement green budgeting. This relationship is fully mediated by environmental concern, openness to experience, extraversion, and neuroticism. Additionally, the personality trait of conscientiousness is partially mediated by environmental concern. Furthermore, locus of control partially mediates the influence of personality trait agreeableness on the intention to implement green budgeting. In light of these results, increasing environmental awareness, especially with regard to individual factors like agreeableness (interpersonal harmony) and locus of control from the budget holders, can enhance the intention to implement green budgeting. This can be achieved through education and self-development programs. The implications for budgeting policies are to provide recommendations for strategy and program planning that contribute to the enhancement of environmental quality.

A B S T R A K

Penelitian ini menguji pengaruh kepedulian lingkungan dan locus of control terhadap hubungan antara sifat-sifat kepribadian dan niat untuk menerapkan green budgeting. Data dikumpulkan melalui kuesioner yang disebarkan kepada 269 manajer organisasi perangkat daerah di Provinsi Bali. Analisis menggunakan metode kuadrat terkecil parsial. Hasil penelitian menunjukkan adanya pengaruh positif antara sifat-sifat kepribadian terhadap niat untuk menerapkan penganggaran hijau. Hubungan ini sepenuhnya dimediasi oleh kepedulian lingkungan, keterbukaan terhadap pengalaman, ekstraversi, dan neurotisisme. Selain itu, sifat kepribadian conscientiousness dimediasi sebagian oleh kepedulian lingkungan. Selanjutnya, locus of control secara parsial memediasi pengaruh sifat kepribadian agreeableness terhadap niat untuk menerapkan green budgeting. Berdasarkan hasil tersebut, peningkatan kepedulian lingkungan, terutama yang berkaitan dengan faktor individu seperti kesesuaian kepribadian dan locus of control dari pemegang anggaran dapat meningkatkan niat untuk menerapkan green budgeting. Hal ini dapat dicapai melalui program pendidikan dan pengembangan diri. Implikasi bagi kebijakan penganggaran adalah memberikan rekomendasi strategi dan perencanaan program yang berkontribusi pada peningkatan kualitas lingkungan.

1. INTRODUCTION

The decline in environmental quality on the island of Bali can be attributed to various factors. Firstly, there has been a significant conversion of agricultural land into non-agricultural use. Annually, approximately 600 to 1000 hectares of agricultural land are transformed into real estate properties, including residential homes, hotels, and restaurants. Furthermore, rapid population growth poses the risk of potential food shortages. Concurrently, coastal erosion, an ongoing issue since 1980 along Bali's entire coastline, has further exacerbated the deterioration of the coastal environment. This has affected approximately 102.47 kilometers of the island`s 438.8-kilometer-long coastline, resulting in severe erosion. Additional challenges such as urban slum

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areas, declining air quality, and critical issues with water supply and sanitation have also contributed to the degradation of Bali's environment (Bali, 2015).

The responsibility for the deterioration of environmental quality lies with various stakeholders, including companies, governments, and communities. Governments have a dual role: they act as both regulators and executors in efforts to maintain both public health and environmental sustainability. In addition to regulating environmental protection policies, governments should take a leading role in implementing these policies, setting an example for the community to follow. The initiation of the green behavioral change, often seen through the "go green" campaigns, should be spearheaded by the government. By doing so, the government can demonstrate its commitment to environmental sustainability, encouraging similar behavioral changes within society. People are more likely to adopt environmentally responsible behavior when their leaders, in this case, the government, exhibit the same behavior. Government commitment to green behavior can be realized through a green economy strategy, which includes the implementation of programs aimed at improving environmental quality. These programs can be standalone initiatives or integrated into other activities. To support such efforts, it is essential to allocate funds and resources for activities related to environmental improvement, known as green budgeting. Regional governments, with their autonomy, have the authority to manage their own finances, including budget planning, execution, and control, enabling them to contribute to environmental quality improvement.

Green management behavior, including the implementation of green budgeting, can be influenced by individual factors such as personality traits and attitudes towards environmentally conscious practices, often manifested as environmental concerns. Previous studies have consistently shown that personality traits and environmental concerns play a pivotal role in shaping green behaviors. These encompass habits like recycling (Poškus & Žukauskienė, 2017), energy conservation (Terrier et al., 2016), purchasing eco-friendly products (Sun et al., 2018), engaging in environmentally responsible practices at the workplace (Mo & Liu, 2019), and making environmentally conscious investment decisions (Busic-Sontic & Brick, 2018). Another factor intertwined with personality traits and environmental attitudes is locus of control (LOC), denoting an individual's belief in their capacity to influence their own destiny. Those with an internal LOC believe they hold sway over their fate, whereas individuals with an external LOC attribute their destiny to external forces. Concerning green behavior, one's LOC influences their inclination to engage in environmentally conscious actions. Individuals with an internal LOC tend to exhibit green behavior independently, while those with an external LOC are more swayed by environmental circumstances.

Previous research has explored the connection between LOC and green behavior across various domains, including strategic management (Afsar et al., 2020), green consumption (Cheng et al., 2020), and energy knowledge (Yang et al., 2017). However, there is a notable gap in the literature when it comes to investigating the interplay of personality traits, environmental concerns, and LOC in the context of green budgeting by local governments in BALI Province. This understanding will serve as a crucial foundation for shaping budgetary policies at the local government level. The primary objective of this study is to scrutinize how environmental concern and LOC among regional administrative bodies (OPD) in Bali Province mediate the relationship between personality traits and the intentions to implement green budgeting.

Budgeting stands as a pivotal process within regional government organizations, being a core component of the public sector. This process distinguishes itself from the budgeting procedures in the private sector. It is anchored in governmental regulations, follows standardized protocols, and is universally applied across regional government organizations at a given level. This alignment is consistent with the principles of institutional theory, which posit that organizations operating within the same sphere tend to exhibit similarities in their operations and structures. Consequently, it is reasonable to anticipate that regional organizations in Bali Province will adhere to analogous frameworks and guidelines as stipulated by the governing authority, particularly in the implementation of green budgeting.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

This study draws on the Theory of Reasoned Action (TRA) as its primary theoretical framework. The TRA posits that individual behavior is shaped by attitudes and subjective norms, which collectively influence the intention to act in a particular manner (Bosnjak et al., 2020). In addition, the Institutional Theory is employed, offering insights into why organizations within the same domain tend to exhibit similar practices and activities. This theory delves into the social structures encompassing routines, norms, frameworks, and regula-

tions that function as authoritative directives governing social conduct and garner legitimacy within an organizational context (Risi et al., 2022). Furthermore, this research is underpinned by the Legitimacy Theory, which asserts that an organization's viability hinges on the perception of the surrounding community regarding its alignment with its shared value system (Li et al., 2017). Within this framework, company managers enter into a social contract and undertake specific societal initiatives to demonstrate the organization's adherence to societal expectations. It is incumbent upon organizations operating within a given locality or residential area to safeguard the environment against adverse impacts stemming from corporate activities (Ge et al., 2016; Martens & Bui, 2023).

Personality traits refer to enduring patterns of thinking, feeling, and behaving that set individuals apart (Hudson et al., 2019). The widely used taxonomy for assessing personality traits is the 'Big Five Personality Traits,' encompassing five dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Power & Pluess, 2015). Openness to Experience characterizes individuals who display flexibility, abstract thinking, and an appreciation for aesthetics. Conscientiousness reflects traits of carefulness, industriousness, planning, and a sense of responsibility toward their duties. Extraversion pertains to energetic individuals who engage in various activities, including social interactions. Agreeableness defines individuals who prioritize interpersonal harmony. Lastly, neuroticism represents a person's inclination to experience negative emotions like anxiety, sadness, and apprehension about the future. Among these traits, research suggests that openness and conscientiousness exhibit the strongest correlations with green behavior (Brick & Lewis, 2016).

Green behavior, whether exhibited by individuals or organizations, is characterized by an intention to enhance or support the environment (Chaudhary, 2020). Individuals hold the power to influence environmental outcomes, particularly within the organizations they belong to. Given that organizational actions represent the primary source of both environmental issues and solutions, these behaviors can have a significant environmental impact (Fawehinmi et al., 2020). One such organizational practice with a positive environmental impact is green budgeting. This process supports an organization's commitment to responsible management by allocating resources specifically for endeavors aimed at preserving and enhancing environmental quality.

Numerous studies have explored the connection between personality traits and pro-environmental behaviors. These investigations have consistently demonstrated a positive association between personality traits and intentions to engage in environmentally responsible actions. Such traits impact various aspects, including recycling habits (Poškus & Žukauskienė, 2017), energy conservation behaviors (Terrier et al., 2016), purchase decisions favoring environmentally friendly products (Sun et al., 2018), environmentally conscious behaviors in the workplace (Mo & Liu, 2019), and choices regarding environmentally friendly investments (Busic-Sontic & Brick, 2018). While it is generally accepted that personality traits foster a pro-environmental stance, the strength of this influence can vary among different personality dimensions. It is worth noting that the relationship between personality traits and green behavior, specifically in the context of green budgeting within local government organizations, remains underexplored in prior research. Consequently, there's a need for focused inquiry in this domain. Building on this foundation, this study puts forward the following hypothesis:

H1(a-e): Personality traits consisting of (a) openness to experience, (b) conscientiousness, (c) extraversion, (d) agreeableness, and (e) neuroticism positively influence intention to implement green budgeting

Within the framework of TRA, one of the key determinants of green behavior is an individual's attitude towards it. Attitude, in this context, signifies a person's judgment of whether a specific behavior is favorable or unfavorable, and the extent to which they support or oppose its execution. Attitudes towards green behavior are intrinsically linked to an individual's level of environmental concern, often referred to as eco-concern. The adoption of green budgeting is often catalyzed by an increased awareness of the environmental ramifications stemming from organizational activities (Kiron et al., 2012; Oláh et al., 2020). Environmental awareness is commonly used as a proxy to gauge the significance individuals place on the environment and their commitment to its preservation (Wu et al., 2013). Luo & Deng (2008) employ the term 'environmental concern' interchangeably with 'environmental attitudes,' referring to an individual's beliefs and attitudes that influence their interactions with the environment.

According to TRA, an individual's level of environmental awareness profoundly influences their inclination towards green behavior. Higher environmental concern corresponds to a stronger inclination towards green behavior and, consequently, a heightened intention to engage in such practices. This relationship between environmental concern and green intentions and behavior has been extensively explored across various contexts including green tourism (Han & Yoon, 2015; Verma et al., 2019), consumption of environmentally friendly products and services (Hameed et al., 2019; Pagiaslis & Krontalis, 2014), product recycling behavior (Han & Yoon, 2015), and medical waste management (Sisdyani et al., 2020). The findings of these studies align with TRA, affirming that environmental awareness, acting as a proxy for attitudes towards green behavior, exerts a positive influence on actual green behavior. Hence, this study posits the following hypothesis:

H2(a-e): Environmental concerns mediate the influence of personality traits consisting of (a) openness to experience; (b) conscientiousness; (c) extraversion; (d) agreeableness; and (e) neuroticism on intentions to implement green budgeting.

LOC refers to an individual's belief in their ability to influence their own destiny (Chiang et al., 2019; Tseng et al., 2022). Those who believe they can shape the course of events in their lives have an internal LOC. Conversely, individuals attributing the control of events to their environment demonstrate an external LOC. Within the context of green behavior, LOC plays a pivotal role in shaping one's perception of their ability to influence events impacting environmental quality. Those with an internal LOC tend to believe in their capacity to influence these events, while those with an external LOC are inclined to see environmental quality as primarily determined by external factors.

Previous studies have consistently demonstrated that internal LOC positively influences environmental performance (Afsar et al., 2020; Chiang et al., 2019; Hwang et al., 2020). Additionally, research has indicated the impact of personality traits on LOC. For instance, studies by Karabulut (2016) in the domain of entrepreneurship, Boysan & Kiral (2017) in educational psychology, and Balaban Dağal & Bayindir (2016) in independent learning have shown correlations. Moreover, investigations into the effect of LOC on attitudes have been conducted across diverse fields, covering performance appraisal (Heywood et al., 2017), adoption of children (Ikenegbu, 2017), financial risk (Kesavayuth et al., 2018), unethical behavior in the workplace (Abiola et al., 2018), making a will (Atiri, 2018), and attitudes towards the selection of autonomous vehicles (Erskine & Brooks, 2019). These studies collectively affirm that LOC significantly shapes attitudes toward specific behaviors. Nevertheless, in the context of green behavior, particularly concerning green budgeting, further research is warranted for a comprehensive understanding. Given the preceding discussion, it is proposed that LOC may serve as a mediating factor in the association between personality traits and environmental consciousness, ultimately positively influencing the intention to enact green budgeting. Hence, the ensuing hypothesis in this study is formulated as follows:

H3(a-e): LOC mediates the effect of personality traits consisting of (a) openness to experience; (b) conscientiousness; (c) extraversion; (d) agreeableness; and (e) neuroticism on intentions to implement green budgeting.

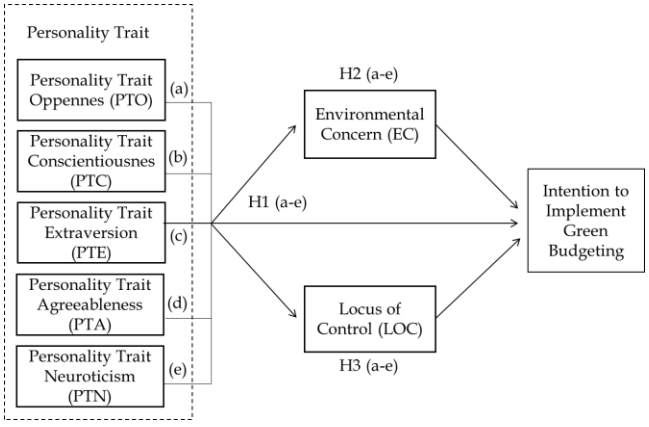

Figure 1. Conceptual research framework

3. RESEARCH METHOD

Measurement of Variables and Questionnaire Design

This research focuses on four key variables: personality traits, environmental concern, locus of control, and the intention to implement green budgeting. Personality traits refer to the enduring patterns of thinking, feeling, and behaving that differentiate one individual from another. These traits are assessed based on the model presented by Busic-Sontic and Brick (2018), encompassing indicators for openness to experience (five indicators), conscientiousness (five indicators), extraversion (six indicators), agreeableness (five indicators), and neuroticism (six indicators). Environmental concern pertains to an individual's attitudes and perspectives concerning environmental matters or activities (Chiang et al., 2019). In this study, we employ the environmental concern construct to gauge individual attitudes toward environmentally conscious behavior. The measurement of environmental concern involves seven indicators, adapted from Wu et al. (2013). Locus of control refers to an individual's belief in their ability to influence their own destiny. This construct is assessed using eight indicators adapted from the Rotter short version measures (Galvin et al., 2018). The last variable, the intention to implement green budgeting, is evaluated through indicators initially developed by Chen (2016) and subsequently tailored to the context of green budgeting. This measurement encompasses five indicators. All responses are recorded on a Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Prior to distribution, the instrument underwent rigorous testing for both validity and reliability.

Population and Sampling Technique

The population under consideration comprises the management personnel of regional organizations in Bali Province. Samples were selected through stratified random sampling, taking into account the number of agencies in each regency and city. Respondents were then randomly chosen using the RAND function in Microsoft Excel. Data was collected via a questionnaire-based survey, resulting in 269 responses and achieving a response rate of 78 percent. The respondents encompassed top managers (Heads and Secretaries of Departments/Agencies), middle managers (Heads of Divisions/Sections), and lower managers (Heads of Sections) within the regional organizations in Bali.

Data Collection Process

We collected data through a survey method. Initially, we reached out to each regional government organization via email to obtain contact information for our targeted respondents. Subsequently, we distributed the questionnaires using Google Forms to the provided contact numbers. After a two-week period, we sent reminders to those targeted respondents who had not yet replied and re-sent the questionnaires if needed. The data collection phase spanned one month. Following data collection, we conducted a non-response bias test to ensure that the characteristics of those who did not respond were similar to those who did. This step allows us to generalize the results to the entire population.

Controlling non-response bias and common method bias

The non-response bias test, conducted using an independent sample t-test with a significance level of 5 percent, revealed no significant differences in characteristics between respondents and non-respondents. This test involved comparing the means of two groups: respondents from the initial 25 percent of responses and those from the final 25 percent of responses. Common Method Bias (CMB) can potentially arise when the same data sources are used for both dependent and independent variables. To mitigate this bias, procedural measures were implemented, including ensuring respondent anonymity. Additionally, a pilot test was conducted prior to the main data collection process, reducing the likelihood of common method bias (Podsakoff et al., 2012). Anonymity fosters a more open, honest, and objective response to the questionnaire. Employing different data sources for various variables was not feasible in this study, as it aimed to capture individuals' perceptions, judgments, and emotions (Podsakoff et al., 2012).

Technique of Analysis

The data underwent analysis using Partial Least Square (PLS) due to its suitability for examining latent variables. PLS allows for the simultaneous assessment of instrument validity and reliability, achieved through the measurement model test. Additionally, it evaluates the hypotheses of the causal model via the structural model assessment (Ghozali, 2015; Hair et al., 2021). As such, this study encompassed three stages of analysis: evaluation of the measurement model (outer model), evaluation of the structural model (inner model), and

mediation tests. The validity assessment comprises convergent and discriminant validity. Convergent validity is determined by the loading factor, which represents the correlation between the component score and the construct score. A higher loading factor implies greater importance of the construct in interpreting the results. Loading factors exceeding 0.7 or an average variance extracted (AVE) above 0.5 are deemed acceptable (Abdillah & Hartono, 2015). However, as per Ghozali (2015), loading factors between 0.5 and 0.6 are still considered valid. Discriminant validity is assessed through constructs' cross-loading or the square root of AVE. Acceptability criteria suggest values above 0.5 (Abdillah & Hartono, 2015; Ghozali, 2015). Reliability is measured by the composite reliability value of the constructs. A value of 0.6 is considered acceptable (Abdillah & Hartono, 201). The inner model or structural analysis predicts the causal relationships between latent variables. This is evaluated based on R2 and Q2 values for the dependent variable (goodness of fit), and the t-values of each path to assess the significance of the construct relationships. Mediation effects are examined using the Sobel Test. Its purpose is to determine the presence of an indirect effect between the constructs and ascertain whether the effect is considered full or partial mediation.

4. DATA ANALYSIS AND DISCUSSION

This study analyzed data collected from 269 respondents, comprising 55 percent male and 45 percent female managers from regional government organizations in Bali. Additional demographic details are presented in Tables 1 and 2. Table 1 displays respondent data regarding their place of origin, gender, and educational background. The majority of respondents hail from Denpasar, the capital city of Bali Province, accounting for almost 28 percent. In terms of educational background, the largest group holds a Bachelor's degree (56 percent), followed by postgraduates (41 percent); the remaining 7 percent are diploma holders. Table 2 presents data on work experience (in years) and the managerial level. It is observed that the majority of top and middle management professionals have 6-10 years of work experience. Conversely, lower-level management individuals have 1-5 years of service. Notably, there are no top-level managers with a tenure exceeding 15 years. This suggests that the top and middle management positions in the Bali regional government are predominantly held by individuals from the younger generation. In terms of descriptive statistics, the variables under consideration have the following means: personality traits at 5.5, indicating that respondents generally align with the indicators of the Big Five Personality Traits.

Table 1. Demographic data of respondents based on place of origin, gender, and education

Place of Origin	Gender			Education					
	Male	Female	Total	Diploma	Professional	Bachelor	Master	Doctoral	Total
Badung	13	20	33	0	0	18	15	0	33
Bangli	23	6	29	0	0	22	7	0	29
Buleleng	4	5	9	0	0	6	3	0	9
Denpasar	30	44	74	3	1	18	49	3	74
Gianyar	8	7	15	1	0	9	4	1	15
Jembrana	37	8	45	3	0	34	8	0	45
Karangasem	4	0	4	2	0	2	0	0	4
Klungkung	7	2	9	0	0	6	3	0	9
Tabanan	23	28	51	0	0	35	16	0	51
Total	149	120	269	9	1	150	105	4	269

Source: Primary Data Processed, 2022

Table 2. Demographic data of respondents based on tenure and management level

Tenure	Level of Management					
	Top Management		Middle Management		Lower Management	
	Amount (person)	Percentage (%)	Amount (person)	Percentage (%)	Amount (person)	Percentage (%)
1-5 years	12	34	35	28	64	59
6-10 years	17	49	67	54	19	17
11-15 years	6	17	20	16	21	19
16-20 years			3	2	3	3
N/A					2	2
Total	35	100	125	100	109	100

Source: Primary Data Processed, 2022

Environmental concern has a mean of 5.8, indicating agreement with the corresponding indicators. Lastly, both locus of control and intention to implement green budgeting have a mean of 5.7, signifying agreement with their respective indicators.

The measurement model (outer model) with reflexive indicators was assessed for convergent and discriminant validity of indicators, as well as composite reliability for indicator blocks. The results of the reliability and validity tests are summarized in Table 3. Reliability was evaluated through loading factors, composite reliability, and Cronbach's Alpha for internal consistency. Both composite reliability and Cronbach's Alpha exceeded 0.6, indicating satisfactory reliability. Additionally, all outer loading indicators surpassed the 0.50 threshold, affirming that the convergent validity requirements were met, and thus, the measurement is deemed valid.

Table 3. Measurement model evaluation

		Reliability Test			Validity Test	
		Indicator Reliability	Internal Consistency Reliability		Convergent Validity	Discriminant Validity
Latent Variable	Indicator	Indicator Loading	Composite Reliability	Cronbach Alpha	AVE	Fornell-Larcker Criterion
Environmental concern (EC)	EC_1	0.829	0.941	0.926	0.694	Yes
	EC_2	0.884				
	EC_3	0.830				
	EC_4	0.788				
	EC_5	0.843				
	EC_6	0.890				
	EC_7	0.762				
Locus of Control (LOC)	LOC_1	0.853	0.950	0.940	0.706	Yes
	LOC_2	0.864				
	LOC_3	0.891				
	LOC_4	0.835				
	LOC_5	0.750				
	LOC_6	0.875				
	LOC_7	0.895				
	LOC_8	0.747				
Personality traits openness to experience (PTO)	PTO_1	0.842	0.937	0.916	0.747	Yes
	PTO_2	0.887				
	PTO_3	0.876				
	PTO_4	0.837				
	PTO_5	0.879				
Personality traits conscientiousness (PTC)	PTC_1	0.867	0.935	0.912	0.742	Yes
	PTC_2	0.909				
	PTC_3	0.828				
	PTC_4	0.880				
	PTC_5	0.819				
Personality traits Extraversion (PTE)	PTE_1	0.826	0.943	0.928	0.734	Yes
	PTE_2	0.859				
	PTE_3	0.836				
	PTE_4	0.866				
	PTE_5	0.861				
	PTE_6	0.890				
Personality traits agreeableness (PTA)	PTA_1	0.910	0.929	0.904	0.725	Yes
	PTA_2	0.885				
	PTA_3	0.918				
	PTA_4	0.752				
	PTA_5	0.776				
Personality traits neuroticism (PTN)	PTN_1	0.907	0.969	0.961	0.838	Yes
	PTN_2	0.926				
	PTN_3	0.929				
	PTN_4	0.921				
	PTN_5	0.905				

Latent Variable	Indicator	Reliability Test: Indicator Reliability – Indicator Loading	Reliability Test: Internal Consistency Reliability – Composite Reliability	Reliability Test: Internal Consistency Reliability – Cronbach Alpha	Validity Test: Convergent Validity – AVE	Validity Test: Discriminant Validity – Fornell-Larcker Criterion
Intention to implement Green Budgeting (IGB)	PTN_6	0.903	0.929	0.904	0.723	Yes
	IGB_1	0.832				
	IGB_2	0.866				
	IGB_3	0.880				
	IGB_4	0.858				
	IGB_5	0.814				

Source: Primary Data Processed, 2022

Table 4. Fornell-Larcker criterion

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. EC	0.833							
2. LOC	0.881	0.841						
3. PTO	0.725	0.598	0.864					
4. PTC	0.707	0.572	0.750	0.861				
5. PTE	0.783	0.654	0.795	0.789	0.856			
6. PTA	0.771	0.744	0.565	0.527	0.601	0.851		
7. PTN	0.356	0.317	0.315	0.316	0.312	0.159	0.915	
8. IGB	0.689	0.572	0.680	0.677	0.678	0.492	0.496	0.850

Source: Primary Data Processed, 2022

Discriminant validity is a crucial principle asserting that measures of distinct constructs should not exhibit high correlations. This was assessed by examining cross-loading measurements with the constructs. If the cross-loading correlation value with the latent variable is higher than the correlation with other latent variables, then the latent variable serves as a suitable comparison for the model. The discriminant validity results for the variables are presented in Table 3. In Table 4, both the Average Variance Extracted (AVE) and its square root exceed 0.7, indicating the validity of all variables. According to the Fornell-Larcker Criterion, the square root of the AVE for each latent variable surpasses that of the other latent variables (indicated by the bold values in Table 4). Thus, it is valid to assert that the model is robust. This leads to a reasonable conclusion that the reliability and validity of this research model are well-established.

The evaluation of the structural model, also known as the inner model, elucidates the relationships between constructs, which are latent variables. In Partial Least Squares (PLS), this evaluation involves assessing R^2 for independent constructs and scrutinizing the path coefficient values or *t*-values on each path to ascertain the significance between constructs in the structural model. The results of these tests indicate a high predictive relevance of the model, as demonstrated by R^2 values of 0.788, 0.646, and 0.615.

To test the hypotheses, we employ a *t*-test to examine both the direct and indirect effects. Following Baron and Kenny's established three-step regression approach (Baron & Kenny, 1986), we assess the mediating influence of environmental concern and locus of control in the relationship between personality traits and the intention to implement green budgeting. In the first step (Model 1), we evaluate the direct impact of personality traits (specifically, openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism) on environmental concern, as well as the direct effect on locus of control. Subsequently, we proceed to Model 2, where we test the direct effect of these personality traits on the intention to implement green budgeting. In the final step, encompassed in Model 3, we scrutinize the combined direct impact of personality traits (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism), environmental concern, and locus of control on the intention to implement green budgeting.

The results, including path coefficients, original sample values, and corresponding *p*-values, are presented in Table 5. In Model 1, all personality traits exhibit a direct influence on environmental concerns. Notably, openness to experience and conscientiousness demonstrate significance at $p < 0.1$, while extraversion, agreeableness, and neuroticism exhibit even higher significance at $p < 0.01$. In terms of the impact of personality traits on the locus of control, three variables stand out with significant effects at $p < 0.01$: extraversion, agreeableness, and neuroticism.

In Model 2, the analysis reveals that personality traits such as openness to experience, conscientiousness, and neuroticism exhibit a positive and statistically significant impact on the intention to implement green budgeting. Conversely, extraversion and agreeableness do not demonstrate statistical significance. To explore the role of environmental concern and locus of control as mediating variables, we followed Baron and Kenny's steps in Model 3. This model illustrates that when environmental concern is factored into the regression, it yields a significant effect on the intention to implement green budgeting (p-value: 0.007). Interestingly, the effect of openness to experience on the intention to implement green budgeting, which was significant in Model 2 (p-value: 0.013), becomes non-significant (p-value: 0.05). This suggests that environmental concern serves as a full mediating variable in the relationship between openness to experience and the intention to implement green budgeting.

The impact of PT conscientiousness and PT neuroticism on the intention to implement green budgeting is found to be partially mediated by environmental concern. This is demonstrated by the regression results presented in Table 5. The table indicates that in both Models 2 and 3, these effects are statistically significant. However, there is a noticeable decrease in the coefficient of the β value from Model 2 to Model 3. For the remaining effects of PT on the Intention in both Model 2 and 3, they are found to be statistically non-significant. This suggests that the mediation effect is not supported. This observation holds true even when the variable of locus of control is included.

This demographic trend might explain the response pattern. Extraversion, characterized by high energy, activity, and sociability (Duong, 2022), is typically more prevalent among younger individuals. However, considering the tenure of the respondents in managerial roles, it is noteworthy that a substantial majority have been in their positions for over a decade (69 percent). This might imply a certain resistance to embracing green budgeting, as it represents a relatively new addition to the planning process. There might be a preference for maintaining the status quo. On the other hand, agreeableness, marked by a proclivity for interpersonal harmony, tends to be more commonly associated with female managers. Yet, according to the descriptive statistics of the respondents, male managers hold the majority (58 percent). Consequently, this personality trait may not exert a significant influence on the inclination to implement green budgeting.

Openness and conscientiousness do not exhibit a significant impact on locus of control. Given the mean score for locus of control (5.75 out of 7), it suggests that respondents tend to lean towards an external locus of control. This interpretation arises from the fact that higher scores are attributed to statements aligning with an external locus of control. Openness and conscientiousness are often associated with traits like open-mindedness, industriousness, and responsibility (Stephan et al., 2022), characteristics that are more in line with an internal locus of control. This potential discrepancy might account for the lack of significant relationships observed.

The results indicate that the environmental concern of regional organization managers in Bali Province serves as a mediator in bolstering the intention to implement pro-environmental budgeting. This implies that elevating the managers' level of environmental concern can lead to an increased inclination toward green budgeting. However, this does not apply to locus of control. This variable is unable to mediate the relationship between personality traits and the intention to implement green budgeting, as demonstrated by the non-significant p-value of 0.399 in Model 3. Once again, this could be attributed to the respondents' predominantly external locus of control. As a result, the impact on the intention, which typically leans towards an internal locus of control, turns out to be statistically insignificant.

In addition to quantitative analysis, this study incorporates qualitative data, which is examined through coding. This data encompasses respondents' perspectives on the challenges encountered in the pursuit of implementing green budgeting, coupled with suggested programs for its execution. The primary hindrances identified by respondents in green budgeting implementation are budgetary constraints, low levels of environmental awareness, and a dearth of knowledge regarding environmental impacts. These three perceived constraints collectively account for 64 percent of the total respondent responses. Budget limitations, identified as a major constraint, can arise from assigning higher priority to other activities deemed more crucial, or even from a lack of inclination on the part of budget holders to allocate resources to environmental enhancement programs/activities. One approach to surmounting this is by integrating environmental activities into other initiatives (embedding) to ensure they can proceed without disrupting budget priorities. Nevertheless, the ideal scenario involves the provision of a dedicated budget allocation for environmental programs/activities. This step is aimed at heightening the focus of local government organization management,

Table 5. Baron & Kenny's three-step regression analysis

	Model 1	VIF	Model 2	VIF	Model 3	VIF
	EC & LOC		IGB		IGB	
EC					0.294	8.027
					(0.007)***	
PTO-EC	0.112	3.174	0.226	3.091	0.196	3.161
	(0.077)*		(0.013)**		(0.050)	Full
PTC	0.108	3.005	0.236	3.003	0.203	3.089
	(0.054)*		(0.004)***		(0.022)**	Partial
PTE	0.299	3.826	0.168	3.678	0.094	4.071
	(0.000)***		(0.077)*		(0.361)	
PTA	0.454	1.632	0.097	1.625	-0.002	2.651
	(0.000)***		(0.074)*		(0.964)	
PTN	0.120	1.187	0.283	1.135	0.255	1.209
	(0.000)***		(0.000)***		(0.000)***	Partial
LOC					-0.059	4.848
					(0.339)	
PTO-LOC	0.046	3.174	0.226	3.091	0.196	4.848
	(0.526)		(0.013)**		(0.050)*	
PTC	0.031	3.005	0.236	3.003	0.203	3.089
	(0.613)		(0.004)***		(0.022)**	
PTE	0.213	3.826	0.168	3.678	0.094	4.071
	(0.000)***		(0.077)*		(0.361)	
PTA	0.559	1.632	0.097	1.625	-0.002	2.651
	(0.000)***		(0.074)*		(0.964)	
PTN	0.133	1.138	0.283	1.135	0.255	1.209
	(0.000)***		(0.000)***		(0.000)***	
R^2		0.788		0.615		0.629
		0.646				
Adj. R^2		0.784		0.608		0.619
		0.639				

Note: significant ***p-value < 0.01), **p-value< 0.05), *p-value< 0.1).
Source: Primary Data Processed, 2022

thereby motivating them to execute these programs, as they are now distinctly outlined in a separate budget item and form an integral part of the local government organization's performance metrics.

While there are numerous challenges in implementing green budgeting, respondents display notable enthusiasm in proposing effective programs/activities for environmental preservation within the context of green budgeting. This vigor likely stems from the respondents' recognition that government organizations should take a leading role in environmental conservation. This is a pivotal step towards garnering legitimacy from society. The intention to implement green budgeting, as indicated in this study, serves as an initial signal to the public that managers of regional government organizations are dedicated to prioritizing environmental preservation. Consequently, this creates a substantial opportunity to establish trust and gain legitimacy within the community. The government requires this legitimacy to earn the public's confidence in executing programs essential for the well-being of the people.

The majority of the suggested programs, as noted by the respondents, pertain to reforestation, replanting, and waste management. This suggests that the respondents' grasp of activities aimed at mitigating environmental impacts is primarily focused on those directly associated with the biological environment. Interestingly, only four respondents highlighted programs related to energy, despite the fact that both energy and pollution represent crucial environmental dimensions. The need for a robust socialization and education program is evident, particularly in light of the respondents' limited understanding of activities impacting the environment.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study yields several key conclusions. Firstly, personality traits exhibit a positive influence on the inclination to adopt green budgeting. In essence, an elevation in each aspect of personality corresponds to an

increased propensity for green budgeting adoption. Furthermore, the link between personality traits like openness to experience, extraversion, and neuroticism, and the intent to employ green budgeting, is wholly mediated by environmental concern. As for the impact of personality trait conscientiousness on the intention to implement green budgeting, it is partially mediated by environmental concern. Additionally, locus of control partially mediates the effect of personality trait agreeableness on the intention to implement green budgeting. Consequently, fostering environmental concern through attention to individual factors, namely personality traits and the locus of control of the budget holder, can heighten the intention to implement green budgeting.

The findings underscore that environmental concern stands as the pivotal variable in this study, demonstrating its significant mediating role. As such, the top management of regional organizations should prioritize the enhancement of environmental concerns. This can be achieved through targeted outreach initiatives, educational endeavors, and ongoing training programs. A key challenge in implementing green budgeting in Bali Province lies in budgetary constraints. This highlights a current low level of political will to prioritize environment-centered initiatives, potentially overshadowed by other perceived priorities. To address this, it is recommended that regional management incorporate dedicated budget allocations for environment-focused programs within existing budget categories. However, a more effective approach would be to establish distinct budget lines for environment-related activities. This ensures a concentrated and motivated effort toward achieving these environmental targets. Based on the research results, suggested environment-centric programs and activities encompass reforestation and replanting, waste management, environmental conservation, park management, environmental impact awareness campaigns, and energy management initiatives.

This behavioral study employed a survey method to capture respondents' perceptions at a single point in time, assuming behavior to be static. However, it is important to acknowledge that behavior can evolve over time. This constitutes the first limitation of the study. To address this, it is recommended that future research employing survey methods collect data at multiple time points to track potential shifts in intention or behavior. Additionally, alternative methods such as observation and interviews could be employed to measure behavior, mitigating the self-report bias inherent in using the same respondents for both dependent and independent variables. Alternatively, different survey timeframes could be used for measuring these variables. Despite a relatively high response rate, it is worth noting that certain regions were not as well-represented. For instance, Denpasar and Tabanan were over-sampled, while Karangasem, Klungkung, and Buleleng were under-sampled. Therefore, caution should be exercised when generalizing the findings. To enhance response rates, future research might consider combining mail surveys with direct surveys and exploring other data collection methods.

REFERENCES

Abdillah, W., & Hartono, J. (2015). *Partial Least Square (PLS) – Alternatif Structural Equation Modeling (SEM) dalam Penelitian Bisnis.* Penerbit Andi.

Abiola, S. S., Lawal, A. M., & Odunjo-Saka, K. (2018). Abiola Role of locus of control and perceived effort-reward imbalance in attitude toward unethical work behavior IFE PsychologIA An International Journal. *IFE PsychologIA: An International Journal*, *26*(1), 222–233.

Afsar, B., Maqsoom, A., Shahjehan, A., Afridi, S. A., Nawaz, A., & Fazliani, H. (2020). Responsible leadership and employee's proenvironmental behavior: The role of organizational commitment, green shared vision, and internal environmental locus of control. *Corporate Social Responsibility and Environmental Management*, *27*(1), 297–312. https://doi.org/10.1002/csr.1806

Atiri, S. O. (2018). The influence of locus of control on adult's attitude towards will-making. *IFE Psychologia: An International Journal*, *26*(1), 251–264.

Balaban Dağal, A., & Bayindir, D. (2016). The investigation of the level of self-directed learning readiness according to the locus of control and personality traits of preschool teacher candidates. *International Electronic Journal of Elementary Education*, *8*(3), 391–402.

Bali, P. P. (2015). *Laporan Status Lingkungan Hidup Bali 2015*.

Baron, R. M. & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.

Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: Selected recent advances and applications. *Europe's Journal of Psychology*, 16(3), 352-356. https://doi.org/10.5964/ejop.v16i3.3107

Boysan, M., & Kiral, E. (2017). Associations between procrastination, personality, perfectionism, self-esteem and locus of control. *British Journal of Guidance and Counselling*, *45*(3), 284–296. https://doi.org/10.1080/03069885.2016.1213374

Brick, C., & Lewis, G. J. (2016). Unearthing the "green" personality: Core traits predict environmentally friendly behavior. *Environment and Behavior*, 48(5), 635-658. https://doi.org/10.1177/0013916514554695

Busic-Sontic, A & Brick, C. (2018). Personality trait effects on green household installations collabra. *Psychology University of California Press*, *4*(1), 1-11.

Chen, M. F. (2016). Extending the theory of planned behavior model to explain people's energy savings and carbon reduction behavioral intentions to mitigate climate change in Taiwan-moral obligation matters. *Journal of Cleaner Production*, *112*, 1746–1753. https://doi.org/10.1016/j.jclepro.2015.07.043

Cheng, Z. H., Chang, C. T., & Lee, Y. K. (2020). Linking hedonic and utilitarian shopping values to consumer skepticism and green consumption: the roles of environmental involvement and locus of control. *Review of Managerial Science*, *14*(1), 61–85. https://doi.org/10.1007/s11846-018-0286-z

Chaudhary, R. (2020). Green human resource management and employee green behavior: an empirical analysis. *Corporate Social Responsibility and Environmental Management*, 27(2), 630-641. https://doi.org/10.1002/csr.1827

Chiang, Y. Te, Fang, W. T., Kaplan, U., & Ng, E. (2019). Locus of control: The mediation effect between emotional stability and pro-environmental behavior. *Sustainability (Switzerland)*, *11*(3). https://doi.org/10.3390/su11030820

Duong, C. D. (2022). Big Five Personality Traits and Green Consumption: Bridging the Attitude-Intention-Behavior Gap. *Asia Pacific Journal of Marketing and Logistics*, *34*(6), 1123-1144.

Erskine, M., & Brooks, S. (2019). *Attitude and Behavioral Intentions Regarding Autonomous Automobiles: Effects of Emotional Response and Locus of Control.*

Fawehinmi, O., Yusliza, M. Y., Mohamad, Z., Noor Faezah, J., & Muhammad, Z. (2020). Assessing the green behaviour of academics: The role of green human resource management and environmental knowledge. *International Journal of Manpower*, 41(7), 879-900. https://doi.org/10.1108/IJM-07-2019-0347

Galvin, B. M., Randel, A. E., Collins, B. J., & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the locus of control literature and agenda for future research. *Journal of Organizational Behavior*, *39*(7), 820–833. https://doi.org/10.1002/job.2275

Ge, B., Jiang, D., Gao, Y., & Tsai, S. B. (2016). The influence of legitimacy on a proactive green orientation and green performance: A study based on transitional economy scenarios in China. *Sustainability (Switzerland)*, *8*(12), 1–20. https://doi.org/10.3390/su8121344

Ghozali, I. (2015). *Partial least squares: Konsep, teknik dan aplikasi menggunakan Program SmartPLS 3.0.* Badan Penerbit Universitas Diponegoro Semarang.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

Hameed, I., Waris, I., & Amin ul Haq, M. (2019). Predicting eco-conscious consumer behavior using theory of planned behavior in Pakistan. *Environmental Science and Pollution Research*. https://doi.org/10.1007/s11356-019-04967-9

Han, H., & Yoon, H. J. (2015). Hotel customers' environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism. *International Journal of Hospitality Management*, *45*, 22–33. https://doi.org/10.1016/j.ijhm.2014.11.004

Heywood, J. S., Jirjahn, U., & Struewing, C. (2017). Locus of control and performance appraisal. *Journal of Economic Behavior and Organization*, *142*, 205–225. https://doi.org/10.1016/j.jebo.2017.06.011

Hudson, N. W., Briley, D. A., Chopik, W. J., & Derringer, J. (2019). You have to follow through: Attaining behavioral change goals predicts volitional personality change. *Journal of Personality and Social Psychology*, 117(4), 839–857. https://doi.org/10.1037/pspp0000221

Hwang, J., Choe, J. Y. (Jacey), & Kim, J. J. (2020). Strategy for enhancing the image of edible insect restaurants: Focus on internal environmental locus of control. *Journal of Hospitality and Tourism Management*, *45*(July), 48–57. https://doi.org/10.1016/j.jhtm.2020.07.015

Ikenegbu, T. C. (2017). *Impact of Locus of Control, Self-Esteem and Gender on Attitude Towards Child Adoption in Nsukka, Enugu State (Doctoral dissertation)*.

Karabulut, A. T. (2016). Personality Traits on Entrepreneurial Intention. *Procedia - Social and Behavioral Sciences*, *229*, 12–21. https://doi.org/10.1016/j.sbspro.2016.07.109

Kesavayuth, D., Ko, K. M., & Zikos, V. (2018). Locus of control and financial risk attitudes. *Economic Modelling*, *72*(January), 122–131. https://doi.org/10.1016/j.econmod.2018.01.010

Kiron, D., Kruschwitz, N., Haanaes, K., & Von Streng Velken, I. (2012). Sustainability Nears a Tipping Point. *MIT Sloan Management Review*, *53*(2), 69–74.

Li, D., Zheng, M., Cao, C., Chen, X., Ren, S., & Huang, M. (2017). The impact of legitimacy pressure and corporate profitability on green innovation: Evidence from China top 100. *Journal of Cleaner Production*, *141*, 41–49. https://doi.org/10.1016/j.jclepro.2016.08.123

Luo, Y., & Deng, J. (2008). The new environmental paradigm and nature-based tourism motivation. *Journal of Travel Research*, *46*(4), 392–402. https://doi.org/10.1177/0047287507308331

Martens, W., & Bui, C. N. M. (2023). An Exploration of Legitimacy Theory in Accounting Literature. *OALib*, *10*(01), 1–20. https://doi.org/10.4236/oalib.1109713

Mo, Z., & Liu, M. T. (2019). Proactive Personality and Employee Workplace Green Behavior Applying Theory of Planned Behavior Academy of Management Proceedings. *Academy of Management Proceedings*, *1*, 16404.

Oláh, J., Aburumman, N., Popp, J., Khan, M. A., Haddad, H., & Kitukutha, N. (2020). Impact of industry 4.0 on environmental sustainability. *Sustainability (Switzerland)*, *12*(11), 1–21. https://doi.org/10.3390/su12114674

Pagiaslis, A., & Krontalis, A. K. (2014). Green consumption behavior antecedents: Environmental concern, knowledge, and beliefs. *Psychology & Marketing*, *31*(5), 335–348. https://doi.org/10.1002/mar

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. In *Annual Review of Psychology* (Vol. 63, pp. 539–569). https://doi.org/10.1146/annurev-psych-120710-100452

Poškus, M. S., & Žukauskienė, R. (2017). Predicting adolescents' recycling behavior among different big five personality types. *Journal of Environmental Psychology*, *54*, 57–64. https://doi.org/10.1016/j.jenvp.2017.10.003

Power, R. A., & Pluess, M. (2015). Heritability estimates of the Big Five personality traits based on common genetic variants. *Translational psychiatry*, 5(7), e604-e604.

Risi, D., Vigneau, L., Bohn, S., & Wickert, C. (2023). Institutional theory-based research on corporate social responsibility: Bringing values back in. *International Journal of Management Reviews*, 25(1), 3-23. https://doi.org/10.1111/ijmr.12299

Sisdyani, E. A., Subroto, B., Saraswati, E., & Baridwan, Z. (2020). Levers of eco-control and green behavior in medical waste management. *International Journal of Energy Economics and Policy*, *10*(4), 194–204. https://doi.org/10.32479/ijeep.9342

Stephan, Y., Sutin, A. R., Canada, B., Deshayes, M., Kekäläinen, T., & Terracciano, A. (2022). Five-factor model personality traits and grip strength: Meta-analysis of seven studies. *Journal of Psychosomatic Research*, *160*(February). https://doi.org/10.1016/j.jpsychores.2022.110961

Sun, Y., Wang, S., Gao, L., & Li, J. (2018). Unearthing the effects of personality traits on consumer's attitude and intention to buy green products. *Natural Hazards*, *93*(1), 299–314. https://doi.org/10.1007/s11069-018-3301-4

Terrier, L., Kim, S., & Fernandez, S. (2016). Who are the good organizational citizens for the environment? An examination of the predictive validity of personality traits. *Journal of Environmental Psychology*, *48*, 185–190. https://doi.org/10.1016/j.jenvp.2016.10.005

Tseng, T. H., Wang, Y. M., Lin, H. H., Lin, S. jeng, Wang, Y. S., & Tsai, T. H. (2022). Relationships between locus of control, theory of planned behavior, and cyber entrepreneurial intention: The moderating role of cyber entrepreneurship education. *International Journal of Management Education*, *20*(3), 100682. https://doi.org/10.1016/j.ijme.2022.100682

Verma, V. K., Chandra, B., & Kumar, S. (2019). Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention. *Journal of Business Research*, *96*(May 2018), 206–216. https://doi.org/10.1016/j.jbusres.2018.11.021

Wu, Kun-Shan. Huang, Di-Man. Teng, Y.-M. (2013). Environmental concerns, attitudes and behavior intention toward patronize green restaurant. *Life Science Journal*, *10*(3), 2329–2340.

Yang, J. C., Lin, Y. L., & Liu, Y. C. (2017). Effects of locus of control on behavioral intention and learning performance of energy knowledge in game-based learning. *Environmental Education Research*, *23*(6), 886–899. https://doi.org/10.1080/13504622.2016.1214865