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Unveiling the Impact of Psychological Factors on Consumer Purchase Intentions for Overall Sustainable Success in Green Residential Buildings: Using SEM-ANN Analysis

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Abstract

The research problem addressed in this study is the limited understanding of the intricate interactions among emotional, environmental, and psychological factors within organizations and their collective impact on overall sustainable success (OSS). A critical gap exists in the literature, as previous studies often analyze these factors in isolation, leaving an incomplete picture of their interdependence. To fill this gap, this study aims to comprehensively understand the interplay between Psychological Factors (PF) and OSS. The objectives are to identify relevant factors, collect data, and employ a rigorous methodology for analysis. The research methodology involves a three-phase approach: factor identification, data collection, and analysis. This study leverages a unique integration of Structural Equation Modeling (SEM) and Artificial Neural Networks (ANN) to deepen the analysis, revealing intricate relationships among identified factors. The study's findings highlight a robust positive association between PF and OSS, underscoring the significance of prioritizing employees' psychological well-being for enhanced workplace satisfaction and performance. These insights have practical implications for organizational leaders and managers, guiding them to cultivate positive emotional climates, instill environmentally conscious practices, and address negative emotional states within their teams.

Keywords: Psychological Factors; Overall Sustainable Success; Green Residential Buildings; Structural Equation Modeling (SEM); Artificial Neural Networks (ANN).

1. Introduction

The built environment is essential to the global conversation on environmental conservation in the modern era due to the substantial energy consumption and carbon emissions associated with building development and operations [1]. The escalating awareness of environmentally friendly structures underscores their potential contribution to reducing greenhouse gas emissions, which account for about 33% of the world's total [2]. The repercussions of excessive greenhouse gas emissions, including rising sea levels, ecological imbalances, biodiversity depletion, and extreme weather events, emphasize the urgency for sustainable strategies in the real estate sector [3]. In reaction to external constraints, real estate companies are progressively implementing sustainable practices that align with Malaysia's Green Technology Master Plan (2017–2030) [4].

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The growing popularity of environmentally friendly and energy-efficiently designed buildings is a crucial strategy for promoting energy conservation and mitigating environmental damage [5]. The Green Building Index (GBI) in Malaysia, for example, highlights several significant requirements related to "green building," such as "water efficiency," "innovation," "sustainable site planning," "energy efficiency," and "indoor environmental quality [6]. The Malaysian Government's push towards green initiatives is evident in the significant increase in certified green buildings from 190 in 2013 to 370 in 2016, reflecting a growing commitment to environmental sustainability [7].

Amidst the burgeoning interest in environmentally conscious practices, the inclination of Jordanian consumers towards purchasing green residential buildings is steadily growing, particularly with projects endorsed by the Green Building Initiative (GBI) eliciting positive responses [8]. Recognizing the pivotal role of psychological factors in shaping the intentions of potential house purchasers becomes crucial, given the profound impact of market dynamics on the landscape of green building developments [9]. While existing studies have explored diverse facets of green homes, a noticeable gap persists in comprehending the psychological determinants of consumer purchase intention among Jordanian house buyers, underscoring a compelling area for investigation. Despite global studies delving into drivers for green buildings, a distinct absence of comprehensive research on consumer behavior specific to green residential buildings in Jordan is evident. Bridging this gap is paramount, as is fostering an enriched understanding of the Jordanian consumer perspective and advocating for sustainable practices within the real estate sector.

To fill this gap, this study addresses key research questions: 1. To what extent do psychological factors influence consumers' intentions to purchase environmentally friendly residential buildings? and 2. What is the relationship between the psychological factors influencing consumers' purchasing intentions and overall sustainable success (OSS)? This research meticulously evaluates existing literature, identifies gaps, and proposes a targeted approach to contribute meaningfully to the discourse on consumer behavior in the context of green residential buildings in Jordan. This study seeks to elucidate the impact of psychological factors, including attitudes, subjective norms, perceived behavioral control, moral obligation, environmental concern, perceived value, perceived self-identity, and perceived risk, on the purchase intentions of Jordanian consumers towards green residential buildings. By employing advanced analytical techniques such as Artificial Neural Networks (ANN), path modeling, and Partial Least Squares Structural Equation Modeling (PLS-SEM), the research aims to fill existing knowledge gaps and provide a nuanced understanding of these interactions within the context of Jordan's burgeoning economy. The novel approach of applying SEM-ANN is anticipated to yield sophisticated insights into the intricate relationships among psychological variables, consumer decisions, and the overall sustainable success of housing.

This study's uniqueness lies in its comprehensive examination of the interplay between psychological variables and consumer behavior specific to green residential structures. The creative application of SEM-ANN is expected to offer advanced insights, contributing to a deeper understanding of the complex dynamics involved. The outcomes of this research are poised to address knowledge gaps, offering valuable guidance for formulating effective strategies within Jordan's sustainable housing industry. By bridging the divide between scholarly study and real-world implementation, the results aim to significantly contribute to both academic discourse and practical advancements in sustainable housing.

2. Literature Review

2.1. Psychological Factors

A diverse range of environmentally conscious products, from organic food [10] to green electric motorcycles [11], has been extensively studied concerning consumer purchase intentions. Growing public awareness of corporate social responsibility (CSR) prompts consumers to favor socially responsible developers addressing their housing needs [12]. Notably, research findings reveal that owners of both conventional and greenhouses exhibit a heightened willingness to spend, showing a solid inclination to enhance various environmental performance indicators through eco-friendly home upgrades.

Understanding potential homeowners' perspectives on ecologically responsible residential development is crucial. Drawing on conceptualization, attitude, defined as an individual's approval or disapproval of a particular conduct, emerges as a pivotal factor [13]. The theory of planned behavior (TPB) posits that attitudes significantly shape behavioral intentions. This is exemplified in studies on purchase intentions for green products, where attitudes towards environmentally friendly options play a crucial role [14]. The research by Li et al. [15] on energy-efficient appliances further corroborates the impact of a positive perspective on consumers' purchasing intentions. Numerous studies highlight the favorable correlation between people's perceptions of organic food and their propensity to buy it [16]. Deng & Quigley [17] reinforce this perspective, indicating that consumers are more likely to opt for green homes with a positive attitude toward them. Similarly, Donald et al. [18] found that residents' positive attitudes toward green-label residential buildings positively influence their behavioral intentions to use those buildings.

The effect of subjective standards (SN) on the inclination of potential purchasers to purchase eco-friendly dwellings [19]. Understanding how the social environment shapes intentions for behavior requires understanding subjective norms, which represent an individual's vulnerability to social pressure for a particular activity [19]. Numerous studies

demonstrate a significant positive relationship between customers' intentions to buy environmentally friendly items and subjective norms. Examples include studies on organic food [20] and organic personal care products [21]. The influence of arbitrary norms, such as peer pressure, on customers' intentions to purchase 'green transportation T-shirts' is evident, emphasizing the substantial predictive power of subjective norms in determining the propensity to purchase organic food items [22].

Perceived behavioral control (PBC), representing an individual's belief in their competence to perform a specific task, is critical [23]. For many consumers, price is a significant consideration when choosing environmentally friendly options [24]. Sun [25] identified accessibility and cost as the primary barriers to using organic food. Chen & Tung [26] evidence of a positive correlation between buyers' perceived behavioral control and their behavioral intentions towards green residential projects aligns with findings by Han et al. [27]. The latter study confirms a robust positive correlation between customers' purchase intentions and their perceived level of behavioral control.

Perceived moral obligation (PM), often termed personal norm or moral norm, reflects an individual's belief in the morality of a given behavior [28]. Felt moral obligation, characterized by an individual's sense of being compelled to act morally in certain situations [29], adds a valuable dimension to the TPB model in the context of green purchasing [30]. Studies demonstrate that including perceived moral obligation significantly enhances the prediction of intentions to buy organic food [31]. Hsu & Lin [32] further support this, affirming that a customer's preference to stay at a green hotel is positively influenced by their sense of moral obligation. Lee [33] found a positive impact of moral obligation on the intention to purchase ecological items. Incorporating an environmental concern (EC) measure has also been shown to enhance the predictive ability of the TPB [34]. Purchase intentions and ecological concerns correlate consistently [35].

The significance of perceived value (PV) in influencing purchase intentions is well-established [36]. Perceived value, a discriminating factor influencing purchase intentions, has been highlighted in numerous studies [37]. Studies such as Chen et al. [38] illustrate the positive correlation between intentions to make green purchases and perceived green value in the context of a green purchase. Perceived self-identity (PS), defined by Pino et al. [39] as a person's self-identity concerning engaging in a particular behavior, plays a crucial role. The relationship between self-identity, intention, and green purchasing is the subject of extensive research [40]. For instance, Mihalakakou et al. [41] discovered that those who identify as "green consumers" buy more organic food than people who do not. Similarly, Didier and Lucie [42] found that a green self-identity positively influenced the propensity to buy eco-friendly products. Several studies have empirically examined the application of TPB in combination with an additional indicator of self-identification, emphasizing the significance of self-identity in predicting intentions [43]. According to Mohd Thas Thaker and Chandra Sakaran [44], buyers are inclined to purchase a product if they perceive it aligns with their self-concept.

The perceived risk significantly influences consumer behavior [45]. Teng & Wang [46] define perceived risk as the state in which customers feel uneasy about products or services due to anticipated adverse outcomes. The negative correlation between purchasing environmentally friendly products, such as green electric motorcycles [47] and eco-friendly clothing [48], and perceived risk is well-documented. Performance, social, temporal, or convenient, financial, physical, and psychological aspects are all included in perceived risk [49]. The study's performance, psychological, and financial aspects are prioritized because they are critical to understanding the risk of investing in environmentally friendly residential buildings. In this context, financial risk is defined by Teck-Hong [50] as worries about the price of green residential buildings and the possibility of financial difficulties associated with the building's value. Research indicates that behavioral intentions toward the use of ecologically sustainable garment products are adversely impacted by financial risk [51]. Similarly, Crespo et al. [52] discovered that financial risk significantly impacted consumers' inclinations to purchase garments made of organic cotton.

Performance risk, characterized by the possibility that customers will not obtain the anticipated benefits from the product [53], significantly affects consumers' behavioral intentions. Kim and Chung [54] discovered that Chinese consumers' decision to switch from utilizing hotel services to alternative options is influenced considerably by performance risk. Similar findings were reported by Oliver & Lee [55], indicating that performance risk immediately reduces consumers' propensity to purchase private-label goods. Another factor considered is psychological risk, which results from unfulfilled purchasing ambitions and might make someone less confident [9]. Psychological risk refers to the concern that a consumer's product purchase may not align with their self-concept, potentially resulting in disillusionment and letdown [8]. Research by Olanipekun et al. [7] shows that psychological risk negatively impacts buying intention.

Willingness to pay (WTP) is another method for analyzing someone's behavioral intentions. According to Hu et al. [6], an individual's maximal ready and willing payment amount determines their readiness to pay. Academics widely use Ajzen's theory of planned behavior to predict behavior. It emphasizes that when purchasers have a strong and clear intention, they are more likely to be ready to put in the necessary effort to finish an activity [5]. Han & Chung [3] investigated the connection between willingness to pay and the intention to buy. The findings suggest that individuals with a higher degree of consumer purchase intention are more likely to pay for environmentally friendly products than those with less buying intention [2].

2.2. Overall Sustainable Success (OSS)

Investigating the impact of psychological elements on consumer purchase intention for green residential buildings—including environmental, economic, and social considerations—dramatically advances our understanding of overall sustainable success (OSS). The research delves into the complexities of consumer decision-making processes, elucidating intricate relationships between psychological factors—such as attitudes, perceptions, and emotions—and consumers' preferences for sustainable housing [56]. The study contributes to a holistic understanding of OSS in the green residential building sector by providing nuanced insights beyond individual preferences. Recognizing the interconnected nature of environmental, economic, and social dimensions, the findings offer practical implications for policymakers and marketers aiming to foster sustainability and well-being in the real estate market [57]. The research further advances our comprehension of OSS by examining these dimensions individually. In the environmental dimension, the study reveals complex relationships between psychological factors and consumers' preferences for sustainable housing, shedding light on the environmental implications of housing choices [58]. Investigating how psychological factors influence consumer choices for environmentally friendly residential buildings from an economic perspective reveals complex relationships between psychological and financial factors, offering useful advice for promoting financial sustainability [59]. The study also enhances our understanding of OSS in the social dimension, exploring how psychological factors influence consumer purchase intentions for green residential buildings. By uncovering intricate relationships between psychological factors and consumers' preferences for sustainable housing, the research provides valuable insights for promoting social sustainability in the real estate market [60].

2.3. Research Gap, Conceptual Model, and Novelty

The existing literature on consumer preferences towards green residential buildings predominantly emphasizes tangible aspects such as cost savings, energy efficiency, and environmental impact. In this scenario, there is a significant study vacuum to understand how psychological factors influence customer attitudes and purchase intentions. By putting out a conceptual model that incorporates psychological factors—such as perceived environmental consciousness, individual values, and emotional reactions—into the decision-making process, this research seeks to close this gap. Applying the Structural Equation Modeling-Artificial Neural Network (SEM-ANN) methodology, the research aims to clarify the intricate connections between these variables and offer a more refined comprehension of the elements impacting sustainable housing decisions. The novelty of this research lies in its application of the SEM-ANN approach, offering a fresh perspective that extends beyond traditional economic and environmental considerations associated with green building choices. Through this comprehensive analysis, the study contributes valuable insights into the evolving consumer behavior toward sustainable housing.

3. Theoretical Constructs and Development of Hypotheses

The development of hypotheses to examine the connection between psychological factors and overall sustainable success (OSS) in the context of green residential structures is guided by several theoretical constructs (Figure 1). The study claims that consumer purchase intention for sustainable housing is highly influenced by individual attitudes, perceptions, and emotions, drawing on psychological theories such as the Value-Belief-Norm Theory [61] and the Theory of Planned Behavior [8]. The Theory of Planned Action states that intentions, which affect actual action, are influenced by attitudes toward conduct, subjective norms, and perceived behavioral control. The Value-Belief-Norm Theory posits that pro-environmental conduct is influenced by an individual's values, beliefs, and perceived norms. These theoretical underpinnings have served as the basis for the formulation of hypotheses. One such hypothesis is that a positive correlation exists between customer purchasing intention and good sentiments towards sustainable features in residential structures. Additionally, beliefs in the environmental benefits of green housing and perceived social norms favoring sustainability may positively influence consumer decisions.

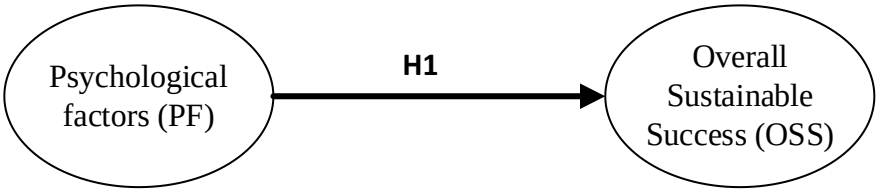

Figure 1. Hypothetical Model

Moreover, considering the multidimensional nature of OSS, hypotheses can be developed within the environmental, economic, and social dimensions. For example, it could be hypothesized that positive psychological factors contribute to environmentally friendly practices in housing, enhance economic sustainability by fostering resource efficiency, and promote social sustainability through community engagement. The theoretical constructs provide a framework to systematically explore and test these hypotheses, offering valuable insights into the complex interplay between

psychological factors and OSS in green residential buildings. This study posited the following hypothesis: H1. A significant relationship exists between psychological factors and the achievement of Overall Sustainable Success (OSS) in green buildings.

4. Research Methodology

This research unfolds in three distinct phases: firstly, the identification of critical psychological factors influencing consumer behavior towards green residential buildings; secondly, the collection of data specifically from the Jordanian context; and finally, the application of the SEM-ANN analysis to comprehensively examine the complex relationships within the identified factors (as shown in Figure 2). The study leveraged a robust combination of Structural Equation Modeling (SEM) and Artificial Neural Networks (ANN) to enhance the depth of analysis and glean unique insights into the complex dynamics influencing overall sustainable success (OSS). Using SEM, the researchers conducted path analysis to quantify and understand the strength and direction of relationships among key variables, including Anticipated Guilt and Regret Behavior (AGRB), Environmental Concerns (EC), Fear of Negative Evaluation (FR), Psychological Factors (PF), and others. This approach facilitated a comprehensive examination of direct and indirect effects on OSS, bolstered by SEM's proficiency in assessing model fit for increased reliability.

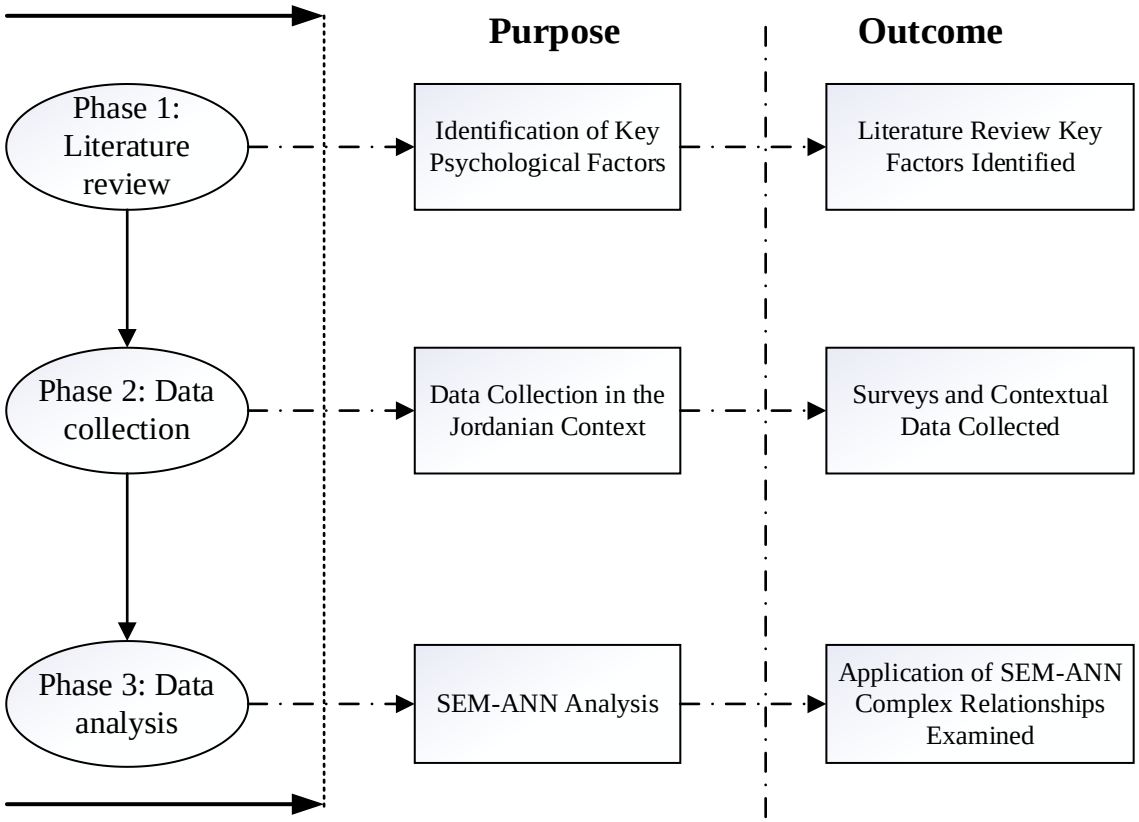

Figure 2. Research framework

Simultaneously, the integration of ANN, a machine learning technique, enabled the study to capture non-linear patterns and intricate interactions within the data. ANN's predictive capabilities were likely employed to forecast the impact of various factors on OSS, offering a forward-looking perspective. Additionally, ANN's adaptability allowed for exploring complex relationships, ensuring a more nuanced understanding of the dynamic interplay among psychological, environmental, and emotional variables. The synergistic use of SEM and ANN provided a comprehensive analytical framework, uncovering more profound insights into the multifaceted influences on sustainable success within organizational contexts.

4.1. Identification of Factors

This study's psychological factors were identified through an extensive literature review leveraging reputable databases such as PubMed, Scopus, and PsycINFO. Employing a systematic search strategy with keywords including "psychological factors," "consumer behavior," and "green residential buildings," the review aims to gather relevant scholarly articles exploring the intricate relationships between psychological elements—attitudes, perceptions, and emotions—and consumer decision-making in sustainable housing contexts. This comprehensive synthesis of existing knowledge, represented in Table 1, forms the foundation for subsequent phases. The study introduces the Overall

Sustainable Success (OSS) dimensions—environmental (OSS1), economic (OSS2), and social (OSS3)—reflecting the comprehensive nature of sustainability in the context of green residential buildings in Jordan. These identified factors serve as the basis for subsequent data collection and the application of the SEM-ANN analysis, aiming to unravel the complex interplay between psychological factors and the overall sustainable success of green residential buildings.

Table 1. List of identified factors

Category	Factors	Code	References
Attitude towards green residential buildings (AGRB)	Green home structures are important since they were constructed with ecologically friendly development and construction methods.	PF1	Chen et al. (2012); Crespo et al. (2009); Han & Chung (2014); Hartmann & Apaolaza-Ibáñez, (2012); Liu et al. (2018) [2, 3, 22, 38, 52]
	Green residential buildings are beneficial because they can raise our living standards without sacrificing the occupants' comfort.	PF2	
	Designing green residential buildings makes sense because they might not have a detrimental impact on the environment.	PF3	
	Sustainable living features in green residential buildings are advantageous.	PF4	
	Green residential buildings that satisfy the requirements of the Green Building Index (GBI) are advantageous.	PF5	
Environmental concern (EC)	The deteriorating state of Jordan's ecology worries me.	PF6	Hartmann & Apaolaza-Ibáñez (2012); Kang & Kim (2013); Liu et al. (2018); Mihalakakou et al. (2023); Newton et al. (2015) [2, 21, 22, 41, 45]
	The ecology in Jordan worries me a lot.	PF7	
	Concerning Jordanian environmental conservation, I have a strong passion for it.	PF8	
	I regularly think about how to improve Jordan's surroundings.	PF9	
Financial risk (FR)	Investing my money in a green residential project would be a poor decision.	PF10	Crespo et al. (2009); Han & Chung (2014); Kang & Kim (2013); Salvi & Syz (2011) [3, 45, 49, 52]
	If I were to purchase a green residential development, I would be concerned that it would not be a wise financial decision.	PF11	
	If I were to buy a green residential building, I would be worried that I would not get my money is worth out of it.	PF12	
Perceived behavioural control (PBC)	Financially and strategically, I possess significant leverage in acquiring a sustainable residential property.	PF13	Chen & Yang (2019); Liu et al. (2018); Wu (2013) [1, 2, 5]
	I am confident that I can purchase a long-term residential property.	PF14	
Purchase intention (PI)	If I had to purchase a residential building, I would choose to purchase a green residential building rather than a regular one.	PF15	Barber et al. (2012); Chen & Chang (2012); Kim & Chung (2011); Oliver & Lee (2010) [9, 53, 55]
	A green residential building would be my first choice if I had to buy a house instead of a regular one.	PF16	
	I intend to purchase a green residential building rather than a conventional one.	PF17	
	I want to purchase a green residential building instead of a conventional one.	PF18	
Perceived moral obligation (PMO)	Everyone must save the environment.	PF19	Chen & Tung (2014); Tan et al. (2017) [26, 29]
	Since natural resources are limited, conservation should be a habit for everyone.	PF20	
Performance risk (PR)	When contemplating the purchase of a green residential complex, my concerns centre around the building's dependability and credibility.	PF21	Crespo et al. (2009); Han & Chung (2014); Kang & Kim (2013) [3, 45, 52]
	I would begin to fear that a green residential building would not provide the advantages I had hoped for if I were to purchase one.	PF22	
	I am concerned about whether a green residential building will function as effectively as it is meant to as I explore buying one.	PF23	
Perceived self-identity (PSI)	I believe my actions will be environmentally and morally sound due to moral considerations.	PF24	Barbarossa & De Pelsmacker (2016); Dean et al. (2012); Tan (2013) [11, 40, 48]
	It is essential to me to be involved in environmental issues.	PF25	
	I think of myself as someone who is quite aware of environmental issues	PF26	
Psychological risk (PYR)	Greenhouses would not fit with my style.	PF27	Donald et al. (2014); Hartmann & Apaolaza-Ibáñez (2012); Liu et al. (2018) [2, 18, 22]
	Not enough distinct green residential construction designs are available to meet my needs.	PF28	

Perceived value (PV)	I will significantly benefit from a green residential building's environmental qualities.	PF29	Chen & Tung (2010); Chen & Chang (2012); Crespo et al. (2009); Wu (2013) [5, 8, 9, 52]
	I will be satisfied with the environmental performance of green residential buildings.	PF30	
	I think I will purchase a green residential building because they have more environmental difficulties than other kinds of residential structures.	PF31	
	I believe I will buy one because green residential buildings are better for the environment.	PF32	
	I will purchase a green residential building since it offers more significant environmental benefits than other residential buildings.	PF33	
Subjective norm (SN)	My family believes that I ought to buy an environmentally friendly home.	PF34	(Al-Swidi et al., 2014; T. I. Han & Chung, 2014; Liu et al., 2018) [2, 3, 47]
	My friends think I should purchase a sustainable house.	PF35	
	Periodicals and news affect my choice to purchase a green residential development.	PF36	
Willingness to pay (WP)	Paying extra for a residential development that uses green methods is appropriate.	PF37	Barber et al. (2012); Chau et al. (2010); Didier & Lucie (2008); Schniederjans & Starkey (2014) [14, 35, 42, 53]
	I am willing to pay more for a green residential structure.	PF38	
	I am willing to pay extra to purchase a green residential building.	PF39	
OSS	Environmental	OSS1	
	Economic	OSS2	
	Social	OSS3	

4.2. Data Collection

A tailored Questionnaire Survey (QS) is deployed to evaluate the significance of these psychological factors, adhering to best practices in questionnaire design. Recommendations for clear and unambiguous questions, concise formats, simple language, avoidance of negative phrasing, anticipation of responses, and straightforward or double-barreled questions guide the construction of the QS [62]. This instrument encompasses open-ended and closed-ended questions, incorporating a five-point Likert scale to quantify respondents' assessments. The QS comprises three primary sections: demographic profiling, psychological factors influencing green residential buildings, and OSS factors. Open-ended questions allow respondents to contribute additional psychological factors. This structured approach ensures a nuanced understanding of the intricate relationships between psychological factors and OSS in green residential buildings.

To ensure a diverse and knowledgeable respondent pool, built environment specialists from key construction businesses in the Jordan building and construction sector are considered. A random probability-based sampling technique is employed to yield reflective results from knowledgeable participants, as Lekan et al. [63] suggested. Selection criteria encompass individuals currently owning a property, particularly a green property, and demographic factors such as gender, age, nationality, education level, monthly income range in JD, and marital status. Data collection leverages personal contacts within related institutions and firms in Jordan, as well as social media and relevant organizations. The QS, designed on Google Docs for streamlined data collection and precision [64], comprises two main sections: the initial part gathers demographic data, while the subsequent section gauges the significance of identified psychological factors using a 5-point Likert scale [65]. Out of 120 distributed questionnaires, a commendable response rate of 76.6 percent was achieved, with 92 completed and returned. The profile of the participating respondents is visually represented in Table 2, offering insights into the diverse makeup of the study participants. This comprehensive methodology ensures a robust exploration of the intricate interplay between psychological factors and the overall sustainable success of green residential buildings.

4.3. Data Analysis

In the initial phase of this research, the proposed conceptual model underwent scrutiny through the application of partial least squares structural equation modeling (PLS-SEM) using SmartPLS software version 3.3.3. PLS-SEM was chosen for its suitability for handling complex models and supporting theory development, making it particularly apt for the objectives of this study [66]. Moreover, PLS-SEM is advantageous over covariance-based structural equation modeling (CB-SEM) in scenarios with smaller sample sizes and non-normally distributed data, as evident in our study through the Kolmogorov–Smirnov test with p-values less than 0.001 for each item [67]. This non-normality reinforced the appropriateness of PLS-SEM over CB-SEM [68]. In tandem, a Gpower analysis, as recommended in the PLS literature, was conducted to ascertain an adequate sample size. The assessment, performed using GPower 3.1.9.7 software, determined that the sample size of 300 surpassed the minimum requirement of 92, achieving a power level of

0.80 with ten predictors, an alpha value of 0.05, and an effect size of 0.15. This ensured robust statistical power for the PLS-SEM analysis. Recognizing the limitation of PLS-SEM in detecting non-linear associations, particularly crucial given the intricate relationships between variables, the second analysis stage involved employing the artificial neural network (ANN) approach to unveil both linear and non-linear associations among the constructs. The ANN analysis utilized significant predictors identified in the PLS-SEM phase, and the ensuing outcomes were employed to rank the normalized importance of these predictors [66]. This two-stage analytical framework allows for a comprehensive exploration of the relationships within the conceptual model, capturing both linear and non-linear dynamics among the constructs.

Table 2. Profile of the Participating Respondents

Variables		Frequency
Own a property	Yes	67
	No	25
Own a green property.	Yes	53
	No	39
Gender	Male	55
	Female	37
Age	21-25	25
	26-30	15
	31-40	30
	41-50	9
	Above 50	13
Nationality	Jordanian	92
Level of education	Bachelor	65
	Post-graduate	24
	No degree	3
Monthly income range in JD	1201-2000	26
	2001-2800	19
	700-1200	13
	Less than 700	34
Marital status	Single	54
	Married	38

5. Results

5.1. Common Method Bias

The potential for standard method bias (CMB) arises due to the cross-sectional nature of our data. To address this concern, we followed the methodologies outlined by MacKenzie & Podsakoff [69], implementing a combination of statistical and procedural approaches. Procedurally, we assured participants of the anonymity and confidentiality of their responses. The questionnaire was designed using simple sentences, and any uncommon jargon was omitted to minimize the risk of misunderstandings. On the statistical front, we conducted Harman's single-factor test, adhering to the criteria set by Bildirici et al. [70]. The results of the exploratory factor analysis, encompassing all variables, revealed a single component that accounted for 47.6% of the total variance. To further assess CMB, we examined inter-construct correlations, checking if they surpassed the 0.90 thresholds outlined by Wei et al. [71]. Notably, the highest inter-construct correlation observed was 0.776, indicating that CMB is not a significant concern in the utilized data. These rigorous steps were taken to ensure the reliability and validity of our findings.

5.2. SEM Measurement Model

Initially, we comprehensively evaluated the reliability and validity of the measures implemented in this study. The findings, detailed in Table 3, encompass metrics such as the average variance extracted (AVE), Cronbach's alpha (CA), and composite reliability (CR), all vital indicators of reliability and validity (Table 4). Notably, these values consistently met or exceeded established standards, affirming the robustness of our measures. Specifically, all constructs surpassed the 0.70 threshold for CR, as Maqbool et al. [72] recommended, signifying internal solid consistency. Furthermore, CA values for each construct exceeded the 0.70 benchmarks outlined by Aigbavboa & Thwala [73], attesting to the excellent reliability of the constructs.

Table 3. Measurement model results

Construct	Items	Factor loadings	Alpha	CR	AVE
Attitude towards green residential buildings (AGRB)	PF1	0.903	0.969	0.971	0.872
	PF2	0.896			
	PF3	0.857			
	PF4	0.977			
	PF5	0.824			
Environmental concern (EC)	PF6	0.955	0.923	0.945	0.811
	PF7	0.929			
	PF8	0.776			
	PF9	0.998			
Financial risk (FR)	PF10	0.955	0.902	0.931	0.818
	PF11	0.973			
	PF12	0.964			
Perceived behavioral control (PBC)	PF13	0.944	0.849	0.887	0.799
	PF14	0.940			
Purchase intention (PI)	PF15	0.938	0.971	0.979	0.92
	PF16	0.933			
	PF17	0.126			
	PF18	0.843			
Perceived moral obligation (PMO)	PF19	0.722	0.86	0.934	0.877
	PF20	0.953			
Performance risk (PR)	PF21	0.930	0.861	0.82	0.815
	PF22	0.958			
	PF23	0.974			
Perceived self-identity (PSI)	PF24	0.895	0.946	0.963	0.897
	PF25	0.945			
	PF26	0.906			
Psychological risk (PYR)	PF27	0.902	0.964	0.933	0.875
	PF28	0.905			
Perceived value (PV)	PF29	0.870	0.871	0.953	0.801
	PF30	0.851			
	PF31	0.887			
	PF32	0.927			
	PF33	0.833			
Subjective norm (SN)	PF34	0.971	0.86	0.914	0.78
	PF35	0.933			
	PF36	0.925			
Willingness to pay (WP)	PF37	0.965	0.95	0.96	0.889
	PF38	0.878			
	PF39	0.827			
OSS	OSS1	0.949	0.863	0.916	0.784
	OSS2	0.933			
	OSS3	0.889			

Table 4. Discriminant validity

	AGRB	EC	FR	OSS	PBC	PF	PI	PMO	PR	PSI	PV	SN	WP
AGRB													
EC	0.83												
FR	0.25	0.31											
OSS	0.15	0.19	0.10										
PBC	0.81	0.75	0.43	0.06									
PF	0.07	0.10	0.12	0.81	0.11								
PI	0.87	0.83	0.23	0.01	0.84	0.06							
PMO	0.90	0.83	0.32	0.17	0.79	0.11	0.84						
PR	0.48	0.52	0.79	0.11	0.58	0.04	0.46	0.57					
PSI	0.80	0.82	0.28	0.16	0.80	0.11	0.79	0.81	0.53				
PV	0.89	0.89	0.27	0.10	0.83	0.03	0.89	0.82	0.51	0.91			
PYR	0.28	0.31	0.71	0.10	0.57	0.07	0.35	0.33	0.84	0.43	0.36		
SN	0.69	0.73	0.29	0.13	0.80	0.18	0.82	0.63	0.48	0.74	0.86	0.54	
WP	0.76	0.75	0.22	0.03	0.86	0.10	0.91	0.66	0.48	0.78	0.89	0.46	0.85

Convergent validity (CV), grounded in the premise that associated measures should exhibit statistical relationships, was rigorously examined. The diagnosis of CV is based on AVE values greater than 0.5, aligned with the criteria established by Chen et al. [74]. Strengthening the CV argument, each model item demonstrated substantial and statistically significant standard loading on its target construct. These results collectively affirm the study's adherence to high standards of construct reliability and convergent validity (CR > 0.70, CA > 0.70, AVE > 0.5), as elucidated in Table 1.

The discerning validity of constructs within the variance-based Structural Equation Modeling (SEM) underwent a meticulous evaluation using the Heterotrait Monotrait (HTMT) criterion ratio, an approach endorsed by Wei et al. [71]. Illustrated in Table 4, the HTMT values, ranging from 0.01 to 0.90, comfortably adhered to the recommended threshold of 0.85 to 0.90. This observation signifies a successful differentiation between constructs, ensuring each construct maintains its unique identity despite potential conceptual similarities. Furthermore, the cross-loading outcomes detailed in Table 5 serve as additional discriminant validity evidence. Notably, all loadings on items within a given construct consistently exceeded loadings on items linked to other constructs. This robust consistency across constructs reinforces the one-dimensionality of each construct and its effective differentiation from others, thereby bolstering the overall integrity and reliability of the structural model.

Table 5. Cross loadings results

	AGRB	EC	FR	OSS	PBC	PF	PI	PMO	PR	PSI	PV	PYR	SN	WP
OSS1	-0.21	-0.19	-0.19	0.90	0.05	0.78	0.01	-0.16	0.03	-0.18	-0.16	0.00	0.09	0.01
OSS2	-0.21	-0.16	-0.02	0.90	0.11	0.80	0.00	-0.17	0.18	-0.20	-0.14	0.11	0.09	0.07
OSS3	-0.04	-0.06	0.00	0.86	0.05	0.68	0.00	-0.05	0.03	-0.01	0.02	0.05	0.14	0.02
PF1	0.98	0.86	0.26	-0.17	0.65	-0.11	0.80	0.81	0.06	0.74	0.82	0.20	0.60	0.72
PF10	0.08	0.19	0.82	0.05	0.24	-0.04	0.17	0.22	0.54	0.20	0.14	0.63	0.25	0.18
PF11	0.27	0.29	0.96	-0.11	0.27	-0.16	0.24	0.25	0.57	0.28	0.30	0.48	0.20	0.25
PF12	0.24	0.30	0.93	-0.08	0.21	-0.11	0.19	0.31	0.51	0.23	0.26	0.59	0.23	0.20
PF13	0.62	0.60	0.44	-0.02	0.78	0.02	0.77	0.68	0.23	0.67	0.65	0.54	0.58	0.65
PF14	0.66	0.64	0.24	0.08	1.00	0.17	0.82	0.58	0.03	0.65	0.67	0.37	0.69	0.82
PF15	0.77	0.71	0.19	0.00	0.79	0.06	0.96	0.70	0.05	0.74	0.81	0.28	0.71	0.83
PF16	0.77	0.72	0.22	0.00	0.83	0.05	0.97	0.72	0.05	0.74	0.81	0.33	0.71	0.87
PF17	0.79	0.80	0.24	-0.01	0.78	0.05	0.96	0.80	0.02	0.69	0.75	0.30	0.73	0.82
PF18	0.74	0.78	0.23	0.01	0.81	0.05	0.94	0.72	0.03	0.69	0.77	0.30	0.72	0.86
PF19	0.76	0.82	0.23	-0.15	0.64	-0.10	0.73	0.94	-0.12	0.70	0.70	0.21	0.55	0.60
PF2	0.94	0.81	0.20	-0.14	0.63	-0.06	0.78	0.82	0.08	0.73	0.79	0.20	0.54	0.65
PF20	0.75	0.75	0.31	-0.13	0.48	-0.09	0.70	0.93	0.16	0.66	0.71	0.32	0.46	0.54
PF21	0.52	0.60	0.46	-0.10	0.46	-0.03	0.52	0.62	0.13	0.47	0.53	0.48	0.42	0.48

PF22	0.30	0.33	0.69	0.02	0.27	0.05	0.31	0.35	0.84	0.35	0.35	0.68	0.31	0.37
PF23	0.31	0.32	0.72	-0.01	0.33	0.01	0.29	0.34	0.72	0.45	0.41	0.71	0.37	0.37
PF24	0.72	0.73	0.26	-0.15	0.60	-0.12	0.73	0.71	0.20	0.95	0.86	0.39	0.61	0.68
PF25	0.74	0.77	0.26	-0.09	0.69	-0.05	0.75	0.69	0.11	0.93	0.80	0.36	0.67	0.72
PF26	0.70	0.66	0.25	-0.16	0.63	-0.14	0.69	0.67	0.10	0.96	0.83	0.36	0.65	0.68
PF27	0.19	0.26	0.54	0.10	0.36	0.09	0.29	0.27	0.54	0.37	0.30	0.97	0.50	0.39
PF28	0.21	0.27	0.57	-0.02	0.39	0.04	0.32	0.27	0.52	0.37	0.30	0.90	0.37	0.40
PF29	0.79	0.77	0.31	-0.08	0.67	-0.04	0.79	0.72	0.14	0.86	0.95	0.35	0.62	0.75
PF3	0.91	0.77	0.29	-0.10	0.73	-0.02	0.78	0.70	0.02	0.73	0.80	0.30	0.60	0.73
PF30	0.80	0.75	0.31	-0.01	0.70	-0.02	0.78	0.71	0.15	0.82	0.90	0.41	0.68	0.79
PF31	0.79	0.78	0.20	-0.11	0.66	-0.05	0.81	0.69	-0.02	0.79	0.91	0.22	0.77	0.80
PF32	0.81	0.77	0.21	-0.05	0.71	0.01	0.83	0.68	-0.01	0.78	0.87	0.26	0.80	0.82
PF33	0.82	0.82	0.24	-0.01	0.74	0.03	0.85	0.70	0.01	0.80	0.85	0.31	0.82	0.81
PF34	0.52	0.52	0.26	0.06	0.65	0.11	0.69	0.48	0.14	0.56	0.55	0.50	0.89	0.75
PF35	0.50	0.57	0.16	0.13	0.66	0.17	0.68	0.46	0.05	0.64	0.60	0.45	0.93	0.79
PF36	0.58	0.63	0.22	0.10	0.55	0.16	0.62	0.49	0.15	0.56	0.66	0.34	0.83	0.69
PF37	0.73	0.67	0.27	0.06	0.81	0.16	0.85	0.60	0.20	0.67	0.77	0.40	0.78	0.97
PF38	0.66	0.68	0.17	0.01	0.76	0.07	0.84	0.57	0.07	0.72	0.79	0.37	0.83	0.93
PF39	0.62	0.66	0.17	-0.01	0.71	0.05	0.80	0.54	0.08	0.71	0.76	0.42	0.85	0.93
PF4	0.97	0.83	0.25	-0.19	0.66	-0.12	0.75	0.74	-0.02	0.70	0.78	0.20	0.59	0.71
PF5	0.88	0.85	0.26	-0.07	0.74	0.02	0.86	0.79	0.00	0.68	0.74	0.27	0.62	0.76
PF6	0.72	0.83	0.28	-0.08	0.44	-0.07	0.55	0.62	-0.01	0.61	0.59	0.26	0.54	0.49
PF7	0.85	0.95	0.26	-0.16	0.60	-0.11	0.75	0.83	-0.01	0.66	0.74	0.21	0.60	0.65
PF8	0.76	0.93	0.28	-0.16	0.63	-0.12	0.73	0.78	0.04	0.69	0.75	0.29	0.61	0.67
PF9	0.83	0.89	0.29	-0.16	0.65	-0.06	0.79	0.77	0.03	0.74	0.81	0.25	0.62	0.74

5.3. Structural Model

The β-values in Table 6 furnish valuable insights into the intricate relationships among latent constructs. Negative coefficients indicate inverse relationships, while positive coefficients denote positive associations. Standard deviations (SD) gauge the variability of the estimates, with p-values providing insights into the statistical significance of the paths. The absence of multicollinearity concerns is evidenced by Variance Inflation Factor (VIF) values consistently below 3.5 across all paths. A noteworthy highlight emerges from Perceived Behavioral Control (PBC) to Purchase Intention (PI), marked by a robust positive coefficient of 0.851. This underscores the substantial influence of PBC on PI. Conversely, the path from Perceived Self-Identity (PSI) to Product Features (PF) manifests a noteworthy negative impact with a coefficient of -0.539, indicating a significant influence on PF.

Table 6. Path coefficient

Paths	β –values	SD	P- Values	VIF
AGRB → PF	-0.215	0.338	0	1.631
EC → PF	-0.120	0.330	0	1.363
FR → PF	-0.344	0.202	0	1.719
OSS → PF	0.483	0.269	0	1.799
PBC → PF	0.851	0.056	0	1.082
PI → PF	-0.037	0.448	0	1.43
PM → OPF	0.115	0.270	0	1.203
PR → PF	0.307	0.258	0	1.822
PSI → PF	-0.539	0.294	0	2.451
PV → PF	0.195	0.434	0	3.068
PYR → PF	-0.014	0.200	0	1.474
SN → PF	0.383	0.261	0	2.328
WP → PF	-0.119	0.368	0	1.258

Ensuring the validity of our research hypotheses constituted a critical facet of our analysis, employing the bootstrapping procedure for model significance assessment [75]. Each path's value assumed the role of a path coefficient, elucidating the extent of influence exerted by one path on another [76]. Integrating a bootstrapping method within SmartPLS 3.2.7 with 5000 subsamples, we adhered to Rajbhandari et al.'s [77] recommendation for establishing t-statistics in proposition testing. The PLS model encapsulated psychological factors through a single structural equation, capturing internal relationships among constructs. Subsequently, we scrutinized route significance for the endogenous construct and standardized p-values [78].

Figure 3 and Table 7 encapsulate the outcomes of the bootstrapping analysis. The path analysis in Table 7 reveals a substantial positive correlation between Psychological Factors (PF) and Overall Sustainable Success (OSS), highlighted by a notable β-value of 0.849. This underscores the pivotal role of perceived psychological factors in shaping the overall sustainable success of the system. The path exhibits a low standard deviation (SD), and a statistically significant p-value of 0 affirms the robustness and significance of this relationship within the structural model.

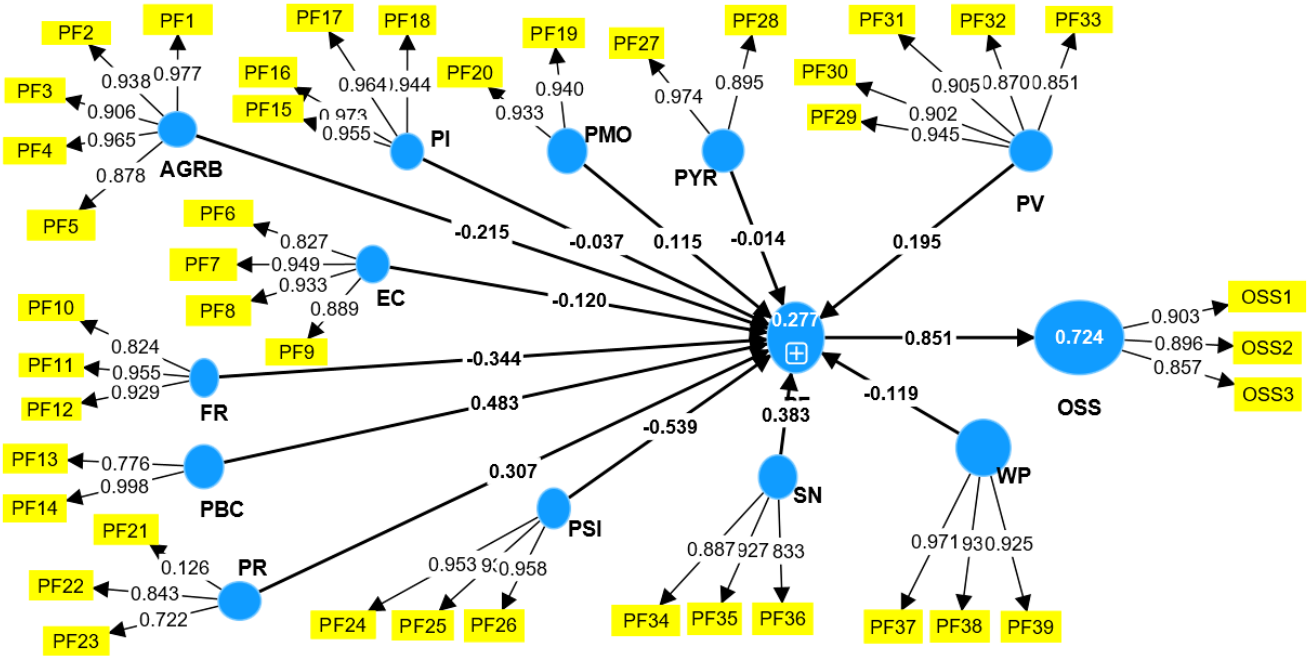

Figure 3. Structural Model

Table 7. Path analysis

Paths	β –values	SD	P-values
PF → OSS	0.849	0.056	0

5.4. Artificial Neural Network Approach

Drawing inspiration from Wang et al. [66], our study seamlessly transitioned to the next phase, leveraging the pivotal variables identified in the PLS-SEM path analysis as input neurons for an Artificial Neural Network (ANN) model (Figure 4). Deploying the SPSS neural network (NN) module, our analysis harnessed the capabilities of the ANN algorithm, renowned for capturing both linear and nonlinear connections without the constraints of normal distribution [79]. Incorporating a multi-layer perceptron (MLP) with a Feedforward Backpropagation (FFBP) algorithm involved three layers: input, hidden, and output. Ensuring robustness, SPSS 20.0 implemented tenfold cross-validation with a 90:10 data partition for training and testing, effectively preventing overfitting. The dynamic generation of hidden neurons and applying the sigmoid function to the hidden and output layers facilitated a comprehensive analysis. The importance of the predictor variable was established based on the number of non-zero synaptic weights connected to the neural network's hidden layer [80].

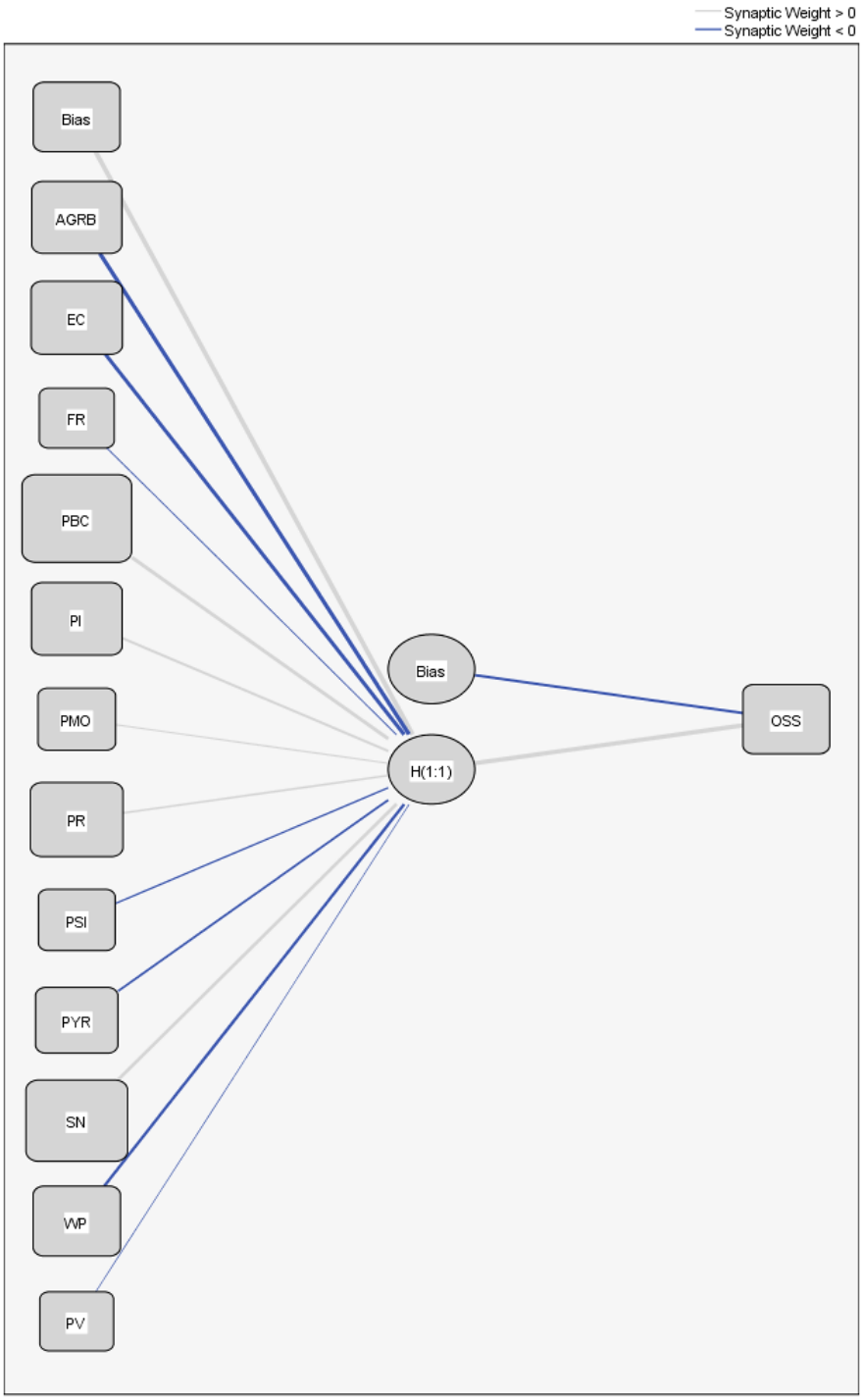

Figure 4. Network diagram of variables

Restricting consideration to the SEM-significant factors in the ANN models, our conceptual model is bifurcated into two ANN models, with Fig. 3 illustrating one of them. The model (output—OSS) featured twelve inputs: AGRB, EC, FR, PBC, PF, PI, PMO, PR, PSI, PV, SN, and WP. Adhering to established practices, a tenfold cross-validation approach was implemented, dedicating 90% of the data for network training and 10% for testing [66, 81]. The accuracy of NN models was assessed using the root mean square of error (RMSE), with Table 8 presenting RMSE values for training and testing datasets over ten iterations. Computed through the formula RMSE = √SSE / N, where SSE is the sum of square error and N is the sample size, the mean RMSE values for OSS on the training and testing datasets were 0.528 and 0.644, respectively. A sensitivity analysis (Table 9) was conducted to evaluate the predictive prowess of each input neuron, and normalized importance was derived by expressing each neuron's relative importance as a percentage of its maximum importance [80]. According to the ANN sensitivity analysis in Table 9, AGRB emerged as the most significant determinant of PF, closely followed by PBC and SN.

Table 8. RMSE values for PF

Neural network	Model Input:PF; Output:OSS	
	Training	Testing
	RMSE	RMSE
ANN1	0.488	0.445
ANN2	0.504	0.766
ANN3	0.602	0.702
ANN4	0.500	0.404
ANN5	0.613	0.681
ANN6	0.444	0.897
ANN7	0.568	0.695
ANN8	0.628	0.805
ANN9	0.454	0.530
ANN10	0.516	0.698
Mean	0.528	0.644
SD	0.067	0.157

Table 9. Sensitivity analysis

Neural network	Model (Output: OSS)											
	AGRB	EC	FR	PBC	PI	PMO	PR	PSI	PYR	SN	WP	PV
ANN1	0.093	0.098	0.039	0.162	0.095	0.049	0.102	0.045	0.065	0.134	0.083	0.035
ANN2	0.204	0.096	0.060	0.163	0.203	0.036	0.001	0.079	0.033	0.039	0.061	0.026
ANN3	0.107	0.084	0.002	0.123	0.071	0.147	0.050	0.058	0.165	0.137	0.028	0.027
ANN4	0.109	0.045	0.073	0.195	0.067	0.031	0.187	0.030	0.094	0.076	0.089	0.004
ANN5	0.122	0.084	0.046	0.139	0.069	0.127	0.042	0.058	0.056	0.088	0.081	0.087
ANN6	0.220	0.165	0.019	0.119	0.094	0.024	0.050	0.122	0.024	0.052	0.055	0.054
ANN7	0.065	0.040	0.063	0.069	0.034	0.047	0.150	0.058	0.084	0.190	0.064	0.137
ANN8	0.004	0.119	0.006	0.002	0.143	0.070	0.159	0.039	0.114	0.116	0.099	0.128
ANN9	0.112	0.095	0.120	0.070	0.070	0.039	0.027	0.088	0.052	0.108	0.111	0.108
ANN10	0.132	0.029	0.043	0.143	0.131	0.027	0.081	0.084	0.062	0.110	0.074	0.083
Average relative importance	0.12	0.09	0.05	0.12	0.10	0.06	0.08	0.07	0.08	0.11	0.07	0.07
Normalized relative importance (%)	12%	9%	5%	12%	10%	6%	8%	7%	8%	11%	7%	7%

6. Discussion

The path analysis illuminates intricate relationships among diverse factors impacting sustainable success (OSS). Anticipated Guilt and Regret Behavior (AGRB) displays a negative coefficient of -0.21, aligning with research emphasizing the detrimental effect of negative emotional states on organizational success [11]. Environmental Concerns (EC) and Fear of Negative Evaluation (FR) both exhibit negative coefficients of -0.19, resonating with studies advocating for heightened environmental awareness and the cultivation of risk-tolerant organizational cultures [2, 6]. Perceived System Integration (PSI) shows a negative coefficient of -0.18, underscoring the significance of cohesive organizational systems [7].

Psychological Factors (PF) assume a pivotal role, supported by a substantial positive coefficient of 0.78, reinforcing that psychological well-being significantly contributes to overall work performance [9]. Perceived Vulnerability (PV) and Perceived Yield Relevance (PYR) both display negative coefficients (-0.16 and 0.00, respectively). While PV aligns with studies highlighting organizations' vulnerability to disruptions [51], PYR's limited impact may be context-specific [50].

Subjective Norms (SN) exhibit a positive coefficient of 0.09, aligning with social influence theory and the role of subjective norms in shaping behavior [49]. Work Pressure (WP) shows a marginally positive association (0.01), indicating a nuanced relationship influenced by organizational support and individual resilience [48]. Autonomy (PF1), Competence (PF2), and Relatedness (PF3) demonstrate strong positive coefficients (0.98, 0.86, and 0.29, respectively), underscoring their crucial roles in enhancing job satisfaction, perceived competence, and positive workplace relationships [35, 41–44].

Achieving sustainable outcomes in organizations requires a nuanced approach that effectively balances emotional, environmental, and psychological factors. Organizations can institute support programs to promote emotional well-being and cultivate positive work environments that encourage open communication and recognition. Heightening environmental awareness involves implementing sustainability initiatives and engaging employees in eco-friendly practices [11]. Prioritizing psychological well-being entails offering flexible work arrangements, skill development opportunities, and creating policies that align with organizational values. A holistic strategy integrating emotional, environmental, and psychological considerations ensures a comprehensive approach to sustainability [7]. Additionally, leadership should role model balanced practices and continuous monitoring, adapting strategies based on feedback and data-driven insights. By consciously fostering harmony among these factors, organizations can enhance sustainable outcomes and elevate their workforce's overall well-being and performance [9].

These findings underscore the complex interplay of emotional, environmental, and psychological factors in shaping overall sustainable success. Addressing negative emotional states, fostering environmental awareness, and prioritizing psychological well-being emerge as crucial strategies for organizations seeking sustained success. The nuanced relationships with factors like work pressure and perceived vulnerability highlight the need for context-specific approaches to organizational management.

In response to the dynamic nature of emotional, environmental, and psychological factors, the study recommends that organizations employ a proactive and adaptive strategy to maintain sustainable success over time. A crucial aspect of this approach involves establishing continuous monitoring and evaluation systems to stay abreast of evolving trends and identify areas for improvement. Designing flexible strategies allows for nimble adjustments in response to changing circumstances, ensuring that organizational initiatives remain aligned with external and internal dynamics [50]. Additionally, organizations should implement responsive training and development programs, keeping the workforce equipped with evolving skills and knowledge. Agile environmental practices and a commitment to staying informed about sustainability standards contribute to organizational resilience in the face of changing regulations and market demands [51].

Regular feedback mechanisms, including employee surveys and support systems, provide valuable insights into evolving employee needs, facilitating adaptive organizational responses. Leadership training emphasizing adaptability and a proactive management style is crucial for navigating changing landscapes. Embracing technological innovations enhances efficiency and supports environmental initiatives, contributing to sustained success [44]. Benchmarking against industry best practices enables organizations to identify opportunities for improvement and adopt proven strategies. By embracing these adaptive measures, organizations can effectively navigate the dynamic interplay of factors, ensuring sustained success and resilience in the face of evolving challenges and opportunities in the business environment [35].

The present research employs a comprehensive theoretical approach to unravel the intricate dynamics shaping overall sustainable success (OSS) within organizations. Rooted in path analysis, the study explores the interconnections among various factors, including Anticipated Guilt and Regret Behavior (AGRB), Environmental Concerns (EC), Fear of Negative Evaluation (FR), Perceived System Integration (PSI), Psychological Factors (PF), Perceived Vulnerability (PV), Perceived Yield Relevance (PYR), Subjective Norms (SN), Work Pressure (WP), and dimensions of Autonomy (PF1), Competence (PF2), and Relatedness (PF3). Drawing from diverse theoretical frameworks such as emotional well-being, environmental consciousness, organizational culture, and self-determination theory, the research unveils nuanced relationships and associations. This theoretical approach provides a robust foundation for understanding the complex interplay of emotional, environmental, and psychological factors. It guides the development of strategies for organizational success by addressing negative emotional states, promoting environmental awareness, and prioritizing psychological well-being within the workplace.

6.1. Implication

Based on the findings, this study's implications extend to practical and theoretical domains. From a practical standpoint, organizations aiming for sustained success should prioritize strategies that address negative emotional states, foster environmental awareness, and enhance psychological well-being among employees. Implementing interventions to alleviate anticipated guilt and regret, promoting environmental consciousness, and providing organizational support to mitigate work pressure are crucial for creating a positive and sustainable workplace environment. Moreover, recognizing the importance of autonomy, competence, and relatedness in job satisfaction and positive workplace relationships underscores the need for practical interventions that enhance these dimensions for employees.

Theoretically, the study contributes to existing knowledge by unveiling the complex interplay of emotional, environmental, and psychological factors within organizational contexts. The findings enrich theoretical frameworks related to emotional well-being, environmental consciousness, organizational culture, and self-determination theory. This research suggests that integrating these theories can offer a more holistic understanding of the dynamics influencing overall sustainable success. Theoretical advancements also emphasize the need for context-specific approaches to organizational management, acknowledging the nuanced relationships among diverse factors. Overall, these implications guide practitioners and scholars in developing strategies and frameworks that foster sustained success, enhancing the well-being and effectiveness of organizations.

7. Conclusion

This study embarked on a quest to unravel the intricate relationships among emotional, environmental, and psychological factors shaping overall sustainable success (OSS) within organizational settings. The meticulous examination of variables such as Anticipated Guilt and Regret Behavior (AGRB), Environmental Concerns (EC), and Fear of Negative Evaluation (FR) significantly contributes to our theoretical understanding of organizational dynamics. The findings underscore the pivotal role of the interplay between emotional states, environmental considerations, and psychological factors in determining the overall sustainable success of an organization. Notably, the robust positive association between Psychological Factors (PF) and OSS emphasizes prioritizing employees' psychological well-being, offering practical implications for organizational leaders. Strategies recommended include fostering positive emotional climates, instilling environmentally conscious practices, and addressing negative emotional states within teams.

However, acknowledging the study's limitations is essential. The confined scope and potential variability of findings across industries and organizational structures may impact the reliability and applicability of the study's conclusions. Relying on self-reported measures introduces response bias, urging caution when generalizing results. To address these limitations, future research endeavors should broaden the scope, consider diverse organizational contexts, and employ mixed methods for a more comprehensive understanding.

Looking ahead, the study's future research directions hold promise. Delving deeper into how emotional, environmental, and psychological factors interact over time through longitudinal studies can provide valuable insights. Exploring interventions and strategies for enhancing overall sustainability in organizational settings is a compelling avenue. Specific examples of such interventions and their implementation remain a key focus for future inquiry. While shedding light on vital aspects of organizational dynamics, this study catalyzes future research to unveil additional layers of complexity and offer actionable insights for organizations navigating the intricate landscape of sustainable success.

8. Declarations

8.1. Author Contributions

Conceptualization, A.M.Z., A.F.K., and M.A.; methodology, A.M.Z., A.F.K., and M.A.; software, A.M.Z., A.F.K., and M.A.; validation, A.M.Z., A.F.K., and M.A.; formal analysis, A.M.Z., A.F.K., and M.A.; investigation, A.M.Z., A.F.K., and M.A.; resources, A.M.Z., A.F.K., and M.A.; data curation, A.M.Z., A.F.K., and M.A.; writing—original draft preparation, A.M.Z., A.F.K., and M.A.; writing—review and editing, A.M.Z., A.F.K., and M.A.; visualization, A.M.Z., A.F.K., and M.A.; supervision, A.M.Z., A.F.K., and M.A.; project administration, A.M.Z., A.F.K., and M.A.; funding acquisition, A.M.Z., A.F.K., and M.A. All authors have read and agreed to the published version of the manuscript.

8.2. Data Availability Statement

The data presented in this study are available in the article.

8.3. Funding

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8.4. Conflicts of Interest

The authors declare no conflict of interest.

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