Sequential Reactive Impact of Environmental Accounting & Employee Green Behavior on Environmental Performance at Al-ahli Bank in Kingdom of Saudi Arabia

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Abstract

The study aimed to investigate The Sequential Reactive Impact of Environmental Accounting & Employee Green Behavior on Environmental Performance at Al-ahli Bank in Kingdom of Saudi Arabia. The study followed the descriptive analytical method. The study sample consist of (75) Leadership Members. The results indicate that there is a significant sequential reactive impact of Environmental Accounting & Employees Green Behavior on Environmental Performance with a canonical correlation coefficient of (0.954). They also show that Employees Green Behavior partially mediates the relationship between Environmental Accounting & Environmental Performance with an indirect effect of (0.721). The study recommended there is a need to increase Leadership Members at Al-ahli Bank awareness in the importance of Environmental Accounting and Increasing Employees Green Behavior to reflex on improving Environmental Performance for the Bank.

Keywords: *Sequential Reactive Impact, Environmental Accounting, Employee Green Behavior, Environmental Performance, Al-ahli Bank in Kingdom of Saudi Arabia.*

Introduction

The field of environmental accounting has gained significant importance, as highlighted by Al-Dosary (2011: 3-4), following the call by the World Bank to incorporate environmental accounting into the national income or gross domestic product calculations, which measure the economic activity of a society.

With the emergence of the environmental era, organizations are compelled to adopt environmental management practices, employee green behaviors, and transition towards becoming green organizations. According to Thiagarajan et al. (2017) and Daood et al. (2022: 55), this is driven by international agreements and environmental treaties. The concept of the "green employee" and "green organizations" has gained prominence, as indicated by Fayyazi et al. (2015) and Mohammed (2020), making green behavior an important topic in the literature of human resource management and organizational behavior.

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Margretha and Sargin (2013) emphasize that focusing on environmental aspects in organizational performance ensures success. The financial performance of organizations should be linked with their ability to reduce various environmental impacts. Thus, measuring environmental performance has become as crucial as other management processes within the organization.

According to www.alahli.com, Saudi National Bank is the largest financial institution in Saudi Arabia and a prominent regional financial force. It plays a significant role in the economic transformation of the country, aiming to achieve a breakthrough in the Saudi banking sector and fulfill the goals of Vision 2030. Due to its substantial financial capabilities, the bank contributes to meeting the aspirations of projects supporting Vision 2030.

Research Problem:

As highlighted by Daood et al. (2022: 56), environmental accounting, green employee behavior, and environmental performance are important aspects of environmental management that require further investigation. However, in the Arab context and specifically in Saudi Arabia, research in this area is lacking. The study aims to investigate the interactive sequential impact of environmental accounting and green employee behavior on environmental performance.

Research Questions:

The primary research question addressed by this study is: What is the magnitude of the interactive sequential impact of environmental accounting and green employee behavior on environmental performance in Saudi National Bank?

Research Objectives:

The main objectives of this study are to determine the interactive sequential impact of environmental accounting and green employee behavior on environmental performance and to explore the mediating role of green employee behavior in the relationship between environmental accounting and environmental performance within Saudi National Bank.

Research Significance:

This study holds significance in both academic and practical domains. Academically, it fills a research gap that previous studies have not adequately addressed. It explores the relationships between environmental accounting, green employee behavior, and environmental performance, considering their interactive sequential impact and mediating role. The study contributes to the academic literature and provides a scientific reference for these relationships.

From a practical perspective, the study provides data and insights for decision-makers at Saudi National Bank, aiding them in making informed decisions. Furthermore, it sheds light on the importance of the interactive sequential impact of variables in solving environmental performance issues and emphasizes the significance of implementing environmental accounting and green employee practices.

Hypotheses:

The study hypotheses are as follows:

1. There is a statistically significant interactive sequential impact of environmental accounting and green employee behavior on environmental performance.

2. Green employee behavior mediates the relationship between environmental accounting and environmental performance within Saudi National Bank.
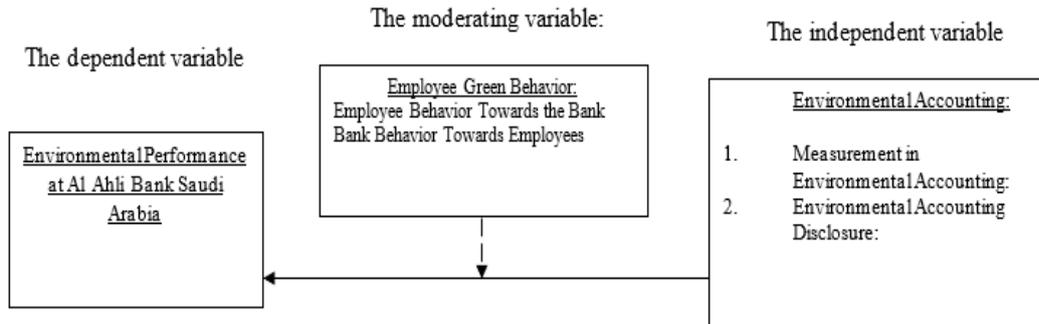
Figure 1: Theoretical Framework of the Study Prepared by the Research Team Based on Previous Studies, 2023, Riyadh.

Study Terminology:

A. Independent Variable: Environmental Accounting:

Defined by (Ross, 2010) and (Daood, et al, 2022: 58) as the measurement, disclosure, and reporting of the costs of activities, programs, economic, social, and environmental benefits of organizations as an expression of their social responsibility in developing their human resources, and their relationship with customers, the local community, and natural resources. It is measured in this study through accounting measurement and accounting disclosure.

B. Mediating Variable: Green Employee Behavior:

Described by (Armstrong, 2014) and (Zhang, et al, 2021) as a series of behaviors and practices adopted by employees in the business organizations' environment. These behaviors aim to protect the environment and promote sustainable development, which involves preserving organizational and environmental resources. This is achieved through employee awareness and their full knowledge of environmental protection and sustainable work practices. It is measured in this study through employee behavior towards the bank and the bank's behavior towards employees.

C. Dependent Variable: Environmental Performance:

Expressed by (Larson, 2006) and (Yasamis, 2011) as the organization's commitment to environmental standards and achieving environmental goals present in its strategies and environmental plans.

Study Limitations:

The study is limited by a time frame from 2015 to 2022, a geographical boundary within Saudi Arabian National Bank, and a human boundary represented by the bank's top management.

Previous Literature:

A. Previous Studies Related to Environmental Accounting:

Several previous studies have focused on the variable of environmental accounting as an independent variable, aiming to explore its relationship with other organizational variables and understand its important outcomes, including:

1. A study by (Ali, 2023): This study aimed to highlight the role of environmental accounting in improving the quality of accounting information to achieve sustainable development goals in industrial companies in Sudan. The results indicated a high level of environmental accounting application and its role in improving the quality of accounting information to achieve environmental development goals.

2. A study by (Qi, et al, 2021): Proposed a three-way disclosure model for environmental accounting involving companies, investors, and the media. It explored the impact of government incentives on encouraging companies, investors, and the media to disclose environmental information. The study recommended increasing attention to the practice and application of environmental accounting.

B. Previous Studies Related to Environmental Performance:

Many previous studies treated the financial performance variable as a dependent variable in the research, aiming to explore its relationship with other organizational variables and understand its important outcomes, including:

1. A study by (Wirman, et al, 2021): Explored the influence of green behavior in the workplace and innovative behavior on green performance, finding a positive effect of green workplace behavior on organizational green performance. The study recommended focusing on employee behaviors that improve organizational green performance.

2. A study by (Tayyoub, 2016): Aimed to highlight the contribution of environmental costs to improving the environmental performance of Algerian industrial institutions. The study recommended better attention to environmental performance indicators in Algerian industrial institutions.

3. Study (Hamad, 2014):

This study aimed to highlight the impact of measuring and disclosing environmental costs on enhancing environmental performance efficiency in Syrian industrial facilities. The results indicated that measuring and disclosing environmental costs have a positive effect on enhancing environmental performance efficiency. This is achieved through increasing production or sales, reducing environmental risks, enhancing occupational safety, and optimizing resource and energy use. The study recommended better attention to environmental performance indicators in Syrian industrial facilities.

C. Previous Studies Related to the Mediating Role of Green Employee Behavior:

Few previous studies have explored the variable of green employee behavior as a mediating variable, aiming to understand its relationship with other organizational variables and its significant outcomes, including:

1. A study by (Abdelhameed & Husain, 2022): Explored the interactive sequential impact of human resource management strategies and employee performance on organizational performance in the Ministry of Health and Social Development in the Northern State. The results indicated that employee performance mediates the relationship between human resource management strategies and organizational performance. The study recommended that the ministry strive for flexible, multi-skilled employees to enable quick response to environmental changes.

2. A study by (Daood, et al, 2022): Investigated the mediating role of employee green behavior in the relationship between environmental accounting and environmental performance in the public sector companies of the chemical industries in Egypt. The results showed a high level of employee green behavior, environmental accounting, and environmental performance. The study revealed a full mediating role of employee green behavior in the relationship between environmental accounting and environmental performance. It recommended better attention to human resource green behavior practices in the public sector chemical industries in Egypt.

3. A study by (Ibrahim, 2018): A study that aimed to propose a model for the causes and outcomes of green employee behavior and its mediating role in the relationship between its causes and environmental performance in Saudi industrial investment companies. The study found a significant positive influence of green human resource management practices, environment-directed transformational leadership, and environmental

awareness on environmental performance, with the mediation of employee green behavior. The study recommended better focus on the causes and outcomes of green employee behavior in Saudi industrial investment companies.

D. Unique Aspects of this Study Compared to Previous Studies:

1. Study Objective: Unlike most previous studies that covered various topics related to environmental accounting, this study specifically focuses on exploring the interactive sequential impact of environmental accounting and green employee behavior on environmental performance in the banking sector in Saudi Arabia.

2. Study Variables: This study examined three variables that, to the best of the researchers' knowledge, have not been studied together before: environmental accounting, green employee behavior, and environmental performance. This study represents one of the first attempts to study the relationship between environmental accounting and environmental performance with the mediating role of green employee behavior in the Saudi banking sector.

3. Study Context: This study stands out by examining environmental accounting, which is one of the first studies applied in Saudi Arabian National Bank. Environmental accounting has not been studied extensively in similar merged financial institutions within the Arab region. This rarity was observed by the research team during the study, as Arab studies on this topic were scarce, especially in merged financial institutions.

The Theoretical Framework of the Study:

1. Independent Variable (Environmental Accounting):

According to (Peter & Roger, 2000: 424), environmental accounting extends the traditional accounting system and is based on analyzing results and identifying the causes of costs to determine and allocate the environmental costs incurred by an organization. As stated by (Al-Deeb, 2006: 14), environmental accounting measures and allocates environmental costs that need to be considered in managerial decision-making to convey information related to the impact of the organization's products and activities on stakeholders (shareholders, bondholders, boards of directors, consumers, suppliers, local communities, and environmental groups). Environmental accounting involves measuring and allocating environmental costs to evaluate the organization's environmental management direction, providing a clear picture of the organization's efforts to protect the environment.

2. Interactive Sequential Impact and Mediating Role:

Interactive sequential impact, as defined by (Abdelhameed & Husain, 2022: 177), is the cumulative effect resulting from the integration of two variables on a single variable. The mediating role, as defined by (Sulaiman & Nurul Daim, 2021: 64), plays a fundamental role in creating a suitable environment to bridge gaps between the two sides of mediation, providing an appropriate advantage to business or non-business processes.

3. Mediating Variable (Green Employee Behavior):

According to (Wirman, et al, 2021) and (Saleem, et al, 2020), green employee behavior refers to the actions and behaviors employees undertake to promote environmental sustainability. It encompasses task performance, organizational citizenship behavior, and energy conservation practices such as turning off lights when leaving offices, resource-efficient resource use, remote conferencing, and paperless document handling. This behavior contributes positively to ethical aspects and has evolved into policies, programs, and strategies for sustainability, playing a crucial role in building organizational environmental sustainability.

4. Environmental Performance:

Environmental performance, as stated by (Daood, et al, 2022: 59), refers to the positive effects of an organization's activities on the environment. Green employee behavior positively influences environmental performance by affecting aspects like recycling, waste reduction, energy efficiency, and minimizing negative environmental impacts. Environmental performance entails safeguarding both internal and external environmental aspects.

In summary, the study's theoretical framework includes the independent variable of environmental accounting, the mediating variable of green employee behavior, and the dependent variable of environmental performance. The interactive sequential impact and mediating role play essential roles in explaining the relationships between these variables. Environmental accounting measures and allocates environmental costs, green employee behavior mediates the relationship between environmental accounting and environmental performance, and environmental performance represents the positive outcomes of organizational activities on the environment. This framework provides a comprehensive understanding of the mechanisms that link these variables in the context of the Saudi banking sector.

Applied Study:

1. Introduction to AlAhli Bank:

According to (www.alahli.com), AlAhli Bank is an extension of two established banks: AlAhli Commercial Bank and Samba Financial Group. AlAhli Commercial Bank, one of the oldest Saudi banks, started its activities under royal decree on December 26, 1953. Samba Financial Group (Samba) is a leading Saudi institution in the banking and financial services sector. The merger of these two entities resulted in the formation of one of the largest financial institutions in the Middle East. After the merger, AlAhli Bank became more committed to environmental standards, incorporating environmental goals into its strategies, and applying environmental accounting.

2. Environmental Accounting, Green Employee Behavior, and Environmental Performance at AlAhli Bank:

Following the merger, AlAhli Bank, with its enhanced commitment to environmental standards, incorporated environmental goals into its strategies and aims to achieve these goals. The bank practices environmental accounting, measuring the costs of environmental activities and disclosing them in financial statements and on its official website. The bank's leadership and human resources management play an important role in enhancing environmental performance through information exchange regarding environmental costs, encouraging suggestions for green practices, and participation in environment-friendly programs.

3. Field Study Procedures:

A. Study Method:

The study follows a descriptive-analytical approach, utilizing both theoretical and field aspects. The theoretical part involves description and logical analysis, while the field aspect includes surveys and statistical analysis.

B. Data and Information Sources:

The study relies on primary sources, including researchers and experts. Data collection methods include surveys and personal interviews. Secondary sources such as books, scientific research, studies, reports, journals, newspapers, seminars, and conferences related to the study's topic are also used.

C. Study Population and Sample:

1. Study Population:

The study population refers to all individuals sharing common characteristics whose observations are used to generalize results. The study focuses on the upper management of AlAhli Bank, comprising around 135 individuals. The researchers chose this group due to its significant role in implementing environmental accounting, green employee behavior, and improving environmental performance.

2. Study Sample:

The study employs a simple random sampling technique, determined using Cochran's formula, to select a suitable sample size from the total population of 135 individuals at AlAhli Bank. The chosen sample size ensures a representative subset for generalizing the study's findings.

In summary, the applied study delves into AlAhli Bank's merger process and the resultant emphasis on environmental standards. The bank's commitment to environmental goals, use of environmental accounting, green employee behavior practices, and improvement of environmental performance are explored. The study follows a methodological approach involving data collection through surveys, interviews, and secondary sources. The study population consists of the bank's upper management, with the sample selected using a simple random sampling technique for representativeness.

$$n = \frac{N \times p \times (1 - p)}{[[(N - 1) \times (d^2 \div z^2)] + p \times (1 - p)]}$$

Given that:

(n) = sample size, (N) = population size, proportion of neutral attribute availability (p) = 0.50, error margin (d) = 0.05, and (z) the standard score corresponding to the significance level of 0.95 = 1.96.

Calculating the sample size using the equation above yields a sample size of 100 individuals. The total number of distributed electronic surveys reached 90 lists (representing a 90% response rate), which were submitted through Google Forms. After sorting and reviewing the received lists, 15 lists were excluded due to incomplete data. This left 75 valid and analyzed lists, representing a 75% response rate from the total distributed lists. This response rate is considered high and meets the minimum response rate threshold of 75% (Alshehri & Morsy, 2021: 116).

Since the data for the current study was collected from the same source (upper management), using a self-report method, there is a potential for methodological bias. To address this concern, the research team conducted a one-factor univariate analysis using the Herman's Single Factor Test. The results indicated that the overall variance of the single variable is less than 50% (Saira et al., 2020), suggesting that the data in the current study is free from common method variance risks. The results of the Herman's Single Factor Test are presented below.

Table (1) Herman's Single Factor Test to Verify the Absence of Common Method Variance Risks in the Data

no	Variable	Data	Number of Items	Total Variance	Statistical
1	Independent	Environmental Cost Accounting Measurement	6	2.818%	Less than 50%
		Accounting Disclosure of Environmental Costs	6	3.041%	Less than 50%
2	Mediator	Employee Behavior towards the Bank	2	1.473%	Less than 50%

		Bank Behavior towards the Employee	4	2.462%	Less than 50%
3	Dependent	Environmental Performance	6	3.399%	Less than 50%

Source: Prepared by the researchers from the results of SPSS analysis, 2023, Riyadh.

A. Study Instrument

After exploring environmental accounting literature, green behavior of employees, and environmental performance, a questionnaire was developed for the purpose of the study. The questionnaire consisted of two parts: the first part covered participants' personal information, while the second part addressed substantive data. The second part included 24 items distributed across three dimensions of the study. The first dimension addressed environmental accounting, the second dimension covered the green behavior of employees, and the third dimension tackled environmental performance.

B. Measurement Scales of the Study Instrument

1. Environmental Accounting: It was measured using the scale developed by (Ali, 2023), which includes two dimensions that align with the current study's variables. The scale consists of 12 items, each measured on a five-point Likert scale.

2. Environmental Performance: This was measured using the scale developed by (Daood et al., 2022), which includes a single dimension relevant to the study's variables. The scale consists of 6 items, each measured on a five-point Likert scale.

3. Green Behavior of Employees: This was measured using the scale developed by (Daood et al., 2022), which includes two dimensions that align with the current study's variables. The scale consists of 6 items, each measured on a five-point Likert scale. Table 2 illustrates this.

Table (2): Tabulation of Questionnaire Items According to Study Variables

No.	Main Variable	Subvariable	Variable Type	Item Numbers	Number of Items
1	Environmental Accounting	Accounting Measurement of Environmental Costs	Independent	1 – 6	6
		Accounting Disclosure of Environmental Costs		7 – 12	6
2	Green Behavior of Employees	Employee Behavior towards the Bank	Mediating	13 – 14	2
		Bank Behavior towards the Employee		15 – 18	4
3	Environmental Performance	-	Dependent	19 – 24	6

Source: Prepared by the research team, 2023, Riyadh.

C. Data Analysis Method:

The Statistical Package for the Social Sciences (SPSS) software was utilized, in addition to the use of the Amos software supported by SPSS, to statistically analyze the study's data using various statistical methods. These methods included the Cronbach's alpha coefficient, Skewness test, frequencies and percentages, means, standard deviations, correlation coefficient, and path analysis.

D. Factor Analysis:

In this analysis, the strength of the questionnaire items was revealed through the use of Principal Component Analysis. The study relied on extracted proportions using the Principal Component Analysis method with SPSS Ver. (26) to construct a confirmatory factor analysis model. This was done to verify the internal consistency of the questionnaire items and to assess the sub-dimensions that measure the main variable.

Additionally, the process determined the saturation ratios of each item in the questionnaire. The saturation ratio was statistically set at 0.30, following the recommendations of statisticians (Zaghloul, 2003: 174), which is the ratio employed in the current study, as shown in Table (3) below.

Table (3) Saturation Ratios for Study Variables (Environmental Accounting, Employee Green Behavior, Environmental Performance)

Dimension	Item Number	Saturation Ratio	Dimension/Variable	Item Number	Saturation Ratio
Environmental Accounting Measurement Dimension	1	0.155	Employee Behavior Toward the Bank Dimension	13	0.737
	2	0.918		14	0.737
	3	0.918	Bank Behavior Toward the Employee Dimension	15	0.648
	4	0.694		16	0.791
	5	0.778		17	0.521
	6	0.759		18	0.502
Environmental Accounting Disclosure Dimension	7	0.501	Environmental Performance Variable	19	0.551
	8	0.818		20	0.471
	9	0.739		21	0.703
	10	0.759		22	0.724
	11	0.681		23	0.571
	12	0.575		24	0.379

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh.

It is evident from Table (3) that most questionnaire items achieved sufficient saturation rates for each variable in the study, indicating that the scale items are consistent. The saturation rates of the independent variable (Environmental Accounting) and the mediator variable (Employee Green Behavior) reflect their ability to have an impact on the dependent variable (Environmental Performance) in Alahli Bank of Saudi Arabia.

E. Validity and Reliability Testing of the Study Instrument:

To test the internal consistency and self-validity of the questionnaire items, the coherence of the questionnaire was evaluated by calculating the value of α (Alpha) to determine the coefficient of internal consistency and the square root to determine the coefficient of self-validity. Although there are no standardized rules for appropriate values of Alpha (α), practically, (α ≥ 0.60) is considered reasonable in research related to the humanities. The following table illustrates the coefficients of reliability and validity for the variables.

Table (4) Coefficients of Internal Consistency and Self-Validity (Cronbach's Alpha) for Study Variables and Dimensions in the Field Study Sample:

viable	Dimension / Axis	Number of Items	Internal Consistency	Self-Validity
independent Variable	Environmental Cost Measurement Dimension	6	0.709	0.842
	Environmental Cost Disclosure Dimension	6	0.795	0.892
	Environmental Accounting	12	0.865	0.930
Mediating Variable	Employee Behavior Toward Bank Dimension	2	0.825	0.908
	Bank Behavior Toward Employee Dimension	4	0.652	0.807
	Employee Green Behavior	6	0.787	0.887
Dependent Variable	Environmental Performance	6	0.843	0.918
	Entire Questionnaire	24	0.942	0.971

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh.

It is evident from Table (4) that the coefficients of internal consistency and self-validity indicate that the instrument has an overall stable and highly valid nature in terms of its ability to achieve the study's objectives. The total internal consistency coefficient of the questionnaire was (0.942), and the total self-validity coefficient was (0.971), falling within the range between zero and one, indicating the potential credibility of the results that the questionnaire might yield upon application.

1. Face Validity:

The research team assessed it by presenting the preliminary version of the questionnaire to a group of experts consisting of three professors from the faculty at Dangla University (Sudan), King Khalid University, and Imam Muhammad bin Saud University (Saudi Arabia). They specialized in business management, economics, accounting, and statistical analysis. The experts ensured that the questionnaire was filled in the presence of the research team representatives to clarify any items that might require explanation. This increased confidence in the accuracy of the results, ensuring their suitability for the study's purpose and verifying the comprehensiveness of the information covering the study's objectives and subject. The opinions of the experts were taken into account, leading to necessary deletions, modifications, and additions based on the provided suggestions. This led to the final version of the questionnaire (Sekaran, 1992).

2. Construct Validity:

After confirming the face validity of the questionnaire, the research team applied it to a sample of 10 individuals from the upper management of the target society for the study. This step aimed to assess the internal homogeneity among the items of the questionnaire using the normal distribution test for questionnaire data. This test is crucial for hypothesis testing since most parametric tests assume that the data distribution is normal (Sekaran & Bougie, 2010: 185). The following table presents the results of the normality test.

Table (5): Skewness Test for Testing the Normal Distribution of the Questionnaire Axes for the Pilot Sample

Variable	Dimension/Axis	Number of Statements	Skewness	Standard Error	Statistical Decision
Independent	Measurement of Environmental Cost Accounting	6	-0.181	+0.277	Follows Normal Distribution
	Measurement of Environmental Disclosure	6	-1.002	+0.277	
	Environmental Accounting	12	-0.558	+0.277	
Mediator	Behavior of Employee towards the Bank	2	-0.974	+0.277	Follows Normal Distribution
	Behavior of the Bank towards the Employee	4	-0.057	+0.277	
	Employee's Green Behavior	6	-0.379	+0.277	
Dependent	Environmental Performance	6	-0.726	+0.277	Follows Normal Distribution
Whole Questionnaire		24	-0.524	+0.277	

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh

It is evident that the skewness coefficients are within the range of (3±), and the standard error value (+0.277) indicates that the data follows a normal distribution. The questionnaire axes are also found to follow a normal distribution, with the skewness coefficients within the range of (3±). This level is adopted for the statistical treatment in this study. This indicates a strong correlation between the study variables, confirming their ability to explain the relationships between them.

Analysis and Hypothesis Testing:

A. Description of the Personal Data of the Sample Under Study:

Table (6) Distribution of Sample Items According to their Demographic Characteristics

Demographic Characteristics	Gender	Female	Male	Total
Age	30 and less than 40 years	7	10	17
	40 and less than 50 years	15	14	29
	50 years and above	18	11	29
Educational Level	University	19	18	37
	Above University	21	17	38
Academic Major	Business Administration	10	8	18
	Accounting	13	13	26
	Economics	10	6	16
	Other	7	8	15
Organizational Experience Duration	Less than 5 years	21	16	37
	More than 10 years	19	19	38

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh

Upon reviewing the results provided in Table (6), the following can be observed:

Regarding the age attribute: The results presented in Table (5) indicate that the number of individuals aged between 30 and 40 years is 17, with 7 females and 10 males. Additionally, the number of individuals aged between 40 and 50 years is 29, with 15 females and 14 males. Furthermore, the number of individuals aged 50 years and above is also 29, with 18 females and 11 males.

In terms of educational level: The results in Table (5) show that the number of individuals with a university education is 37, with 19 females and 18 males. Moreover, the number of individuals with education above university level is 38, with 21 females and 17 males.

Regarding academic major: The results presented in Table (5) reveal that the number of individuals specializing in Business Administration is 18, with 10 females and 8 males. Additionally, the number of individuals specializing in Accounting is 26, with 13 females and 13 males. Moreover, the number of individuals specializing in Economics is 16, with 10 females and 6 males. On the other hand, the number of individuals with other specializations is 15, with 7 females and 8 males.

Regarding organizational experience duration: The results in Table (5) indicate that the number of individuals with organizational experience less than 5 years is 37, with 21 females and 16 males. Furthermore, the number of individuals with organizational experience more than 10 years is 38, with 19 females and 19 males.

B/ Descriptive Analysis of Study Variables:

To determine the level of response from the sample individuals regarding their variables, the category length equation was used to measure the level of importance of the study variables. This was done according to the following equation (Hair, et al., 2010):

Degree of Application = (Upper Alternative Limit - Lower Alternative Limit) / Number of Levels (High; Medium; Low) = (5-1) / 3 = 1.33

Based on this, the decision for importance is as follows: Low importance from 1 - less than 2.33; Medium importance from 2.33 - 3.66; High importance from 3.67 and above.

Table (7) provides the descriptive analysis of study variables at Al-Ahli Saudi Bank.

Item	Dimension/Variable	Mean	Standard Deviation
1	Evaluation of the economic return from the bank's use of natural resources	4.36	0.650
2	Financial statements reflect available balances of natural resources at a specific date in the bank	4.23	0.669
3	Comparison between the value of damages and profits resulting from the bank's use of natural resources	4.23	0.669
4	Measurement of the cost of environmental waste disposal at the bank	4.27	0.644
5	The bank is concerned with measuring insurance costs for its human resources	4.04	0.965
6	The bank is concerned with measuring costs of programs that mitigate epidemics and chronic diseases	3.68	0.975
	Environmental Cost Measurement	4.13	0.495
7	The bank discloses its use of natural resources	4.00	0.986
8	The bank provides accurate information about the cost of complying with environmental and climate change regulations	4.01	0.908
9	Financial statements show environmental impacts resulting from the use of natural resources	4.09	0.961
10	Environmental reports provide accurate information about the bank's environmental activity	4.23	0.669
11	The bank provides appropriate information about equal employment opportunities for all employees	4.11	0.924
12	The bank discloses development and enhancement programs for its human capital	4.40	0.717
	Environmental Disclosure	4.14	0.611
	Environmental Accounting Variable	4.14	0.523
13	Employees strive to implement work according to the bank's plans and programs	4.25	0.856
14	There is commitment and adherence to labor laws and regulations by bank employees	3.88	0.944
	Organizational Behavior	4.07	0.773
15	The bank defines a specific and clear description of all functions in its organizational structure	4.16	0.754
16	There is an appropriate managerial control system at the bank	4.20	0.615
17	The bank provides fair reports about its human performance	4.24	0.589
18	The bank is committed to enhancing the level of social responsibility among its employees	4.23	0.669
	Behavior of the Bank towards Employees Variable	4.21	0.514
	Green Employee Behavior Variable	4.16	0.521
19	Performance is measured to identify performance gaps (expected performance - actual performance)	4.08	0.941
20	The bank provides a suitable organizational environment for creativity and innovation of its human capital	4.19	0.783
21	There are control measures on bank activities with a negative impact on the environment	4.01	0.908
22	The bank is concerned with climate change issues and their environmental impacts	4.09	0.961
23	The bank contributes with relevant parties to environmental conservation	4.27	0.644
24	The bank provides fair reports about its environmental performance	4.23	0.669
	Environmental Performance	4.14	0.620

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh

The table (7) presented the arithmetic means of the study variables, with the highest mean being for the Green Employee Behavior variable, followed by the Environmental Accounting variable, and the lowest mean for the Environmental Performance variable.

All of these arithmetic means have a high level of significance. This indicates that the majority of the respondents agree that the study variables are important. Decision-makers involved in the bank's business planning should take all of these variables into consideration. This finding is consistent with (Ali, 2023), and (Daood et al., 2022), but it differs from (Abdelhameed & Husain, 2022).

Testing the Hypotheses:

Hypothesis 1: There is a statistically significant interactive sequential effect of Environmental Accounting and Green Employee Behavior on Environmental Performance at a significance level of ($\alpha \leq 0.05$).

To test this hypothesis, the Canonical Correlation Analysis was used, and the strength of the correlation coefficient was evaluated based on the criteria outlined by Al-Fatlawi (2017: 33) as follows: weak if less than (0.10), moderate if between (0.10-0.30), and strong if higher than (0.30).

Table (8) Canonical Correlation Analysis Results for the Interaction Effect of Environmental Accounting and Green Employee Behavior on Environmental Performance at the Bank

Subordinate Variables	Canonical Loadings	Structural Weights	Dependent Variable	Canonical Correlation (R Canonical)	Determinant Coefficient (R^2 Canonical)
Environmental Measurement	0.930	0.888	Environmental Performance	0.954	0.910
Environmental Disclosure	0.953	0.909		Eigen value	10.136
Employee Behavior towards the Bank	0.738	0.704		(F)	117.374
Bank Behavior towards the Employee	0.796	0.759		Sig*	0.000
Proportion of Variance Explained by Subordinate Independent and Mediating Variables	91%		Proportion of Variance Explained by the Dependent Variable		67.2%

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh

The results of Table (8) indicated the presence of an interactive mediating effect of environmental accounting with its dimensions (Environmental Cost Measurement, Environmental Cost Disclosure) and the employee's green behavior with its dimensions (Employee Behavior Towards the Bank, Bank Behavior Towards the Employee) on the environmental performance of Al-Ahli Saudi Bank. The results showed that the sequential interactive relationship between the dimensions of environmental accounting and the dimensions of the employee's green behavior explained 91% of the variance in the environmental performance of the bank. Additionally, the variance explained by the environmental performance of the bank in relation to the sequential interactive effect between the dimensions of environmental accounting and the dimensions of the employee's green behavior was 67.2%. The Canonical loading rates ranged from 0.738 as the minimum to 0.953 as the maximum, indicating the saturation level of each dimension of environmental accounting and the employee's green behavior on the environmental performance. The factor structure values for the dimensions of environmental accounting and the dimensions of the employee's green behavior ranged from 0.704 as the minimum to 0.909 as the maximum, reflecting the relationship of each dimension of environmental accounting and the employee's green behavior in the root of the dependent variable (environmental performance).

The Canonical correlation coefficient (R Canonical) was 0.954, indicating that the value of the Canonical correlation coefficient exceeded the threshold of 0.30, suggesting a strong correlational relationship. The Canonical determination coefficient (R2 Canonical) was 0.91, meaning that 91% of the variations in the environmental performance of Al-

Ahli Saudi Bank were due to the variations in the sequential interactive effect of the dimensions of environmental accounting and the dimensions of the employee's green behavior. The analysis results also indicated that there is an unknown proportion of variance attributed to the dimensions of environmental accounting and the dimensions of the employee's green behavior in predicting the extent of the bank's environmental performance, with the unknown variance being approximately 9%. The analysis results showed that the value of the F-statistic (117.374) was significant at the significance level ($\alpha \leq 0.05$), confirming the existence of a significant interactive sequential effect of the dimensions of environmental accounting and the dimensions of the employee's green behavior on the environmental performance of Al-Ahli Saudi Bank.

This demonstrates that practicing environmental accounting (measurement and disclosure of environmental costs) enhances the green behavior of employees. Consequently, Al-Ahli Saudi Bank is able to achieve superior environmental performance within its work environment. This result underscores the importance of simultaneously implementing the dimensions of environmental accounting (measurement and disclosure of environmental costs) alongside the dimensions of the employee's green behavior (employee behavior towards the bank, bank behavior towards the employee) to improve the environmental performance of the studied bank. This validates the first hypothesis, which posits that there is a statistically significant interactive sequential effect of environmental accounting (measurement and disclosure of environmental costs) and the employee's green behavior (employee behavior towards the bank, bank behavior towards the employee) on the environmental performance of Al-Ahli Saudi Bank with a Canonical correlation coefficient of 0.954 at a significance level ($\alpha \leq 0.05$).

Hypothesis 2: The employee's green behavior mediates the relationship between environmental accounting and environmental performance of Al-Ahli Saudi Bank at a significance level ($\alpha \leq 0.05$). To test the second hypothesis of the study, the research team used the Multiple Hierarchical Regression model based on the Barone & Kenny approach. According to Barone & Kenny (1986) and Alshehri & Morsy (2021), three fundamental conditions must be met to establish mediation between two other variables:

1. There must be a significant relationship between the independent and mediating variables.

2. There must be a significant relationship between the mediating and dependent variables.

3. When the mediating variable is introduced, the direct relationship between the independent and dependent variables becomes non-significant (full mediation) or weaker (partial mediation).

To assess the presence of these three conditions, the research team utilized the Multiple Hierarchical Regression method and the Sobel test to examine the significance of the mediating variable. The results are presented in Table (9) and Figure (2) below:

Table (9) Standardized Values for Multiple Hierarchical Regression Analysis

pendent Variable	Model		Estimated Coefficients (Bi)	T-test Value	
				Value	Significance Level
Environmental Performance	First	Environmental Accounting Taken as a Whole	26.337	0.000	26.337
	Second	Environmental Accounting Taken as a Whole	12.382	0.000	12.382
		Green Behavior of the Employee Taken as a Whole	2.025	0.047	2.025

Source: Prepared by the research team from the results of the SPSS analysis, 2023, Riyadh
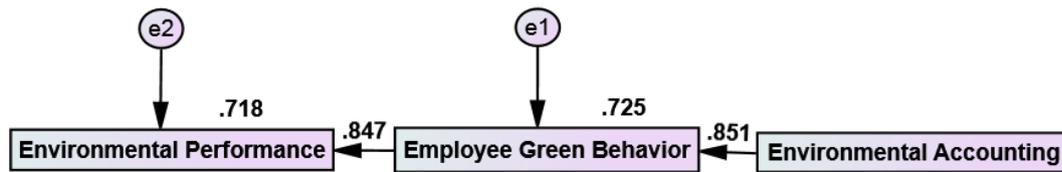
"Figure (2) Standardized Path Coefficients from the Analysis Prepared by the Research Team from the Results of Amos Analysis, 2023, Riyadh." in English.

Table (10) Results of Sobel Test

Independent Variable	Mediating Variable	Dependent Variable	Z Value	Significance Level
Environmental Accounting	Employee Green Behavior	Environmental Performance	9.797	0.000

Source: Prepared by the research team from the results of the Sobel Test Calculator, 2023, Riyadh.

To ascertain the presence of the three aforementioned conditions, reference was made to the results presented in Table 9 and Figure 2, which revealed the following:

- The statistically significant relationship between environmental accounting and the overall green behavior of the employees at Saudi Al-Ahli Bank was found to be positive and significant. The coefficient of influence was 0.851***, indicating a significant relationship between the independent and mediator variables. Thus, the first condition for mediation has been met.

- The statistically significant relationship between overall green behavior of the employees and the environmental performance of Saudi Al-Ahli Bank was found to be positive and significant. The coefficient of influence was 0.847***, indicating a significant relationship between the mediator and dependent variables. Thus, the second condition for mediation has been met.

- Upon introducing the mediator variable of overall green behavior of the employees and observing its effect, it was noticed that the relationship between environmental accounting and environmental performance remained significant. However, the coefficient of influence decreased to 0.835***, while the mediator's effect became significant with a coefficient of influence of 0.137***, as per the second model presented in Table 9. Thus, the third condition for mediation has been met. Therefore, based on what has been outlined, and in accordance with the assumptions of Barone & Kenny (1986), the employees' green behavior partially mediates the relationship between environmental accounting and environmental performance. Furthermore, a Sobel test (Sobel, 1982) was conducted to verify the mediation effect of the employees' green behavior on the relationship between environmental accounting and environmental performance. The obtained value (Z = 9.797***) in Table 10 confirms that the employees' green behavior partially mediates the relationship between environmental accounting and environmental performance, highlighting the importance of the employees' green behavior as a mediator.

In light of the obtained results indicating the sequential and interactive influence of environmental accounting and employees' green behavior on environmental performance, and the partial mediation of employees' green behavior in the relationship between environmental accounting and environmental performance, the study recommends the following to the top leadership of Saudi Al-Ahli Bank:

- Implement contemporary accounting systems such as environmental accounting to measure and disclose environmental costs in the financial statements published on the bank's website, as it is a critical element for improving the bank's environmental performance.

- Focus on strong practice of employees' green behavior, as it acts as a mediator in enhancing the bank's environmental performance. This behavior contributes to increased sales, resource optimization, and energy efficiency.

- Continue providing fair reports on environmental performance, reflecting the commitment to environmental responsibility, engagement with environmental issues, conservation, and climate change.

The results of the study, which indicated the sequential and interactive impact of environmental accounting and employees' green behavior on environmental performance, as well as the partial mediation of employees' green behavior in the relationship between environmental accounting and environmental performance, are in line with the findings of Abdelhameed & Husain (2022), Wirman et al. (2021), and Tayyub (2016). Furthermore, the results align with the study's assumptions, demonstrating that the employees' green behavior plays a significant role in mediating the relationship between environmental accounting and environmental performance, confirming the validity of the second hypothesis.

Discussion of Results:

The results of testing the first hypothesis demonstrated a statistically significant sequential and interactive impact of environmental accounting (measurement and disclosure of environmental costs) and employees' green behavior (employees' behavior towards the bank and the bank's behavior towards employees) on environmental performance according to the opinions of the sample respondents. This can be interpreted as increased attention to environmental accounting, applied on scientific bases, along with effective implementation of green behavior practices among employees generating a positive impact on improving environmental performance. This partially agrees with Abdelhameed & Husain (2022), Wirman et al. (2021), and Tayyub (2016).

The results of testing the second hypothesis indicated that employees' green behavior significantly and partially mediates the relationship between environmental accounting and environmental performance. This signifies that the top management's emphasis on green behavior practices among employees enhances the impact of environmental accounting implementation on the bank's environmental performance. This is consistent with Daood et al. (2022), Ibrahim (2018), and Norton et al. (2015).

Given the results obtained that highlight the sequential and interactive influence of environmental accounting and employees' green behavior on environmental performance, and the partial mediation of employees' green behavior in the relationship between environmental accounting and environmental performance, the study recommends the following to the top leadership of Saudi Al-Ahli Bank:

- Implementation of contemporary accounting systems such as environmental accounting to measure and disclose environmental costs in the financial statements published on the bank's website, as it is a critical element for improving the bank's environmental performance.

- Focus on strong practice of employees' green behavior, as it acts as a partial mediator in enhancing the bank's environmental performance. This behavior contributes to increased sales, resource optimization, and energy efficiency.

- Continue providing fair reports on environmental performance, reflecting the commitment to environmental responsibility, engagement with environmental issues, conservation, and climate change.

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