



Article

Investigating the Role of Public Relations Campaigns in Environment Awareness Among University Students

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Abstract

The current study investigates the effect of Public Relations Campaigns in environmental education and attitudes toward environmental sustainability, and behavioral intentions among university students in the United Arab Emirates and Egypt. The questionnaire was applied to a sample of 712 male and female students from Al Ain University in the UAE and Minia University in Egypt. Theoretically supported by the theory of planned behavior (TPB), structured questionnaires were used for data gathering. Data was analyzed using partial least square–structural equation modeling (SEM), which revealed the positive effect of Public Relations Campaigns on providing environmental education and awareness among UAE Emirati and Egyptian students. Results showed a positive effect of Public Relations Campaigns on the students' attitudes towards environmental sustainability. Finally, the effects of Public Relations Campaigns on the behavioral intention of the UAE Emirati and Egyptian students also remained positive. Overall, the results imply that Public Relations Campaigns significantly improve environmental education, shape positive attitudes toward environmental sustainability, and affect behavioral intentions among UAE and Egypt university students. These results emphasize the significance of PR initiatives in encouraging environmental awareness and promoting pro-environmental behaviors within educational settings. Also, the results highlight the effectiveness of Public Relations Campaigns in creating trust between organizations and the public while encouraging social responsibility. The study makes a dual contribution: theoretically, it expands knowledge on the relationship between public relations strategies and environmental awareness among young academics, a group influential in societal change. Practically speaking, it provides practical recommendations for educational institutions and environmental stakeholders on how to design more effective public relations campaigns to target university students and increase their level of environmental engagement.

Keywords: public relations campaigns; environmental sustainability; attitudes; environmental awareness; behavioral intention



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1. Introduction

Climate change has become one of the crucial concerns for the global community. Today, global warming is increasing due to the anthropogenic effects on the environment. Different communication efforts and approaches are used to spread awareness and mitigate the effects of global warming [1]. However, consider the lack of awareness as one of the significant challenges behind overcoming the concerns raised globally as a major environmental challenge [2]; consequently, considerable attention has been paid to the relationship between the environment and communication over the past decade. Notably, despite engaging in environmentally destructive practices, some companies attempt to compensate for their image through advertising and Public Relations (PR) campaigns focused on environmental awareness. Some critics argue that since the inception of PR in environmental campaigns and awareness, their primary purpose has been to serve political interests, even if they represent their stance on climate change and preservation.

Consequently, the historical narrative of Public Relations Campaigns is only considered as passing the message along with marketing the political agenda [3–6]. These campaigns are deemed as designing, conceptualizing, and executing political campaigns using strategic communication [7]. Nevertheless, environmental problems, fueled by events like oil spills, nuclear disasters, i.e., Chornobyl and Fukushima, and the overarching climate crisis, have become prominent in communication studies. The emergence of environmental communication has become a distinct area within the broader field of communication studies [8]. Two main strategies are evident when examining how mass media communicates about the environment. First, there is a focus on the media's role in sharing information about environmental issues, primarily through different traditional and digital platforms like the Internet and social media, which have extended the reach of environmental awareness efforts. Second, the nature and quality of the information are scrutinized, probing the media's stance and underlining concerns about 'greenwashing,' influencing environmental concerns for profit [9]. highlighted the consequential role of PR in shaping public responses to awareness campaigns. In addition, assessing the role of PR practices as gatekeeping and skilled communicators is important. These roles directly influence audiences, especially in environmental campaigns [4,10]. Thus, this research investigates the causal relationships between Public Relations Campaigns and environmental education, attitudes toward environmental sustainability, and behavioral intentions among university students in the UAE and Egypt. The primary objective is to examine how PR initiatives improve environmental education levels, shape positive attitudes toward environmental sustainability, and impact the student population's behavioral intentions related to environmentally friendly practices. The theoretical gap in this research lies in the narrow investigation of applying the Theory of Planned Behavior (TPB) within the Public Relations (PR) campaigns focusing on environmental awareness among university students. While TPB has been broadly used in understanding behavioral intentions and decision-making processes, its integration with PR strategies in the environmental discipline still needs to be studied. By filling this gap, the research aims to explain how TPB constructs, i.e., attitudes and behavioral intentions, interact with PR approaches to influence environmental education, attitudes towards environmental sustainability, and behavioral intentions among university students [11–13]. By analyzing these cause-and-effect relationships, this research seeks to provide practical insights into the effectiveness of PR strategies in encouraging environmental awareness and stimulating pro-environmental behaviors among Emirati and Egypt University students. The primary question of current research is as follows: How do Public Relations Campaigns affect the environmental awareness and behavioral intentions of university students in the UAE and Egypt?

2. Literature Review

A literature review helps the researcher become aware of the state of science at the point of their research, thus determining what they can add to the scientific and academic heritage [14]. In the current study, the literature review is divided into subsections as follows:

2.1. Theory of Planned Behavior

The Theory of Planned Behavior (TPB) theoretically supports the current research. The relevant theory by [15] indicates that changing behavior is related to shaping behavioral intentions, which is affected by individual attitudes, social norms, and perceived behavioral control (PBC). PBC, describing one's sense of agency, instantly affects behavior when it aligns with factual behavioral control, highlighting the importance of contextual factors. This perspective resonates with the Attitude–Behavior–Context (ABC) model [16], implying that behavior is not just dictated by attitudes but also by external conditions, i.e., the availability of resources like recycling bins and influencing agents. In addition, the Needs–Opportunities–Ability model of consumer behavior [17] highlights the importance of factors like the accessibility of environmentally friendly narratives and individuals' temporal and cognitive abilities. Ref. [18] expands on this by proposing that explanations of pro-environmental behavior should consider personal abilities and customary preferences in addition to the ABC model. However, ref. [19] comments on psychological models that treat “context” as an external driver of behavior, arguing that contextual factors are inseparable from the practices that shape behavior. This indicates that communication techniques informed by the Theory of Planned Behavior can effectively affect public attitudes and behaviors concerning the environment's awareness by addressing individual beliefs and acknowledging the importance of contextual factors and customary practices in shaping behavior.

The study relied on a modified model of the Theory of Planned Behavior (TPB), where the dimension of “Perceived Behavioral Control” was excluded due to its lack of relevance in the current cultural or local environmental context, and in accordance with the results of previous studies addressing similar environmental behaviors.

2.2. Environmental Education

The United Nations introduced Sustainable Education or Education for Sustainable Development (ESD) at Stockholm's Conference on Human Environment in 1972. This initiative sought to equip individuals to tackle current challenges by using innovative educational approaches like soft education and edutainment for the well-being of society [20]. ESD acknowledges the need for consequential transformations in knowledge, skills, values, and attitudes to succeed in today's democratic society. Its definition encompasses an interdisciplinary learning approach incorporating economic, social, and environmental factors into formal and informal curricula. This indicates a continuous adaptation to the ever-changing world. ESD uses different teaching techniques, i.e., stimulation, motivation, and inspiration, to affect behavior and immediate action. Its effectiveness lies in promoting competencies like critical thinking, decision-making, innovation, and teamwork [21]. In addition, a plethora of studies have highlighted that the role of PR in spreading environmental awareness is essential [22–24].

Recent studies also indicate that integrating environmental education into school curricula enhances students' readiness to make environmentally responsible decisions in their daily lives [25]. Furthermore, research emphasizes the importance of a practical, participatory approach to designing environmental activities, as experiential learning

contributes to instilling environmental values in learners [26]. Therefore, investing in environmental education is a strategic step toward a more conscious and sustainable society.

2.3. Role of Media Shaping Attitudes Towards Environmental Sustainability

Rapidly developing digital technologies over the past two decades have caused major changes in the field of media [27]. Anyone looking at the increasing reliance on public relations will realize that there is a link between this reliance and shaping individuals' attitudes towards various issues [28].

The media plays an increasingly important role in shaping public attitudes and behaviors toward environmental sustainability. With growing global concern about climate change and environmental degradation, digital platforms have become vital tools for spreading awareness and promoting sustainable behaviors. Recent studies indicate that environmental content in the media significantly influences purchasing intentions and environmental behaviors, especially among the younger generation. One study showed that interacting with online environmental communities promotes pro-environmental behaviors by increasing environmental engagement and concern [29].

This process helps determine subgroups' differences based on their characteristics, attitudes toward distinct issues, and behavioral retorts [30]. By embracing this approach, communication practitioners develop targeted directives and strategies for specific groups to affect their behaviors effectively. This approach is additionally used in environmental management studies, where an attitude-based segmentation strategy helps differentiate different publics based on their environmental attitudes and ensuing behaviors towards pro-environmental activities. The segmentation results allow communicators to prepare campaign messages that resonate with audiences' environmental attitudes, affecting their engagement in pro-environmental behaviors, i.e., bicycle commuting, and sustainable transport modes [31,32].

2.4. Behavioral Intentions

Running environmental awareness campaigns shows the potential of PR to affect audience behavior significantly [3]. PR practitioners generally use their strategies for message delivery and play a critical role in shaping audience behavior, attitudes, and perspective. This highlights the importance of PR in contributing to the success of current environmental awareness campaigns, mainly through strategic communication [33]. Hence, today, more PR approaches focus on green sustainability, introducing new ideas tailored for environmentally conscious consumers, usually featuring environmental appeals [34]. In their study (Ramadan et al) evaluated how the public perceives and responds to an environmental education campaign, and further identified effective implementation strategies with all stakeholders to ensure its sustainability. Their results showed that components of community participation, especially knowledge and perception, significantly contribute to preserving cleanliness and decreasing waste. Attribute statistical analysis revealed a p -value of 0.000 at a 5% significance level, indicating that a public participation of 26.4% affected community knowledge and perception of the environmental education campaign [35].

In general, some studies have examined the role of public relations and media campaigns in influencing environmental awareness among various segments of society, including university students. Indicated that interaction with environmental communities on social media promotes positive environmental behavior among young people, through indirect influence and observational learning within virtual networks [36], also highlighted the importance of environmental communication strategies in digital campaigns targeting university students, confirming that messages based on ethical values and individual responsibility are more effective in changing environmental attitudes and behaviors.

Despite these efforts, the literature reveals a research gap related to the lack of studies exploring the effectiveness of environmental public relations campaigns from the perspective of university students themselves, especially in Arab or developing contexts.

The significance of this gap becomes clear when we note that most studies focus on the theoretical aspect or on general digital campaigns, without delving into evaluating institutional campaigns within the university environment or analyzing student engagement with environmental messages. Accordingly, this study seeks to bridge this gap by exploring the impact of public relations media campaigns in promoting environmental awareness among university students, focusing on the campaign tools and the extent of student engagement, and its actual impact on their environmental attitudes and behaviors.

3. Methods

This study is a descriptive study that used a survey method for a sample of university students in Egypt and the Emirates. The study deployed structured questionnaires for data gathering based on items and scales adopted from the existing literature. For informed consent, participants were provided with details regarding the current research, aims, and importance of the findings. The respondents informed that their participation would be voluntary and that their data only used for the current study [37]. Data was evaluated and shortlisted for analysis using SPSS.V.25 for descriptive analysis [38], while partial least square–structural equation modeling (PLS-SEM) used [39].

4. Study Hypothesis

Based on the cited literature, this research proposes three preliminary hypotheses illustrated by the explanatory framework.

H1. *Public Relations Campaigns positively affect environmental education and awareness among university students in the UAE and Egypt.*

H2. *Public Relations Campaigns positively affect attitudes towards environmental sustainability among university students in the UAE and Egypt.*

H3. *Public Relations Campaigns positively affect behavioral intentions among university students in the UAE and Egypt.*

Figure 1 below illustrates relationship between public relations campaigns and Theory of Planned Behavior variables.

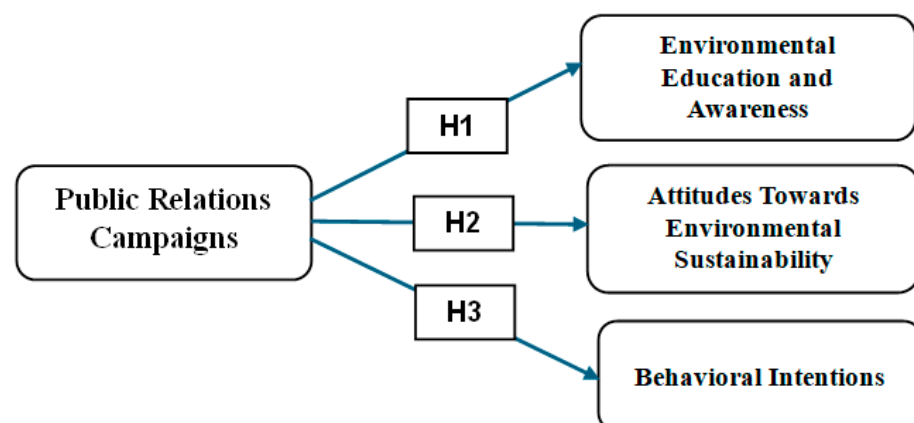


Figure 1. Explanatory framework of current study, which illustrates relationship between public relations campaigns and Theory of Planned Behavior variables.

5. Data Collection Tools

The researchers designed a questionnaire to collect data, which included various questions aimed at identifying the role of public relations campaigns in spreading environmental awareness among university students in both Egypt and the Emirates, and the role played by these campaigns in terms of Environmental Education and Awareness, Attitudes Towards Environmental Sustainability, and Behavioral Intentions. The researchers used previous studies and research related to the current study topic in designing the questionnaire [40,41].

Validity and Reliability

The internal consistency validity was calculated using the Pearson correlation coefficient as an indicator of the validity of the questionnaire. The significance values of the correlation coefficient of the questionnaire questions exhibited the following range: (0.62: 0.85). Thus, all correlation values indicate that the research instrument has achieved high validity.

Cronbach's alpha was used to verify of the questionnaire. The reliability values for the questionnaire questions reached (0.91).

6. Population and Sampling

The population of the current study involves university students currently enrolled at different levels at Al Ain University in UAE (both campuses) and Minia University in Egypt. Our study uses a published sample selection formula, where a sample size of 784 respondents with a 0.05 degree of error is expected [42]. The data was gathered, and collected responses were carefully evaluated. Table 1 shows the distribution of the research sample.

Table 1. Shows the demographic breakdown of the sample.

| Variables | Category | Frequency | % |
|-------------|---------------------------------------|-----------|--------|
| Country | Egypt | 412 | 57.90% |
| | UAE | 300 | 42.10% |
| Gender | Male | 547 | 76.70% |
| | Female | 165 | 23.30% |
| Age | 17–20 years | 466 | 65.40% |
| | 21–25 years | 246 | 34.60% |
| study major | Applied and Medical Sciences Sector | 410 | 57.60% |
| | Humanities and Social Sciences Sector | 302 | 42.40% |
| Total | | 712 | 100% |

The responses were collected, reviewed for redundancy, and analyzed. There were 784 received responses, of which 712 were found satisfactory, while 72 were incomplete responses. The response rate of 90.8% remained higher than the minimum response rate of 60.0% [43]. The percentage of Al Ain University in the Emirates was (300) respondents at a rate of 42.1%, while the sample size of Minia University in Egypt was about (412) at a rate of 57.9%. As for the sample distribution according to gender, the most significant percentage was males at 76.7% and females constituted 23.3%. Concerning the age group, 65.4% of respondents were 21–25 years old, and 34.6% were 17–20. As for the study major, 57.6% of the participants came from scientific colleges in the “Applied and Medical Sciences

Sector”. In comparison, 42.4% came from theoretical colleges in the “Humanities and Social Sciences Sector”.

The Egyptian sample was chosen because Egyptian youth constitute the largest proportion of the population. University students also represent a very large proportion of these youth. Furthermore, Egypt is one of the countries significantly affected by climate change, it hosted the Climate Summit in 2022, and it is a country deeply concerned with environmental issues and climate change and sustainability. The UAE, with equal importance, addresses the issue of environmental and climate development and sustainability. It hosted the United Nations Climate Change Conference in December 2023 and periodically holds awareness sessions for university students on environmental issues, environmental conservation, and support for sustainable development.

Data Normality Testing

The data normality was tested to evaluate the suitability of selected parametric tests in the current study [44]. Thus, the data normality was assessed using the Kolmogorov–Smirnov test. As shown in Table 2, the significant values of each variable are above the threshold of 0.05, suggesting that the data is not normally distributed, which was determined using non-parametric tests.

Table 2. Data normality testing.

| Variables | Kolmogorov–Smirnov | |
|--|--------------------|-------|
| | Statistic | Sig. |
| Public Relations Campaigns | 0.943 | 0.155 |
| Environmental Education and Awareness | 0.935 | 0.127 |
| Attitudes Towards Environmental Sustainability | 0.930 | 0.157 |
| Behavioral Intention | 0.959 | 0.128 |

7. Results

Structural Equation Modeling

As the current study involves partial least square–structural equation modeling, further analysis was conducted based on two sections, including inner-model and outer-model analyses [45]. First, the validity and reliability of the measurement tool was tested using Confirmatory Factor Analysis (CFA).

Table 3 represents the results of CFA. As shown, loading values of Public Relations Campaigns (PRC1, PRC2, PRC3, and PRC4) were relatively high, ranging from 0.725 to 0.798, indicating a robust consistency between the constructs. The AVE value of 0.577 implies that the Public Relations Campaigns explain 57.7% of the variance in the observed variables, indicating sufficient convergent validity. The high CR 0.758 and CA 0.845 values further establish the construct reliability.

Table 3. Confirmatory Factor Analysis (CFA).

| Constructs | Items | Loads | AVE | CA | CR |
|--|-------|-------|-------|-------|-------|
| Public Relations Campaigns | PRC1 | 0.798 | 0.577 | 0.758 | 0.845 |
| | PRC2 | 0.725 | | | |
| | PRC3 | 0.760 | | | |
| | PRC4 | 0.754 | | | |
| Environmental Education and Awareness | EDU1 | 0.716 | 0.556 | 0.744 | 0.834 |
| | EDU2 | 0.765 | | | |
| | EDU3 | 0.714 | | | |
| | EDU4 | 0.787 | | | |
| Attitudes Towards Environmental Sustainability | ATT1 | 0.620 | 0.527 | 0.722 | 0.765 |
| | ATT2 | 0.653 | | | |
| | ATT3 | 0.878 | | | |
| | ATT4 | 0.213 | | | |
| Behavioral Intention | INT1 | 0.026 | 0.522 | 0.726 | 0.742 |
| | INT2 | 0.330 | | | |
| | INT3 | 0.937 | | | |
| | INT4 | 0.761 | | | |

For Environmental Education and Awareness, items EDU1, EDU2, EDU3, and EDU4 show strong loadings, ranging from 0.714 to 0.787, demonstrating a strong internal consistency. The AVE value of 0.556 further implies that the construct explains 55.6% of the variance in the observed variables, showing satisfactory convergent validity. In addition, the high CR 0.744 and CA 0.834 values indicate adequate construct reliability.

Regarding the Attitudes Towards Environmental Sustainability construct, items ATT1, ATT2, ATT3, and ATT4 show loadings ranging from 0.213 to 0.878. While the loading of ATT4 is somewhat low, the other items indicate strong loadings, suggesting a generally strong internal consistency. The AVE value of 0.527 indicates that the construct explains 52.7% of the variance in the observed variables. Meanwhile, the 0.722 CR and 0.765 CA values confirm the construct reliability.

Finally, the items regarding Behavioral Intention (INT1, INT2, INT3, and INT4) show loadings ranging from 0.026 to 0.937. While the loading of INT1 is low, the other items show strong loadings. The AVE value of 0.522 implies that the construct explains 52.2% of the variance in the observed variables. The high values for CR, 0.726, and CA, 0.742, establish the construct reliability.

The acquired values for the SEM fit indices exhibit the adequacy of the model fit in this study [46]. The Standardized Root Mean Square Residual (SRMR) value of 0.074 falls below the threshold of 0.08, suggesting an acceptable fit between the proposed model and the observed data. The Tucker–Lewis Index (TLI) value of 2.150 surpasses the threshold of 0.90, indicating a good fit of the model to the data. The Chi-square value of 1.041 is below the threshold of 3.0, indicating a non-significant difference between the model-implied covariance matrix and the observed covariance matrix. In addition, the Normed Fit Index (NFI) value of 0.926 falls within the range of 0 to 1, explaining the variance of the observed data. Altogether, the acquired values indicate a generally acceptable fit of the SEM model to the data. Table 3 represents the findings of goodness of fit.

A number of corrective actions were taken to improve the quality of the model. These included deleting items with low factor loadings, re-examining the relationships between variables based on modification indices, and simplifying the model structure to align with the theoretical framework. Data quality and consistency with the underlying statistical hypotheses were also confirmed. After applying these modifications, the model was re-

estimated, and improved fit indices emerged, enhancing the model's reliability and the validity of the results obtained.

The discriminant validity is assessed using a two-step approach, including the Fornell–Larcker criterion and the Heterotrait–Monotrait ratio scale [47]. As shown in Table 4, the diagonal values describe each construct's square roots of the AVEs. It is found that all diagonal values are more significant than the off-diagonal values, suggesting discriminant validity among the constructs. Further, the HTMT values should be less than 1 to confirm discriminant validity. Here, the HTMT values for all constructs are less than 1, indicating acceptable discriminant validity among the constructs in the model. Table 5 provides the summary of Heterotrait–Monotrait ratio.

Table 4. Goodness of fit.

| | Obtained Values | Criterion |
|------------|-----------------|-----------|
| SRMR | 0.074 | <0.08 |
| TLI | 2.150 | >0.90 |
| Chi-square | 1.041 | <3.0 |
| NFI | 0.726 | b/w 0–1 |

Table 5. Fornell–Larcker criterion.

| | Attitudes | Behavioral Intention | Education and Awareness | Public Relations Campaigns |
|----------------------------|-----------|----------------------|-------------------------|----------------------------|
| Attitudes | 0.326 | | | |
| Behavioral Intention | 0.318 | 0.022 | | |
| Education and Awareness | 0.446 | 0.373 | 0.246 | |
| Public Relations Campaigns | 0.244 | 0.333 | 0.443 | 0.076 |

The (HTMT) criterion was used to assess the discriminant validity of the latent variables in the conceptual model. The HTMT value is an important indicator to ensure that each variable measures a distinct dimension, independent of the other variables. Based on accepted values in the literature (less than 0.85 or 0.90), all bivariate correlations between the variables fell within the acceptable range, indicating strong discriminant validity.

The HTMT value between “Behavioral Intention” and “Attitudes” was 0.510, a moderate value indicating a moderate conceptual relationship, but still within the permissible limit. The correlation between “Education and Awareness” and “Behavioral Intention” was 0.078. Similarly, the correlation between “Media Campaigns” and “Attitudes” (0.362) and its relationship with “Behavioral Intention” (0.512) also strengthens the discriminant validity.

These results indicate that the variables in the model do not suffer from conceptual overlap, and that each measures a unique theoretical dimension, which enhances the accuracy of the results obtained in the structural analysis of the model. This is also confirmed by Table 6.

Table 6. Heterotrait–Monotrait ratio.

| | HTMT |
|--|-------|
| Behavioral Intention <-> Attitudes | 0.510 |
| Education and Awareness <-> Attitudes | 0.400 |
| Education and Awareness <-> Behavioral Intention | 0.780 |
| Public Relations Campaigns <-> Attitudes | 0.362 |
| Public Relations Campaigns <-> Behavioral Intention | 0.512 |
| Public Relations Campaigns <-> Education and Awareness | 0.242 |

Before conducting the path analysis, the predictive power of the independent construct was examined [48]. As shown in Table 7, Attitudes show that the Public Relations Campaigns explain 29.6% of the variance. For Behavioral Intention, Education, and Awareness, Public Relations Campaigns show 18.8% and 19.6% of the variances, respectively. Overall, moderate variance is explained by the Public Relations Campaigns. The obtained R-square values imply that the independent variable collectively explains moderate variability in the dependent variables.

Table 7. Coefficient of Determination R^2 .

| Constructs | R-Square |
|-------------------------|----------|
| Attitudes | 0.296 |
| Behavioral Intention | 0.188 |
| Education and Awareness | 0.196 |

Finally, the path analysis as shown in Figure 2 is conducted to test the proposed effects of Public Relations Campaigns on Environmental Education and Awareness, Attitudes Towards Environmental Sustainability, and Behavioral Intention. As indicated in Table 8, Public Relations Campaigns significantly affect Environmental Education and Awareness ($\beta = 0.443$, $p < 0.001$), implying that Public Relations Campaigns affect environmental education and awareness. This means that the first hypothesis was confirmed. Concerning the effect of Public Relations Campaigns on Attitudes Towards Environmental Sustainability, the obtained values $\beta = 0.544$, $p < 0.001$ suggest that Public Relations Campaigns significantly affect attitudes towards environmental sustainability. Finally, it is found that Public Relations Campaigns significantly affect Behavioral Intention ($\beta = 0.433$, $p < 0.001$), indicating a robust influence of Public Relations Campaigns on behavioral intention toward environmental sustainability. Altogether, these results supported assuming the positive effects of Public Relations Campaigns in the current research study.

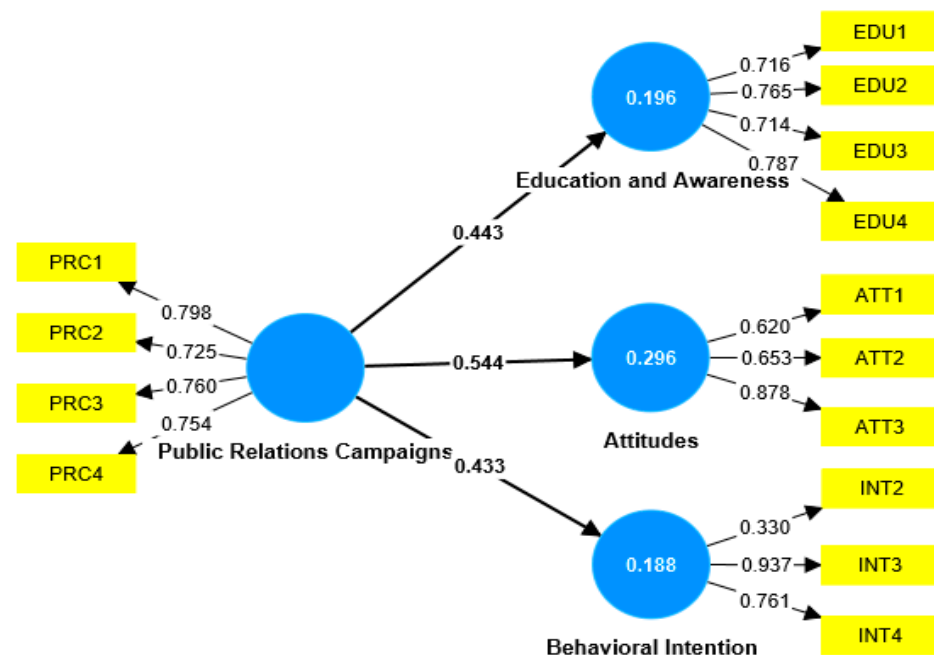


Figure 2. Results of path analysis.

Table 8. Hypotheses testing.

| Hypotheses | β | Mean | SD | <i>t</i> | <i>P</i> |
|---|---------|-------|--------|----------|----------|
| Public Relations Campaigns → Environmental Education and Awareness | 0.443 | 0.597 | 0.043 | 13.517 | 0.000 |
| Public Relations Campaigns → Attitudes Towards Environmental Sustainability | 0.544 | 0.706 | 0.061 | 11.403 | 0.000 |
| Public Relations Campaigns → Behavioral Intention | 0.433 | 0.574 | 0.0754 | 11.635 | 0.000 |

The second hypothesis, “Public Relations Campaigns positively affect attitudes towards environmental sustainability among the university students in the UAE and Egypt”, also remained supported. Study respondents agreed that Public Relations Campaigns are critical in shaping positive attitudes toward environmental sustainability and preservation efforts. They noted that the effect of Public Relations Campaigns was observed in the public’s adoption of environmentally sustainable behaviors. In addition, respondents expressed that Public Relations Campaigns encourage a culture of environmental accountability and awareness, leading to augmented support for sustainability initiatives. The information shared through Public Relations Campaigns perceived positively affected environmental sustainability attitudes among the respondents. These findings are also consistent with the argumentation in the current literature [49,50]. For example, Barter argues that Public Relations Campaigns aim to lead thought processes and actions toward a distinct goal. How individuals internally process the communicated content affects changes in their attitudes, beliefs, and intentions. This inner processing of communication has been a preceding area of interest for social cognition and communication research scholars [51].

Finally, regarding the third hypothesis, “Public Relations Campaigns positively affect behavioral intentions among the university students in the UAE and Egypt”, the respondents agreed that Public Relations Campaigns significantly affect their intentions to engage in environmentally friendly behaviors, i.e., recycling and reducing energy consumption. They also revealed that the information provided through Public Relations Campaigns positively influences their choices for adopting sustainable lifestyle choices. In addition, respondents expressed that Public Relations Campaigns promote translating their positive perspectives toward environmental sustainability into concrete actions. They reported that orientation to Public Relations Campaigns enhances their participation in pro-environmental activities, reflecting intentions to contribute to environmental conservation efforts. Thus, these results are consistent with the proposition to run Public Relations Campaigns for environmental sustainability and preservation. As Megantari noted, environmental communication is a rudimentary tool for promoting practical efforts to improve human understanding of the environment and human interactions with nature [52]. It serves as a medium through which environmental issues are created and different societal responses are negotiated [7].

8. Discussion

The current study examined the effect of Public Relations Campaigns on environmental awareness and behavioral intentions among university students in the United Arab Emirates (UAE) and Egypt. Findings affirmed the influential role of PR initiatives in improving environmental education levels [52], encouraging positive attitudes toward environmental sustainability, and shaping behavioral intentions supporting environmen-

tally friendly practices among Emirati university students [53]. The results highlight the effectiveness of PR strategies in supporting environmental awareness and promoting eco-conscious actions among the students, presenting practical insights for improving Public Relations Campaigns to facilitate environmental sustainability in educational contexts. The study respondents agreed that Public Relations Campaigns are essential for sustaining positive relationships between organizations and the public. They reported that Public Relations Campaigns significantly influence perception and attitudes toward different issues. Respondents further expressed that Public Relations Campaigns effectively distribute valid information and build trust between organizations and the public. They also stressed the significance of Public Relations Campaigns in addressing societal concerns and promoting social responsibility among organizations and the public.

Regarding the first hypothesis, “Public Relations Campaigns positively affect environmental education and awareness among the university students in the UAE and Egypt,” the respondents agreed with the positive role of Public Relations Campaigns. According to the respondents, Public Relations Campaigns significantly improved awareness about environmental problems and promoted environmentally friendly behaviors. They also implied that sharing information through Public Relations Campaigns positively affected environmental education and awareness. Further, respondents noted that Public Relations Campaigns engaged and familiarized the public with the importance of environmental conservation and sustainability. The impact of Public Relations Campaigns on environmental education and awareness is apparent in the positive changes in public attitudes and behaviors toward environmental preservation, as reported by the respondents. As Sesen noted, PR liaises between modern communication channels and societal groups, seeking to present concepts to the public’s awareness [54]. Prioritizing the environment, PR enables brands, charities, and NGOs to improve their visibility and emphasize their significant efforts to lessen their environmental footprint or promote positive behavior [55].

The study shows that using the Theory of Planned Behavior (TPB) was useful for understanding how campaigns influence environmental awareness and behavior.

The theory emphasizes the relationship between attitudes, behavioral intentions, and actual behavior. This is an important scientific addition, as public relations practitioners can build their campaigns on a coherent theoretical model that can be measured and evaluated. For example, instead of focusing solely on disseminating information, they can work to enhance the audience’s intention to change as an intermediate step toward actual change.

Recommendations Drawn from the Results: Based on the Above, the Following Recommendations Can Be Made

- Design environmental campaigns based on TPB, focusing on modifying attitudes and enhancing behavioral intentions.
- Develop content that targets students’ environmental values and beliefs, such as individual responsibility toward the environment.
- Focus on measuring behavioral, not just cognitive, impact after campaigns.
- Integrate public relations with behavioral science to formulate more impactful messages.

9. Conclusions

The current study underlines the significance of PR strategies as influential tools for advancing environmental education and encouraging pro-environmental behaviors among myriad audiences, especially among university students. Our study hypotheses highlight the prospect of strategic communication efforts to positively influence attitudes toward environmental sustainability and encourage meaningful behavioral changes. Finally, our findings highlights the applicability of TPB within Public Relations Campaigns, expanding

the understanding of how communication approaches can effectively navigate environmental awareness and action. By recognizing the interconnectedness between attitudes, behavioral intentions, and PR approaches, scholars and practitioners can develop more targeted and practical strategies to address environmental concerns and encourage sustainable behaviors among stakeholders.

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