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# Are Young People Ready to Have a Pro-Environmental Sustainable Behaviour as Tourists? An Investigation of Towel Reuse Intention

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**Abstract:** Tourism, one of the economic sectors that has experienced great development in recent decades and must face unexpected challenges related to the evolution of the global context, needs a sustainable approach to harmonise its effects and impact on the natural and social environment. The aim of this research was to investigate the pro-environmental behaviour of young tourists in hotels versus at home and the main influencing factors of behavioural intention to reuse towels in hotels. The primary data were collected using a survey that was applied to Romanian young people. Eight hypotheses were formulated and tested through paired samples *t*-tests, a correlation analysis and a hierarchical multiple regression analysis. Our results showed the higher pro-environmental conduct of young guests at home than in hotels, both through their general behaviour regarding the reduction of resource consumption and through their specific behaviour of reusing towels. Our empirical findings also highlighted that tourists' behavioural intention to reuse towels was positively influenced by an eco-friendly attitude, pro-environmental past experiences and habits to reuse towels at home. In order to achieve sustainable tourism, hotel management should convince guests to bring their ecological habits with them, and educational institutions should use specific methods of raising awareness among young people about an environmentally friendly attitude.

**Keywords:** pro-environmental behaviour; young tourists; hotel guests; towel reuse; eco-friendly attitude; past experience; habits; hierarchical multiple regression analysis

# 1. Introduction

Studies conducted in the EU on tourism reveal that it is one of the largest and fastest-growing economic sectors [1]. At the same time, it is not only a very dynamic but also a very complex sector, which contributes to both economic growth and socioeconomic development, generating more and better jobs and improving people's living standards [2–5]. According to the latest statistics [6], in just ten years (2009–2018), international tourist arrivals have increased significantly globally (by 57.55%, from 0.89 billion to 1.407 billion), and this number is estimated to be much higher (1.8 billion) by 2030. As a result of this significant growth, there are increasingly more effects in different areas, with consequences in terms of the influence of tourism consumption on the environment and the disruption of various social and economic variables in the most frequented destinations [5]. Therefore, this increase must impose a greater responsibility for ensuring an efficient management of the destination place in order to minimise the adverse effects of tourism [2]. It is known that each tourist accommodation involves a high consumption of different natural resources [4] and that, in general,

tourism can lead to water and air pollution, the depletion of natural resources, increased waste and, implicitly, global warming [7].

Since the beginning of the COVID-19 pandemic, the tourism sector has been severely affected. Although travel has greatly diminished during 2020, people's desire to travel has increased in intensity, precisely due to the restrictions imposed on travelling. In this challenging and ever-changing context, ensuring sustainable tourism as the type of tourism that makes optimal use of resources, respects host communities and ensures viable, long-term economic operations, generating benefits equitably distributed among all stakeholders [8] is the most critical point ever requested [2]. The ecological sustainability of tourism depends to a large extent on tourist behaviour, and, therefore, convincing tourists to behave more ecologically would lead to substantial environmental benefits [7].

Pro-environmental behaviour (PEB) is seen as that behaviour that seeks to minimise the negative impact of actions on the natural and man-made worlds (e.g., minimising resource and energy consumption, nontoxic use of substances and reducing waste production) in a more conscious and responsible way [9]. Pro-environmental behaviour can also be defined as actions of individuals to support the environment or as a type of behaviour that harms as little as possible or even benefits the environment [10].

Understanding and influencing the pro-environmental behaviour of tourists, as hotel guests, are vital for assuring the environmental sustainability in the hotel industry [11]. Given that pro-environmental behaviour involves several dimensions and determinants [7,9,10,12], we must be aware that changing human conduct is a continuous challenge, studied in the fields of psychology, economics and consumer behaviour [13], requiring a very complex effort [14].

Pro-environmental behaviour is determined by a complexity of factors. In identifying the determinants, the researchers [7,9,10,12,14] analysed a number of factors in the context of behavioural theories and models, e.g., the theory of planned behaviour, the theory of social identity, the theory of attribution, the theory of norm activation, the theory of cognitive dissonance, the theory of value-belief-norm, etc. Thus, three categories of factors were identified, such as internal ones (attitude, perceived barriers, perceived support, etc.); external factors (economic, sociocultural, institutional and political factors) and demographic characteristics.

In this paper, from the multitude of factors, we focused on a few main ones that can influence the pro-environmental behaviour of young people as hotel guests (the eco-friendly attitude, social norms, personal moral norms, past pro-environmental experience and behavioural habits–ecological conducts in everyday life). These are factors of great importance in explaining the intention and pro-environmental behaviour of hotel guests [11,15–19].

According to meta-analyses made by Morren and Grinstein [20], the driving forces of environmental behaviour substantially differ across countries, environmental behavioural intentions being less likely to translate into actual conduct in less-developed countries (like Romania compared to the EU developed countries). The most recent EU report regarding "Attitudes of European citizens towards the environment" [21] showed that Romanian people agree, to a smaller extent relative to EU citizens (78% of Romanian against 87% of EU citizens—average EU level), that they can have an important role in protecting the environment through personal actions such as separating waste for recycling, cutting down energy consumption and water consumption, buying local products, etc. [21]. Moreover, the level of agreement has decreased in Romania (78% in 2017 compared to 82% in 2014). These statistical data placed Romanians among the EU citizens with the smallest personal actions to tackle environmental issues and highlighted the need to change the environmental behaviour of Romanian consumers so that they become more eco-friendly.

There is a lot of research that focuses on general pro-environmental behaviour rather than specific behaviours in certain locations, with a limited body of research investigating specific pro-environmental behaviours among hotel guests [10]. Additionally, there are a lot of studies in developed countries on the influence of social norms on pro-environmental behaviours but a lack of such studies in developing countries [22]. As far as we know, no study has empirically approached the intentions of specific

pro-environmental behaviours, such as reusing towels in hotels in Romania. Therefore, this paper fills this gap, focusing on this specific pro-environmental behaviour of young Romanian tourists.

The aim of the research is to investigate the main determinants of the specific pro-environmental behavioural intentions of young Romanians to reuse towels when staying in hotels. Additionally, this research analyses pro-environmental behaviours both at home and in hotels in order to find some ways to translate the pro-environmental behaviours at home into pro-environmental behaviours in hotels. Finally, we highlight the specific measures that should be taken by both hotel managers and educational institutions to improve the pro-environment behaviours of youngsters.

# 2. Literature Review

### 2.1. Pro-Environmental Behaviours in Hotels Versus at Home

Research shows that the habitual process, which refers to how often eco-friendly behaviours are performed in everyday life, is one of the main elements that can explain why travellers make better eco-decisions and behave in environmentally responsible ways [11]. There are some eco-friendly habits in everyday life such as reusing the towel, turning off the lights when leaving a room and turning off the shower/tap water while soaping or brushing teeth—behaviours that are abandoned during a trip [17].

Empirical research [7,17,19,23–27] highlighted that the environmental behaviours of people significantly differ depending on their settings (at home or on holiday). Studies have shown that the pro-environmental behaviours of tourists are lower in hotels than at home [10,17,28]. Miao and Wei [26], based on a comparative analysis, found that there was a significantly higher level of pro-environmental behaviours within the household than in a hotel settlement. Moreover, they showed that normative motives mainly influence pro-environmental behaviours in a household setting, while, in a hotel settlement, the strongest predictor of such behaviour is given by hedonic motives.

Carr [24], exploring the behaviours of young people while on holiday in comparison with their behaviours in their place of origin, pointed out that, while on holiday, they are inclined to behave more liberally and hedonistically than when they are at home. Apparently, the way they behave on holiday follows the same pattern as their home behaviours, and it is not distinct from them [24]. At the same time, contradictory aspects between environmental concerns and consumer decisions in everyday and tourist contexts were identified by Higham, Reis and Cohen [29], even if there are climate concerns among travellers.

Dolnicar [28] revealed that the differences between pro-environmental behaviours at home and on vacation can be explained by infrastructure, taking into account that, at home, people create the infrastructure they need and behave in an ecological way, but, on holiday, they must adapt to the infrastructure provided, which can act as a barrier to pro-environmental behaviours. In this regard, Baker et al. [25] identified the following barriers to the adoption of ecological practices in hotels (including the practice of towel reuse): the perception of luxury, comfort and cost reduction.

Barr et al. [23], analysing the link between pro-environmental practices at home and outside the home, showed that, while individuals feel relatively comfortable participating in a range of environmental behaviours in and around the home, transferring these practices to tourism contexts can be problematic.

The substantial decrease in the level of ecological behaviour in a tourist context compared to being at home is explained by Dolnicar et al. [7], who highlighted that the change of tourist behaviour is difficult, because tourism takes place in an extremely hedonic context, characterised by relaxation and pleasure, very different from the sacrifices made for the benefit of the entire planet. On the contrary, when being at home, a series of interventions in changing behaviours with immediate consequences on the environment proved effective [7] such as reducing energy consumption, saving water and increasing recycling. Based on these assertions, it is expected that people will have less pro-environmental behaviours while staying in hotels than when they are at home.

Thus, we developed the following hypothesis:

**Hypothesis H1.** *Young people have a higher level of general pro-environmental behaviours at home than in hotels.* 

Among the most known and effective eco-friendly or green practices adopted in the hotel industry, the towels reuse practice, which is the object of our study, is directly linked to hotel guests' pro-environmental behaviours [11], taking into account that hotels can save water and energy and reduce detergent use when tourists reuse towels in the hotel room [11,15,17,25,30,31].

Although hotels invest less in this eco-friendly practice than they do in other green practices, its effectiveness greatly depends on the pro-environmental behaviours of guests [15,17]. As Esfandiar et al. [10] pointed out, in some particular situations, in which a behavioural choice sometimes involves high personal costs, sometimes, fewer personal costs in terms of time, money and effort, will influence the people's pro-environmental decision-making. Towel reuse behaviour is a type of pro-environmental behaviour that occurs at the individual level and has low costs in terms of effort and time.

In order to increase the effectiveness of towels reuse programs, accommodation providers should encourage guests to voluntarily reduce the frequency of towel changes, underlining the positive effects of towel reuse on the environment through reducing water consumption, saving energy and reducing detergent use [31,32]. Moreover, the challenge for hotel management is to convince hotel guests that towel reuse is much more than a simple measure to reduce costs in order to achieve profit [25,33] and, thus, enhance the PEB of hotel guests.

There are only a few studies that analyse the differences between specific, not general, pro-environmental behaviours in households and hotels. According to these studies, the consumption of specific resources (e.g., water, energy) and the use of towels are higher in hotels than at home [19,34–36] but, also, in luxury hotels compared to economy hotels [36].

Taking into account the interdependence between general pro-environmental behaviours (proxies by energy saving, water conservation and detergent consumption reduction) and specific pro-environmental behaviours (proxies by towel reuse), in the current study, we analysed these environmental behaviours in two different contexts (at home and in hotels).

Therefore, we developed the following hypotheses:

**Hypothesis H2.** Young people have a higher level of propensity to towel reuse behaviour (a specific pro-environmental behaviour) at home than in hotels.

**Hypothesis H3.** *Young people display a higher level of propensity to towel reuse behaviour in economy hotels than in luxury hotels.* 

### 2.2. The Main Influencing Factors of the Behavioural Intention to Reuse Towels (BIRT) in Hotels

In identifying the determinants of individual PEB, researchers [7,9,10,12,14,26,37–39] analysed a range of factors in the context of behaviour theories and models, e.g., the theory of planned behaviour, social identity theory, attribution theory, norm activation theory, cognitive dissonance theory, value-belief-norm theory, etc. They highlighted that pro-environmental behaviours are influenced, either positively or negatively, by important factors such as external factors (economic factors, institutional and political factors, social and cultural factors, etc.); internal factors (attitudes, environmental knowledge and awareness, social and moral norms, values, etc.) and demographic characteristics (age, gender, educational background, etc.).

The theory of planned behaviour (TPB) has been largely used in empirical studies. These focused on environmentally sustainable behaviours both in general and in tourism [7,16,18,40,41]. The behavioural

intention is influenced by three important independent factors, such as attitude, subjective norm and perceived behavioural control [42].

Attitude as an important explanatory variable of behavioural intention that involves a judgment as a process of classifying objects, facts and behaviours. Attitude towards a specific behaviour concerns the degree to which a person evaluates the behaviour in question either favourably or unfavourably [42]. Moreover, a positive attitude towards a certain behaviour leads to the intention to perform it [42]. Empirical research has demonstrated that individuals who have shown a strong pro-environmental attitude are more likely to engage in PEB [43,44]. However, there is a discrepancy between the pro-environment attitude and the behaviour itself [10,25,29,45].

Studies have shown that an eco-friendly attitude positively influences the behaviour intentions of consumers to stay at green hotels [18,25,44,46–48], which are hotels where green practices are implemented, i.e., the towel reuse practice, in order to reduce water consumption and energy [49]. Han et al. [17] found that an attitude toward eco-friendly behaviour in hotels positively affects the sense of obligation to take eco-friendly actions there, which, in turn, positively influences the intention to reuse towels in hotels. Researchers have recognised four dimensions of the eco-friendly attitude, namely the perceived severity of environmental problems, inconvenience of being environmentally friendly and the level of corporate responsibility [17,25].

In the current study, the eco-friendly attitude of hotel guests refers to the importance of being environmentally friendly, which is the third out of the four dimensions mentioned above. Thus, in our study, an eco-friendly attitude suggests the degree to which the hotel guests recognise the significance of being pro-environment (reusing towels), being aware that, by reusing towels while they stay at hotels, they will reduce pollution and conserve natural resources.

Based on these premises, we developed the following hypothesis:

### **Hypothesis H4.** The eco-friendly attitude of young hotel guests positively influences the BIRT in hotels.

Attitude reflects the past experiences of individuals accumulated, preserved and organised when they approach a new situation. According to Ajzen [42], past behaviours can influence behavioural intentions. In the context of TPB, empirical studies [50,51] have shown that individuals' past behaviours have an important role in future intention formations. Werff, Steg and Keizer [52] showed that the influence that past pro-environmental behaviours can exert on either the promotion or inhibition of future pro-environmental actions depends on the how much people's initial actions can be related to their identity as a pro-environmental person. Moreover, the results of the study indicate that people's environmental self-identities can be reinforced, and they can be encouraged to behave pro-environmentally when mentioning their previous pro-environmental actions and emphasising their identity as a pro-environmental person [52].

The results of another study [46] illustrated that intentions to visit a green hotel (the eco-friendly intentions) are influenced by previous experiences of customers with a green hotel. Thus, customers who have stayed at an ecological hotel and have had the opportunity to experience various ecological services will be aware of the ecological intentions [46]. Particularising on the behaviour regarding the use of towels, the previous experience at a green hotel will generate the behaviour of reusing towels, as highlighted by Dimara et al. [30].

Thus, we formulated the following hypothesis:

# **Hypothesis H5.** Young people's behavioural intentions to reuse towels (BIRT) in hotels is positively influenced by past experience in hotels (general and specific pro-environmental behaviours).

Stern [53] states that the habits of people can explain their future behaviours, along with the others three type of causal factors. Habits are behavioural patterns that guide, regulate and control certain social actions and relationships. In our study, we refer only to people's habits that are, in principle,

goal-oriented. The pro-environmental habits (daily eco-friendly activities) can be expressed by both general and specific pro-environmental behaviours at home.

Empirical studies [18,25,44,46–48] have emphasised that daily general ecological activities, seen as habits, positively influence the intention to stay in a green hotel. Additionally, the positive influence of water conservation activities in daily life on the intention to conserve water while staying in hotels was found by Untaru et al. [19].

Focusing on more specific pro-environment behaviours, such as towel reuse, Han et al. [17] pointed out that such conduct in everyday life significantly moderates the connection between the feeling of obligation to undertake ecological actions in hotels and the guests' intentions to reuse towels. Mair and Bergin-Seers [38], analysing the environmental behaviour of Australian motel guests, showed that the habit of reusing towels at home had the strongest effect on motel guests' reuse of towels. Dimara et al. [30], in a study conducted on 1304 domestic and international tourists accommodated in Greek hotels, showed that guests with more pronounced ecological behaviours in their daily lives had higher participation rates in a towel reuse program.

Thus, we predicted that the pro-environmental habits expressed by general and specific pro-environmental behaviours at home influenced pro-environmental behavioural intentions (e.g., towel reuse in hotels). As such, we developed the following hypothesis:

**Hypothesis H6.** *Young people's behavioural intention to reuse towels (BIRT) in hotels is positively influenced by general and specific pro-environmental habits at home.* 

Another stream of research focused on the social norms and pro-environmental behaviour interplay. Social norms are defined by Cialdini and Trost [54] as "rules and standards that are understood by members of a group, and that guide and/or constrain human behaviour without the force of laws" [54] (p. 152). Social norms are seen as the result of social interactions [55], as well as the unwritten codes and our informal perception of the expectations we have of others and the expectations others have of us. [56] Most specialists consider that social norms are inherently implicit and place other explicitly codified social frameworks outside the category of social norms.

Regarding the impact of social norms on the behaviour of individuals, there are different points of view, which we will discuss further. Some studies insist on the positive, even strong, influence of social norms on the intentions of individuals and on their behaviours. Among them, the study of Han and Hyun [11] showed that guests' towel reuse intentions were positively influenced by social norms. Based on the results of field experiments carried out in hotels in different countries (especially developed countries—Austria, Switzerland, Germany, USA, etc.), studies have found that social norms (descriptive and injunctive), suggested by the environmental messages in hotel rooms, have significant positive effects on the towel reuse behaviours of hotel guests [15,32,55,57]. For example, Goldstein et al. [15], examining the effectiveness of environmental messages in order to encourage hotel guests to reuse their towels, found that the propensity to reuse their towels was higher when the messages contained information related to towel reuse by other hotel guests. Moreover, the same authors proved that the effectiveness of environmental messages was the strongest when the information referred to guests staying in the same room.

Other authors were more reserved about the impact of social norms on environmental behaviours. Thus, according to Farrow et al. [22], it may depend on various factors, including characteristics of the individual, the rule invoked, the reference group and the social and environmental context in which the decision takes place.

A third view belongs to researchers [7,33] who claim that social norms in the case of individual behaviours in hotel rooms have not significantly influenced this behaviour. Wymer [33] stated that the social influence on towel and linen reuse programs in the hospitality industry was unlikely to be an effective influencing factor for subject compliance. He highlighted two aspects that need to be taken into account, namely the situation in which a social norm has not been established or the fact

that compliance was not assisted by others. Then, social factors are relatively inefficient in influencing behaviours [33].

Considering that, in the case of Romanian tourism, a social norm for the reuse of towels and hotel linen was not well-established, and the behaviours of hotel customers took place in a private environment, not publicly exposed, we formulated the following hypothesis:

**Hypothesis H7.** Social norms will not have a significant impact on young people's behavioural intentions to reuse towels (BIRT) in hotels.

Taking into account the value-belief-norm theory [53] and norm activation theory [58], researchers have analysed the impact of personal norms on PEB [10,16,17,59]. The difference between social norms and personal norms consists in the fact that moral personal norms contain the same rules and standards as the social ones but are mostly related to the self rather than others [10,59]. According to Schwartz [58], the central feature of personal norms is the intense feeling of moral obligation by the individual to perform a certain behaviour. In the case of PEB, e.g., recycling behaviour, when the consequences of the individual's behaviour benefits the society and the environment in which they live, personal moral norms should be activated [60]. Thus, an individual's decision-making includes a moral component that plays a very important role in their pro-social and pro-environmental behaviours [10]. Stern [53] showed that "personal moral norms are the main basis for individuals' general predispositions to pro-environmental action" [53] (p. 413).

According to Mehmetoglu [27], the moral feeling of obligation to care for the environment positively affected the pro-environmental behaviours (Norwegian population's willingness to behave environmentally friendly) both in a holiday setting and at home. Doran and Larsen [59] argued that pro-environmental behavioural intentions, expressed by intentions to choose eco-friendly travel options, were strongly associated with moral personal norms of tourists from New Zealand. Han et al. [17] found that the intention to reuse towels in hotels was positively influenced by the sense of obligation to take eco-friendly actions in hotels based on moral obligations (in the context of USA logging guests).

Therefore, we assume that the extent to which people feel a moral obligation to reuse towels in hotels is positively associated with the intention to do so.

**Hypothesis H8.** *Moral personal norms will have a significant impact on young people's behavioural intentions to reuse towels (BIRT) in hotels.* 

#### 3. Materials and Methods

In order to achieve the aim of this study, the primary data were collected using a survey that was applied to university economics students of "G.E. Palade" University of Medicine, Pharmacy, Sciences and Technology of Tîrgu Mures (Faculty of Economics and Law), Romania in January-February 2020. We chose to analyse the behaviour of students as young tourists, taking into account the fact that the Global Report on the Power of Youth Travel [61] showed that "youth and student travelers are an increasingly important market for destinations around the world" [61] (p.10). Moreover, the report stated that one of the fastest-growing segments in international tourism is youth travel [61], generating both socioeconomic opportunities for local communities and real environmental challenges. Our sample included undergraduate university students who were considered "an interesting and novel population, as they are still forming their values and beliefs, and therefore may be more open to engage in sustainability efforts" [62] (p. 245).

Data for this research were collected using a nonrandom sampling technique on quotas, according' to the level of studies (bachelor and master). A total of 420 self-administrated questionnaires were distributed among students who represented 53.91% of economics students enrolled (779) at the faculty. In total, 393 responses were obtained, which reflected a response rate of 93.57%. Since the main intention of this study was to analyse the pro-environmental behaviour of young tourists as hotel guests

and its determinants, the first question in the questionnaire had the role of filtering the individuals corresponding to the investigated topic: "Have you travelled in the last 3 years and stayed at hotels for more than one night?". Thus, only those students who answered "yes" to this item, which means they were hotel guests, were asked to complete the rest of the survey. Thus, 41 students were excluded from our initial sample (N = 393), because they did not travel in the last 3 years and were not accommodated in hotels for more than one night. Additionally, after removing the 12 incomplete responses, we obtained a total of 340 valid responses that were used in our analysis. Due to the sample characteristics (a relatively small number of young people), some limitations of the research have to be acknowledged. Therefore, we mentioned some future directions of work at the end of the study.

The sociodemographic characteristics of the sample were ascertained based on the descriptive statistics (Table 1). From the total sample of 340 respondents, 67.06% were female, and 32.94% were male. Furthermore, 71.76% were bachelor students, and 28.24% were master students. In terms of the type of travel, it was found that 56.47% usually travelled with family and 37.05% with friends; 72.06% were domestic tourists (travelled more inside the country), and 27.94% travelled abroad. According to their age groups, 83.82% were between 18 and 25 years. Of the total investigated respondents, 54.71% self-reported that they participated in courses in ethics education (Ethics Education) focusing on social and moral norms.

Respondents Characteristics	Frequency	Percent	Respondents Characteristics	Frequency	Percent		
	Gender:		<i>Type of travel 1:</i>				
Male	112	32.94	Alone	17	5.00		
Female	228	67.06	With family	192	56.47		
	Age:		With friends	126	37.05		
18–25 years	285	83.82	With colleagues	5	1.47		
25–30 years	19	5.59	<i>Type of travel 2:</i>				
30 years and over	36	10.59	Abroad	95	27.94		
Ed	lucation level:		Inside the country	245	72.06		
Bachelor	244	71.76	Participation in	107	F 4 771		
Master	96	28.24	Ethics Education	186	54.71		

Table 1.	Sample	descriptio	on (N =	= 340).
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In order to achieve a comparative analysis between the PEB of young tourists as consumers in hotels and at home, we chose four different types of resources consumptions (water, electricity, heating energy and detergents). In this paper, we examined the PEB through the lens of young people's care to reduce the consumption of these resources. Thus, general PEB is considered as the behaviour that consciously seeks to minimise the negative impact on natural and built environments and, thus, supports the environment [10]. In order to capture general PEB in hotels, four items were used to assess young people's care for water, electricity, heating energy and detergent consumptions ( $I_{1.1}$ – $I_{1.4}$ , Table 2). Each response was given on a Likert scale from 1 (to a great extent) to 5 (to a small extent). A total of four items were used to measure the general PEB at home ( $I_{2.1}$ – $I_{2.4}$ , Table 2). Each response was given on a Likert scale from 1 (very little) to 5 (very much). The mean of the four items was used as the measure of the general PEB (total consumption score) both in hotels and at home.

The behaviour to reuse towels at home and in hotels, which is a specific PEB, was assessed based on responses to two questions ( $I_3$  and  $I_4$ , Table 2). Assessment of the behavioural intention to reuse towels (BIRT) in hotels—a dependent variable—was based on one item ( $I_5$ , Table 2).

In order to determine the main factors that influenced young people's BIRT in hotels, eight independent variables were measured (Table 3). Based on the existing studies [51,52], we considered that general and specific PEB in hotels reflect pro-environmental (PE) past experiences (three independent variables). Furthermore, taking into account that the PEB in everyday life (at home) can be seen as a pro-environmental habit of people [17,38], general and specific PEB at home were used as the measure of pro-environmental habits at home (two independent variables).

Items (I)	Variables
<b>I</b> <sub>1</sub> : To what extent do you agree that you, as a hotel guest, will behave exclusively according to the price of accommodation, regarding the consumption of: $I_{1.1}$ —water, $I_{1.2}$ —electricity, $I_{1.3}$ —heating energy and $I_{1.4}$ —detergents? (from 1: to a great extent to 5: to a small extent)	General PEB in hotels/General pro-environmental (PE) past experiences in hotels
I <sub>2</sub> : At home, how much care do you give to the consumption of: I <sub>2.1</sub> —water, I <sub>2.2</sub> —electricity, I <sub>2.3</sub> —heating energy and I <sub>2.4</sub> —detergents? (from 1: very little to 5: very much)	General PEB at home/General PE habits at home
<ul> <li>I<sub>3</sub>: How do you behave as tourist, regarding the use of bath towels:</li> <li>I<sub>3.1</sub>—in economy hotels and I<sub>3.2</sub>—in luxury hotels?</li> <li>(I do not reuse the towels = 0 or I reuse the towels = 1)</li> </ul>	Specific PEB in hotels/Specific PE past experiences in hotels
I4: At home, do you usually replace towels after one use? (yes = 0; or no = 1)	Specific PEB at home/Specific PE habits at home
I <sub>5</sub> : In the future, I intend to reuse the towels in hotels, a gesture that belongs to me, regardless of the cost of accommodation, paying attention to the environmental aspects. (from 1: strongly disagree to 5: strongly agree)	Behavioural intention to reuse towels (BIRT) in hotels
<ul><li>I<sub>6</sub>: The attitude to reuse towels has a meaning beyond their simple use, and it is also environmentally friendly behaviour. (from 1: strongly disagree to 5: strongly agree)</li></ul>	Eco-friendly attitude
I7: Do you agree that your reusing of towels in hotels is primarily influenced by: I7.1. respecting social norms that require care for the environment? (yes = 1 or no = 0), I7.2. respecting one's own moral norms that take care of the environment? (yes = 1 or no = 0) or	Social norms Moral personal norms Messages
$I_{7.2.}$ messages of the owners to take care of the consumptions that affect the environment? (yes = 1 or no = 0).	

Table 2. Main survey items. PEB: pro-environmental behaviours.

**Table 3.** Descriptive statistics (N = 340) and the main variable correlations.

Variables	Mean	Std. Deviation	Pearson Correlation (r) BIRT in Hotels <sup>1</sup>	
BIRT in hotels <sup>1</sup>	3.741	0.955	1.000	
Studies (0: bachelor; 1: master)	0.282	0.451	0.259 **	
Gender (0: male; 1: female)	0.671	0.471	0.059	
Travel (1: abroad; 2: inside the country)	1.721	0.449	-0.128 *	
Eco-friendly attitude <sup>1</sup>	3.671	0.920	0.467 **	
Pro-environmental (PE) past experiences in hotels:				
General PE past experiences in hotels <sup>1</sup>	2.669	0.725	0.010	
Specific PEB in economy hotels <sup>2</sup>	0.459	0.499	0.467 **	
Specific PEB in luxury hotels <sup>2</sup>	0.424	0.495	0.451 **	
Pro-environmental habits at home:-				
General PEB at home <sup>1</sup>	3.563	0.725	0.110 *	
Specific PEB at home <sup>2</sup>	0.574	0.495	0.352 **	
Social norms <sup>2</sup>	0.359	0.480	-0.067	
Moral personal norms <sup>2</sup>	0.491	0.501	0.119 *	

Note: <sup>1</sup>Five-point Likert scale: 1 to 5; <sup>2</sup>yes = 1 and no = 0. \* Correlation is significant at the 0.05 level (2-tailed). \*\* Correlation is significant at the 0.01 level (2-tailed).

The eco-friendly attitude (independent variable) was evaluated through one item ( $I_6$ , Table 2). This variable mainly reflects the degree to which the guests recognised that, through reusing towels in hotels, they were aware of the importance of being environmentally friendly [17,25].

To find out the main reasons for adopting specific PEB in hotels, the young people were asked to assess if their reusing of towels was primarily influenced by social norms, personal moral norms or messages of the owners ( $I_{7.1}$ – $I_{7.3}$ , Table 2). We used moral personal norms and social norms as

explanatory variables of BIRT in hotels, based on existing literature related to the role of these norms in PEB. Additionally, we took into account that 49.1% of total respondents self-reported that the main reasons for towels reuse in hotels were moral personal norms, followed by social norms (35.9%) and the messages of the owners (15%).

We used a total of three control variables (Table 3) that potentially influenced the results of this research: level of study (bachelor = 0 and master = 1), gender (male = 0 and female = 1) and type of travel (1: abroad and 2: inside the country/domestic tourist).

In accordance with the defined research hypotheses (H1-H3), the paired samples *t*-test was used in order to identify the differences between the general and specific PEB at home and in hotels. Additionally, the paired samples *t*-test was performed to explore the differences between behaviours in economy hotels and luxury hotels in terms of the specific PEB (towel reuse behaviour). To analyse the multiple factors that can influence BIRT in hotels (H4-H8), the hierarchical multiple regression analysis was conducted in two steps. Firstly, the three control variables were regressed on BIRT in hotels (Model 1). Secondly, the direct effects of eight explanatory variables were added to the regression (Models 2–6). To determine which explanatory variables had the greatest impacts on BIRT in hotels, the standardised  $\beta$ -regression coefficients and t-values were used. Assessment of the validity of the regression models was based on the Fisher Snedecor (*F*) statistic. The quality of prediction was assessed based on the *R*<sup>2</sup> (the coefficient of determination) value [63]. Additionally, to examine whether there were significant differences between the students who participated in ethics education (EE) and students who did not participate in relation to the BIRT in hotels and the eco-friendly attitudes of young people, the statistical analyses focused on means-testing using independent sample *t*-tests. SPSS Statistical package was used for all statistical analyses.

# 4. Results and Discussions

# 4.1. Pro-Environmental Behaviour of Young People in Hotels Versus at Home

Data from Table 4 show that there are differences between the behaviours at home and in hotels for all four types of consumption. As regards the respondents' behaviours at home, water consumption (M = 3.69) received the highest level of care, followed by electricity consumption (M = 3.60), heating energy consumption (M = 3.51) and detergents consumption (M = 3.45). While, in hotels, the respondents most often paid attention to detergents consumption (M = 2.90), followed by heating energy consumption (M = 2.69), electricity consumption (M = 2.60) and, lastly, water consumption (M = 2.49).

	м			Paired Differences					
PEB components	Hotel Home		Mean	Std. Deviation	Std. Error Mean	95% Cor Interval of th Lower	nfidence ne Difference Upper	<i>t</i> -test (df = 339)	
Water consumption	2.49	3.69	-1.20	1.448	0.079	-1.354	-1.046	-15.285 *	
Detergents consumption	2.90	3.45	-0.56	1.380	0.075	-0.703	-0.409	-7.426 *	
Electricity consumption	2.60	3.60	-1.00	1.425	0.077	-1.152	-0.848	-12.943 *	
Heating energy consumption	2.69	3.51	-0.82	1.416	0.077	-0.972	-0.669	-10.683 *	
General PEB	2.67	3.56	-0.89	1.156	0.063	-1.017	-0.771	-14.261 *	

Table 4. Paired samples test: general PEB and its components in hotels versus at home.

Note: \* Sig. (2-tailed) = 0.000. df: degrees of freedom.

The mean score of the behaviours at home regarding the total consumption of resources was an average of 3.56 (M = 3.56, SD = 0.725) out of a possible 5, which indicated that the respondents paid much attention to consumption, having a high general PEB at home. In hotels, the mean score

of the behaviour regarding total consumption was an average of 2.67 (M = 2.67, SD = 0.72) out of a possible 5, which showed a moderate level of care for consumption compared to consumption at home. The results of the paired samples *t*-test (Table 4) suggested that there were significant differences between the behaviours at home and in hotels both for total consumption ( $t_{399} = -14.261$ , p = 0.000) and for each of the four types of consumption. Thus, respondents exhibit a significantly higher level of general PEB at home than in hotels. Therefore, H1 was confirmed and supported by other empirical results [7,26,28].

The higher mean scores for these types of consumptions at home than in hotels, implying that young people pay more attention to resources consumption at home than in hotels, can be explained based on the fact that saving electricity and heating energy, reduce water use and detergents consumption at home mean cost savings for consumers, but, in hotels, these eco-friendly activities do not reduce the room price, as it was highlighted in past studies [7]. Moreover, a higher pro-environmental behaviour at home than in hotels can be justified by the favourable infrastructure that can be created at home in order to reduce the energy bill, while, in hotels, guests "need to adjust to the infrastructure provided, which can act as a barrier to pro-environmental behaviour" [28] (p. 717).

As regards the main eco-friendly actions (EFA) taken by hotel management in order to create an adequate infrastructure that can minimise the consumption of resources, the data from Figure 1 illustrate a low level of these actions in the hotels visited by the respondents. To find out these eco-friendly actions, the young people were asked the following question: "Have you noticed any eco-friendly measures taken in hotels, such as the following: EFA 1—a key-card control system that provides no power unless the room key is inserted; EFA 2—energy-saving light bulbs, LED lamps or spotlights; EFA 3—thermo-saving devices in guest rooms; EFA 4—retrofitted water-efficient toilet rooms and EFA 5—messages to encourage guests to reuse towels".



**Figure 1.** The main eco-friendly actions (EFA) in hotels. EFA 1—a key-card control system that provides no power unless the room key is inserted; EFA 2—energy-saving light bulbs, LED lamps or spotlights; EFA 3—thermo-saving devices in guest rooms; EFA 4—retrofitted water-efficient toilet rooms and EFA 5—messages to encourage guests to reuse towels.

It is noticed that there was a lower level of these actions in economy hotels compared to luxury hotels (Figure 1). For instance, in the case of economy hotels, 32.35% of young people declared that the supply of electricity was done through a key card control system (EFA 1) against 54.41% in the case of luxury hotels.

Almost half of the respondents (45.88%), as hotel guests, admitted that they reused towels in economy hotels. It is a higher percentage than in the case of towel reuse in luxury hotels (of 42.35%) but much lower than in the case of towel reuse behaviour at home (of 57.35%). There is a moderate positive correlation (see Table 5) both between towel reuse behaviour in economy hotels and at home (r = 0.508, p = 0.000) and between towel reuse behaviour in luxury hotels and at home (r = 0.498, p = 0.000). These results suggest that the respondents who reported that they reuse towels at home tend to engage in towel reuse practices during their stay in a hotel (economy hotels, as well as luxury

hotels). Moreover, a strong positive correlation (r = 0.835, p = 0.000) was identified between towel reuse behaviours in economy and luxury hotels. This fact emphasises that, among respondents where the propensity to reuse the towels in economy hotels is higher, the propensity in the case of luxury hotels is high as well and vice versa (Table 5).

**Table 5.** Paired samples test: towel reuse behaviour in hotels versus at home/in economy hotels versus in luxury hotels.

		Paired		Paired Differences				
Variables	Mean	Samples Correlation (r)	Mean	Std. Deviation	Std. Error Mean	95% Co Interval of th Lower	nfidence 1e Difference Upper	<i>t</i> -test (df = 339)
		Towel reuse beh	aviour: in	economy hote	ls versus at hor	ne		_
Economy hotel Home	0.46 0.57	0.508 *	-0.115	0.493	0.027	-0.167	-0.062	$-4.287^{1}$
		Towel reuse be	haviour: ii	n luxury hotel	s versus at hom	le		-
Luxury hotel Home	0.42 0.57	0.498 *	-0.150	0.496	0.027	-0.203	-0.097	$-5.578^{1}$
		Towel reuse behavio	ur: in eco	nomy hotels ve	ersus in luxury	hotels		-
Economy hotel Luxury hotel	0.46 0.42	0.835 *	0.035	0.285	0.015	0.005	0.066	2.282 <sup>2</sup>

Note: \*Sig.= 0.000, df = 339. <sup>1</sup>Sig. (2-tailed) = 0.000. <sup>2</sup>Sig. (2-tailed) = 0.023.

The results of the paired samples *t*-test (Table 5) showed the significant differences between towels reuse behaviour in hotels and at home ( $t_{399} = -4.287$ , p = 0.000 in the case of economy hotels and  $t_{399} = -5.578$ , p = 0.000 in the case of luxury hotels). Moreover, significant differences were identified between towel reuse behaviours in economy and luxury hotels ( $t_{399} = 2.282$ , p = 0.023). Thus, on the one hand, the propensity to have a specific pro-environmental behaviour through towels reuse is significantly lower when young people stay at hotels as guests than at home. On the other hand, this propensity is significantly higher in the case of economy hotels than luxury hotels. Therefore, H2 and H3 were confirmed.

### 4.2. Hierarchical Multiple Regression Analysis for BIRT in Hotels

In order to test hypotheses H4-H8, we estimated the influence of eight main factors (eco-friendly attitude, general pro-environmental (PE) past experiences in hotels, specific pro-environmental past experiences in economy hotels, as well as luxury hotels, general and specific pro-environmental habits at home, social norms and moral personal norms; see Tables 3 and 6) on the behavioural intention to reuse towels in hotels using a hierarchical multiple regression analysis.

For the total sample (N = 340), the descriptive statistic results regarding the self-assessment of BIRT in hotels showed a high score of 3.74 (of 5), emphasising a high level of young people in agreement with specific pro-environmental behavioural intentions (Table 3).

The correlation results (Table 3) indicated that BIRT in hotels is moderately positively correlated with the eco-friendly attitude of hotel guests (r = 0.467) and specific PEB (towel reuse behaviour) both in hotels (economy hotels, r = 0.467 and luxury hotels, r = 0.451) and at home (r = 0.352). Additionally, BIRT in hotels is positively correlated, but very weak, with general PEB at home/general PE habits (r = 0.110) and with moral personal norms (r = 0.119). All significant correlations between the explanatory variables have values that do not exceed 0.9, a fact which suggests that there is a low probability that the regression analysis would be affected by multicollinearity [63].

The results of the hierarchical regression analysis are illustrated in Table 6. In the first step, the three control variables—level of study, gender and type of travel—were entered into the prediction model, and two of them emerged as significant predictors. This baseline control variable model

(Model 1) was significant at the 0.01 level (F (3, 336) = 10.026, p < 0.01) and explained 8.2% of the variance in BIRT ( $R^2 = 0.082$ , adjusted  $R^2 = 0.074$ ).

Independent Variables	Model 1 (controls)	Model 2	Model 3	Model 4	Model 5	Model 6
Studies	0.253 **	0.153 **	0.118 *	0.109 *	0.108 *	0.107 *
Gender	0.025	-0.012	0.011	0.007	0.007	0.007
Travel	-0.119 *	-0.101	-0.077	-0.069	-0.070	-0.070
Eco-friendly attitude	-	0.425 **	0.304 **	0.297 **	0.296 **	0.296 **
General PE past	-		-0.058	-0.053	-0.054	-0.054
experiences in hotels			0.000	0.000	0.001	01001
Specific PEB in	-		0.233 **	0.205 *	0.207 *	0.207 *
economy notels						
Specific PEB in luxury	-		0.118	0.085	0.082	0.082
Conorol DE habit at						
bomo		-		0.045	0.045	0.044
Specific PEB at home		_		0 118 *	0 117 *	0 117 *
Social norms			_	0.110	-0.016	-0.011
Moral personal norms			_		0.010	0.007
Intercent	3 991	2 417	2 681	2 383	2 403	2 398
R <sup>2</sup>	0.082	0.250	0 344	0.356	0.356	0.356
A dijusted $\mathbb{R}^2$	0.074	0.230	0.330	0.338	0.336	0.334
Std Error of the	0.074	0.241	0.550	0.550	0.550	0.004
Estimate	0.919	0.832	0.782	0.777	0.778	0.779
R Square Change	0.082	0.168	0.094	0.012	0.000	0.000
Sig. F Change	0.000	0.000	0.000	0.051	0.726	0.920
ANOVA (F value)	10.026	27.941	24.865	20.239	18.179	16.477

Table 6. Results of the hierarchical multiple regression analysis for BIRT in hotels.

The level of study (bachelor versus master) and type of travel (abroad versus inside the country) significantly influenced BIRT in hotels. Therefore, those young people at master level ( $\beta = 0.253$ , p < 0.001) and those who travelled abroad ( $\beta = -0.119$ , p < 0.05) reported a higher BIRT.

These results are in-line with previous research findings [37], which show that, in terms of the use of towels, the domestic tourist has a lower environmental footprint. There are also research findings [64] pointing out that the young tourists on international vacations had more hedonistic and passive behaviours, having less PEB, than those on domestic vacations. As regards the level of study, our results were consistent with other studies [28,30,62,65], which highlighted that individuals who are highly educated are more concerned about environmental quality and, consequently, tend to engage more in pro-environmental behaviours. As opposed to past empirical research [30,46,64], we found that gender had no significant effect on BIRT ( $\beta = 0.025$ , p = 0.635). Thus, our results did not support the widespread belief that women have a stronger propensity to PEB than men.

To test Hypotheses H4-H8, we added the independent variables step-by-step: eco-friendly attitude (Model 2), three variables that reflect PE past experiences of young people in hotels (Model 3), two variables that reflect pro-environmental habits at home (Model 4), social norms (Model 5) and moral personal norms (Model 6). As compared with the base model, the R<sup>2</sup> improved from 8.2% to 25% (Model 2), 34.4% (Model 3) and 35.6% (Model 4). Tolerance values (from 0.282 to 0.998) and VIF (variance inflation factors) scores (values ranged between 1.002 and 3.547) suggest that these models are not affected by multicollinearity [63]. All models are significant at the 0.01 level.

Model 2 was statistically significant (*F* (4,335) = 27.941, *p* < 0.01) and explained a total of 25% of variance in BIRT ( $R^2 = 0.25$ , adjusted  $R^2 = 0.241$  and  $R^2$  change = 0.168). The change in  $R^2$  of 0.168 (*p* = 0.000) highlighted a substantial impact of the eco-friendly attitude on BIRT in hotels relative to the control variables included in Model 1. Based on the values of the beta weights ( $\beta$ ), it can be seen

Note: Dependent variable: BIRT. <sup>1</sup>Standardised  $\beta$ -regression coefficients: \* p < 0.05 and \*\* p < 0.01.

that the eco-friendly attitude has a significant positive influence on BIRT ( $\beta = 0.425$ , p = 0.000). Hence, H4 was supported. This result is consistent with previous studies [17,46], which emphasise that the eco-friendly attitude significantly explains the intention to reuse towels in hotels [17] or the intention of hotel customers to visit a green hotel [46].

Through adding the three variables that reflect pro-environmental (PE) past experiences in hotels, a stronger model is obtained (change in  $\mathbb{R}^2 = 0.094$ ; *F* (7, 332) = 24.865, *p* < 0.01, Model 3). This model accounted for 34.4% of the variance of BIRT ( $\mathbb{R}^2 = 0.344$ , adjusted  $\mathbb{R}^2 = 0.330$ ). A significant positive influence of specific PEB in economy hotels, which means the behaviour to reuse towels ( $\beta = 0.233$ , *p* = 0.005), on BIRT in hotels was identified, a fact that reflects that having specific PE past experiences with towels reuse in an economy accommodation represents an important precursor of BIRT in hotels. Due to the insignificant effect of both the behaviour to reuse towels in luxury hotels ( $\beta = 0.118$ , *p* = 0.151) and general PE past experiences in hotels ( $\beta = -0.058$ , *p* = 0.198) on BIRT, Model 3 showed only partial support for H5. Thus, the results revealed that BIRT in hotels is positively influenced by past experiences in hotels but only in the case of past experiences in towel reuse (specific PEB) in economy accommodations.

Model 4, which incorporated two variables that reflect the pro-environmental habits at home, along with variables from Model 3, explains 35.6% of the BIRT variance ( $R^2 = 0.356$ , adjusted  $R^2 = 0.338$ , change in  $R^2 = 0.012$ ). Only the specific PEB at home (habit to reuse towels) was identified as a positive and significant predictor of BIRT ( $\beta = 0.118$ , p = 0.024), and consequently, H6 was partially supported. Our results confirmed previous research findings [17,38], which illustrated a positive effect of the habit to reuse towels at home on hotel guest behaviours/intentions of reusing towels.

In the next steps, we added the social norms (Model 5) and moral personal norms (Model 6) in order to show their influence on BIRT. As compared with Model 4, the change in R<sup>2</sup> was 0.000, and the R<sup>2</sup> was unchanged ( $R^2 = 0.356$ ) in both Model 5 and Model 6, a fact that suggests an insignificant contribution of the variables added to the models (Models 5 and 6). As was shown in Table 6, there is no statistically significant influence on BIRT in both the case of social norms ( $\beta = -0.016$ , p = 0.726) and moral personal norms ( $\beta = 0.007$ , p = 0.920). Thus, H7 was supported, but H8 was not supported.

Our findings regarding the insignificant effect of social norms on BIRT (H7) were sustained by other studies [7,33], which have highlighted that the influence of social norms on reuse towel behaviours in hotels is relatively ineffective. Furthermore, Farrow et al. [22] pointed out that social norms may be a less motivating factor of PEB in countries where there are "higher levels of environmental degradation and lower levels of environmental preferences relative to developed countries" [22] (p. 3), as is the case of Romania.

The results concerning the statistically insignificant impact of moral personal norms on BIRT are unexpected, taking into account that 51.61% of the respondents who benefited from ethics education (EE) declared that, to a large and great extent, they changed their tourist behaviours even when they were on vacation and carefree, according to their personal norms. These data showed that respondents self-reported a high positive impact of the education received at school on their pro-environmental behaviours as tourists. Despite this, the results of a deeper statistical analysis based on an independent samples *t*-test (Table 7) pointed out that there were no significant differences between those who benefitted from EE (EE group) and those without this kind of education (control group) in terms of BIRT in hotels (t(338) = 0.784; p = 0.784), as well as eco-friendly attitude (t(338) = 1.654; p = 0.099). These results suggest that students who benefitted from EE did not have higher BIRT and eco-friendly attitudes in hotels than students who did not receive EE.

Despite our expectations to find a closer link between exposing young people to EE and translating a behaviour that attests to their concern for the environment into practice, the reality refutes our assumptions. We consider that there are three explanatory reasons. The first explanation lies in the fact that, according to the theory of the psychologist Kohlberg [66], there are six successive stages of the moral development of individuals, and a person can remain at level 4 or 5. Thus, not everyone reaches the highest level, and there is no such claim. Secondly, moral education, in addition to the

general aspects that lead to the understanding and acquisition of general ethical principles, must also provide specific elements related to moral duties towards the environment. Thirdly, the metaphor of shifting an engagement dominates tourist behaviours, as Stoll-Kleemann et al. [67] stated, but they believed that this impact was counterbalanced by the action of protecting the environment at home [35]. The training they received did not change such beliefs and behaviours, which remains a fundamental challenge for education.

Variables	Mean		Levene's Test <sup>1</sup>		<i>t</i> -test <sup>2</sup>		95% Confidence Interval of the Difference	
	EE group (N = 186)	Control group (N = 154)	F	Sig.	t	Sig. <sup>3</sup>	Lower	Upper
BIRT in hotels	3.778	3.697	0.053	0.818	0.784	0.784	-0.123	0.286
Eco-friendly attitude	3.746	3.581	0.001	0.976	1.654	0.099	-0.031	0.362

Table 7. Results of the independent samples *t*-test: ethics education (EE) group versus control group.

Note: <sup>1</sup> Levene's test for equality of variances delivered a significance value higher than 0.05 for both variables for which the "equal variances assumed" option was used; df =338; <sup>2</sup> t-test for equality of the means; <sup>3</sup> 2-tailed.

In summary, the full model (Model 6), which explained 35.6% of the variance of BIRT ( $R^2 = 0.356$ , adjusted  $R^2 = 0.334$ ), suggested that BIRT in hotels was positively influenced by three explanatory variables. The eco-friendly attitude of young tourists received the strongest weight in the model ( $\beta = 0.296$ , p = 0.000), followed by the specific PE past experiences (behaviour to reuse towels) in economy hotels ( $\beta = 0.207$ , p = 0.014) and the habit to reuse towels at home ( $\beta = 0.117$ , p = 0.027), implying that an eco-friendly attitude has a greater positive impact on BIRT in hotels. As regards the control variables, the level of study exhibited a positive relation to BIRT in the case of all models, while the type of travel revealed a negative effect on BIRT but only in the case of Model 1. As for gender, an insignificant influence on BIRT was found in all models.

Based on the results of the hierarchical multiple regression analysis, we can conclude that, in the case of our sample, having a higher level of education, a strong eco-friendly attitude, some past experience with reusing towels in economy hotels and the habit of reusing towels at home increase BIRT in hotels.

## 5. Conclusions and Main Implications

In the ever-changing ecological, social and economic environment, ensuring the pro-environmental behaviours of tourists, especially of youths, is a real challenge for sustainable tourism and for the whole of society. Towards a more sustainable future, pro-environmental behaviours are an essential part of societal change. In this context, the paper highlighted the effects of the main factors on the specific pro-environmental behaviours of Romanian young people, expressed by BIRT, aiming to improve their PEB.

The research results showed that Romanian young tourists exhibit a significantly higher level of past pro-environmental behaviours at home than in hotels, taking into account both general PEB expressed by the care for resource consumption and specific PEB expressed by towel reuse. Therefore, one of the main challenges for the ecological sustainability of the hotel industry is to convince guests to bring their ecological habits with them and to exercise persuasion on them in order to maintain their behaviours and behave in an ecological way while staying at a hotel [17]. It is also necessary for accommodation providers to be familiar with the influence of various factors on the PEB of hotel guests.

The hierarchical multiple regression analysis results highlighted that the BIRT of Romanian young people is significantly positively influenced by an eco-friendly attitude, past experience with reusing towels in economy hotels and the habit to reuse towels at home. These findings underline that the success of the ecological management of hotel operations depends on the extent to which the hotel management manages to make guests behave more environmentally friendly [17]. The ecological

attitudes of young Romanians was identified as the most important key factor of BIRT in hotels. For this reason, real and potential hotel guests should be encouraged to have a positive attitude towards environmentally responsible activities while staying at hotels. A favourable attitude towards ecological behaviours in a hotel (such as towel reuse) can be created through advertising and environmental campaigns to help tourists, as hotel guests, notice and recognise the environmental benefits of different ecological practices [17].

Moreover, our findings revealed that hotel guests reported a low level of main eco-friendly actions applied by the hotel management in both economy hotels and luxury hotels. Consequently, hotel management needs to improve the degree of implementation of green practices and pay more attention to saving energy and reducing resource consumption by using energy and water-saving systems. When guests see these positive changes in hotel rooms and are aware of the hotel's concern for energy efficiency and climate change, their satisfaction and loyalty [68], as well as their eco-friendly behaviours, will increase.

A real challenge of any ecological program adopted by hotel management is the reaction and the participation of the hotel guests. The study of the specialised literature allows us to make a proposal regarding the efficiency of the measures that would encourage a specific pro-environmental behaviour of the guests. As Goldstein et al. [15] state, it is important that messages left in hotel rooms give examples of the behaviour to reuse towels of previous guests, perhaps even the occupants of the same room. Taking this aspect into consideration, such types of messages would be an effective method to put into practice for hotel managers.

The implications for educational institutions refer to both ecological and moral educations. As measures, we emphasised that environmental education must provide specific cognitive elements related to concerns for the environment and must present more precise norms regarding pro-environmental behaviours. These norms should not remain salient. As for moral education, from the perspective of the theory of the stages of moral development described by Kohlberg [66], each stage of cognitive development is, in fact, considered a form of moral development. This education must help individuals to form personal norms in the evolution of the moral consciousness of youngsters, up to the level of moral principles.

The effectiveness of education will be proven only by specific methods of raising awareness among young people about the environmentally friendly attitudes that they can put into practice through concrete behaviours, such as reusing towels—a simple gesture but with multiple implications.

Despite scepticism about the academic pro-environmental discourse, which would not have much chance of implementation or practical evidence of behavioural changes emanating from the knowledge it has created [69], we cannot give up educational optimism. Educating young people as responsible tourists remains a challenging goal to ensure sustainable tourism.

The results from this research contribute to theory development by providing empirical proof for the behaviour theories and models in order to use eco-friendly attitudes, specific pro-environmental past experiences in hotels and the habit to reuse towels at home as essential variables in explaining the PEB of hotel guests. This study, focusing on the main determinants of the specific pro-environmental behavioural intentions of young people, fills a research gap that has been little addressed. Moreover, our research proves that taking small steps in changing specific PEB (proxies by towel reuse) of young tourists in hotels "can be an effective strategy in the process of improving the environmental sustainability of the tourism industry" [7] (p. 249).

The rejection of hypothesis H8, regarding the significant impact of moral personal norms on the behavioural intentions of young people to reuse towels in hotels, sheds further light on the theory of the norm activation process. Personal norms have a central place in this theory and function as a mediator of situational and personality activator influences on behaviours [37]. Despite the ethical education that some students acknowledged to have benefited from, the process of activating personal norms and transposing them into tangible behaviours does not appear to have taken place, based on the comparison with the control group.

The main limits of the research: The first limitation of the research is that our sample can provide only a partial picture of the factors influencing BIRT by collecting data from a relatively small number of young people. A second limitation is that the survey data were collected from subjects who did not have very rich travel experiences. However, in the context of self-awareness, an issue that interested us in relation to young tourists who may be more open to engaging in sustainability efforts, their training for certain pro-ecological values is a goal of our research. The third limitation is the fact that it focused on intentionality, on behavioural intention and not on the effective specific pro-environmental behaviours. However, the intentions may not turn into the real behaviour of reusing towels while traveling.

Given the limitations of our findings and research, we propose some future directions of work. The current study does not allow us to achieve more extensive results, so a similar type of research in which different models are used in similar circumstances must be performed with different samples in the future. We aim to investigate whether the restrictions imposed by the COVID-19 pandemic regarding measures that ensure our personal protection but, also, the protection of others affects the ecological behaviours of young tourists, in the sense of burdening them with multiple responsibilities that they have to manage when travelling. To find out to what extent the intentions of young people with past experiences and pro-environmental attitudes turn into actions, some future longitudinal studies would be interesting to carry out.

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