



Article

Green Behavior: Factors Influencing Behavioral Intention and Actual Environmental Behavior of Employees in the Financial Service Sector

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Abstract: The financial sector is a key industry to invest in sustainable products and services, and to help other companies to make sustainable investments. So far, research sheds little light on environmental attitudes and the behavioral patterns of employees in this sector. We investigated what motivation and motivators promote or inhibit "green" behavior among professionals in the financial service industry. A smartphone friendly online survey concerning the intention to improve and show 'green behavior' was sent to 1200 professionals working in 17 locations in 13 European countries, 470 of which responded to the survey (39%). From these participants, 20% are convinced of the need to act in a "green" manner, and only 5% are hardly accessible. Monetary benefits combined with social motives contribute to sustainable living, whereas financial benefits alone actually hinder it. The result of this study points to an intention-behavior gap; intention is built from various influences including moderating factors like sex, age and family status influencing individual decisions. It is recommended that we should evaluate the green attitude and behavioral patterns of employees based on a practical typology of "green behavior", which is suggested in this study, helping companies to know what actions can be taken to close the intention-behavior gap.

Keywords: environmental behavior; financial industry; employee survey; behavioral acceptance; intention-behavior-gap

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1. Introduction

Sustainability and ecologically friendly measures are trending in nearly all economic sectors. Companies in all fields—whether in manufacturing industries or the provision of services—increasingly try to contribute to sustainable development and lead society into an ecologically better future. The financial sector, too, is developing innovative services and products that have the potential to make a more positive impact on global environmental goals [1]. In the financial sector, scientific research predominately focuses on sustainable reporting practices or the impact of sustainability guidelines on bank performance [2–5]. However, research sheds little light on environmental attitudes and behavioral patterns of employees in the financial sector [6]. How do employees in the financial sector perceive the ecological crisis and how do they behave consequently? This paper derives employees' green behavioral intention, as well as actual green behavior, depending on different types of influence (individual, social, financial) and moderating factors (age, gender, etc.).

Except for the financial sector, employees' green behavior as an instrument for companies' environmental goal achievement is frequently examined in the literature.

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Employees' green behavior is defined by employees behaving pro-environmentally, aiming to be sustainable und not wasteful, which benefits the company's sustainable development [7]. Pro-environmental behavior has complex patterns and includes various behavioral features [8]. Examples include conscious traveling habits, procuring sustainable products and reducing single-use items [7]. Employees' green behavior can be distinguished in two ways: green behavior that is required for the employees' jobs (creating sustainable products and adhering to organizational policies); and voluntary behavior which exceeds the company's requirements and expectations (environmental initiatives, activism) [9]. We are sure that those behavioral patterns can be observed in employees of every economic sector, including the financial sector.

There are multiple factors promoting or inhibiting environmental behavior. Those factors may be rooted in individual or subjective norms, but also social influence and to some extent financial incentives and benefits [10,11]. People who develop high environmental concern are more likely to show green behavior [11,12]. One individual factor influencing environment-protecting behavior lies in employee well-being; if they feel free of narrow financial constraints, the interest in environmental protection grows [11]. In terms of that and the resulting green behavior, individuals show green self-efficacy, which describes their own ability to achieve environmental goals. If the individuals feel that they are capable of achieving their goal, meaning their green self-efficacy is high, they are more likely to actually display green behavior [13].

Social factors or social pressures, however, also influence people's behavior patterns [12]. Marshall, Cordano and Silverman [14] showed that normative, cultural pressures put on winemakers forced them to engage in sustainable practices. In a company setting, the relationship among co-workers is a crucial factor influencing employees' green behavior. For example, if individuals believe that their work team is able to achieve goals [15], and if the team shares the same values [16], this increases the probability that an employee will engage in green behavior. It helps if the team members discuss environmental issues, share knowledge and encourage each other to pull their weight [16]. The way individuals perceive their co-workers' attitudes towards green behavior also influences their own behavior [17].

Another social pressure factor or social context that influences employees' green behavior, is the relationship between work leaders or the company and the actual employee. A factor facilitating green behavior is the environment-supporting atmosphere that can be created by the organization, and which helps to promote the employees' willingness to behave in a greener manner. In certain ways, this so called green opportunity enables and motivates people to behave well [7,18]. Dixon-Fowler et al. [19] describe psychological contracts in which individuals believe that the company and they themselves have mutual obligations, so if the company makes an effort to have a more sustainable impact, employees with sustainable intention can connect to corporate goals and behave more sustainably as well. Organizational leaders appear to be role models for employees [20]. Besides, research found that employees show more green behavior if they perceive their company to also pursue climate-related goals [17]. It is apparent that organizational leaders are able to support their employees in trying to achieve their environmental goals which—in an ideal context—highly resemble the organizations' goals [21].

Additionally, the belief that green behavior patterns will be rewarded and are, therefore, encouraged, is a possible lever in order to motivate the employees further [7]. Those rewards—either monetary or non-monetary—are another crucial point of research being discussed in the light of actual green behavior. Do incentive systems affect the actual environmental behavior of people? The scientific results of research are ambivalent. Various researchers find that green incentives that are in line with employees' financial goals have a positive effect on the employees' green behavior [22–24]. Ariely, Brancha and Meier [23] emphasize that incentives have a positive impact if individuals decide to behave sustainably in their private life. Merriman et al. [24] show that tying rewards and financial benefits to sustainability objectives motivates and engages employees to some degree. When

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it comes to symbolic rewards, these seem to have an impact if the rewards are given to the individuals publicly. The degree of social recognition for behaving sustainably motivates the individuals to act accordingly [22].

Other research attests a short term effect of incentives; however, in the long term, incentives weaken intrinsic motivations, especially if the incentives are removed at some point in time [25]. By contrast, research has not been able to find a positive relation between sustainability-oriented incentive systems and actual green behavior [26,27]. The incentive systems even have discouraging effects on sustainable behavior [26]. Potential reasons for the negative impact of incentive systems lie in the relationship of trust between company and employee; as long as the employees trust their company, they are willing to invest more effort. Explicit incentive schemes, however, signal distrust which leads the employees to question the schemes and possibly decline participation and effort [28-30]. In addition, it is crucial for the participation of the employees that they perceive the company's goal and behavior as non-selfish. Encouraging green behavior through incentives in order to increase the company's payoff rather than for non-selfish motives ("green washing") also evokes distrust and, therefore, less engagement in sustainable and social actions [30]. This distrust and doubt about the actual motivations of companies is called the over justification effect, which was shown to be an important reason for partial or net crowding out of sustainable behavior because of material or image-related rewards or punishments [28].

Extrinsic incentives, such as financial rewards or public team appraisals, have the power to defeat the employees' motivation to improve their own green image [23,29]. As soon as an extrinsic incentive is introduced, the green behavior does not appear to be voluntary and is therefore not as well-regarded as before [23]. The actions no longer signal an image-improving contribution; instead, the employees are perceived as opportunistic and mercenary [29]. The result is that employees refrain from green actions that are incentivized. This relationship between social or financial influence, trust and the demonstration of employees' green behavior appears to be rather delicate and needs to be taken into consideration when promoting green behavior.

2. Theoretical Framework and Hypotheses Development

Several theories and models have been applied to explain environmental behavior. These include the theory of self-determination, stating that behavior is formed through individual motivation in order to derive personal satisfaction [7], behavioral theories [31] and motivational models [7,22]. A unified acceptance model has been proposed combining relevant behavioral and motivational aspects, which has been developed to explain technology acceptance [32,33] but has been applied in various contexts including green behavior [33–40].

2.1. Unified Acceptance Models

UTAUT is an acceptance model combining the theory of reasoned action (TRA), motive models (MM) and explicit acceptance models, namely the latest version of the technology acceptance model (TAM) [41]. Extensive meta-analyses have shown that UTAUT includes relevant variables, predictors and moderators to explain behavioral intention and actual behavior in various contexts [42]. TRA proposes that an attitude toward a certain behavior is affected by positive or negative feelings (evaluative effect), as well as subjective norms describing a person's perception of what he or she is expected to do [43]. The subjective norm is an individual's internalization of a reference group's specific interpersonal agreements e.g., peers or managers at the workplace [44]. The theory of planned behavior (TPB) is an extension of TRA, adding perceived behavioral control as an important aspect [45]. Studies about environmental behavior show only a weak relationship between subjective norm and behavioral intention, and that attitude is more important than subjective norm when perceived behavioral control is high [46]. According to TGB, and its extended form, the theory of goal directed behavior (TGB) [47], behavioral

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intention reflects how hard and how likely one strives to show a certain behavior, whereas desire refers to the mental motivation to do so [48]. Both TPB and TGB have been used to explain and predict the intention and actual performance of environmental behavior [31,49,50].

Davis, Bagozzi and Warshaw proposed a technology acceptance model (TAM) as a conceptual model grounded in measures of attitudes, subjective norm and supportive factors such as usefulness and ease of use [51]. TAM has been combined with TPB in order to better explain motivational aspects of the acceptance of certain behavior [32]. Motivational models (MM) differentiating between intrinsic and extrinsic motivation are a major source to explain behavioral performance [32]. In his hierarchical model, Vallerand asserts that intrinsically motivated individuals show self-performed behavior and experience positive emotions, whereas extrinsically motivated individuals show a certain behavior to achieve a goal or avoid consequences, and may experience negative feeling due to external pressure and control [52]. Gender, age, experience and the context in which the behavior takes place, are important moderators to the intention and actual performance of a certain behavior [32-41]. As for green behavior, Ababi has shown that attitude has a positive effect on intention, and intention is positively related to performance [31]. Studies on the relationship between motivation, attitude and employee behavior show that intrinsic motivation is a driver of employee attitudes, whereas extrinsic rewards, such as monetary gratifications, decreases the effect of intrinsic motivation [53]. In conclusion, this investigation tests four hypotheses, summarized in Table 1, addressing our major research question: how do attitudes as intrinsic variables and social context, and monetary rewards as external variables, influence behavior intention and actual green behavior of employees in the financial service sector?

Table 1. Hypotheses of this study.

Concept	Hypothesis
Attitude driven by intrinsic motivation	H1: Personal attitude has a positive effect on behavioral intention as well as actual green behavior.
Subjective norm and social environment	H2: The employees' subjective norms expressing the perceived expectations of co-workers and managers have a positive effect on behavioral intention and actual green behavior.
Extrinsic motivation driven by extrinsic rewards	H3: Extrinsic rewards have a negative effect on actual green behavior.
Relationship between behavioral intention and actual green behavior	H4: Behavioral intention paves the way to green behavior expressed by a strong unidirectional relationship between intention and actual behavior.

2.2. Application of Acceptance Models in the Analysis of Green Behavior

Investigations of green behavior show that the predicting power of behavioral intentions on actual behavior can easily be overestimated [54]. There seems to be a gap and, therefore, no reliable correlation between a subjects' expressed attitudes or intentions and behavior patterns, which is known as the attitude-behavior gap, or rather, intention-behavior gap [55–58]. For example, when asked about organic food, subjects attest a positive attitude towards sustainable consumption, however, only a few actually purchased said items [59]. Researchers found different explanations for those deviations. Rokka and Uusitalo [60] state that the final purchase decision does indeed depend on ecological or general ethic attitudes, but subjects also take multiple other product attributes into

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consideration. Others explain the gap between intention and behavior by introducing influencing factors or moderators like consumers' guilt, [61] habits, the willingness to commit and sacrifice, [61] product availability and perceived effectiveness [62], or rather, efficacy of the proposed behavior [63]. If the execution of behavioral intentions calls for significant behavioral costs, the subjects are found to be less likely to take such actions. This cost dependency is often found in scientific research as the low-cost hypothesis [12,63,64]. Diekmann and Preisendörfer [64] define this low-cost hypothesis as follows: "environmental attitudes promote 'green' actions when the related behavioral costs are low but become irrelevant when people have to bear significant costs or discomfort in order to protect the environment effectively." Taking these aspects of past research into consideration, we are contributing to the literature by using an acceptance model to analyze individual, social and financial factors that influence green behavioral intentions, as well as the actual employee green behavior in the context of employees within the finance sector, which help to better understand the attitude-behavior gap.

2.3. Moderator Variables as Segmentation Criteria

Personal characteristics, such as gender and age, cannot not only be seen as moderators within the UTAUT model, but are also suitable to be followed up by a behavioral segmentation. In the context of sustainability and environmentalism, numerous segmentation models were introduced in the past. In the UK, the Department for Environment, Food and Rural Affairs presented a framework in 2008 which takes food and drink consumption, personal and tourism travel, home and household, as well as other environmental behaviors into account. The result of the framework consists of seven behavioral clusters of environmental attitude and behavioral patterns (e.g., "Positive Greens", "Concerned Consumers", "Sideline Supporters", etc.) [65]. Similarly in the US, the Global Warming's Six Americas model identifies six clusters reflecting the whole spectrum of environmental concern and engagement (from alarmed to dismissive) [66]. Based on this segmentation model, other researchers applied similar methods on different populations, such as Australia [67,68] or Wales [69], resulting in similar segmentation patterns. Besides analyses concerning populations' environmental behaviors, research has also started to examine specific population segments. Sütterlin, Brunner and Siegrist [70] describe different types of energy consumers by using a broader and more distinct behavioral base, compared to previous research; this results in six consumer segments. Others have investigated the different behavior patterns of, for example, day travelers [71] and students [72,73]. To our knowledge, almost no research has been conducted concerning sustainable segmentation in the context of employees or work environments. Opreana [74] explores the impact of companies' green internal marketing on their employees' perception of corporate social responsibility practices, by segmenting the employees into groups representing their perceived benefits from green practices in the company.

3. Method

3.1. Design

A survey concerning the intention to improve and actually show green behavior was used, which has been developed in prior investigations based on the acceptance model described above [75–77]. The survey differentiates between desirable behavior and the intention to show such behavior. Individual factors, such as attitude and intrinsic motivation, were distinguished from external or supporting factors, such as subjective norm reflecting the social influence or peer workers and managers, as well as financial consequences, such as costs or benefits resulting from green behavior, as extrinsic motivators. Based on the hypotheses summarized in Table 1, this resulted in a design with attitude, social norm and extrinsic motivators as independent variables, and behavioral intention and actual green behavior as dependent variables. In addition, moderating and

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segmenting variables—sex, age group, professional status, place of residence and family status—were recorded.

3.2. Subjects

All 1200 employees of a European management and IT consulting firm specializing on the financial service industry were asked to take an online survey concerning their environmental behavior. A sample size of 280 subjects is needed to attain a confidence level of 95%, with a test power of 90%. In summary, 470 employees from 13 different countries of a European management and IT consulting firm participated in this study (39.2%), resulting a marginal error of 3.4%, 143 of which were women (30%), 295 were men (63%) and 32 gave no indication (7%). In total, 89% of employees participated using their smartphone. Therefore, the country or location from which they participated was not tracked. The participants fell into three age groups: 33% were 20 to 30 years old; 40% 31 to 45 years; and 27% 46 to 65 years old. With respect to their professional position, 25% ranged in top management positions (partner, senior manager); 21% in the middle (manager); 26% in lower management positions (senior consultant/consultant); 2% trainees (analyst); and 25% had administrative and support functions (professional, senior professional, expert, administration), with very few participants from internal management (3%). In all, 35 persons (7%) did not state their position. Due to their small number, trainees were added to the "consultants" group and all internal staff were summarized in one group. About 28% of the participants lived in a city of more than 1 million inhabitants; 38% in a city of more than 100,000 inhabitants; 15% in smaller towns with more than 20,000 inhabitants; and 19% in rural areas. A majority of 59% had no children, 41% had at least one child. Table 2 gives a detailed overview of all subject variables.

Table 2. Summary of subject variables (*n* and %).

Age Group (yrs)	п	%	Professional Status	п	%	Place of Residence	n	%
20–25	47	10.7	Partner	27	6.2	City of millions (>1 m inhabitants)	121	27.8
26–30	100	22.8	Senior Manager	78	17.9	Big city (>100 k to <1 m)	169	38.9
31–35	74	16.9	Manager	Manager 92 21.1		Medium-sized city (>20 k to <100 k)	64	14.7
36–40	54	12.3	Senior Consultant	anior Concultant 6/1 1/1/		Small town (>5 k to <20 k)	42	9.7
41–45	45	10.3	Consultant	52	12.0	Rural area (<5 k)	39	9.0
46–50	55	12.6	Analyst	10	2.3			
>51	63	14.4	Professional	12	2.8			
			Senior Professional	18	4.1			
			Expert	14	3.2			
			Manager Internal	8	1.8			
			Head	6	1.4			

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		Administration	54	12.4			
Total	438 100.0	Total	435	100.0	Total	435	100.0

3.3. Material

The questionnaire consisted of 36 items (Appendix A) and was based on similar questionnaires used in prior studies. These prior versions came with Cronbach's Alpha levels between 0.78 [78] and 0.91 [79]. The survey used in this study also shows a sufficient reliability (Cronbach's Alpha = 0.83). Seven items related to the current sustainable behavior (Alpha = 0.54). Questions were asked about the actual green behavior with the following topics: not using the car for short distances; avoiding plastic bags when shopping; saving electricity; mobility on vacation; meat consumption and nutrition; donations to environmental organizations; and voluntary commitment in environmental organizations (see Table 3 for a list of items).

Fourteen items related to the intention to behave sustainably in the future (alpha = 0.67). These items were aggregated in four brief topics relevant for consultants: (1) mobility on business trips and vacation; (2) working from home; (3) nutrition; and (4) use of car and public transport. Each topic was introduced with a short scenario, or an explanation, and then alternative courses of action were put forward (see Table 2 for the topic "nutrition").

The possible answers were always arranged in a way that the least sustainable behavior (e.g., "I eat what I like" = 1 point) was mentioned first, and the most sustainable (e.g., "I already eat predominantly sustainably" = 3 points) last. Therefore, with the sustainability of the behavior, the score increased. In a second step, the extent to which financial and social incentives have an influence on sustainable behavior was queried. This made it possible to determine whether financial and social incentives change behavior (see Table 3).

Table 3. Introductory explanation of "nutrition" as one of four topics in the questionnaire.

A resource-saving diet is plant-based and uses regional and seasonal products. Are you planning to change your diet for sustainability reasons? (i.e., no/few animal products; no tropical fruits such as oranges, mangoes, kiwis; fresh produce such as fruit and vegetables depending on the season).

- (a) No-I eat what I like.
- (b) I reduce climate-damaging foods, but freshly squeezed orange juice on weekends is a must. (example)
- (c) I already eat predominantly sustainably.

Query of influencing factors on the subject of "nutrition" in the questionnaire

How would it affect your eating habits if your entire environment were to eat sustainably?

- (a) Not at all—delicious, individual food is important to me. I don't care what others eat.
- (b) In some areas I would adapt. But there are things I won't do without.
- (c) If my environment changes, then I will do the same.
- (d) I eat sustainably anyway and am therefore a role model for my environment.

How would it affect your eating habits if a demonstrably sustainable diet (as described) led to financial benefits (e.g., via tax breaks, subsidies or cashback)?

- (a) Not at all—I eat what I like. Money has no influence on my decision.
- (b) Given financial incentives, I would partially change my diet.
- (c) Given financial incentives, I would consistently change my diet.
- (d) I already eat sustainably and do not need any financial incentives to do so.

Nine items are related to the individual attitude and intrinsic motivation (alpha = 0.59). The items included personal statements such as: "The topic of sustainability is of great importance to me personally" as well as general statements such as: "Politicians should swiftly take drastic measures to stop climate change" (see Tables 3 and 4 for a list of items).

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A final block of questions was added, which explicitly referred to motives for sustainable action, the "subjective norm" including values ("doing the right thing"), financial benefits, role models, private social environment as well as the professional environment (see Table 4).

Table 4. Explicit motives for sustainable behavior in the questionnaire.

Behavior can be influenced by incentives. Please evaluate the significance of the mentioned incentive options for you. 5 stands for "extremely important" and 1 corresponds to "completely unimportant"

- (a) Feeling like you're doing the right thing
- (b) Money or monetary reward
- (c) People who are role models for me exemplify the behavior
- (d) Recognition in my circle of family and friends
- (e) My disciplinary supervisor exemplifies the behavior

While responding to three items of the survey, participants were asked to enter the following numbers:

- Monetary compensation (in Euro) for longer travel times (for a train ride from Hamburg to Munich lasting about 6 h from station to station as compared to a 1-h flight without getting to the airport and security measures)
- 2. Time compensation (in hours of spare time) for longer travel times (again, for a train ride from Hamburg to Munich as compared to a flight)
- 3. Percentage of total work hours that could be done just as well from home without compromising on content

Finally, gender (male, female, non-binary), seven age groups (from 20 to 30 years old up to 51 years plus), the exact hierarchical position in the company (six career levels for consultants and four career levels for internal employees) and the place of residence (five size levels from rural area to cities of over a million inhabitants) were queried.

3.4. Procedure

In May and June 2021, all employees of a management and IT consultancy for the European financial services industry were contacted by e-mail and asked to participate in the survey, which was available in English and German in June and July 2021. There was one e-mail reminder to participate, and the survey was also advertised on the company's intranet. The survey ran for four weeks and was conducted by an interactive chatbot that presented one question after another (cf. Figure 1).

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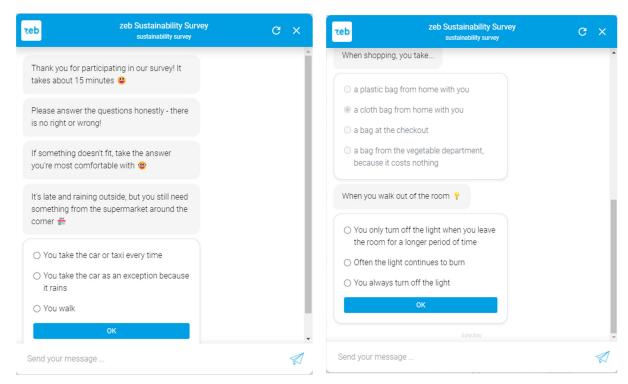


Figure 1. Chatbot displaying the survey on actual sustainable behavior (green behavior) and behavioral intention.

4. Results

In a Section 4.1, we report about the moderating effects of the demographic factors. In the subsequent sections, the results concerning the four hypotheses guiding this study are described. Significant effects of items asking about monetary and time compensation, as well as percentage of work hours spent working from home, are reported in Appendix B.

4.1. Demographic Factors as Segmentation Criteria for Green Behavior

Individual characteristics, such as sex, age group, professional status, place of residence and family status, influence internal and external factors of green behavior. In the MANOVA performed to check the influence of supporting factors (Hypothesis 2 and 3), the personal characteristics of sex, age, professional status, place of residence and family status were used as co-variates. The results show that behavioral intention is influenced by sex (female 3.2 vs. male 2.9, F [1, 395] = 15.51; p < 0.001; Eta² = 0.20) and age (<45 yrs. 2.9 vs. >45 yrs. 3.2, F [1, 395] = 7.3; p < 0.01; Eta² = 0.17), actual behavior by sex only (female 2.3 vs. male 2.1, F [1, 395] = 25.33; p < 0.001; Eta² = 0.43). In what follows, the impact of personal characteristics on the scenarios described in the survey are reported, that is, professional and private mobility, nutrition and the use of a car (see Tables 2 and 3).

<u>Mobility.</u> Most consultants go on vacation by car or short-haul flight (65.5%), followed by long-haul flights (28.5%) and trains or buses (5.9%). Long-haul flights are mostly found among the 26 to 30 year olds, who also make up the majority of the few bus and train riders. Older persons from 45 years onward predominantly travel by car or short-haul flight (age group x type of travel, see Table 5, $\text{Chi}^2[12] = 38.39$; p < 0.001). This is confirmed by the frequencies broken up by professional status; most long-haul flyers are managers and senior consultants, who are mostly between 25 and 35 years old. The older senior managers and managers use cars and short-haul flights (cf. Table 6, $\text{Chi}^2[20] = 41.78$; p < 0.01).

Table 5. Persons indicating how they travel when going on vacation (by car, short-haul and long-haul flight, respectively,) by age group.

	Age Group (in Years)						
Type of Travel	20–25	26–30	31–35	36–40	41–45	46–50	>51
Long-haul flight	12	42	31	12	7	7	14
Car or short-haul flight	30	49	40	40	36	47	45
Train or bus	5	9	3	2	2	1	4
Total	47	100	74	54	45	55	63

Table 6. Persons indicating how they travel when going on vacation (by car, short-haul and long-haul flight, respectively,) by professional status.

	Professional Status							
Type of Travel	Partner	Senior Manager	Manager	Senior Consultant	Consul-Tant	Analyst	Internal	Other
Long-haul flight	7	18	25	30	22	1	14	10
Car or short-haul flight	19	59	65	30	25	8	41	35
Train or bus	1	2	2	4	5	1	3	9
Total	27	79	92	64	52	10	58	54

Persons flying long distances mostly live in a metropolis of more than one million inhabitants; city dwellers in large cities (>100.000 inhabitants) tend to take the bus or train; whereas people living in smaller towns, or the countryside prefer the car or short-haul flights (Chi²[8] = 26.66; p < 0.01; Table 7).

Table 7. Persons indicating how they travel when going on vacation (by car, short-haul and long-haul flight, respectively,) by place of residence.

Type of Travel	Metropolis (>1 m)	Large City (>100 k)	City (>20 k)	Town (>5 k)	Country-Side
Long-haul flight	47	47	12	9	9
Car or short- haul flight	70	105	51	33	26
Train or bus	4	17	1	0	4
Total	121	169	64	42	39

Families with children mostly travel by car or short-haul flight, whereas people without children make up the majority of long-distance airline passengers (Chi²[2] = 34.52; p < 0.001; Table 8).

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Table 8. Persons indicating how they travel when going on vacation (by car, short-haul and long-haul flight, respectively,) by family status.

Type of Travel	Without Children	With Children
Long-haul flight	106	30
Car or short-haul flight	152	154
Train or bus	20	8
Total	278	192

<u>Nutrition.</u> (Almost) only men "eat what they like", women pay particular attention to sustainable nutrition (Chi²[2] = 31.63; p < 0.001; Table 9).

Table 9. Persons reporting on their diet (without restrictions, little adaptations and mostly sustainable) by sex.

Are You Planning to Change Your Diet for Sustainability Reasons?	Male	Female
No, I eat what I like	101	16
I reduce climate-damaging foods a little	136	78
I feed myself mostly sustainably	58	49
Total	295	143

The professional status has a significant influence on a sustainable diet with a focus on younger people (consultants) and persons with less professional travel habits (internal employees) ($\text{Chi}^2[20] = 55.48$; p < 0.001; Table 10). Age, place of residence and children do not play a significant role.

Table 10. Persons reporting on their diet (without restrictions, little adaptations and mostly sustainable) by professional status.

Planning to Change Diet	Partner	Senior Manager	Man- ager	Senior Con- sultant	Consultant	Analyst	Internal	other
No, I eat what I like	7	25	32	25	10	1	5	7
I reduce climate- damaging foods a little	17	37	40	27	36	4	37	23
I feed myself mostly sustain- ably	1	17	20	12	6	5	16	24
Total	25	79	92	64	52	10	58	54

<u>Car use.</u> Car lovers are by far predominantly male, whereas women's approval and rejection of the car are in balance (Chi²[4] = 13.36; p < 0.05; Table 11).

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Table 11. Persons assessing their car use (from full agreement to full rejection) by sex.

When It Comes to Cars, I Don't Limit Myself	Male	Female
Totally agree	31	10
Agree	52	17
Neither nor	66	47
Do not agree	88	53
Do not agree at all	58	16
Total	295	143

Unrestricted car use polarizes in age groups up to 30 years of age, with a majority that claims to restrict car use. Age groups from 45 years and older have a rather neutral attitude to the car ($\text{Chi}^2[24] = 52.18$; p < 0.001; Table 12).

Table 12. Persons assessing their car use (from full agreement to full rejection) by age.

When It Comes to Cars, I <u>Don't</u> Limit Myself	20–25 yrs.	26–30 yrs.	31–35 yrs.	36–40 yrs.	41–45 yrs.	46–50 yrs.	>51 yrs.
Totally agree	1	9	8	6	7	6	4
Agree	8	13	11	12	10	10	5
Neither nor	12	21	17	10	9	20	24
Do not agree	19	24	28	16	13	18	23
Do not agree at all	7	33	10	10	6	1	7
Total	47	100	74	54	45	55	63

Professional position and—surprisingly—also the place of residence (city vs. country) do not play a significant role in the restriction of car use. However, it was not asked whether the car is used a lot or little, but whether a restriction of car use is planned. Parents reject a rather neutral or negative attitude toward car use without restrictions (Chi²[4] = 21. 60; p < 0.001; Table 13).

Table 13. Persons assessing their car use (from full agreement to full rejection) by family status.

When It Comes to Cars, I <u>Don't</u> Limit Myself	Without Chil- dren	With Children
Totally agree	28	14
Agree	36	34
Neither nor	58	60
Do not agree	75	68
Do not agree at all	58	16
Total	255	192

4.2. Results of the Hypotheses Testing

4.2.1. Green Behavior and Attitude (Hypothesis 1)

This study hypothesized that behavioral intention and actual green behavior is positively influenced by individual attitude built on intrinsic motivation. Several items are used in order to describe behavioral intention and actual green behavior (see Table A2), as well as internal factors (attitude) and external factors (social influence and extrinsic, monetary rewards; see Table A3). In order to make all items comparable, negatively worded items were reversed, and recoded on a scale from 1 to 5.

A factorial design was calculated by a MANOVA with the quartile groups "attitude", "social orientation" and "extrinsic/monetary rewards" as independent factors, as well as behavioral intention and actual behavior as dependent variables. In order to reduce error variance, the individual characteristics of sex, age group, professional status, place of residence and family status were used as covariates. Attitude had no significant impact on behavioral intention but on actual green behavior (F [3,124] = 6.4; p < 0.001; Eta² = 0.27); the higher the attitude and intrinsic motivation, the more green behavior is shown (cf. Figure 2, left hand side). Also, social orientation had an impact on actual behavior (F [3,124] = 2.7; p < 0.05; Eta² = 0.31). Behavioral intention was only significantly influenced by an interaction of subjective norm and social influence (F [8,124] = 2.1; p < 0.05; Eta² = 0.39); high social influence (quartile group 4) may be experienced as "social pressure" reducing the behavioral intention when the subjective norm is low (quartile groups 1 to 3), but supports it when the subjective norm is high (4th quartile; Figure 2, right hand side). This finding is line with research showing that an environmental attitude is essential to show environmental behavior [65], especially when individual cost or effort is considered to be relatively low [12,63,64].

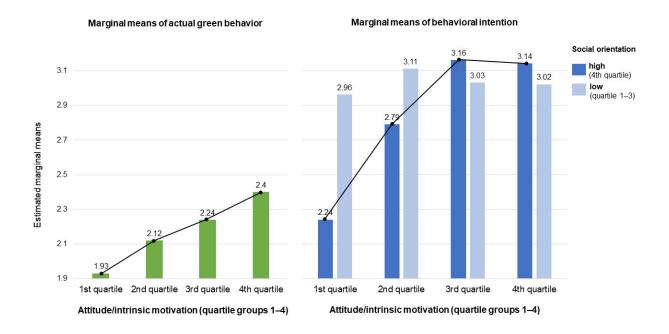


Figure 2. Impact of attitude on actual behavior (**left**) as well as social orientation and subjective norm on behavioral intention (**right**).

The results are not fully consistent with our hypotheses; attitude had in impact on actual behavior but no main effect on behavioral intention. In order to check the impact of internal and external factors on behavioral intention (see Table 14) and green behavior (see Table 15), two discriminant analyses were calculated with these items predicting the

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quartile groups of the means of items representing behavioral intention (from 1 = lowest quartile to 4 = highest quartile) and the actual green behavior (quartile groups 1–4), respectively. Both analyses show a highly significant solution for the classification of behavioral intention (Chi²[68] = 135.9; p < 0.001; 51% of variance explained, 68% cases correctly classified) and actual green behavior (Chi²[68] = 160.7; p < 0.001; 77% of variance explained, 69% cases correctly classified). A closer inspection of items substantially contributing to the correct classification of the four quartiles, as well as differentiating between these groups, shows that personal values are relevant for both intention and actual behavior ("Feeling like I am doing the right thing", item 19), as well as travel behavior (items 10 and 11). Financial issues (taxation addressed in items 5 and 15) play an important role in behavioral intention, whereas societal and political engagement (items 1, 3 and 8) are more relevant for actual green behavior. This pattern is consistent with other studies showing that environmental concern supports environmental behavior [11,12], especially when high self-efficacy is perceived [13].

Table 14. Discriminant analyses of items substantially contributing to the prediction of behavioral intention (p < 0.1).

		Test of Equality of Group Means			Behavioral Intention (Quartile Groups) Function Coefficients				
		Wilks' Lambda	F = [3281]	Sig.	Q1 <25%	Q2 <50%	Q3 <75%	Q4 ≤ 100%	Abs. Diff.
Internal: Subjective Norm									
1.	The topic of sustainability is of great importance for our society	0.99	0.48	0.700	7.69	6.70	6.50	5.68	11.20
2.	The importance that sustainability has in my circle of acquaintances strongly influences me	0.98	2.01	0.112	7.43	3.88	3.73	4.64	4.81
3.	The topic of sustainability is of great importance to me personally	0.95	4.54	0.004	8.35	4.80	5.17	4.81	6.43
4.	Politicians should swiftly take drastic measures to stop climate change	0.99	0.94	0.423	6.14	4.26	4.13	3.79	6.04
5.	I accept it if these measures have an impact on my personal life (e.g., stronger taxation of animal products or flights)	0.94	6.02	0.001	-1.31	3.16	3.34	4.24	12.05
6.	I look closely at my consumption of resources, e.g., CO2 footprint	0.94	5.90	0.001	-2.52	-1.05	-0.88	0.27	0.87
7.	I set myself personal goals for a more sustainable life and control whether I achieve them	0.95	5.24	0.002	0.72	2.04	2.13	2.50	5.95
8.	I think projects such as the deep- ening of the Elbe in Hamburg are	0.98	1.75	0.158	8.35	7.10	7.18	8.40	14.33

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	right, even if fish and plants die as a result. Preserving jobs is a higher priority for me								
9.	Cutting down a forest for a sup- plementary runway at the airport is the right thing to do in my opinion	0.98	2.02	0.111	5.84	4.71	4.74	5.68	9.29
Ext	ernal: social orientation								
10.	It would affect my travel behavior if my entire project team took the train instead of flying for sustainability reasons	0.94	5.91	0.001	-5.643	-5.998	-5.836	-4.922	11.11
11.	It would affect my travel behavior if the relevant managers in my environment (e.g., mentor, project manager) attached importance to traveling by train for sustainability reasons	0.95	4.96	0.002	6.161	6.533	6.601	7.768	14.74
12.	I would work from home more often, if it was explicitly endorsed by the project manager and/or mentor	0.99	0.84	0.473	2.075	3.238	3.146	3.353	7.66
13.	It would affect my eating habits if my entire environment were to eat sustainably	0.93	7.40	0.000	1.090	.538	.790	1.891	2.13
14.	If the majority of my environ- ment gave up the car for sustain- able mobility and switched to public transport, I would adapt and give up my car as well	0.99	1.06	0.367	-1.276	-2.111	-2.412	-3.321	6.57
	External: monetary orientation								
15.	If I could claim higher expenses for a project journey by train than for a flight, I would travel by train instead of plane	0.92	7.97	0.000	2.68	4.22	4.67	5.50	11.71
16.	If I work significantly more from home, I do not fear for my privi- leges in bonus programs of hotels and airlines	0.99	1.38	0.249	0.00	0.92	0.75	-0.58	1.09
17.	It would it affect my eating habits if a demonstrably sustainable diet led to financial benefits (e.g., via tax breaks, subsidies or cashback)	0.94	5.85	0.001	-1.65	-0.89	-0.73	0.01	0.04

18.	If public transport were free and the car was taxed much more heavily, I would adapt my car use	0.99	1.10	0.350	-0.98	1.84	1.68	1.95	6.47
Ind	ividual relevance: personal values								
19.	Feeling like I am doing the right thing	0.97	2.38	0.070	3.974	7.611	7.626	6.955	18.22
20.	Money or monetary reward	0.96	3.76	0.011	2.574	4.333	4.298	7.106	13.16
21.	People who are role models for me exemplify the behavior	0.97	2.47	0.063	1.813	1.351	1.176	.780	1.49
22.	Recognition in my circle of family and friends	0.95	4.80	0.003	7.615	4.221	3.960	7.496	8.06
23.	My disciplinary supervisor exemplifies the behavior	0.98	1.68	0.171	4.413	3.025	3.161	.900	2.67

Table 15. Discriminant analyses of items substantially contributing to the prediction of actual green behavior (p < 0.1).

		Test of I	Equality of Means	Group	Actual				
		Wilks' Lambda	F [3277]	Sig.	Q1 <25%	Q2 <50%	Q3 <75%	Q4 ≤ 100%	Abs. Diff.
Int	ernal: subjective norm								
1.	The topic of sustainability is of great importance for our society	0.96	3.81	0.011	6.76	6.87	6.58	6.14	12.84
2.	The importance that sustainability has in my circle of acquaintances strongly influences me	0.97	2.43	0.066	3.73	3.62	3.56	3.86	7.31
3.	The topic of sustainability is of great importance to me personally	0.83	19.41	0.000	4.84	5.22	5.07	5.86	11.32
4.	Politicians should swiftly take drastic measures to stop cli- mate change	0.87	13.90	0.000	4.20	4.45	4.44	4.52	9.21
5.	I accept it if these measures have an impact on my personal life (e.g., stronger taxation of animal products or flights)	0.91	9.64	0.000	3.15	3.05	3.04	3.00	5.94

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6.	I look closely at my consumption of resources, e.g., CO2 footprint	0.85	16.37	0.000	-1.22	-1.23	-0.79	-1.06	1.86
7.	I set myself personal goals for a more sustainable life and con- trol whether I achieve them	0.86	15.31	0.000	2.00	1.85	2.28	2.41	4.55
8.	I think projects such as the deepening of the Elbe in Hamburg are right, even if fish and plants die as a result. Preserving jobs is a higher priority for me	0.89	11.15	0.000	6.98	6.74	6.74	6.40	12.90
9.	Cutting down a forest for a supplementary runway at the airport is the right thing to do in my opinion	0.90	9.83	0.000	4.63	4.37	4.41	4.30	8.45
Ext	ernal: social orientation								
10.	It would affect my travel behavior if my entire project team took the train instead of flying for sustainability reasons	0.91	9.63	0.000	-6.23	-6.55	-5.38	-6.51	12.22
11.	It would affect my travel behavior if the relevant managers in my environment (e.g., mentor, project manager) attach importance to travelling by train for sustainability reasons	0.90	10.67	0.000	6.44	6.95	6.17	7.64	14.31
12.	I would work from home more often, if it was explicitly en- dorsed by the project manager and/or mentor	0.97	2.94	0.034	3.20	3.07	3.30	3.12	6.29
13.	It would affect my eating habits if my entire environment were to eat sustainably	0.86	15.04	0.000	0.48	0.30	0.44	1.03	1.30
14.	If the majority of my environ- ment for sustainable mobility gave up the car and switched to public transport, I would adapt and give up your car as well	0.95	4.78	0.003	-2.08	-1.60	-2.01	-1.20	2.74
Ext	ernal: monetary orientation								
15.	If I could claim higher expenses for a project journey by train	0.93	6.45	0.000	4.21	4.59	4.02	3.98	8.38

	than for a flight, I would travel by train instead of by plane								
16.	If I work significantly more from home, I do not fear for my privileges in bonus programs of hotels and airlines	0.98	1.74	0.158	1.06	1.12	1.11	1.11	2.28
17.	It would affect my eating habits if a demonstrably sustainable diet led to financial benefits (e.g., via tax breaks, subsidies or cashback)	0.84	18.02	0.000	-1.05	-0.84	-0.51	-0.55	0.85
18.	If public transport were free and the car was taxed much more heavily, I would adjust my car use	0.97	3.18	0.025	1.78	1.49	1.94	1.00	2.65
Ind: ues	ividual relevance: personal val-								
19.	Feeling like I am doing the right thing	0.90	10.36	0.000	7.79	7.62	7.53	7.25	14.60
20.	Money or monetary reward	0.99	1.14	0.333	3.94	4.07	4.10	4.10	8.34
21.	People who are role models for me exemplify the behavior	0.97	2.78	0.042	1.23	1.99	1.63	1.48	3.86
22.	Recognition in my circle of family and friends	0.98	1.54	0.205	3.70	3.40	3.54	3.50	6.74
23.	My disciplinary supervisor exemplifies the behavior	0.98	1.46	0.227	3.43	3.11	3.06	3.40	6.13

In summary, relevant items in the discriminant analysis (summarized in Tables 14 and 15), and the results of the factorial design (Figure 2), support the great importance of personal values and subjective norms for actual green behavior. The results of the discriminant analysis (Table 14) show that a broader spectrum of items, including subjective norm, as well as social and monetary orientation, are relevant to predict the behavioral intention. This is also supported by the outcome of the factorial design, which revealed no major effect of the subjective norm alone but an interaction of subjective norm and social orientation.

4.2.2. Green Behavior, Subjective Norm (Hypothesis 2) and Extrinsic Motivation (Hypothesis 3)

The second and third hypothesis claim that external factors, concerning perceived social expectations from peer groups and managers, have a strong positive impact on green behavior, whereas monetary rewards show a negative effect. In order to check these hypotheses, a MANOVA with the factors high vs. low individual attitude (personal rating of item 19 "Feeling like I am doing the right thing" above or below the overall mean), high vs. low financial orientation (item 20 on monetary rewards above or below overall mean) as well as high vs. low social orientation (means of items 21 to 23 above or below the overall mean) was calculated. Personal characteristics (sex, age, professional status, place of residence and family status) were introduced as covariates. A high individual attitude resulted in a higher behavioral

intention (F [1,452] = 9.57; p < 0.01; Figure 3 left hand side, dotted line) and more actual behavior (F [1,452] = 26,17; p < 0.001; Figure 3 left hand side, solid line). In addition, a significant main effect of financial orientation can be found, which reduces behavioral intention (F [1,395] = 4.36; p < 0.05) and a significant interaction of financial and social orientation on actual behavior (F [1,395] = 6.37; p < 0.01); if social orientation is high, monetary aspects do not play an important role. However, if social orientation is low, then a high financial orientation reduces green behavior (see Figure 3 right hand side). In summary, Hypothesis 2 is directly supported by the results; personal values—that is, the feeling of doing the right thing—drive both behavioral intention and green behavior. In the literature, personal attitude, and intrinsic motivation [64] is the most important driver of green behavior, together with perceived social expectations (subjective norm) and social support [42,43]. In the workplace, this social support may originate from team [15] or management support [19,20].

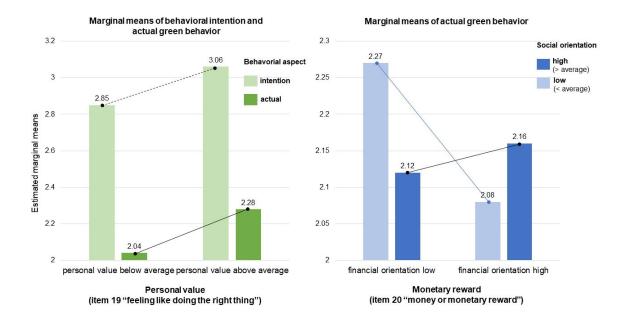


Figure 3. Main effect of personal values (endorsement of item 19 "doing the right thing" low vs. high) on actual behavior and behavioral intention (**left**) and interaction of monetary and social orientation concerning actual behavior (**right**).

Hypothesis 3 is only partly supported, because a high monetary orientation does only reduce behavioral intention or actual behavior when the social orientation is low. Social and monetary influence resulted in an interaction where a high social orientation counterbalances the negative effect of monetary rewards on actual behavior. This is reflected by the mixed results found in prior research: Some studies show that green behavior increases, if it is line with individual financial goals [22–24], whereas other studies show only short-term effects of financial incentives [27] or no effects [26], or even negative effects, especially when extrinsic rewards are perceived as signs of control [52] and distrust [28–30]. The data reported in this study suggest understanding these mixed findings as the result of an interaction, where low levels of internal motivation and social support increase the influence of extrinsic rewards and show there mostly adverse impact on green behavior.

4.2.3. Relationship between Behavioral Intention and Green Behavior (Hypothesis 4)

Hypothesis 4 asks whether behavioral intention paves the way to green behavior expressed by a strong unidirectional relationship between intention and actual behavior. Two regression models were calculated; all items about behavioral intention were used to predict the mean of the items concerning actual green behavior, and vice versa. The

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stability of the scales concerning items' intercorrelations (see Appendix C) and Cronbach's alpha is sufficiently high (alpha = 0.83) and expectedly lower for the small scales of behavioral intention (alpha = 0.54) and actual green behavior (alpha = 0.67). According to the item statistics and Cronbach's alpha, the scales show sufficient independence and stability. The results have been checked for collinearity finding Variance Inflation Factors (VIF) well below 2.5, indicating considerable collinearity [80]. Consistent with our hypothesis and prior research [31,49,50], the items addressing behavioral intention predict actual behavior much better ($R^2 = 0.51$; F [5,282] = 20.03; p < 0.001) than the seven items concerning actual behavior predict behavioral intention ($R^2 = 0.25$; F [7,452] = 4.43; p < 0.001; see Table 16).

Table 16. Regression models: behavioral intention predicting actual behavior (left); and actual behavior predicting behavioral intention (right).

Behavioral intentio	n → Actu	ıal Behav	vior		Actual Behavior → Be	havioral	Intentio	n	
	Stand. Beta Coeff.	t	Sig.	VIF		Stand. Beta Coeff.	t	Sig.	VIF
(Constant)		10.117	0.000		(Constant)		12.137	0.000	
I would travel to the project by train in- stead of by plane for the sake of sustaina- bility.	0.161	3.038	0.003	1.07	I walk even when it's late and raining outside, but I still need something from the supermarket around the corner.	-0.061	-1.339	0.181	1.01
Physical presence at the customer's site is indispensable, sus- tainability issues must take a back seat. (re- versed)	-0.014	-0.229	0.819	1.36	When shopping, I take a cloth bag from home with me.	0.099	2.119	0.035	1.06
I gladly accept the disadvantages of working from home in order to conserve resources.	0.166	2.780	0.006	1.36	When I walk out of the room I always turn off the light.	-0.007	-0.142	0.887	1.02
I plan to change my diet for sustainability reasons (i.e., no/little animal products; no tropical fruits).	0.355	6.585	0.000	1.11	On vacation, I usually travel by train, bus or I go on a hiking vacation.	0.017	0.375	0.708	1.02
When it comes to cars, I don't limit myself. (reversed)	-0.070	-1.304	0.193	1.09	I give up meat, fish or other animal products for the sake of the environment or sustainability.	0.174	3.602	0.000	1.13
R ² = 0.51; F [5282] = 20.03;	p < 0.001			I have financially supported environmental protection associations with	0.099	1.999	0.046	1.19

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donations in the last 12 months.

I have supported environmental protection associations ... through volunteer work in the last 12 months.

-0.001 -0.012 0.990 1.28

 $R^2 = 0.25$; F [7452] = 4.43; p < 0.001

4.3. Model Summary and Model Check

In summary, personal characteristics and different scenarios play a relevant role in forming behavioral intention, as well the actual behavior shown. Women are more interested in sustainability and implement it more consistently. Women are more responsive to social incentives, men to a combination of social and material incentives. Material incentives alone, however, have a negative effect. Younger people show an ambivalent behavior; they want to act in a sustainable, "green" manner, but they also want to experience a lot of long-distance and air travel. The greatest willingness to change in men is shown in midlife, at the age of 35 to 45 years. Sustainable behavior is mainly found in the big city, but the greatest willingness to behave more sustainably can be identified in small towns and in the countryside.

Career starters are more interested in the topic and attach higher importance to sustainable action than people in higher positions. Women in higher professional positions are more likely to act as role models; they show more actual sustainable behavior, while men in higher positions show less actual behavior. Having children does not lead to sustainable action but to more pragmatism, e.g., in car use and nutrition. Younger people are more likely to use bus or coach journeys, while in low-income positions. Airplanes are a more popular means of travel among those with a higher income, especially if they live in a big city. People in midlife and with children are most likely to refrain from air travel. Healthy nutrition is an issue, especially for younger people and women. Healthy living is an important incentive, especially for women.

In order to summarize and check our basic hypotheses, the means for all items forming the factors subjective norm (nine items), social orientation (five items) and monetary orientation (four items; see Table A3) entered two regression analyses as independent variables, and behavioral intention (five items) and actual behavior (seven items, see Table A2) as dependent variables (see Table 17). This summary supports the previous results, that it is easier to predict actual behavior (Table 17, right hand side) than behavioral intention (Table 17, left hand side), and that subjective norm and social orientation play a dominant role in explaining actual green behavior (Table 17, significant beta coefficients, right hand side). The VIF well below 2.5 indicates considerable collinearity of the regression analyses [79].

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Table 17. Model summary as linear regression of the means of subjective norm, social orientation and monetary orientation as independent variables and behavioral intention (left) and actual green behavior (right) as dependent variables.

	Behav	ioral Inten	tion (5 Ite	ms)	Actu	al Behavior	(7 Items)	
	Stand. Beta Co- eff.	t	Sig.	VIF	Stand. Beta Coeff.	t	Sig.	VIF
(Constant)		11.347	0.000			6.490	0.000	
Mean Subj. Norm (9 items)	0.049	0.935	0.350	1.29	0.271	6.064	0.000	1.29
Mean Social Orientation (5 items)	-0.042	-0.687	0.492	1.77	0.319	6.095	0.000	1.78
Mean Monetary Orientation (4 items)	0.208	3.566	0.000	1.59	0.083	1.664	0.097	1.60
R ² = 0.21; F [3447] = 6.59;	<i>p</i> < 0.001					$R^2 = 0.56;$	F [3447] = 0	67.0; p <

A summary of all aspects of this study in the format of the study design (see Table 1) is displayed in Figure 4.

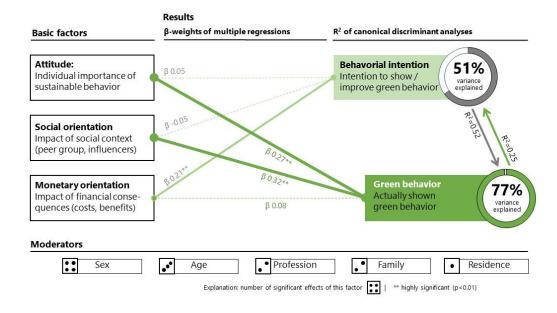


Figure 4. Model summary based on the design (see Figure 1) and the empirical results reported in this study.

5. Discussion

Our study shows that employees in the financial sector are predominately responsive towards sustainability and green behavior. A total of 20% are convinced of the need to act in a "green" and sustainable manner and, therefore, are classified as influencers. On the

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other side of the spectrum, only 5% are hard to win over or are not accessible at all, which means that 75% of the included employees are reachable and approachable in terms of sustainable behavior.

5.1. Contribution to the Literature

Our hypotheses were only partly supported; attitude built on intrinsic motivation is important as a predictor for actual green behavior. However, there is no direct impact of attitude on behavioral intention, but an interaction with the subjective norm built on perceived expectations and role models of co-workers and managers. As expected, behavioral intention drives actual green behavior. In what way this may happen can be examined in some more detail due to behavioral scenarios concerning work, nutrition and mobility used in the survey. Individual characteristics are not only moderators but also segmentation (or cluster) criteria, to better understand behavioral intention considering the impact these characteristics have on the different behavioral scenarios (see Table 18). This segmentation also has some practical implications, as described below.

Table 18. Typology of green behavior based on a schematic summary of results of this study.

Type of Actual Behavior	Pain Point	Gain Point
Person of conviction: Often lives in the big city and tends to be a career starter, has high expectations of their environment, especially employers, is committed to more sustainability; wants to convince others; is socially only little and materially hardly influenceable	Not acting sustainably, indifference	Convince/change others and direct environment
Socially oriented: Mostly female and under 45 years of age, high demands on herself but not necessarily on her environment, actively takes up numerous suggestions, especially from the social environment; role models play an important role for women	Ambitions are missed, no or weak social orien- tation	Meet demands and fol- low role models
<u>Health-conscious selectors:</u> Mostly women pay attention to a healthy lifestyle regardless of age and potentially children and therefore eat sustainably, but high professional and travel burden has a negative effect on sustainable behavior	Being under pressure, endangering health	Health and well-being
<u>Pragmatic families:</u> No big intentions for change, pragmatic handling of nutrition as well as mobility and means of transport; although car is seen skeptical, it is often used for travel; inhabitants of large cities also use short-haul flights	Additional effort, reorganization of support (e.g., baby-sitting)	Uncomplicated way of doing the right thing—also for children—doing good
Sustainable materialist: Mostly male; age and place of residence do not play a major role; seeks mainly monetary advantages, is less interested in cost savings; does not like to give up car use and nutritional habits, but can be influenced above all by direct social environment	Practice renunciation, lack of social recognition	Material gain, recom- mendations from friends
Indifferent hedonists: Mainly young city dwellers who—if they can afford it—like to take long-distance trips and long-haul flights; especially men are reluctant to do without a car and good food, but are responsive to their direct social environment	Practice renunciation, lack of social recognition	Have fun, be able to afford something

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Our study contributes to the literature as it can show that sustainable behavior is conveyed through subjective but also social norms and interactions. Financial loss or benefits, combined with social motives, contribute to sustainable living, whereas financial benefits alone actually hinder such behavior.

The study underlines the existence and, therefore, the methodological challenge of the intention-behavior gap [55,57–59]. The intention to behave sustainably is built somewhat separately from various influences. Regarding actual green behavior, however, there are moderating factors like sex, age and family status that influence the decisions. This then leads to a gap between intention and actual behavior. Other factors and moderators that were not part of our research, but were found by other researchers, were consumer guilt, [61] habits, the willingness to commit and actually sacrifice, [81] product availability and perceived effectiveness [62], as well as behavioral costs involved [12,63,64] or, rather, efficacy of the proposed behavior [63]. It is possible and probable that those moderating factors also have an influence on our study sample. Further research should be conducted in this area.

According to our findings, even employees in the financial sector, who tend to be financially proficient, do not react to financial benefits in a behavior-enhancing way [6]. Financial benefits contribute to sustainable behavior if they are combined with social motives, but financial benefits alone actually hinder green behavior. This contributes to the literature and provides a new outlook on the role of financial benefits among financially savvy people, in the context of sustainable behavior. It contradicts various research [22– 24] e.g., Merriman et al. [24], which showed that financial rewards that are tied to sustainable objects affect employees' green behavior. However, our findings confirm other research results, which emphasized that sustainability-oriented incentive systems do not affect and rather discourage actual employees' green behavior [26,27]. According to other researchers [23,29], as soon as incentive systems are introduced, the employees' motivation to behave sustainably deteriorates because it no longer signals an image improvement, but green behavior then appears to be opportunistic. The results of this study show that it is necessary to tie social motives to financial benefits, as financial benefits alone hinder employees' green behavior. This delicate circumstance needs to be considered carefully.

Social pressure and social support have a positive effect on employees' green behavior. This is in line with previous literature [12,15–17,20,21]. The relationship among coworkers and influencers, as well as the relationship with the company and leaders within the organization, influence employees' green behavior. Shared values, knowledge, discussions and a trusting or supportive relationship with the company motivate workers. Our research underpins those findings. Sustainable behavior is conveyed through social support, pressure, and influence.

5.2. Limitations

Our approach comes with several limitations due to the material and procedures the researchers applied in this study. In a questionnaire survey, the given answers are restricted to self-evaluation, and behavioral patterns cannot be tracked over time. The use of an online survey may result in unwanted or hidden selective sampling [82]. The sample used in this paper consists of mostly young, well-educated consultants in Europe with a training background in banking and finance, receiving a relatively high income (as compared to their age group and national income levels). Therefore, the sample is highly selective and insufficient for a cross-sectional study of an average population. Also, the data does not allow for a longitudinal approach. However, with participants coming from various European countries, banks and other financial institutions, there is no indication that they do not reflect a critical sample of well-educated employees in the European financial industry. With some restriction, one might also argue that the factorial, quasi-experimental design applied in this study is not fully dependent on the representativity of the sample. A major drawback is the lack of a full model-based test bed, including major

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factors such as perceived behavioral control of behavior, explicit questions concerning positive or negative feelings, as well as the desire and the need to perform environmental behavior. These limitations come from practical consideration, considering a maximum of 20 min needed to fill-in the online-survey, and the disparate levels of actual behavior from highly engaged individuals to employees who have never considered any green behavior.

In the future, research should consider the following:

- (1) Impact study with at least pre-post design to check whether certain measures help to increase actual green behavior, and better translate intention into real action;
- (2) Comparison of behavioral intention and actual behavior of different target groups, especially professionals who are relevant for green behavior in society, such as consultants and financial service specialists;
- (3) Systematic review of the impact of different relevant factors, such as perceived behavioral control and individual evaluation of the desire and need to perform green behavior

Finally, our study invites further research concerning employees' green behavior in the financial sector, as well as basic research methods. Which additional factors influence the intention-behavior gap? Why do incentive schemes—contrary to common belief—hinder sustainable behavior? How can employers and companies utilize those findings?

5.3. Practical Implications

A more practical aspect of the research reported in this study is the introduction of a segmentation model for behavioral patterns of employees. Whereas previous segmentation models have looked at sustainable behavior within wide populations, e.g., the population of the UK [65], Wales [69], the US [66] or Australia [67,68], our model concerns a more narrow population of employees in the financial sector. The results reported here suggest a segmentation model of sustainable behavior patterns categorizing six different types of actual behavior (Table 18).

Sustainability and environmentalism are focal points of our society. Companies and organizations increasingly need to participate and lead society into a more sustainable future, ecologically as well as socially, and in terms of governance. As companies' actions arise from and are carried by employees' attitudes and behavior patterns, it is crucial to mobilize and motivate employees to share organizational sustainability goals. There are a few practical implications organizations should consider in this context.

First, it is beneficial to evaluate the green attitude and behavioral patterns of the employees in order to determine the actual willingness and openness the company faces. To this end, a practical typology of "green behavior", such as the one created from results reported in this study (Table 18), can be helpful. From this point, the company knows its baseline and what actions must be taken to lead the company in the desired direction. According to our study, solely concentrating on financial incentives is not recommended as an organizational measure because it does not promote sustainable behavior, but, in fact, hinders it.

Our study showed that social influence has a big impact on employees' green behavior. Organizational leaders are able to establish norms and values for employees' green behavior, which underlines the importance of green transformational leadership [83–85]. Wang et al. [83] explain that if leaders demonstrate green behavior, employees are more likely to accept it and adapt their own behavior. Therefore, companies should train their leaders in green leadership by improving environmental knowledge and skills, so they can set an example, provide clear signals and visions to the employees and motivate and support them [84,85]. Simultaneously, corporate social responsibility managers can be introduced and recognized as critical change agents. They can be a role model for all employees and also for other organizational leaders [86].

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Not only organizational leaders should be trained, but it is also beneficial to educate and train employees in order to raise awareness for green behavior. Sustainability should be contextualized to the company and to people's situations, so it is more tangible and relevant, thereby raising a higher willingness to commit [86]. Additionally, sustainability strategies should be directly linked to daily business routines and should be communicated as a collective effort of the whole organization, although the organization should avoid obligations [19]. Training should also involve understanding environmental protection as one of the important goals of the organization. Besides employees' training, the identified influencers in the organization could be utilized to mobilize and motivate other reachable employees. Influencers can also be motivated to build networks, which, again, are supported by organizational leaders.

A measure that enables employees to perceive sustainable behavior and actions helps to make sustainability quantifiable. Having actual performance indicators convinces employees to participate and motivates them to influence those indicators, and thus change their behavior [86]. The use of internal benchmarking measures can guide employees and instill internal competitive spirit. Additionally, the European Union introduced a mandatory corporate sustainability reporting directive for listed companies making sustainability concerns matter, but also, potentially, external benchmarking possible [87].

Another factor promoting employees' green behavior is enabling those employees to participate in the development of their organization's sustainability policy [85]. Organizations can incorporate the social desires and environmental concerns of their own employees, raise more interest for their sustainability policies and create higher commitment for the organization's goals. Finally, sustainability strategies can also play a part in the human resource recruitment processes. Within interviews, environmental attitudes and sustainability awareness of future employees can be evaluated and aligned to organizational goals [85].

5.4. Conclusions

Sustainability and environmentalism are a crucial topic of the present day, as well as our future, in terms of both society and corporate governance. In order to align employees' green behavioral ambitions with corporate goals, companies need to understand their employees' environmental intentions and behavioral patterns and introduce measures to influence those. Research has shed only little light on employees' green behavior in the financial sector so far. This paper aims to contribute to the literature by using acceptance models to analyze individual, social and financial factors that influence green behavioral intentions, as well as actual employees' green behavior in the context of employees within the financial sector. Employees in the financial sector are largely responsive towards sustainability and green behavior. The study's results show that subjective norm had no significant impact on behavioral intention but much more on actual green behavior. Furthermore, sustainable behavior is conveyed through subjective but also social norms and interactions. Financial loss or benefits combined with social motives contribute to sustainable living, whereas financial benefits alone actually hinder sustainable behavior. Based on this study's findings a new segmentation model of employees' green behavior has been introduced.

Supplementary Materials: The following supporting information can be downloaded at: www.mdpi.com/article/10.3390/su141710814/s1, Supplementary File S1: Survey about green behavior (German version).

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Survey about green behavior (English version)

A Questions on current sustainability behavior

- It's late and raining outside, but you still need something from the supermarket around the corner.
 - (a) You take the car or taxi every time
 - (b) You take the car as an exception because it rains
 - (c) You walk
- 2. When shopping, you take...
 - (a) a plastic bag from home with you
 - (b) a cloth bag from home with you
 - (c) a bag at the checkout
 - (d) a bag from the vegetable department, because it costs nothing
- 3. When you walk out of the room
 - (a) You only turn off the light when you leave the room for a longer period
 - (b) Often the light continues to burn
 - (c) You always turn off the light
- 4. How do you usually travel when taking a vacation?
 - (a) Train, bus or hiking vacation
 - (b) Car or short-haul flight
 - (c) Long-haul flight
- 5. Do you give up meat, fish or other animal products for the sake of the environment or sustainability?
 - (a) No! Animal foods are part of a proper diet for me
 - (b) No! I am a vegetarian/vegan but not because of the environment
 - (c) Yes, I try to reduce animal products for the sake of the environment
 - (d) Yes, I am a vegetarian/vegan to contribute to sustainability
- 6. Have you financially supported environmental protection associations or similar organizations with donations in the last 12 months?
 - (a) Yes—I donate regularly
 - (b) Yes, I sometimes donate on a case-by-case basis
 - (c) No, but I have resolved to do so
 - (d) No
- 7. Have you supported environmental protection associations or similar organizations through volunteer work in the last 12 months?
 - (a) Yes-I am regularly involved
 - (b) I occasionally went to events, such as Fridays-for-future demos
 - (c) I often sign petitions that aim to protect the environment and sustainability

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- (d) No, but I have resolved to do so
- (e) No

B Questions about the opinion of sustainability

Please rate the following statements about sustainability. 5 stands for "I fully support" and 1 corresponds to "I do not agree at all"

- 8. The topic of sustainability is of great importance for our society
- The importance that sustainability has in my circle of acquaintances strongly influences me
- 10. The topic of sustainability is of great importance to me personally
- 11. Politicians should swiftly take drastic measures to stop climate change
- 12. I accept it if these measures have an impact on my personal life (e.g., stronger taxation of animal products or flights)
- 13. I look closely at my consumption of resources, e.g., CO2 footprint
- 14. I set myself personal goals for a more sustainable life and control whether I achieve them
- 15. I think projects such as the deepening of the Elbe in Hamburg are right, even if fish and plants die as a result. Preserving jobs is a higher priority for me
- 16. Cutting down a forest for a supplementary runway at the airport is the right thing to do in my opinion

C Questions on behavioral assessment

Situation 1: Project travel—consultant

- 17. Would you travel to the project by train instead of by plane for the sake of sustainability?
 - (a) No way—I always take the fastest connection
 - (b) Only if the time difference is small (<1 h)
 - (c) Yes, I am willing to accept a medium time difference (<3 h)
 - (d) Yes, wherever possible, even for long train journeys (e.g., Hamburg—Munich) and if I must travel the evening before
- 18. If you were to receive higher expense allowances for a project journey by train than for a flight, would you travel by train instead of by plane?
 - (a) No way—I always take the fastest connection
 - (b) I would travel by train if there was only a small-time disadvantage compared to the plane (<1 h)
 - (c) I would travel by train, even if there was a medium time disadvantage compared to the plane (<3 h)
 - (d) I would always opt for the train wherever possible, even for long distances (e.g., Hamburg—Munich) and if I must travel the evening before
- 19. Imagine the following scenario: The regular Monday morning journey by plane to the project at the client's premises takes 3 h from door to door, arrival by earliest plane is 10:00 am. Arriving by train takes 3 h longer, a total of 6 h from door to door. Since the client will not allow a start after 10:00 a.m., taking the train would require you to travel on Sunday, latest departure at 5:00 p.m.
 - (a) If you were offered monetary compensation for longer travel times, by how many euros would the expense allowance have to increase in the above scenario for you to take the train? ___ € (enter number)
 - (b) If you were offered time compensation for longer travel times, how many hours would have to be credited to your time account in the above scenario for you to accept the train ride? ___ h (enter number)
- 20. How does it affect your travel behavior if your entire project team takes the train instead of flying for sustainability reasons?
 - (a) This does not affect me, I take the fastest connection for me

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- (b) I also take a train if there is only a small-time disadvantage compared to the plane (<3 h), otherwise I'll fly
- (c) I will also take the train, even for long distances (e.g., Hamburg—Munich) and if I must travel the evening before
- 21. How does it affect your travel behavior if the relevant partners in your environment (e.g., mentor, project manager) attach importance to travelling by train for sustainability reasons?
 - (a) This does not affect me; I take the fastest connection for me within the constraints of the travel policy
 - (b) I will also take a train if there is only a small-time disadvantage compared to the plane (<3 h), otherwise I'll fly
 - (c) I will also take the train, even for long distances (e.g., Hamburg—Munich) and if I must travel the evening before

Situation 2: Working from home

- 22. Working from home is another means of reducing the consumption of resources for mobility. Please rate the following statements about working from home. 5 stands for "I fully support" and 1 corresponds to "I do not agree at all". This refers to working from home under regular circumstances, not during The COVID-19 emergency.
 - (a) Physical presence at the customer's site is indispensable, sustainability issues must take a back seat
 - (b) I gladly accept the disadvantages of working from home in order to conserve resources
 - (c) Working from home is not only better for the environment, but I am also more productive
 - (d) If I work significantly more from home, I fear for my privileges in bonus programs of hotels and airlines
 - (e) My company should explicitly offer customers remote work as a sustainable option
- 23. What percentage of your job could you do just as well from home (assuming optimal technology) without compromising on content? ____% (enter number)
- 24. How much more often would you work from home if it was explicitly endorsed by the project manager and/or mentor?
 - (a) Whenever possible
 - (b) Much more frequently
 - (c) Slightly more frequently
 - (d) No more frequently

Situation 2: Nutrition

- 25. A resource-saving diet is plant-based and uses regional and seasonal products. Are you planning to change your diet for sustainability reasons? (i.e., no/little animal products; no tropical fruits such as oranges, mangoes, kiwis; fresh foods such as fruits and vegetables depending on the season).
 - (a) No−I eat what I like
 - (b) I reduce climate-damaging foods, but freshly squeezed orange juice on weekends is a must (example)
 - (c) I already eat mostly sustainably
- 26. How would it affect your eating habits if a demonstrably sustainable diet (as described) led to financial benefits (e.g., via tax breaks, subsidies or cashback)?
 - (a) Not at all—I eat what I like. Money has no influence on my decision
 - (b) Given financial incentives, I would partially change my diet
 - (c) Given financial incentives, I would consistently change my diet
 - (d) I already eat sustainably and do not need any financial incentives for this

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- 27. How would it affect your eating habits if your entire environment were to eat sustainably?
 - (a) Not at all—delicious, individual food is important to me. I don't care what others eat
 - (b) In some areas I would adapt. But there are things I won't do without
 - (c) If my environment changes, then I do the same
 - (d) I eat sustainably anyway and am therefore a role model for my environment *Situation 3: Car*
- 28. Driving as a symbol of individual mobility is often mentioned in the media when it comes to sustainability and CO₂ consumption. Please rate the following statements about sustainability. 5 stands for "I fully support" and 1 corresponds to "I do not agree at all"
 - (a) When it comes to cars, I don't limit myself
 - (b) To save CO₂, I am willing to drive a smaller car than I can afford and would otherwise buy
 - (c) To save CO₂, I am ready to drive an e-car using green electricity
 - (d) I am ready to use my car for many years to reduce resource consumption
 - (e) I am willing to do without the second car in the household for sustainability reasons
 - (f) I am ready to give up my car for sustainability reasons or to give up all cars in the household
- 29. If public transport were free and the car was taxed much more heavily, would you adapt your car use?
 - (a) No. When it comes to cars, I wouldn't limit myself, regardless of the costs and possible savings.
 - (b) As far as possible, I would leave the car in the garage to save money
 - (c) Given strong financial incentives, I would give up my car and adapt my mobility
 - (d) I have already done away with my car, even without financial incentives
- 30. If the majority of your environment gave up the car and switched to public transport for sustainable mobility, would you adapt and give up your car as well?
 - (a) No, I'm not going to limit myself when it comes to cars
 - (b) Maybe I'll switch to a smaller car or an electric car
 - (c) Yes, I would then also give up my car
 - (d) I have already done away with my car and am therefore a role model for my environment

D General

- 31. Behavior can be influenced by incentives. Please evaluate the significance of the mentioned incentive options for you. 5 stands for "extremely important" and 1 corresponds to "completely unimportant"
 - (a) Feeling like you're doing the right thing
 - (b) Money or monetary reward
 - (c) People who are role models for me exemplify the behavior
 - (d) Recognition in my circle of family and friends
 - (e) My disciplinary supervisor exemplifies the behavior

Socio-economic issues:

- 32. What gender do you identify with?
 - (a) Male
 - (b) Female
 - (c) Non-binary
- 33. How old are you? (age ranges)

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- (a) 20-25 years
- (b) 26-30 years
- (c) 31-35 years
- (d) 36–40 years
- (e) 41-45 years
- (f) 46-50 years
- (g) >51 years
- 34. What is your functional level?

Consultants/lower management

- (a) Consultant
- (b) Senior Consultant

Consultants/middle management

- (c) Manager
- (d) Senior Manager

Consultants/top management

- (e) Partner
- (f) Head

Administration/Support

- (g) Professional
- (h) Senior Professional
- (i) Expert
- (j) Manager Internal
- 35. In which type of geographical area do you live?
 - (a) City of millions (1 million inhabitants or more)
 - (b) Big city (between 100,000 and 999,999 inhabitants)
 - (c) Mid-sized town (between 20,000 and 99,999 inhabitants)
 - (d) Small town (between 5000 and 19,999 inhabitants)(e) Rural area (less than 5000 inhabitants)
- 36. Do you have children?
 - (a) yes
 - (b) no

Appendix B

Number inputs: monetary and time compensation, working from home

The participants entered numbers in order to indicate what they would expect as monetary and time compensation for more sustainable, but also more time-consuming, travel (train vs. flight). Men expected about EUR 170 (USD 190), women EUR 150 (USD 170) and both genders on average 5.9 h of spare time in compensation. Employees with children asked for more compensation than employees without: EUR 209 (USD 237) and 7 h in compensation for longer travel times for participants with children; and EUR 154 (USD 175) and 5.4 h for participants without (F [1159] = 3.74; p < 0.05). Age group had a significant impact on monetary compensation (F [6153] = 2.70; p < 0.05) and time compensation (F [6153] = 2.26; p < 0.05), showing higher numbers with increasing age (see Table A1). No other significant effects were found and estimates for work hours from home did not differ significantly either: women estimated that they could perform up to 65% of their work from home without compromising on quality; for men the figure was 58%. Employees with children would like to spend 57% of their working hours at home, employees without children, 60%.

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Table A1. Summary of subject variables (mean and standard deviation).

			Monetary Compensa	tion (in	EUR)			
Age Group (yrs.)	M	SD	Professional Status	M	SD	Place of Residence	M	SD
20–25	117	120	Partner	189	106	City of millions (>1 m inhabitants)	165	132
26–30	132	105	Senior Manager	149	126	Big city (>100 k to <1 m)	156	131
31–35	183	141	Manager 192 146		146	Medium-sized city (>20 k to <100 k)	167	148
36–40	193	153	Senior Consultant	162	156	Small town (>5 k to <20 k)	211	178
41–45	234	171	Consultant/Analyst	156	107	Rural area (<5 k)	223	155
46–50	163	116	Internal staff	168	159			
>51	>51 265 184							
Total	169	138						
			Time compensation	n (in hou	ırs)			
Age group (yrs.)	M	SD	Professional status	M	SD	Place of residence	M	SE
20–25	4.2	2.3	Partner	4.7	3.2	City of millions (>1 m inhabitants)	6.6	6.1
26–30	5.5	4.5	Senior Manager	6.5	4.6	Big city (>100 k to < 1 m)	5.2	3.7
31–35	5.5	2.8	Manager	6.3	6.4	Medium-sized city (>20 k to <100 k)	5.8	4.8
36–40	7.2	6.2	Senior Consultant	6.0	5.5	Small town (>5 k to <20 k)	7.2	6.3
	6.3	4.7	Consultant/Analyst	5.8	4.6	Rural area (<5 k)	5.9	2.8
41–45	5.7 Internal staff 5.7		4.6					
41–45 46–50	8.0	9.0	Internal staff	5.7	4.6			
	8.0 5.9	9.0 2.8	Internal staff	5.7	4.6			

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Age group (yrs.)	M	SD	Professional status	M	SD	Place of residence	М	SD
20–25	57.4	24.0	Partner	66.0	21.2	City of millions (>1 m inhabitants)	57.3	23.3
26–30	59.2	20.7	Senior Manager	62.4	22.8	Big city (>100 k to <1 m)	59.2	20.5
31–35	63.3	22.6	Manager	53.9	23.4	Medium-sized city (>20 k to <100 k)	61.3	20.1
36–40	61.2	20.7	Senior Consultant	57.4	18.3	Small town (>5 k to <20 k)	64.8	18.5
41–45	64.7	20.8	Consultant/Analyst	58.5	19.0	Rural area (<5 k)	62.0	24.2
46–50	53.9	20.4	Internal staff	59.8	21.4			
>51	53.6	20.0						
Mean	59.4	21.3						

M = Mean, SD = Standard Deviation.

Appendix C

 $\textbf{Table A2.} \ \textbf{Items describing behavioral intention and actual green behavior.}$

	Behavioral Intention			_	
	Item	Median	Mean	SD	Fully Agree (in%)
1.	I would travel to the project by train instead of by plane for the sake of sustainability.	2.5	3.1	0.9	6.0
2.	Physical presence at the customer's site is indispensable, sustainability issues must take a back seat. (reversed)	3.0	3.0	1.2	7.4
3.	I gladly accept the disadvantages of working from home in order to conserve resources.	4.0	3.6	1.1	11.1
4.	I plan to change my diet for sustainability reasons (i.e., no/little animal products; no tropical fruits such as oranges, mangoes, kiwis; fresh foods such as fruits and vegetables depending on the season).	3.0	3.3	1.2	23.0
5.	When it comes to cars, I don't limit myself. (reversed)	3.0	2.7	1.2	8.9
Ov	erall mean for "behavioral intention"	3.1	3.1	1.1	11.3
	Effective Green Behavio	r			
	Item	Median	Mean	SD	fully agree (in%)

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6.	I walk \dots even when it's late and raining outside, but I still need something from the supermarket around the corner.	5.0	4.2	1.2	4.9
7.	When shopping, I take a cloth bag from home with me.	5.0	4.7	0.8	84.0
8.	When I walk out of the room I \dots always turn off the light.	2.0	2.9	1.5	33.8
9.	On vacation, I usually travel by train, bus or I go on a hiking vacation.	3.0	2.9	0.9	6.0
10.	I give up meat, fish or other animal products for the sake of the environment or sustainability.	3.0	2.6	1.4	7.7
11.	I have financially supported environmental protection associations or similar organizations with donations in the last 12 months.	1.0	2.3	1.3	10.6
12.	I have supported environmental protection associations or similar organizations through volunteer work in the last 12 months.	1.0	1.6	1.0	2.3
Ov	erall mean for "actual 'green' behavior"	2.9	3.0	1.2	21.3

 $\textbf{Table A3.}\ Items\ constituting\ subjective\ and\ external/supporting\ factors.$

Internal Factor: Subjective Norm *									
	Item	Median	Mean	SD	Fully Agree (in%)				
1.	The topic of sustainability is of great importance for our society	5.0	4.4	0.8	55.3				
2.	The importance that sustainability has in my circle of acquaintances strongly influences me	3.0	2.9	1.0	2.3				
3.	The topic of sustainability is of great importance to me personally	4.0	4.0	0.8	24.7				
4.	Politicians should swiftly take drastic measures to stop climate change	4.0	4.2	1.0	46.8				
5.	I accept it if these measures have an impact on my personal life (e.g., stronger taxation of animal products or flights)	4.0	4.0	0.9	33.2				
6.	I look closely at my consumption of resources, e.g., CO2 footprint	3.0	3.3	1.1	11.2				
7.	I set myself personal goals for a more sustainable life and control whether I achieve them	3.0	2.9	1.0	4.9				
8.	I think projects such as the deepening of the Elbe in Hamburg are right, even if fish and plants die as a result. Preserving jobs is a higher priority for me (reversed/completely disagree)	3.0	3.1	0.9	7.1				
9.	Cutting down a forest for a supplementary runway at the airport is the right thing to do in my opinion (reversed/completely disagree)	3.0	3.5	1.0	17.1				
Ov	erall mean for "subjective norm"	3.7	3.6	0.6	22.5				
Ext	ternal factors: social orientation *								
	Item	Median	Mean	SD	fully agree (in%)				

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10.	It would affect my travel behavior if my entire project team took the train instead of flying for sustainability reasons	4.0	4.2	0.6	13.0
11.	It would affect my travel behavior if the relevant managers in my environment (e.g., mentor, project manager) attached importance to travelling by train for sustainability reasons	4.0	4.2	0.6	14.2
12.	I would work from home more often, if it was explicitly endorsed by the project manager and/or mentor	4.0	3.5	1.0	20.4
13.	It would affect my eating habits if my entire environment were to eat sustainably	4.0	3.6	1.0	10.5
14.	If the majority of my environment gave up the car and switched to public transport for sustainable mobility, I would adapt and give up my car as well	4.0	3.7	1.0	11.5
Ove	rall mean for "social influence"	4.0	3.9	0.9	13.9
Exte	ernal factors: monetary orientation *				
	Item	Median	Mean	SD	fully agree (in%)
15.	If I were to get higher expense allowances for a project journey by train than for a flight, I would travel by train instead of by plane	3.0	2.6	0.8	13.0
16.	If I work significantly more from home, I do not fear for my privileges in bonus programs of hotels and airlines	4.0	3.6	1.4	38.1
17.	It would affect my eating habits if a demonstrably sustainable diet led to financial benefits (e.g., via tax breaks, subsidies or cashback)	4.0	3.6	1.1	8.9
18.	If public transport were free and the car was taxed much more heavily, I would adapt my car use	4.0	3.6	0.9	19.6
Ove	rall mean for "financial loss & benefit"	3.1	3.1	0.9	19.9
Indi	vidual relevance: personal values *				
	Item	Median	Mean	SD	supremely im- portant (%)
1.	Feeling like I am doing the right thing	2.0	2.3	0.9	18.6
2.	Money or monetary reward	3.0	2.8	0.9	6.2
3.	People who are role models for me exemplify the behavior	3.0	3.0	1.0	5.5
4.	Recognition in my circle of family and friends	3.0	3.1	0.9	2.7
5.	My disciplinary supervisor exemplifies the behavior	4.0	3.6	1.0	2.5
Ove	erall mean for "personal values"	3.0	3.0	0.9	7.1

^{*} The higher the mean/median, the more sustainable behavior is indicated; SD = standard deviation.

Table A4. Intercorrelation and correlation of items concerning behavioral intention and actual 'green behavior'.

Behavioral in-	I would travel to the project by train instead of by plane for the sake of sustaina- bility.	Physical presence at the customer's site is indispensable, sustainability issues must take a back seat. (reversed)	I gladly accept the disadvantages of working from home in order to conserve resources.	I plan to change my diet for sustaina- bility rea- sons (i.e., no/little animal products).	When it comes to cars, I don't limit my- self (re- versed)	I walk even when it's late and rain- ing out- side, but I still need something from the supermar- ket	When shopping, I take a cloth bag from home with me.	When I walk out of the room I always turn off the light.	On vacation, I usually travel by train, bus or I go on a hiking vacation.	I give up meat, fish or other animal products for the sake of the environ- ment or sustaina- bility.	I have financially supported environmental protection associations with donations in the last 12 months.	I have supported environmental protection associations through volunteer work in the last 12 months.	
tention													
I would travel to the project by train in- stead of by plane for the sake of sus- tainability.	1					0.141 *	0.127 *	0.032	0.142*	0.199 **	0.111	0.126 *	
Physical presence at the customer's site is indispensable, sustainability issues must take a back seat. (reversed)	-0.094	1				-0.042	-0.094	-0.007	-0.114	-0.154 **	-0.123 *	-0.112	

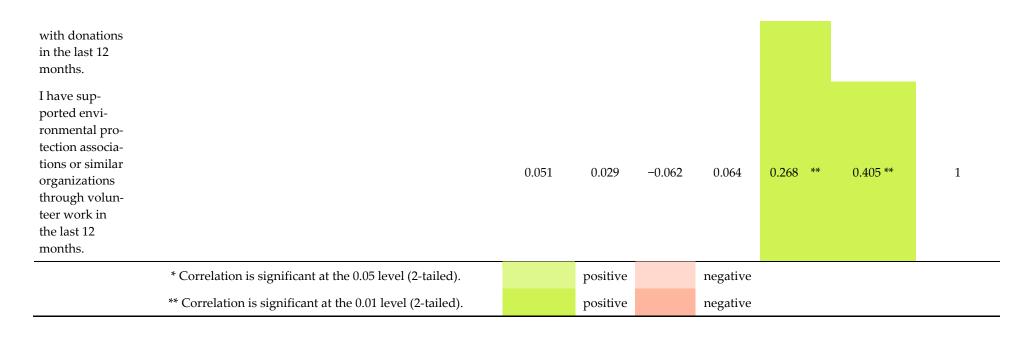
I gladly accept the disad- vantages of working from home in order to conserve re- sources.	0.140 *	-0.490 **	1			0.110	0.185 **	0.100	0.146*	0.151*	.096	.101
I plan to change my diet for sustainability reasons (i.e., no/little animal products; no tropical fruits).	0.214 **	-0.203 **	0.189 **	1		.054	0.189 **	.023	0.161 **	0.455 **	0.230 **	0.250 **
When it comes to cars, I don't limit myself. (reversed)	-0.148 *	0.211 **	-0.215 **	-0.174 **	1	-0.245 **	-0.059	0.012	-0.085	-0.187 **	-0.047	−0.106 *

Effective "green behavior"

I walk ... even when it's late and raining outside, but I still need something from the supermarket ...

1

When shop- ping, I take a cloth bag from home with me.	0.083	1				
When I walk out of the room I al- ways turn off the light	-0.063	-0.094 *	1			
On vacation, I usually travel by train, bus or I go on a hiking vaca- tion	-0.006	0.095 *	-0.037	1		
I give up meat, fish or other animal prod- ucts for the sake of the en- vironment or sustainability.	0.062	0.176 **	0.010	0.050	1	
I have financially supported environmental protection associations or similar organizations	0.027	0.060	-0.020	0.020	0.133 **	1



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