

Transformations in tourism following COVID-19? A longitudinal study on the perceptions of tourists

Wolfgang Aschauer and Roman Egger

Abstract

Purpose – This study attempts to answer how values and holiday preferences were shaped by the pandemic, how travellers view the future of tourism and how they are willing to contribute to potential changes. Furthermore, it examines the impact of socio-structural background factors, basic values and holiday preferences, and pandemic-related factors on the views of post-pandemic tourism.

Design/methodology/approach – A longitudinal online survey was conducted in which 155 frequent travellers were interviewed both before and during the pandemic about their values and holiday preferences, attitudes towards travelling during the pandemic, and their prospective views regarding tourism.

Findings – The findings revealed that values remained rather stable, but nature experiences, heritage tourism and beach offers gained more relevance when it came to holiday preferences. Concerning travellers' expectations of future tourism, environmental concern was ranked higher than economic profit. However, those striving for self-direction, stimulation and city tourism offers stated to be less willing to restrict their travel behaviour in the future.

Research limitations/implications – Although our study is just based on a convenience sample, the authors were still able to address notable research gaps. First, because a longitudinal design was selected, it was possible to investigate any potential transitions in basic values and travel style and trace these changes back to the pandemic. Second, thanks to a sophisticated online survey, all concepts could be measured with well-developed scales, which increased the quality of the measurements and led to stable results. Third, young travellers can be considered proponents of future travel styles. Their way of acting and thinking about future tourism could significantly impact the prospective direction of tourism.

Practical implications – This study makes a valuable contribution to changing holiday preferences and provides useful insights for the tourism industry about travellers' willingness to change their travel behaviour.

Social implications – Since this study primarily considers human values and socio-structural factors, the findings are of particular interest from a sociological perspective and are also interpreted from this viewpoint.

Originality/value – This study is one of only a few longitudinal studies focusing on holiday preferences and shifting values during COVID-19 and attempting to detect crucial drivers of potential tourism transformations in terms of perceptions from the demand side.

Keywords COVID-19, Travellers, Value change, Travel behaviour, Longitudinal study, Tourism transformations

Paper type Research paper

1. Introduction

Reviewing the tourism system, pre-COVID-19 demonstrates how disruptive events such as natural catastrophes, terror attacks and other epidemics like SARS led to short-term shifts in tourism flows, but global growth typically exhibited a quick recovery (Stankov *et al.*, 2020; Rosselló *et al.*, 2017; Gössling *et al.*, 2021). Though the summer of 2022 showed strong signs of recovery for international tourism throughout Europe, with 350% growth in the first five months compared to 2021 (World Tourism Organization, 2022), tourism today still struggles to deal with COVID-19's

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repercussions. Potential mutations of the virus and fear of further restrictions go hand in hand with the economic pressure to continue doing business as usual in the tourism industry, despite the economy generally moving towards an unprecedented recession (Akhtar *et al.*, 2021), exacerbated by the war in Ukraine (Pandey and Kumar, 2022).

Consequently, over the last years, tourism has witnessed “a new normal” as more rigorous safety standards have been implemented due to terrorist attacks (Stankov *et al.*, 2020), political unrest, and, as a result of the more recent pandemic, health risks. Similarly, travellers might have questioned their behaviour during the pandemic, contributing to reflections about what the post-pandemic tourism industry should look like (Akhtar *et al.*, 2021; Orindaru *et al.*, 2021; Sharma *et al.*, 2021; Itani and Hollebeek, 2021). Owing to the pandemic, global tourism has faced a period of transition (Aschauer *et al.*, 2022) during which both consumers and businesses were advocating for a fresh start for the tourism economy and a chance to reduce negative phenomena caused by tourism activity (Haywood, 2020). Instead of overtourism and volume growth trajectory, concepts such as slow tourism, sustainability and local tourism have thus shifted more into focus (Stankov *et al.*, 2020; Gössling *et al.*, 2021). This opportunity to recreate a better reality of tourism for the future is dependent on both the providers’ and tourism managers’ willingness to instate new offers and services as well as on the demand side’s developments in consumer behaviour (Higgins-Desbiolles and Bigby, 2021; Wassler and Fan, 2021), which is at the forefront of this study.

During the highly infectious waves of the COVID-19 pandemic, travellers were forced to restrict their travel habits, meaning that their desire to go on holidays could only (partially) be fulfilled through less conventional travel alternatives (e.g. staycations or camping) (Lin and Zhang, 2021). The revival of tourism in the summer of 2022 clearly displayed that people long to travel normally again (Wachyuni and Kusumaningrum, 2020; Kusumaningrum and Wachyuni, 2020), especially since only milder forms of COVID-19 continue to be present. Before COVID-19, tourism typologies were considered an effective tool to better understand consumer behaviour, develop more precise marketing strategies and design more consumer-oriented products and experiences (Wachyuni and Kusumaningrum, 2020; Mehmetoglu, 2004; Dolnicar, 2002). Now, however, the following question arises: Have the basic value orientations as guiding principles of life (based on Schwartz, 1992) or the holiday preferences as guiding concepts of how to travel shifted during the pandemic? Naturally, travel habits are influenced by socio-demographic characteristics (Dolnicar, 2002), but basic value orientations have also been found to correlate with tourist types and to exhibit significant explanatory power over tourist behaviour (Mehmetoglu *et al.*, 2010). Therefore, it seems appropriate to not only examine any potential shifts in values and holiday preferences during the pandemic but to also ask travellers what tourism should look like in the future, what developments they expect and how willing they are to personally contribute to making changes to the tourism system.

In this longitudinal study, the same participants were interviewed before and amid the pandemic to test for potential changes in values and holiday preferences and to further explore specific attitudes towards tourism during pandemic times. In the wave of the survey, which was distributed in the midst of the pandemic, a scale was constructed to measure tourists’ expectations, wishes and behavioural intentions regarding future tourism development. Additionally, factors such as socio-demographic and general travel characteristics were also examined in both surveys. This paper thus explores the following three research questions:

1. Have basic value orientations and holiday preferences shifted in times of the pandemic?
2. How do travellers view the (post-pandemic) future of tourism? (What are the expectations for the further development of tourism, what are the preferences towards the future of tourism and what is the intention of changing one’s travel modes?)
3. Is it possible to disentangle the influence of socio-demographic and travel-related background factors as well as values, holiday preferences and factors related to the pandemic on post-pandemic tourism views?

Altogether, this research provides valuable insights for tourism management regarding consumer expectations, altered values and travel motives following COVID-19. Furthermore, it adds to the academic discussion surrounding post-pandemic tourism and contributes to a better understanding of the potential shifts in travel needs due to the experiences of the pandemic.

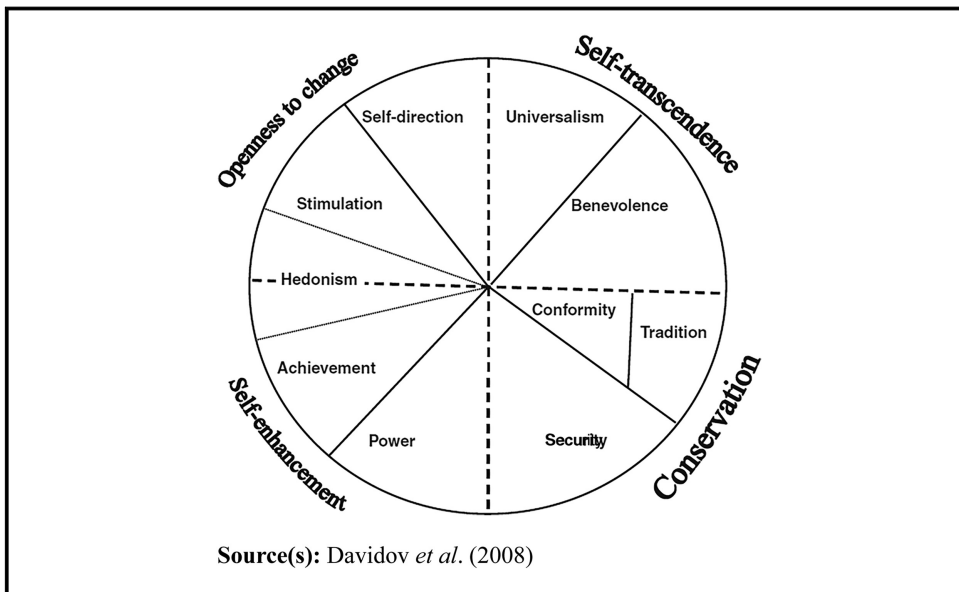
2. Literature review

The COVID-19 pandemic has called into question the safety of travelling, yet as previous epidemics have proven, regaining tourists' confidence in this regard is vital to the industry's recovery (Sibi *et al.*, 2020). Villacé-Molinero *et al.* (2021) found that not only has travel risk perception increased during the COVID-19 pandemic but a "new 'perceived risk' scenario" has been defined as a consequence of the global health crisis (Sarkady *et al.*, 2021). According to Wen *et al.* (2021), negatively perceived health risks affect travel behaviour in terms of destination choice and travel types (Rokni, 2021). The question is whether such changes will be short-lived or whether a reorientation in tourism will persist in the post-COVID period. In this case, it is vital to refer to basic value priorities that might also act as notable predictors explaining different views towards a sustainable future of tourism.

2.1 Human values

In general, values are held by individuals, groups or entire societies and are understood as guiding principles of life (Haller and Kmet, 2019). The value concept established by Schwartz (1992, 2001), also widely used in tourism research (Choi *et al.*, 2015), manifests an empirically sound measure and is well suited for survey research. In his original paper, Schwartz (1992) builds his theory upon that of Rokeach (1973) and his conceptualisation of terminal and instrumental values. While terminal values express the final target states, instrumental values specify the preferred behaviour patterns needed to achieve them (Genkova, 2012). Schwartz (1992) intended to measure these basic values with a 57-value scale (the SVS), and based on those values that represent a common goal, 10 basic individual value orientations were derived (see Figure 1). The resulting values form a continuum, with the values that encompass similar goals lying side by side and the incompatible values juxtaposed. In addition, Schwartz (1992) formed two overarching bipolar dimensions that

Figure 1 Schwartz's (1992) value theory



can be viewed as four higher-order values. The openness to change dimension (consisting of self-direction, stimulation and hedonism) includes values that drive individual thought and action, while the conservation dimension (conformity, tradition and security) emphasises the preservation of order. The second dimension, self-enhancement (power and achievement) vs. self-transcendence (benevolence and universalism) describes the former as the pursuit of one's own success and the latter as the pursuit of tolerance and equality.

In sociological research on changes in values, one can find different, and even partly contradictory, assumptions when it comes to the stability of value concepts. On the one hand, it is assumed that values are relatively stable over time and largely unaffected by societal influences. Generally, people acquire basic value orientations in their youth, and these only change minimally in early adulthood or, at most, for the long term in the later years of their lives (Faas *et al.*, 2020). On the other hand, previous changes in values have been attributed to both long-term modernisation processes as well as social upheavals (Klein and Pötschke, 2004). Profound social crises, such as the COVID-19 pandemic, for example, might also trigger strong feelings of uncertainty, irritation and threat that can challenge value orientations and change one's mind about what matters in life, even if only for a short time (Schwartz, 2005).

Individuals have distinctive value priorities that influence both their beliefs and their behaviour (Stern *et al.*, 1995). Poortinga *et al.* (2004) emphasise that values influence the strength of a person's goal depending on the situation, which in turn has implications for the perceived importance of expected consequences and for people's choice of action. It is therefore reasonable to assume that even if an individual's values remain unchanged, a situational context, such as a pandemic, may change their salience and thus their behaviour. The COVID-19 pandemic, lasting for more than two years, has led to major health, economic and social challenges in today's society. Nevertheless, at least at the beginning of the pandemic, there was hope that the existential threat of the pandemic could strengthen solidarity among citizens – after all, individuals have a tendency to stick together and (temporarily) develop a greater sense of unity during times of crisis (e.g. Borkowska and Laurence, 2021). While health-related fears might have been more common among the elderly, existential economic fears seem to be particularly prevalent in social groups that have had more restrictions implemented to fight the pandemic. Studies have confirmed a negative impact of COVID-19 on subjective well-being, mental health and life satisfaction (Ohlbrecht and Jellen, 2021), with these effects being more evident among people with lower education, females and especially mothers, who have had to cope extensively with homeschooling or reorganising childcare (Fisher and Ryan, 2021). For adolescents and young adults, in particular, retreating to and staying at one's own home surely caused significant stress and disruption since being on the move, cultivating friendships and meeting new people are especially important at this stage of life. Additionally, travelling is often a key leisure activity at this age (Bae and Chang, 2021) to which the restrictions of the pandemic may have led to the reflection and realisation of its value in their lives. This might have resulted in changing travel motivations and holiday preferences, although it remains open whether these changes only occurred in the pandemic or are sustained in the longer term.

2.2 Holiday preferences and tourist typologies to classify travellers according to their needs

Travel motivation has been widely discussed in tourism literature, and numerous attempts to define and explain this topic have been carried out (Huang and Hsu, 2009). From an economic theory lens, it is understood as a decision-making process in which the perceived benefits and the perceived "costs" of a tourist experience are weighed (Aebli *et al.*, 2021). Throughout the pandemic, the negative consequences of travel have been much more pronounced, with risk assessments rendering the abandonment of old travel habits and the search for alternative ones taking their place (Sarkady *et al.*, 2021).

It is common knowledge that tourists cannot be treated as a homogeneous group (Dolnicar and Grün, 2008) as they have different needs, requirements and expectations. Thus, since the 1970s,

countless tourist typologies, tourist roles and taxonomies have been developed, including, for instance, those by [Cohen \(1972\)](#) and [Plog \(1974\)](#) and later empirical models by [Gibson and Yiannakis \(2002\)](#), [Mehmetoglu \(2004\)](#) or [D'Urso et al. \(2016\)](#). The present study makes use of a tourist typology proposed by [Gretzel et al. \(2004\)](#), which covers 12 travel personalities suitable for this study's purposes and which was extended by the authors to 16 travel types (a more detailed explanation can be found in the methodology section). Using this typology, a holistic perspective on holiday preferences, which is necessary to examine any changes in holiday needs that might be directly attributed to the pandemic, can be gained.

2.3 Changing tourism due to COVID-19?

The COVID-19 pandemic has been regarded as a transformative opportunity for systemic change in the field of tourism and hospitality ([Roxas et al., 2021](#); [Gössling et al., 2021](#); [Stankov et al., 2020](#); [Higgins-Desbiolles and Bigby, 2021](#); [Rastegar et al., 2021](#); [Haywood, 2020](#)). [Bhatia et al. \(2022\)](#), for example, point out that the global pandemic has brought about thought-provoking impulses to reflect on values and norms, and a restart would offer the chance to realign the tourism industry so as to emerge from the crisis in a sustainable way. Many scholars argue further that tourism's adverse effects on people and the planet must be re-evaluated, and the industry's role must be critically reconsidered. Similarly, [Gössling et al. \(2021\)](#) highlight that the volume growth trajectory promoted by the world's biggest tourism organisations, including the World Tourism Organization (UNWTO), the International Civil Aviation Organization (ICAO) and the World Travel & Tourism Council (WTTC), is outdated; therefore, they advocate for a quality over quantity approach instead. According to [Roxas et al. \(2021\)](#), steering the development of touristic products more towards quality would result in "a shift from mass to sustainable tourism" (p. 92). In this regard, tourism recovery should be modelled with sustainable development goals in mind ([Haywood, 2020](#)) and by mitigating the industry's role as an accelerator of anthropogenic climate change ([Higgins-Desbiolles and Bigby, 2021](#); [Mackenzie and Goodnow, 2021](#); [Jiricka-Pürer et al., 2020](#)).

Additionally, mindful consumers are seen as an important driver for substantial positive change ([Stankov et al., 2020](#)). It is important to note that, on the one hand, self-optimising values (e.g. hedonism and stimulation) direct mindfulness to oneself, thus potentially focusing more on one's personal need to travel. On the other hand, self-transcending values (e.g. benevolence and universalism) ([Steg et al., 2014](#)) actually direct mindfulness to the global problems of tourism and its impacts. These values might exert an impact in advocating more strongly for sustainable tourism ([Chan, 2019](#); [Cavagnaro et al., 2021](#)). Due to climate risks, travellers who keep environmental issues in mind might be more willing to prioritise domestic travel in the form of micro-adventures (e.g. [Gross and Sand, 2020](#)) over environmentally damaging long-haul trips. This is in line with [Lew's \(2018\)](#) observation of long-term change being dependent on transformation from the demand side. [Miao et al. \(2021\)](#) also expect an increase in mindful travellers promoting "material simplicity, self-determination and -sufficiency, ecological awareness, social responsibility, and spiritual/personal growth" (p. 7). Consequently, tourism degrowth could emerge in which tourists take less frequent but more meaningful trips ([Galvani et al., 2020](#)). Alternatively, it must be emphasised that these enhanced reflection processes may well be transient, and "business as usual" could return once the pandemic has ceased to exist. It is also an open question as to how willing tourists truly are regarding the implementation of sustainable lifestyle choices.

Over the past years, research on environmental care and green consumption has increased remarkably thanks to the ongoing salience of the topic in both academic and public spheres alike. Hence, this research has also led to empirical findings when it comes to notable drivers of sustainable tourism. Looking at socio-demographic and socio-structural background factors, various studies have confirmed that women tend to be more sensitive to the environment than men ([Dietz et al., 2002](#)). An educational effect seems to be apparent as well, meaning that highly educated individuals turn their focus towards global empathy and are thus more willing to assume personal responsibility for climate change. Moreover, in comparison to other factors such as income or social status, education levels yield the highest impact on environmental awareness

(Longhi, 2013). A link between personal values, environmental concerns and conservation behaviour (Schultz *et al.*, 2005; Dietz *et al.*, 2005), which further influences one's attitudes towards tourism sustainability (Hedlund, 2011), has also been widely documented. Although it is not possible to predict certain behavioural changes based on the survey data from the present study, this research builds upon this knowledge by assessing potential drivers of three outcome variables, namely, expectations towards future tourism, wishes for future sustainable tourism and the willingness to contribute to such future developments.

3. Methodological procedure and results

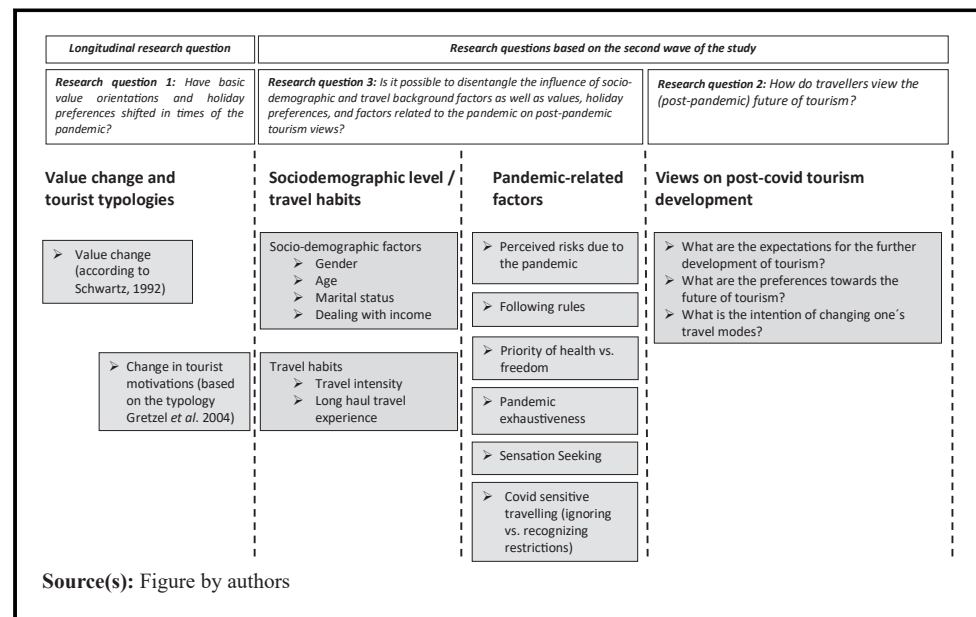
3.1 Research design

Figure 2 provides an overview of how the three main research questions are linked to this study's empirical approach. Concerning the first research question, a longitudinal convenience sample consisting of 155 individuals from the area of a medium-sized town in Austria (Salzburg) was collected using a measurement point prior to the pandemic (November 2019) as well as a measurement point following the third wave of the pandemic in Austria (end of May 2021). This was significant in order to analyse whether travellers' values and holiday preferences changed significantly during the pandemic or remained stable over time. Regarding the second research question, three key attitudes on expectations and preferences towards the future of tourism (after the pandemic) and intentions to change one's own mode of travelling were placed under inspection solely in the second wave of the study. These attitudes were also used as central outcome variables to answer the third research question, with its core objective being to disentangle the effects of socio-demographic variables, travel habits, values, holiday preferences and pandemic-related factors on current attitudes towards post-COVID tourism development. To do so, a sequential regression design was applied to all three outcome variables in order to extract the main drivers of certain prevalent views on future tourism.

3.2 Operationalisation of key variables

3.2.1 Individual value orientations by Schwartz (1992). To measure the ten individual value dimensions, the more current Portraits Value Questionnaire (PVQ) (Schwartz *et al.*, 2001) was

Figure 2 This study's research design



implemented in both surveys [1]. Overall, studies have shown that the PVQ is more suitable for population samples because the response process is significantly less complex and the time required to complete the questionnaire is significantly shorter than with the SVS (cf. Schmidt *et al.*, 2007, p. 263f.). Values are generally judged with high importance and are subject to a potential social desirability bias. In cases where the values are centred around the individual mean value of every respondent for all 21 items, then it is possible to correct for scale use differences. For the present study, following the procedures recommended in Schwartz *et al.* (2015), centred individual values were used to assess value changes over time. On the other hand, to examine the impact of values on participants' attitudes towards tourism in the future, eight out of the ten individual values (without considering conformity and self-direction) were used in the regression to avoid multicollinearity (see Schwartz, 2003).

3.2.2 Holiday preferences. An innovative measurement based on images was used to derive holiday preferences, with the 12 travel personalities proposed by Gretzel *et al.* (2004) ("Culture Creature", "City Slicker", "Sight Seeker", "Family Guy", "Beach Bum", "Avid Athlete", "Shopping Shark", "All Rounder", "Trail Trekker", "History Buff", "Boater" and "Gamer") serving as the baseline. The application and adaptation of their proposed travel personalities across studies such as Jani *et al.* (2014), Mitsche (2016), Park *et al.* (2010) and Pérez-Tapia *et al.* (2022) proves its wide acceptance among scholars. However, as this typology is primarily geared towards US citizens, it was adapted further in order to adjust it to the European market. The following modifications were made: A new type known as "Entertainment Junkie" was introduced, which takes a wide range of previously unconsidered activities into account and also incorporates the "Gamer". "Camper Trumper", "Action Beast", "Ethno Traveller", "Shopping Shark", "Spiritual Enthusiast" and "Luxury Chap" were added as other new types since these forms of travel are widespread across Europe. On the other hand, "Boaters" and "Alrounders" were deleted. For the final revision, a literature review was conducted and suggested typologies from the studies of Shapley (2018), Gibson and Yiannakis (2002), Hvenegaard (2002) and Park *et al.* (2010) were integrated to finally establish a typology with 16 trip types.

As the first step, and in order to find images that best describe each travel type, six images per category were selected by the authors. These images were then shown to 100 people to reduce the number of images from six to three for each travel type. Thus, for the 16 travel types, three images that best describe each respective category could be obtained. Next, the participants were shown 48 pictures (16 × 3) and asked to rate the extent to which the picture depicts their holiday preference using a seven-point scale. With this scale, an attempt was made to capture both the cognitive as well as the emotional side of (potential) preferred holiday preferences [2]. Figure 3 presents the images used for this scale.

In order to assess the reliability of the measurement, a correlation matrix was calculated to evaluate the relationship between the images. Ideally, all images related to a tourism type should be strongly correlated, which was indeed the case for at least nine holiday preferences (adventure, camping, ethnic, heritage, beach, nature, sightseeing, luxury and city tourism). However, sufficient correlations could not be obtained for the other seven tourism types (family, cultural, spiritual, entertainment, shopping, relaxation and sports tourism). Another indication of a high-quality measurement is reliability over time, which was also proven for the nine dimensions selected for further analysis [3]. By using all 48 images in a principal component analysis (with promax rotation), a four-factor solution seemed plausible and was able to explain 47% of the variance concerning the pictures. A clear tendency towards four main holiday preferences could thus be defined: (1) beach, luxury and shopping tourism; (2) ethnotourism and culture; (3) city, heritage and sightseeing tourism and (4) nature and spirituality. In response, as these preferences encompass the participants' prime motivations, they were used as explanatory factors (amongst others) to describe the main views of the future directions of tourism [4].

3.2.3 Future directions of tourism. To assess predominant views on the future directions of tourism, a focus was placed on *expectations* about future tourism development, *preferences*

Figure 3 Image scale used to measure tourist typologies



Note(s): A full resolution version is available at: <https://tinyurl.com/tourism-covid19>

Source(s): Figure by authors

regarding ideal future forms of tourism, and *future intentions* to change one's own travel style. Key issues surrounding potential tourism transformations in the future were collected based on experiences of the pandemic, while current reflections on sustainability were gathered from [Prideaux et al. \(2020\)](#), [Brouder et al. \(2020\)](#), [Lew et al. \(2020\)](#) and [Gössling et al. \(2021\)](#). This resulted in ten core issues [5] that were ultimately transformed into a scale of 30 items (operationalising expectations, preferences and behavioural intentions). These items were used to give a descriptive overview and to analyse any differences in expectations, desires and behavioural intentions in the sample (research question 2). Finally, three principal component analyses (with promax rotation) were computed to identify the main concepts of how travellers frame tourism in the future. As a result, three single-factor solutions pointing to expectations, preferences and behavioural intentions regarding more ecologically and culturally responsible forms of tourism emerged. Due to insufficient loadings, however, three items referring to business tourism, virtual reality, and safety and hygiene standards were omitted from the construction of the scales. Lastly, using the average mean of these items, three scales with high reliability values (Cronbach's $\alpha = 0.78, 0.76$ and 0.79 , respectively) served as the main outcome variables of the study so as to adequately analyse the drivers of sustainable future orientations towards tourism.

3.2.4 The sequential regression design. Three distinct explanatory levels were determined to encompass the main independent variables explaining future orientations towards tourism (research question 3). These explanatory factors were included separately in a sequential multiple linear regression (based on the OLS method) to assess their impact on tourism views. With respect to socio-demographic characteristics and travel parameters (level 1), gender, age and additional characteristics such as marital status (coded as single vs. in a relationship), dealing with household income, travel intensity and long-haul travel experience were incorporated. Referring to values and holiday preferences (level 2), eight out of the ten individual values and four higher-order factors from the main holiday preferences were utilised (see [Section 3.2.2](#)).

To include attitudes towards the pandemic and pandemic-related travel habits (level 3), further variables based on a multiplicity of indicators were computed. The first variable represented COVID-19 being taken seriously and the resulting pandemic measures being accepted. A factor analysis based on four items [6] resulted in a clear single-factor solution, and the factor values were used further as an independent variable. The second variable measured subjective well-being (referring to psychological distress) based on a scale consisting of five indicators [7] (Cronbach's $\alpha = 0.87$). A general preference for risk-taking was also evaluated using the established Brief-Sensation Seeking Scale ([Hoyle et al., 2002](#)). With regard to the latter, one indicator of general sensation seeking was constructed based on the eight indicators to which the internal consistency of the scale was 0.74 (Cronbach's α). Finally, one's readiness to travel during the pandemic was measured through the construction of three dummy variables (willingness to travel only inside Austria, to travel inside Europe or to travel also outside Europe in the pandemic).

3.3 Sample characteristics

The sample of this exploratory study involved mainly students and individuals located in the Salzburg area who participated in both surveys ($n = 155$). In terms of gender, more than two-thirds of the sample consisted of women ($n = 107$) and only one-third of men. Unsurprisingly, most of the survey participants were young adults under the age of 25. Almost half of the participants marked married or in a relationship, while the other half identified themselves as single. With respect to living conditions, two-thirds of the sample reported having no difficulties with household income, whereas the others stated that they could adequately meet their needs/expenses. This goes hand in hand with pronounced travel activity, which is quite common amongst younger generations. In 2019, only 20% took solely one vacation trip per year, while most participants reported taking up to five different vacations. Long-distance travel (measured by travel outside of Europe) also reflects extensive experience travelling to distant countries. Referring to this context, only 10% claimed to

have no experience of travelling outside of Europe, while almost one-third of respondents visited more than four destinations outside their continent.

From the second survey, administered in the midst of the pandemic, drastic changes in regular travel behaviour could be noted as participants had been following the rules and prioritising their health over their freedom. In general, we are able to estimate that 13% of the sample planned to stay within Austria, while 78% planned to travel within Austria or within Europe. Approximately 9% of the participants did not seem to care much about potential travel restrictions and even planned to travel outside of Europe. Concerning an overview of the pandemic-related factors affecting travel, approximately one-fifth of the students had been very afraid of contracting COVID-19, and another third of the sample was at least partially afraid.

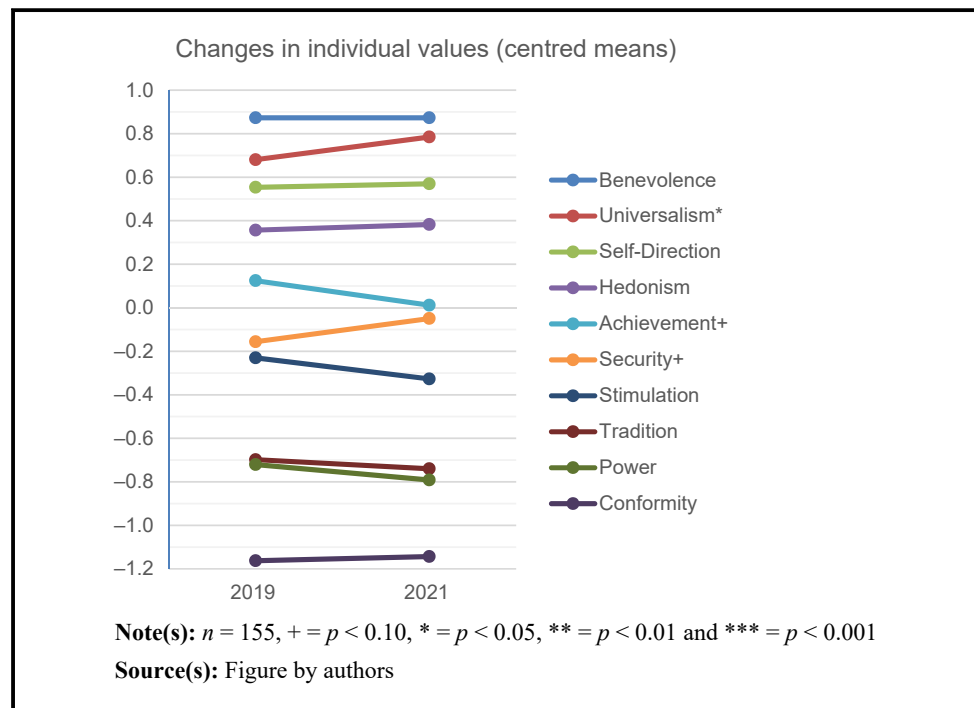
4. Results

4.1 Ongoing stability of values and holiday preferences

In the first step of the empirical analysis, the longitudinal sample was used to test for the stability of basic values based on the concept of Schwartz (1992) and for potential shifts in holiday preferences based on the new image scale derived from Gretzel et al. (2004). Figure 4 depicts mean comparisons between both time points (i.e. before and during the pandemic) and thus provides an overview of the relative importance of the ten individual values.

In total, there were merely three notable value changes comparing the importance of values before and in the midst of the pandemic. Universalism (i.e. striving for tolerance and harmony as well as ecological awareness) rose over time and reached, together with benevolence, the highest importance among participants. Moreover, although self-direction and hedonism remained relatively significant, a rather sharp decrease in achievement orientation could be observed. This can be associated with the higher importance of security and the lower importance of stimulation (despite this shift being deemed insignificant). In general, tradition, power and conformity were

Figure 4 Shifts in the ten individual value orientations over time



given lower importance and remained stable over time. Concerning the four higher-order values (not depicted in this figure), no significant difference could be determined in any value referring to conservation vs. openness to change. Self-transcendence (combining benevolence and universalism), as well, remained equally important over time. Only one significant finding revealed the relatively lower importance of self-enhancement (power and achievement) during the pandemic.

The second part of the longitudinal analysis investigated the stability of holiday preferences during the pandemic (Figure 5).

Interestingly, in contrast to basic values, participants' travel needs changed considerably during pandemic times. Overall, nature tourism grew in importance and was recognised as the most popular holiday preference in 2021. One can also observe that heritage tourism as well as beach tourism gained more significance. Contrarily, two holiday preferences, namely, city trips and ethnotourism, lost importance.

4.2 Post-COVID views of tourism: expectations, wishes, behavioural intentions and their main drivers

To measure participants' post-pandemic views on tourism, ten indicators were formulated, focusing mainly on sustainability in future tourism. The bars in Figure 6 clearly demonstrate that, in most of the items, decreasing means from wishes over behavioural intentions to estimations of future developments appear. Thus, items referring to (1) wishes for tourism developments in the future, (2) willingness to make contributions and (3) estimations of how tourism will develop in the future are presented in that particular order.

Figure 5 Changes in holiday preferences over time

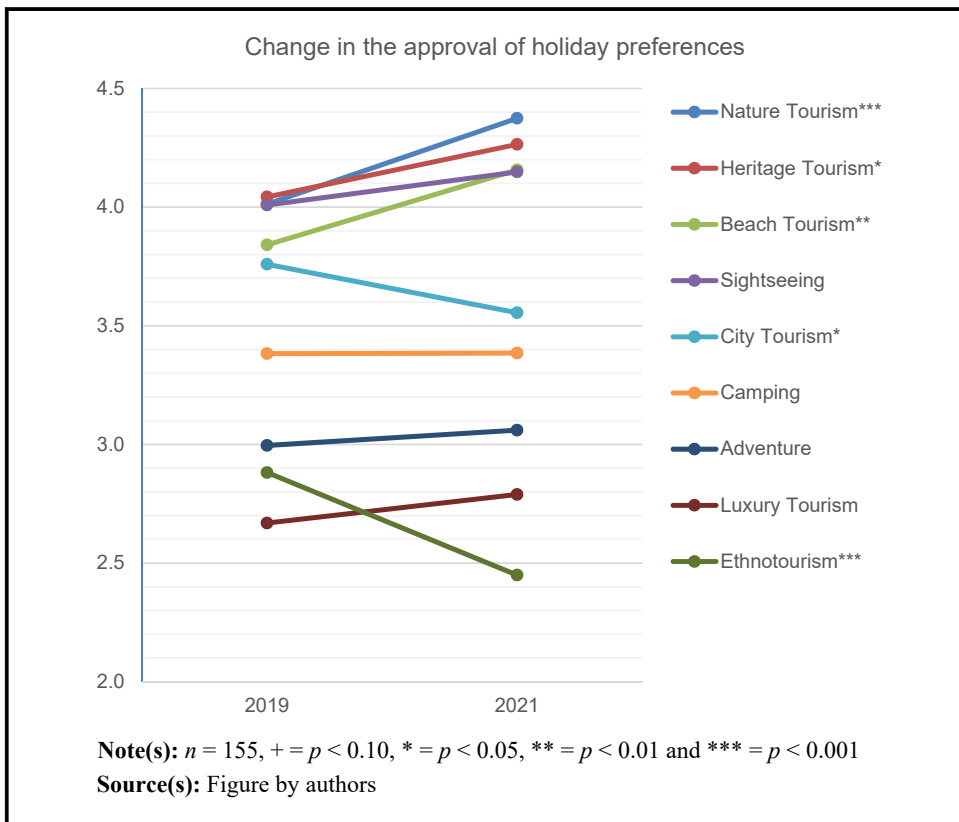
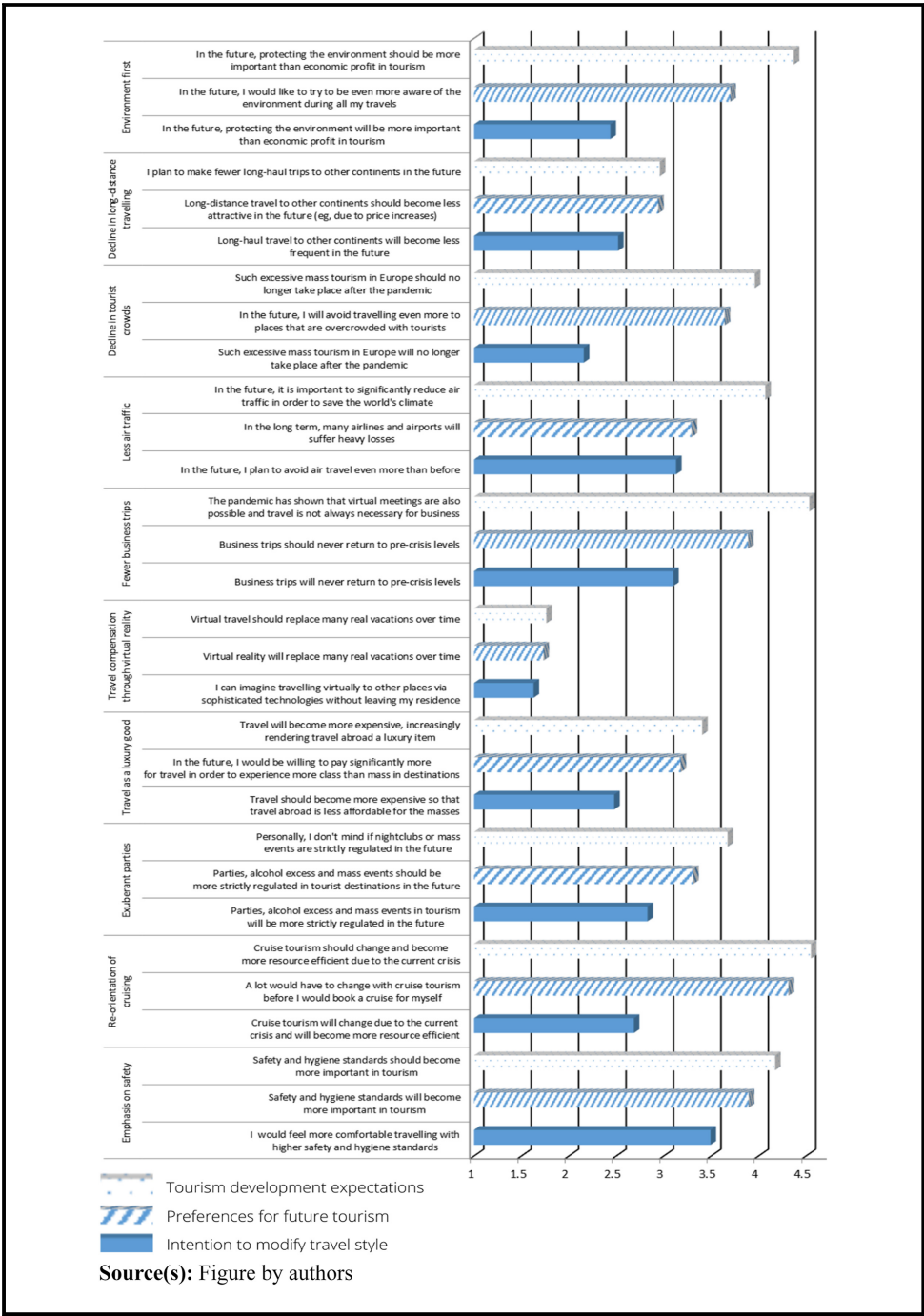


Figure 6 Wishes, behavioural intentions and expectations concerning future directions of tourism (means)



Source(s): Figure by authors

Based on the results, most participants believe that the environment should outweigh economic profit. However, they seem unconvinced about the expected developments of the tourism sector in the long term. This becomes especially visible when looking at the statements regarding cruise tourism, tourist crowds or excessive partying while on holiday. The survey participants clearly want cruise tourism to become more resource efficient and are against

mass tourism or excessive partying on location; regardless, they fear that, in reality, only limited changes will take effect.

Controversy can also be seen when it comes to long-distance travel. The respondents seem indecisive about whether limits should be imposed, and few actually believe in any alterations. Moreover, concerning limited air travel, the survey results revealed heterogeneity, although most participants expect airlines to face dramatic losses in the future. Business trips also decreased in popularity during the pandemic. While the survey participants generally agreed that the pandemic brought about new virtual ways to have business meetings, many anticipate business trips to return to normal. Regarding the statements of travelling becoming more expensive, a different view can be observed: The participants indicated being mainly against higher prices, and they remain unsure whether they are ready to spend more. Nevertheless, they widely share the opinion that travelling will become more expensive in the future. Additionally, the survey implied that virtual travel, compared to real travelling, is not an attractive option. On the other hand, it is believed that safety and health on trips will continue to gain significance.

4.3 Assessing the drivers of post-COVID views on tourism

Three multivariate regressions were computed to identify the main explanatory factors of expectations concerning future tourism, desires to shift tourism in a sustainable direction, and behavioural intentions towards more sustainable travelling in the future. As mentioned in [Section 3.2.4](#), three highly reliable scales could be constructed and were used as the study's three main dependent variables. A sequential regression design was adopted, starting first with a model of only socio-demographic parameters and travel characteristics. Thereafter, the main aspects that were tested for long-term stability (eight out of the ten individual value orientations [8] as well as four factors representing the main holiday preferences) were included. Finally, pandemic-related aspects (see [Figure 2](#)) were added to the last model.

Reviewing the explained variance, it can be concluded that predominantly values and holiday preferences influence expectations, wishes and behavioural intentions of more sustainable post-COVID travel styles. The socio-demographic factors at the first level explained variance only to a limited extent (achieving a corrected r^2 of about 5–8%), while the pandemic-related factors contributed only to behavioural intentions of future travelling but not to wishes and expectations of future directions in tourism. In general, an explained variance of nearly 20% (concerning expectations) or more than 35% (concerning behavioural intentions) could be reached in the third model. Concerning expectations, the greater the participants' experience with long-haul travel, the more optimistic they seem to be about tourism moving towards more nature- and culture-friendly forms in the future. Hedonism as well as universalism decreases the perceived chance of a deeper transformation of tourism in the future. Similarly, those tourists who are primarily interested in shopping and luxury and those who favour a deeper immersion in foreign cultures (i.e. ethno-tourists) seem to be more optimistic about the future of tourism as well.

Parallel to the fact that COVID-related factors proved to have no impact on expectations nor wishes, no influences on proposed directions of future tourism with regard to age, gender, marital status, dealing with household income, or certain travel styles could be found either. Rather, the main effects were primarily discovered on the level of values and holiday preferences. On that note, it seems that survey participants who are interested in ethnotourism and culture opt for stronger sustainable tourism management, whereas people who favour security, hedonism or stimulation clearly prefer tourism to return to "business as usual".

Perhaps the most important aspect of pushing tourism towards a more sustainable future is by looking at tourists' intentions to change their behaviour. In [Table 1](#), one can see that significant predictors were uncovered at every level of analysis, and the explained variance reached a high level (38.1% in the last model). For instance, gender proved to be significant, with women being far more willing to change their behaviour than men. On the other hand, it may be harder for individuals

Table 1 Multiple regression on expectations, desires and behavioural intentions concerning a more sustainable tourism future

Variable	Label	Expectations: Sustainable tourism in the future (Model 3)		Desires: Sustainable tourism in the future (Model 3)		Behaviour to influence sustainable tourism in the future (Model 3)	
Model 1: Socio-demographic parameters and travel styles		adj. $r^2 = 5.2\%$		adj. $r^2 = 6.4\%$		adj. $r^2 = 8.9\%$	
Model 2: + Values and holiday preferences		adj. $r^2 = 18.5\%$		adj. $r^2 = 17.1\%$		adj. $r^2 = 30.0\%$	
Model 3: + Pandemic-related factors		adj. $r^2 = 15.9\%$		adj. $r^2 = 21.1\%$		adj. $r^2 = 38.1\%$	
Intercept		1.90		2.79		3.09	
Predictors	Categories	Unstand. Coefficients	Stand. and Sig.	Unstand. Coefficients	Stand. and Sig.	Unstand. Coefficients	Stand. and Sig.
Gender	male vs. female	0.22	0.14	0.15	0.11	0.32	0.20*
Age	in years	0.02	0.18	0.01	0.13	0.01	0.05
Marital status	single vs. in a relationship/married	-0.15	-0.10	0.18	0.13	0.12	0.08
Dealing with household income	with difficulties vs. very good	0.04	0.07	0.07	0.11	0.04	0.06
Travel intensity in 2019	one time vs. more than five times	-0.01	-0.02	0.02	0.04	-0.03	-0.06
Long-haul travel experience	no experience vs. much experience	0.12	0.34**	-0.03	-0.08	0.00	0.01
Schwartz's values	Security	-0.04	-0.05	-0.25	-0.33*	-0.15	-0.17
	Tradition	0.03	0.03	-0.08	-0.10	-0.17	-0.19 ⁺
	Benevolence	0.06	0.05	-0.06	-0.05	-0.16	-0.14
	Universalism	-0.30	-0.25 ⁺	-0.17	-0.15	-0.04	-0.04
	Stimulation	0.01	0.01	-0.20	-0.32*	-0.26	-0.37*
	Hedonism	-0.31	-0.29*	-0.32	-0.32*	-0.43	-0.38**
	Achievement	0.03	0.03	0.00	0.00	-0.14	-0.17
Holiday preferences	Power	-0.24	-0.28 ⁺	-0.17	-0.21	-0.16	-0.18
	beach, luxury, shopping	0.32	0.43**	0.02	0.03	0.11	0.14
	ethnotourism and culture	0.15	0.21 ⁺	0.20	0.30*	0.36	0.48***
	heritage, sightseeing, city	-0.02	-0.03	-0.10	-0.14	-0.14	-0.17 ⁺
Advocacy for COVID measures	nature and spirituality	0.05	0.06	0.06	0.09	0.12	0.15 ⁺
Psychological distress		0.03	0.04	0.11	0.15	0.17	0.22*
Sensation seeking		-0.07	-0.09	-0.05	-0.06	-0.07	-0.08
Willingness to travel amidst the pandemic (<i>ref. domestic only</i>)		-0.04	-0.05	-0.10	-0.14	-0.08	-0.10
Willingness to travel amidst the pandemic (<i>ref. domestic only</i>)	domestic and/or Europe	0.10	0.05	-0.06	-0.04	-0.35	-0.18 ⁺
	also outside Europe	-0.07	-0.03	-0.48	-0.19	-0.69	-0.24*

Note(s): Sequential linear regressions (based on the OLS method)
Standardised and unstandardised coefficients are illustrated
⁺ = $p < 0.10$; * = $p < 0.05$; ** = $p < 0.01$ and *** = $p < 0.001$

Source(s): Table by authors

who favour their own independence and a life of hedonism and stimulation to restrict touristic habits. Again, those tourists who appreciate foreign cultures demonstrated the highest motivation to take on behavioural restrictions in order to foster sustainable tourism. Tourists striving for spirituality and nature have a slight tendency to be more concerned about their own habits, while city tourists interested in sights express lower motivation to change their behaviour. In addition, those who support COVID measures are visibly more willing to reconsider their travel style and holiday preferences in the future and accept limitations. On the contrary, especially those who travelled outside of Europe during pandemic times show little readiness to adjust their travel style in the future.

5. Discussion and conclusion

While the global tourism industry has proven to be relatively resilient to crises in the past (Gössling *et al.*, 2021), the COVID-19 pandemic has and continues to impact the tourism and hospitality industry in unprecedented ways (Fotiadis *et al.*, 2021; Akhtar *et al.*, 2021), resulting also in a large number of research papers on both its short- and long-term impacts (Assaf *et al.*, 2022; Miao *et al.*, 2021; Kusumaningrum and Wachyuni, 2020). Conducted by the authors of this study, a bibliographic meta-analysis on COVID publications in the Hospitality Leisure Sport Tourism section from Web of Science revealed that only 0.8%, out of 1,403 COVID-related papers (as of June 2022), recorded longitudinal studies. This suggests that, to date, little research has been conducted on changes in consumer behaviour.

Although this study is only based on a convenience sample of inhabitants in the Salzburg area, notable research gaps could still be addressed. First, because a longitudinal design was selected, it was possible to investigate any potential transitions in basic values and holiday preferences and trace these changes back to the pandemic. Second, thanks to a sophisticated online survey, all concepts could be measured with well-developed scales, which increased the quality of the measurements and led to stable results. Third, this study's sample consisted mainly of young travellers, who can be considered proponents of future travel styles and holiday preferences as they are generally trendsetters and their way of acting and thinking about future tourism could significantly impact the prospective direction of tourism [9].

At the same time, the limitations of this sample must be addressed, and certain biases in the data need to be considered when interpreting the data. For example, Neuburger and Egger (2021) point out that one's willingness to cancel or reschedule trips increases with age. Furthermore, younger individuals were relatively more likely to travel during the pandemic compared to other age groups (Beck and Hensher, 2020), and women's risk perception of pandemic travel was recorded as significantly higher than men's (Neuburger and Egger, 2021).

Returning to the objectives of this study, the following aspects were explored: (1) to determine whether basic value orientations and holiday preferences have shifted in times of the pandemic, (2) to explore how travellers view the future of tourism and if they opt for changes, and how they are willing to contribute to these changes themselves and, finally, (3) to draw notable conclusions concerning the influence of socio-demographic and travel-related background variables, individual value priorities, holiday preferences and pandemic-related factors on expectations, wishes and behavioural intentions regarding future tourism.

Regarding the first objective, this study was able to uncover at least a few pandemic-related shifts in values. Essentially, our longitudinal study has confirmed statements by Schwartz (2006) or Rokeach and Ball-Rokeach (1989) that value orientations are relatively stable. For example, tradition, power and conformity were attributed less importance, but overall these value orientations remained relatively stable. Overall, there were only three changes in value orientations when comparing the importance of values before and in the midst of the pandemic. Only one value shift (concerning universalism) reached significance, while two value shifts have a tendency to reach significance (which is also due to the relatively small sample size). The slightly reduced motivation for achievement and for stimulation can be traced to the general decline of leisure activities during the pandemic. Firstly, tourists tend to be more afraid of the spread of infections, which is why the issue of safety has become tentatively more important. The fact that the pandemic initially led to more solidarity in society is also reflected in the rise of universalism. This value orientation (meaning striving for tolerance and harmony as well as ecological awareness), reached, together with benevolence, the highest importance among participants and even significantly increased over time. In contrast, a decline in achievement orientation was observed. This could be related to the limited potentials of leisure activities during the pandemic why students lost willingness to perform. This is also reflected in the significant results in the higher-order values because only self-enhancement (see Figure 1) decreased significantly during the pandemic.

Consistent with recent studies ([Spalding et al., 2020](#); [Wachyuni and Kusumaningrum, 2020](#); [Moya Calderón et al., 2021](#)), the findings presented changes in travel behaviour, including an increase in the relevance of nature-based offerings, which may be due to reduced risk of infection. Beach tourism offerings also intensified in importance, while cultural tourism, city breaks and sightseeing weakened. This is in line with statements found in the literature identifying city trips as the weakest “competitor” of tourism in times of the pandemic ([Schmöcker, 2020](#)). Ultimately, long-distance travel presented low levels of relevance as well, with respondents being aware that these forms of travel were largely illusory in the midst of a pandemic.

In contrast to the term *transformation*, referring to a fundamental change in the tourism system, *transition* encompasses the need for tourism balance when facing disruptive experiences. Since tourism stakeholders, in other words, key economic players, locals and travellers, have experienced the pandemic crisis profoundly over the past years, it can be particularly fruitful, in this current phase of tourism transitions, to assess the future potential of tourism – also because strong forces of persistence exist. Though this study is unable to answer the overarching question of tourism’s transformative potential based on the subjective assessments of a relatively small sample, the results of the three main outcome measures still provide insights into which reflective processes were set in motion by the crisis. To summarise, this study ultimately demonstrates that protecting the environment and promoting quality tourism ranks higher than focusing on economic profit. Additionally, individuals are highly motivated to contribute to more sustainable forms of tourism. However, it is important to note that there is often a gap between potential growing concerns for the environment (driving tourism in certain sustainable directions) and the actions people are willing to take to help sustain tourism ([ElHaffar et al., 2020](#)). This is widely recognised as the green attitude–behaviour gap (e.g. [Park and Lin, 2018](#)).

This research not only contributes to the literature, proving that values and holiday preferences are instrumental in determining how pronounced expectations, desires and behavioural intentions are framed, but it also acknowledges [Steg et al.’s \(2014\)](#) call for a better understanding of the conditions under which values change (in this case, the circumstances of COVID-19). Furthermore, this study shows that socio-demographic characteristics significantly impact one’s willingness to alter travel behaviour in order to support sustainability. In this regard, men are less open to changing their travel behaviour than women, and those striving for self-direction and stimulation are also less willing to limit their tourist activities. In interpreting the results, it should be noted that the sample size is rather small and only refers to an Austrian city. Thus further studies are needed to generalise these results to other contexts or travellers in general.

From a managerial perspective, a crucial strategy could be to shift the industry more towards alternative forms of tourism, taking into account that individuals who seek nature and exotic experiences are ready to act more sustainably.

Overall, the study offers interesting insights into the extent to which the demand side is willing to change its travel behaviour to encourage a new path of progress and transformation ([Bhatia et al., 2022](#)) instead of immediately returning to “the usual” once the pandemic is completely over. Bearing inconsistencies between respondents’ attitudes in surveys and concrete actions taken in terms of pro-environmental behaviour in mind, the results of this study are consistent with a study by [González-Reverté et al. \(2022\)](#), stating that although the COVID-19 pandemic has resulted in changes in mindset, these are not sufficient to predict a medium-to-long-term change in more environmentally conscious and sustainable travel behaviours. Therefore, the authors of the present study are sceptical of any noticeable alterations from the demand side that would favour a new start of tourism characterised as more mindful and sustainable than before.

Notes

1. The short version of the PVQ, which was adopted for the European Social Survey ([Schwartz et al., 2015](#)), consisting of 21 items with a six-point scale (from 1 = very much like me to 6 = not like me) was used.

2. Building tourism typologies based on images and utilising photo elicitation in surveys have several advantages. Images reach an “older”, conversely deeper level of consciousness in the human brain and produce less distorted, spontaneous and more emotionally driven statements. Especially during longer surveys, images might also lead to a more attractive response, preventing signs of fatigue and boredom (Harper, 2002).
3. Despite a time period of two years between both measurements, all dimensions presented correlations above 0.6, which represents high test-retest reliability. See all correlations between the nine factors over the two years in [Appendix](#).
4. All four holiday preferences revealed rather weak relationships. The highest correlation found was that of factor 2 (ethnotourism and culture) and factor 4 (nature and spirituality) ($r = 0.23$). See the results of the PCA and the description of the four higher-order holiday preferences in [Appendix](#).
5. The key topics of this study’s scale were environmental concern vs. economic benefit, long-haul travelling, overtourism, air traffic, business tourism, virtual reality as a potential way to compensate for tourism, rising prices, parties and excessive events, cruise tourism, and safety and hygiene standards (see [Figure 6](#) for more information on the items).
6. 1. How afraid are you that you yourself or people close to you will get infected and possibly suffer from severe consequences? (1 = no fear to 5 = high fear); 2. Do you adhere to the distance rules and wearing mouth-nose protection? (1 = strictly to 4 = carelessly); 3. What should be the priority in times of pandemic? (from 1 = primarily the freedom of citizens to 5 = primarily the protection of health); 4. I am tired of complying with the applicable Corona rules. (1 = agree to 4 = not agree).
7. The five indicators referred to one’s feelings in the previous two weeks: I have felt nervous, anxious or irritable; I have been unable to stop or control worrying; I have felt down, depressed or hopeless; I have had little interest or enjoyment in things; I have felt lonely. (All indicators were measured on a five-point scale from 1 = not at all to 5 = nearly every day.)
8. Conformity and self-direction were not considered in order to avoid multicollinearity. Yet, two values for each higher-order dimension were taken into account for the regression: security and tradition reflected conservation, stimulation and hedonism reflected openness to change, power and achievement reflected egocentric, and benevolence and universalism reflected altruistic values.
9. Ethical considerations must also be noted with regard to the sample since, in addition to informed consent, anonymity and confidentiality, the long-term commitment of the participants must be emphasised. Because longitudinal studies involve collecting data from participants over an extended period of time, it is important to ensure that participants are aware of and understand the time commitment involved. Nevertheless, participants are always allowed to withdraw from the study at any time, for any reason.

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Table A1 Intention to change travel behaviour

	AD 2019	AD 2021	CA 2019	CA 2021	ET 2019	ET 2021	HE 2019	HE 2021	BE 2019	BE 2021	NA 2019	NA 2021	SI 2019	SI 2021	LU 2019	LU 2021	CI 2019	CI 2021
Adventure (AD) 2019	1																	
Adventure (AD) 2021	0.691**	1																
Camping (CA) 2019	0.406**	0.256**	1															
Camping (CA) 2021	0.285**	0.265**	0.700**	1														
Ethnotourism (ET) 2019	0.280**	0.198*	0.282**	0.209**	1													
Ethnotourism (ET) 2021	0.265**	0.368**	0.228**	0.297**	0.593**	1												
Heritage (HE) 2019	0.131	0.1	0.039	-0.099	0.320**	0.221**	1											
Heritage (HE) 2021	-0.02	0.065	-0.161*	-0.175*	0.136	0.264**	0.597**	1										
Beach (BE) 2019	-0.017	-0.048	0.01	0.031	-0.136	-0.200*	-0.004	-0.015	1									
Beach (BE) 2021	-0.026	-0.061	-0.042	0.011	-0.268**	-0.238**	-0.062	0.033	0.713**	1								
Nature (NA), 2019	0.417**	0.273**	0.497**	0.320**	0.303**	0.156	0.208**	0.008	-0.207**	-0.156	1							
Nature (NA), 2021	0.270**	0.276**	0.265**	0.338**	0.142	0.13	0.111	0.199*	-0.183*	-0.1	0.693**	1						
Sights (SI) 2019	-0.088	-0.089	-0.180*	-0.269**	0.186*	0.091	0.762**	0.612**	0.162*	0.05	-0.113	-0.135	1					
Sights (SI) 2021	-0.121	-0.063	-0.243**	-0.315**	0.051	0.086	0.427**	0.716**	0.196*	0.184*	-0.196*	-0.186*	0.651**	1				
Luxury (LU) 2019	-0.006	-0.112	-0.049	-0.131	-0.199*	-0.183*	0.05	0.083	0.588**	0.358**	-0.199*	-0.186*	0.171*	0.197*	1			
Luxury (LU) 2021	-0.07	-0.075	-0.171*	-0.213**	-0.332**	-0.248**	-0.062	0.088	0.513**	0.492**	-0.279**	-0.233**	0.098	0.262**	0.697**	1		
Citytourism (CI) 2019	-0.149	-0.198*	-0.215**	-0.271**	0.101	-0.02	0.518**	0.432**	0.273**	0.179*	-0.195*	-0.152	0.738**	0.602**	0.324**	0.235**	1	
Citytourism (CI) 2021	-0.101	-0.098	-0.236**	-0.200*	-0.062	0	0.193*	0.443**	0.258**	0.292**	-0.297**	-0.166*	0.394**	0.671**	0.319**	0.451**	0.621**	1

Source(s): Table by authors

	1	2	3	4	Higher-order preference
KMO = 0.60					
2021 Beach 3	0.789				
2021 Beach 2	0.772				
2021 Beach 1	0.738				
2021 Relaxation 3	0.723				
2021 Luxury 2	0.711				
2021 Family 1	0.674				
2021 Athletic 3	0.655				
2021 Luxury 3	0.611				
2021 Culture 1	0.543				
2021 Luxury 1	0.52				
2021 Entertainment 2	0.471				
2021 Shopping 1	0.457				
2021 City 1	0.44				

(continued)

Table A1 Continued

	1	2	3	4	Higher-order preference
<i>KMO</i> = 0.60					
2021 Family 3	0.437		0.374		
2021 Relaxation 1					
2021 Ethno 1		0.783			
2021 Ethno 3		0.738			
2021 Culture 3		0.718			
2021 Culture 2		0.711	0.346		
2021 Ethno 2		0.71			
2021 Adventure 2		0.577			
2021 Adventure 1		0.548			
2021 Camping 3		0.513		0.317	
2021 Camping 1		0.485	-0.347		
2021 Shopping 2		0.45	-0.469		
2021 Entertainment 1		0.449	0.317		
2021 Shopping 3		0.425	0.333		
2021 Entertainment 3	0.4	0.408			
2021 Adventure 3		0.351			
2021 Athletic 1					
2021 Heritage 1			0.806		
2021 Sightseeing 2			0.804		
2021 Sightseeing 3			0.789		
2021 Heritage 2			0.736	0.34	
2021 City 2			0.719		
2021 Sightseeing 1			0.629		
2021 Heritage 3			0.571		
2021 Camping 2			-0.412		
2021 City 2	0.393	0.33	0.392		
2021 Nature 1				0.882	
2021 Nature 2				0.881	
2021 Nature 3				0.697	
2021 Family 2				0.662	
2021 Spirituality 1				0.62	
2021 Relaxation 2				0.589	
2021 Spirituality 3				0.496	
2021 Athletic 2				0.441	
2021 Spirituality 2				0.311	

Note(s): Extraction = PCA; Rotation = Promax; Unweighted Sample (*n* = 155)

Source(s): Table by authors