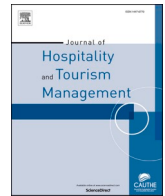Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Recovery of domestic tourism during the COVID-19 pandemic: An experimental comparison of interventions

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ABSTRACT

During the persistent COVID-19 pandemic, tourism destinations try to restore intention to visit by implementing recovery marketing strategies on domestic tourism markets. Within a risk acceptance framework, this research compares the effectiveness of measures a destination can undertake to encourage domestic tourists to visit during or in the immediate aftermath of a lingering public health crisis. We conduct a sophisticated randomised experiment with 666 Australians that tests causal effects on intention to book of 11 manipulated factors, including different communication messages, hygiene measures, discount and cancellation policies and framework conditions. The factors were informed by theory and qualitative interviews conducted with industry experts and potential tourists. The study finds that the presence of international visitors and a surge in COVID-cases decrease domestic tourists' booking intentions during the COVID-19 pandemic. Positive effects on booking intentions can be obtained from retentive advertising, discounting and flexible cancellation policies.

1. Introduction

The COVID-19 pandemic has hit the international tourism and hospitality industry severely with a decline of international tourist arrivals by 74% in 2020 compared to 2019 (UNWTO, 2021). Given the impact the COVID-19 pandemic has had on freedom to travel and tourist confidence, the tourism industry has focussed on domestic and nearby markets to ensure a gradual recovery. Existing literature acknowledges that recovery marketing is crucial to expedite even a gradual return to normality (Lehto et al., 2008; Walters & Mair, 2012).

However, there is limited research into the effectiveness of message contents, product variations and other marketing variables that tourism destinations can apply as disaster recovery measures (Mair et al., 2016). While acknowledging the relevance of recovery marketing as a means to mitigate perceived risks in the context of COVID-19 (Matiza, 2020), studies on marketing interventions relating to the COVID-19 pandemic remain scarce. The few studies that investigate recovery marketing measures in relation to COVID-19 focus on single measures, not comparing different variables against each other, and do not assess marketing effectiveness. Authors identify refunding cancellations (Garrido-Moreno et al., 2021; Hao et al., 2020), 'safety-related' messaging

and the promotion of 'restorative experiences' (Ketter & Avraham, 2021) as components in crisis marketing strategies, but do not evaluate these efforts. In a rare exception, Hang et al. (2020) find that communication strategies based on 'shared emotions' can establish an emotional attachment with potential tourists during the pandemic, which is critical for tourism recovery.

The existing literature on tourism disaster recovery exhibits an additional gap with respect to testing the effectiveness of most immediate recovery-marketing measures if implemented while the disaster is still lingering. Findings from previous disaster literature are not directly transferrable to a continuing global pandemic since most of this literature focused on situations where disasters are temporarily circumscribed and are often one-off events (including natural disasters such as bushfires, tsunamis and earthquakes, and terrorist attacks) (Mair et al., 2016; Pforr, 2009). Being among the few to consider long-term crises and disasters, Beirman (2003, p.8) reminds us that it is "an erroneous assumption that a restoration and recovery marketing campaign can be implemented only when the crisis is deemed to be over". This gap in knowledge on in crisis marketing is particularly problematic in the event of a persistent global pandemic with multiple waves.

The diffuse risk perceptions and material difficulties in crossing

borders in a prolonged global pandemic situation, turns domestic markets into more readily available sources of immediate tourism recovery. It is well-known that shorter distance can result in de-escalated or geographically more granular perceptions of the actual risk (Glaesser, 2006; Walters & Clulow, 2010). Moreover, in the context of a global pandemic, distance of travel becomes a risk factor in itself (Zenker & Kock, 2020) while emotional attachment and solidarity may be more pronounced in nearby markets. Therefore, many authors consider domestic tourists as a particularly suitable target for the most immediate recovery-marketing efforts in the context of disastrous events (Beirman, 2003; Henderson, 2008; Ladkin et al., 2008; Taylor & Enz, 2002). With COVID-19, domestic tourism initiatives are particularly important to mitigate perceived risk and kickstart the global tourism industry via such domestic 'confidence-building strategies' (Matiza, 2020). Existing literature on tourism disaster recovery also indicates that repeat visitors to a destination may be relatively more likely to return in the immediate aftermath of a disaster than first-timers (Chacko & Marcell, 2008; Walters & Clulow, 2010; Walters & Mair, 2012). However, empirical evidence on disaster recovery marketing effectiveness that specifically targets domestic tourists who have visited the destination before is scant.

This paper analyses and compares recovery marketing measures to reduce perceived risk or make risk more acceptable, and restore intention to revisit a domestic tourism destination in the immediate aftermath of the most acute stage of a lingering public health crisis. In other words, this paper tackles recovery at the cusp between the 'intermediate' and 'long term recovery' stages in Faulkner's Disaster Management Framework (Faulkner, 2001). This study concentrates on questions of recovery-marketing to lure domestic tourists who had visited previously back to a destination. The paper presents a scenario-based experimental study with 666 participating Western Australian adults to test the 11 independent variables defined by the 11 randomly manipulated factors. This experimental design manipulating 11 factors simultaneously within one study has several advantages compared to manipulating just one or a few factors. First, the information provided to respondents is more realistic and it is more difficult for respondents to identify individual factors being investigated, helping to reduce bias. Second, the effects of each factor relative to other factors are available. Third, by not holding many factors constant but allowing them to vary results are more generalisable. Fourth, interaction effects can be investigated to see if the effect of one factor depends on another factor. Such experimental studies are very rare in the existing tourism disaster and crisis literature. Specifically, the employed randomised experiment tested causal effects of a number of recovery measures and contextual factors on Western Australians' willingness to return to the domestic Australia's South West tourism region. The proposed recovery measures were informed by a risk perception and risk acceptance framework, existing literature on tourism disasters and crises, ongoing discussions in the international tourism industry and wider media as well as 18 semi-structured interviews with tourism industry experts and potential domestic tourists.

2. Literature review and hypotheses

2.1. Tourists' risk perceptions during and after the COVID-19 pandemic

Perceived risk "refers to the combined measurement of 'perceived probability' and 'perceived consequences' of a certain event or activity" (Bubeck et al., 2012, p. 1483). A variety of factors influence consumers' risk perceptions, including individual and societal features as well as institutional processes (Neuburger & Egger, 2020; Sjöberg et al., 2004). The psychometric or "revealed preference approach" has been the most influential paradigm in modelling and predicting risk perceptions and acceptance (Fischhoff et al., 1978; Slovic, 1987). The key insights of this risk perception/acceptance framework will be used in this study to design and test interventions that help to mitigate tourists' perceived risk and to encourage them to travel again.

In general, existing studies found a very strong link between perceived risk and decreasing willingness to purchase (Nardi et al., 2020). More specifically, it is well-known that risk, crises and disasters through their impact on risk perceptions affect tourists' intention to travel in general as well as their willingness to visit specific destinations (Ritchie & Jiang, 2019; Sánchez-Cañizares et al., 2020; Sönmez & Graefe, 1998). Tourists' general intention to travel can be affected as tourism is discretionary spending and thus competes with alternative options to spend discretionary income and time (Scott et al., 2008). Moreover, tourists' willingness to visit a *specific* destination is continuously rivalled by alternative destinations. Hence, if a particular destination falls behind in terms of confidence in safeguarding safety and security as well as ensuring a high-quality visitor experience, it is likely to be substituted by alternative options (Hunter-Jones et al., 2008).

Types of perceived risk affecting travel decisions include physical, psychological, financial and time risks as well as the risk that the tourism experience may fall short of expectations (Roehl & Fesenmaier, 1992). Epidemics were traditionally considered to be among the most important travel deterrents as they greatly increase safety and security concerns among tourists and escalate practically all of the above-mentioned types of perceived risks (Floyd et al., 2003; Scott et al., 2008).

2.1.1. The role of real risk

The psychometric model of risk perceptions suggests that risk perceptions vary among people, and that objective risk (or expert judgments of risk) and subjectively perceived risks may differ (Slovic, 1987). However, while there is a tendency for people to overestimate small or current risks and underestimate large or future risks, on average, people provide an acceptable assessment of real risks (Sjöberg, 2000).

Behavioural intentions indicate the willingness of customers to perform a particular behaviour. Previous literature highlighted attitude, perceived behavioural control and subjective norms to be major predictors of booking intentions (Lam & Hsu, 2006). Risk perceptions are likely to impact on all three predictors as risks influence expected travel outcomes, agreement of referents and opportunities to travel (Quintal et al., 2010) – and are thus probable to affect booking intentions (Floyd et al., 2003; Sönmez & Graefe, 1998). Applying the theoretical background on risk perception to the specific context of tourism consumer decision making, it is expected that the severity of the COVID-19 pandemic in the destination as measured by the number of confirmed positive cases impacts risk perceptions and booking intention.

H1. Intention to book depends on the number of COVID-19 cases in the tourism destination.

2.2. Mitigating risk perceptions during and after COVID-19: Tourism recovery strategies

While Floyd et al. (2003) are pessimistic about the possibilities of product alterations and advertising to change risk perceptions among tourists, such initiatives are usually a major component of recovery strategies (Mair et al., 2016; Ritchie & Jiang, 2019; Scott et al., 2008). Tourists are looking for assurance that the risks have been contained and that their tourism experience is not compromised. Thus, the main objective of product and communication-related initiatives is to change tourists' perceptions of risk in a destination (Scott et al., 2008) as well as restoring confidence and/or increasing risk acceptance. Tourism recovery interventions aim to achieve this using the two main mitigation strategies of perceived risk suggested by the psychometric model: increasing control, trust and knowledge; and increasing associated benefits.

2.2.1. Increasing control, trust and knowledge

The psychometric model is adamant that informed awareness of a risk (is the risk well-understood) and preparedness for new hazards can increase the tolerance to the risk. Preparedness and awareness are

usually associated with an increased perceived control over the risk taken and an increased trust in those managing the risk (Fischhoff et al., 1978; Slovic, 1992). Recent literature shows that these factors also mitigate food safety risk perceptions (Nardi et al., 2020) and flood risk perceptions (Lechowska, 2018). Early research on risk perceptions provided evidence for the relevance of perceived control by highlighting the extensive impact of voluntariness of risk exposure on risk acceptance (Slovic, 1992; Starr, 1969).

In the particular situation of the COVID-19 pandemic, one possible way of increasing perceived control over risks is by limiting travel of certain less-easy-to-control groups of tourists such as international visitors. The public discourse depicted international travel as a major risk factor and many destinations have banned international arrivals (Australia also barred its citizens from leaving the country) (see Graham-Harrison & Smith, 2020; Meixner, 2020). Literature on risks perceptions (Wachinger et al., 2013) and the tourism crisis literature are well aware of the impact of media coverage of disastrous events (Novelli et al., 2018; Volo, 2007; Walters & Clulow, 2010). Against this background, from the point of view of domestic tourists, allowing international visitors to visit can influence the perceived risk of visiting a tourism destination during a global pandemic.

H2. Intention to book depends on whether international visitors are permitted to visit the tourism destination.

Implementing social distancing, hygiene measures and tracing apps are other ways of boosting control and trust during the COVID-19 pandemic. Tourism bodies and operators have followed WHO (2020) recommendations and declared health and hygiene as priority areas for any recovery efforts. For example, Marriott International launched a 'Cleanliness Council' to advance cleanliness and hygiene standards in their hospitality operations in the context of COVID-19 (Marriott International, 2020). The World Travel and Tourism Council (WTTC, 2020) developed standardised protocols for health and hygiene measures in the various segments of the tourism industry (aviation, hospitality, attractions etc). Many destinations have implemented hygiene trainings and cleanliness certifications, including Singapore, Abu Dhabi, Portugal and Western Australia. The U.S. Travel Association (2020) released industry guidance for "Travel in the New Normal" with a strong focus and health and safety. More than 50 countries, including Australia, have also promoted voluntary or compulsory COVID-19 tracing apps as part of their containment efforts to the pandemic, although not without concomitant privacy concerns voiced in the media (Ologeanu-Taddei, 2020). It is expected that social distancing, hygiene measures and tracing apps reduce risk perceptions and increase willingness to book; however, these measures may also negatively impact on the holiday experience (such as some places being closed or access restricted to limit numbers in social distancing efforts).

H3. Intention to book depends on whether social distancing rules are in place.

H4. Intention to book depends on whether tourism and hospitality facilities implement hygiene standards.

H5. Intention to book depends on whether a COVID-19 tracing app is required at tourism and hospitality facilities.

Space is a main factor in facilitating an effective individual control over infection risks. It thus can be a way of "spinning the unsafe image into assets" (Walters & Mair, 2012, p. 89). This insight may be implemented through coercive measures such as 'social distancing', but it can also mean that uncrowded and remote place may gain in attractiveness during a pandemic (Zenker & Kock, 2020). A promising recovery intervention thus can stress the availability of space in a tourism destination in advertising.

H6. Intention to book depends on whether the availability of space is stressed to promote a visit.

Finally, cancellation policies can be expected to have a positive impact on perceived voluntariness of risk exposure in tourism as well as perceived control over consequences. Huang and Min (2002) and Glaesser (2006) associate crises and disasters in tourism with an increase in cancellations, indicating, in turn, that cancellation policies may play a relevant role in mitigating tourists' risk perceptions in the event of disasters. This is further corroborated by evidence of increasing rates of last-minute bookings during and after disasters as tourists monitor situations in real time (Hystad & Keller, 2008). Hence, both academic authors (Assaf & Scuderi, 2020) and industry consultancies (Krishnan et al., 2020) suggest that accommodation providers adopt more flexible cancellation policies during the COVID-19 pandemic to increase confidence to book by reducing perceived risks associated with bookings.

H7. Intention to book depends on whether a fully refundable cancellation policy is offered.

2.2.2. Increasing associated benefits

The "revealed preference approach" which preceded the psychometric model in modelling risk perceptions, held that perceptions and acceptability of risks are proportional to the (third power of) benefits (Starr, 1969). The higher acceptability of risks that are associated with higher benefits has broadly been confirmed in the psychometric model (Slovic, 1992) as well as in sector-specific research (Nardi et al., 2020).

For example, while COVID-19 poses physical and psychological risks to tourists, it is well-known that tourism entails benefits for mental wellbeing (Sirgy et al., 2011) and physical wellbeing (de Bloom et al., 2010). Existing empirical research indicates that these short-term benefits diminish over time and last for about two to four weeks (Chen & Petrick, 2013). Reminding tourists of these benefits can be expected to increase willingness to travel even during a disaster such as a pandemic.

H8. Intention to book depends on whether respondents are persuaded with a message that vacationing is important to maintain mental and physical wellbeing.

Communication influences perceived benefit. Existing literature (Mair et al., 2016; Prideaux et al., 2008; Walters and Mair, 2012) highlights the necessity of advertising activities of tourism destinations post disaster. For example, authors report on the effectiveness of advertising that reminds past actual and would-be visitors of the destination image and of their connection with the destination, and thus restores confidence in visiting (Armstrong & Ritchie, 2008; Avraham, 2020; Walters & Mair, 2012). To recover from Hurricane Katrina in New Orleans the destination marketing organisation (DMO) employed advertising messages that made reference to emotions ("Come fall in love with New Orleans all over again") (Chacko & Marcell, 2008). These emotional marketing messages are often crafted to include a reference to the resilience, timelessness and immutability of key features of the experience, if not an 'open for business' spin: "New Orleans, just as you remember it" (Chacko & Marcell, 2008), "Terrorists can destroy Kuta but they can't destroy our spirituality, and that is what we have to offer to visitors" communicated after the 2002 Bali bombings (Henderson, 2008), or the "There's still nothing like Australia" campaign launched after the 2019/2020 bushfires and COVID-19 pandemic in Australia. Many DMOs employed such a focus on immutability-centred retentive advertising (or reminder advertising) during the COVID-19 lockdowns as they attempted to retain the desire to visit (see e.g., the "Live from AUS – The best of Australia live streamed into living rooms" campaign in Australia).

H9. Intention to book depends on whether retentive advertising messages are used to promote a visit.

It may be useful to give benefits-related advertising an ethical spin as existing literature on risk perception highlights that elements of 'morality' have a strong influence on risk tolerance (Sjöberg, 2000). Concurrently, with previous disasters, solidarity-orientated

EXOGENEOUS FACTORS

Risk perception & real risk

| COVID-19 cases [high COVID] (H1) | H1 |

MITIGATING INTERVENTIONS

Risk perception & mitigation: Control, trust, knowledge

| International visitors allowed (H2) |

| Social distancing (H3) |

| Hygiene (H4) |

| COVID tracing app (H5) | H2 to H7 |

| Space (H6) |

| Cancellation (H7) |

Associated benefits

| Wellbeing (H8) | H8 to H11 |

| Retentive advertising [#everythingwelove] (H9) |

| Solidarity-invoking advertising [#loveASW] (H10) |

| Discount (H11) |

Risk acceptance / risk taking
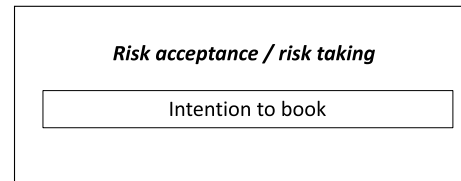
| Intention to book |

Fig. 1. Research model.

communication has proven effective to encourage travel. Such communication conveys the message that, by visiting, tourists can support tourist providers and assist the general economic recovery in communities affected by a disaster. Such communication also indirectly conveys the message that tourists are welcome and not seen as inappropriately intruding a 'recovery space' (Walters & Clulow, 2010). Carlsen and Hughes (2008) present the case of the Maldives recovery marketing strategy in the event of the 2004 Indian Ocean Tsunami which included a solidarity-component. Similarly, authorities tried to invoke sympathy for the affected tourism operators after the 2002 Bali bombings, combined with an appeal to patriotism on the domestic markets (Henderson, 2008). In the same vein, the Australian state of New South Wales encouraged tourists to visit after the 2019/20 bushfires by reminding them that "Now's the time to love NSW" ("Our future is in your hands") because regional towns and tourism businesses need help in difficult times.

H10. Intention to book depends on whether solidarity-invoking communication is used to promote a visit.

Another way of increasing benefits is to reduce monetary costs of travel. Existing research supports the idea that offering discounts can motivate people to resume travel to a particular destination in the short term. Promotional rates were employed by lodging businesses, attractions, airlines and other tourism providers following the 9–11 US terrorist attacks in 2001, the 2002 Bali bombings, the 2002-04 SARS event in South East Asia, the 2005 London bombings, forest fires in Canada and the 2013–15 Ebola outbreak in West Africa (Henderson, 2008; Hystad & Keller, 2008; Ladkin et al., 2008; McKercher & Pine, 2005; Novelli et al., 2018; Taylor & Enz, 2002). Interestingly, in Fiji a tourism industry action group was formed to coordinate pricing policies after the political crises in 1987 and 2000 in order to ensure a destination-wide price-driven recovery (Beirman, 2003). However, some authors present evidence that makes them question the

effectiveness of short-term discounting for post-disaster recovery (Walters & Mair, 2012). A third group of authors acknowledge the effectiveness of discounting in terms of stimulating visitation but they also recognise associated risks for current and future revenue (Carlsen & Hughes, 2008; Mair et al., 2016). Concerns about their bottom line may actually prompt some tourism and hospitality providers to increase prices to compensate for decreased occupancy rates such as in the context of the long-term political crisis in Israel (Beirman, 2003).

H11. Intention to book depends on offering price discounts vs price increases for accommodation and attractions.

2.2.3. Potential trade-offs

However, the two dimensions of containing risk/increasing control and ensuring associated benefits such as a quality tourism experience can be in partial contradiction and in conflict with each other as not all measures that increase control over safety and security are conducive to a better tourism experience. Rittichainuwat (2013) reports that while tourists felt safer after terrorist attacks if security measures were implemented, some segments felt deterred if these measures became excessive. This is particularly evident in a pandemic, where social distancing measures and hygiene measures can compromise the tourism experience while potentially increasing the perceived security and safety. Moreover, health and hygiene measures can potentially be a double-edged sword in terms of their impact on perceptions: The generated signalling effects may either indicate reassurance or increased risks levels. While Groeneboom and Jones (2003) could not rule out unwanted implications for destination image caused by overt safety measures, Cruz-Milán et al. (2016) did not find a negative impact of increasing the security forces on tourist perceptions.

Due to the potential presence of trade-offs, the above hypotheses which are summarised in Fig. 1 are all described as non-directional relationships because while one direction may be more likely the opposite

Table 1
Summary of qualitative interview findings (simplified from Aebli et al., 2021).

Travel motives	Informed hypotheses	Travel demotivators	Informed hypotheses
Wellbeing: Escape to nature, remoteness of a place, avoiding crowds	H6, H8, H9	Health risk: Perceived safety, number of cases, hygiene, risk of new outbreaks, social distancing	H1, H2, H3, H4, H5
Social connectedness: Socialise with friends, family and the wider community	H10	Experience risk: Restrictions, reassurance and information	H3, H4, H6, H7, H9
Personal growth: Re-discover one's own backyard	H9	Trust: Perceived competence in handling the pandemic	H2, H3, H4, H5
Relaxation: Avoid stress, isolated places	H6, H9	Economic risk: Affordability	H7, H11

effect is possible in the context of domestic travel. For example, while requiring actions such as having a COVID-19 tracing app might have intended health benefits for tourists, concerns over civil liberties may provide a deterrent to travel. Even the presence of a second wave of COVID-19 cases might increase desire to escape highly populated city centres rather than restricting travel due to anticipated health concerns.

3. Method

A randomised experiment, in which respondents were randomly allocated one of many scenarios, was adopted as this approach reduces the impact of bias in responses and improves the validity of conclusions concerning causality (Viglia & Dolnicar, 2020).

3.1. Overall research design

This study consisted of a qualitative component to generate hypotheses (first phase) and a quantitative experimental component designed to test the causal relationships (second phase). Quantitative data were collected through an online survey which presented a scenario-based experiment to respondents. The qualitative part consisted of 18 semi-structured interviews, 10 conducted with Western Australian tourism industry members and 8 with residents in Western Australia (i.e., potential intrastate tourists). The findings of these interviews which are presented in Aebli et al. (2021) and briefly summarised in Table 1, informed the formulation of hypotheses and scenarios as discussed further below. The following presentation of methods and results focuses on the experimental component of the research.

3.2. Questionnaire

The online questionnaire consisted of several sections containing the following key material in this order:

- The question "How likely would you have visited Australia's Southwest region within the next year for an overnight stay, if COVID-19 did not happen?" (with responses from 1 = 'Very unlikely' to 7 = 'Very likely') obtained information as a baseline or control prior to the respondent being influenced by a scenario.
- The respondent was provided with a randomly selected scenario (see Section 3.3), comprising 11 binarily coded, manipulated factors, which formed the independent variables (COVID-19 cases, international visitors allowed, social distancing, hygiene measures, COVID-tracing app, space, cancellation, wellbeing reminder, retentive advertising '#everythingwelove', solidarity-invoking advertising '#loveASW', discount).

- Respondents were asked the key dependent variable of the study "If your personal circumstances permitted, how likely would you book a visit to Australia's Southwest in the near future in this 'hypothetical situation'." (with possible responses from 1 = 'Very unlikely' to 7 = 'Very likely').
- The attention check question "In this 'hypothetical situation', were international travellers allowed to visit Australia's Southwest?" (with responses of 'Allowed', 'Not allowed', and 'Do not know'): To ensure data quality, only respondents who correctly answered this question referring to one of the manipulated factors were retained for analysis as respondents failing this question are unlikely to have comprehended and/or paid sufficient attention to the viewed scenario.
- Demographics and control variables (such as the respondent's gender, age, children, education, underlying health conditions, affordability of a visit, previous visits and likelihood of booking if COVID-19 did not happen).

3.3. Scenarios

The possible scenarios presented to respondents had two options for each of the 11 factors corresponding to the 11 hypotheses. Only two possible scenarios are presented here; one with the first option for each of the 11 factors (Fig. 2) and one with the second option for each of the 11 factors (Fig. 3). In practice, each respondent would see a randomly allocated scenario containing a combination of these two scenarios, with some options from Fig. 2 and some options from Fig. 3. For example, another scenario is in Fig. 2 with the first dot point (H1) "the COVID-19 outbreak has been well-contained in Western Australia and **no new cases** have been reported for at least a week" replaced with "there is a **second wave** of COVID-19 cases in Western Australia with over 100 new cases last week" (as in Fig. 3). Importantly, each respondent was shown only one scenario, consisting of one randomly selected option out of the two possible options, for each of the 11 factors. These form the independent variables applied to each respondent and the dependent variable (intention to book) was therefore only measured once for each respondent.

In most cases, the first option (Fig. 2) represented either the current situation (e.g., low COVID-19 cases locally (H1)) or a placebo message (e.g., "… travelling is still something worth considering" (H8)) compared to the second option (Fig. 3). For example, to test whether compulsory use of the COVID-19 tracing app influences booking intention (H5) the existence of the COVID-19 tracing app is mentioned under both options. This avoids confounding the app being compulsory with the mention of the app that would occur if the first option did not mention the app. An exception is whether an increase in prices of 10% or a decrease in prices of 30% was applied (H11). Stating no change in prices as an option was not adopted as it would be an unusual message to explicitly state no change has occurred. The #everythingwelove (H9) and space (H6) factors are also exceptions as in each case the first option has nothing. This is reasonable to test the effect of an advertising message, however, it is important to note that under all scenarios the respondent received an advertisement; only the content of the advertisement changes. Each scenario was presented on one page with a border to differentiate the advertisement from the background description of the scenario (See Figs. 2 and 3).

Actual industry examples inspired the specific formulation of scenarios: The formulation of the hygiene intervention (H4) took inspiration from measures implemented in Singapore during the COVID-19 pandemic; and advertising messages took inspiration from a solidarity campaign (H10) used during the 2019/20 Australian bushfires and from communication and campaigns developed in Western Australia during the COVID-19 lockdown (H9). These scenarios were finalised after feedback from interviews with tourism industry experts and potential tourists. Final scenarios were then pilot tested on an additional set of potential tourists to ensure wording and presentation was clear.

Please imagine a situation where

H1   • the COVID-19 outbreak has been well-contained in Western Australia and **no new cases** have been reported for at least a week.

H2   • people from Perth are allowed to travel into the Southwest but **international visitors** are still **not permitted**.

H3   • the whole of Western Australia has **no social distancing rules**, so all attractions and beaches **are open as usual with no restriction** on numbers.

H8   Under these circumstances some people might argue travelling is still something **worth considering**.

You are reading the following advertisement:

Visit us in Australia's South West!

H11   We hope to welcome you to the Southwest of Western Australia. Our facilities are returning to normal. You will be pleased to find, in general, that accommodation and attractions are charging on average **only 10% more** despite substantially increased costs.

H7   Our accommodation providers have also agreed to request the equivalent of one night as a **non-refundable deposit**.

H4   In addition, our facilities **comply with health and travel advisories** on Covid-19.

H5   We remind people that an **Australian Covid-19 tracing app** is available but **not mandatory** to download.

H10   The South West is WA's second most important tourism region **with many operators**.

Fig. 2. The scenario with the 'low' option for each of the 11 factors.

3.4. Respondents

The relevant population for this study includes adult residents in Western Australia outside of the Australia's South West (ASW) region. Swift action closing international and state borders restricted COVID cases in Western Australia to 641 (24 per 100 k) and 9 deaths (by the end of data collection in August 2020). ASW borders were closed for 48 days but this border was reopened to intrastate tourists just prior to data collection. ASW accommodation providers contacted previous visitors on their databases and invited them to participate in the online survey. Hence respondents are past visitors to the region. Data were collected between 13 July 2020 and 11 August 2020. After quality checks (complete questionnaires, attention check), n = 666 respondents were retained for further analysis.

There were slightly more female respondents (55%) and the vast majority of respondents were aged between 36 and 75 (85%). The sample included an underrepresentation of younger tourists below 36 compared to intrastate visitor demographics commonly reported for the ASW region. The respondent sample was highly educated with 64% respondents having a university degree and 80% declaring they were not aware of any underlying health condition that would increase their risk from catching COVID-19. Most respondents could easily afford a holiday in ASW (45% responding with the extreme on the 7-point scale). When visiting ASW, respondents would stay in caravan parks (66%), National Park campgrounds (62%), hotels/motels/serviced apartments/resorts (41%), private short-term rental (33%), in a relative's or friend's property (19%) or in their own holiday homes (2%) (multiple response options). This indicates an over-presence of respondents staying in caravan parks and campgrounds and an underrepresentation of people staying in a relative's or friend's property. This use of caravan parks and

Please imagine a situation where

H1
- there is a **second wave** of COVID-19 cases in Western Australia with over 100 new cases last week.

H2
- and the region has also been **opened to international visitors** last week.

H3
- the whole of Western Australia has **social distancing rules in place**, which means some attractions or beaches are **closed or access is limited to restrict numbers**.

H8
Under these circumstances some people might argue travelling is important to maintain **mental and physical wellbeing**.

You are reading the following advertisement:
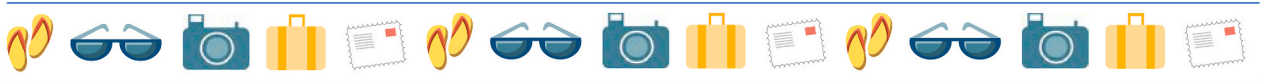
Visit us in Australia's South West!

H11
We hope to welcome you to the Southwest of Western Australia. Our facilities are returning to normal. You will be pleased to find, in general, that accommodation and attractions are charging on average **30% less**.

H7
Our accommodation providers have also agreed to introduce special cancellation policies which will allow you to **cancel for free** until three days before check-in.

H4
In addition, our facilities have been **certified for implementing the new Tourism Hygiene Criteria**: They have appointed certified Clean Managers to oversee the properties' practices, including
- cleanliness and hygiene practices
- daily temperature and health screening of employees
- mandatory masks for employees.]

H5
We require **mandatory** download of the **Australian COVID tracing app** from all employees and guests.

H10
Now is the time to love the South West and its crisis-torn tourism operators. Joining the #LoveASW movement is easy: First, decide to holiday in the Australia's South West region. Second, capture a photo in an iconic and inspiring Australia's South West location, framed by your hands in a heart shape. Third, share the photo on social media with the hashtag #LoveASW to **amplify your support to our region and their providers** during these difficult times. We are all in this together!

H9
Australia's South West is #everythingwelove. We are graced with two oceans. Each creates storms that produce swell, sending waves to our beautiful bays, beaches and coastlines. These waves break daily and withstand everything. They will continue to break. Energetic,

Fig. 3. The scenario with the 'high' option for each of the 11 factors.

musical and powerful. And they are waiting for you. That is a promise. Australia's South West: Land of waves.

When you're ready, there will be no shortage of incredible adventures even beyond our waves: hidden gems to explore, epic road trips and friendly tour operators ready to welcome you. This year, and next year the best holiday will be right here in the Southwest of Western Australia. Come and create your spirit of adventure!

[Photo 1]   [Photo 2]   [Photo 3]

H6   And please remember: We are entering the new normal where **space is the new luxury**! Australia's South West is known for its wide-open spaces and is ideally placed to offer you this precious privacy and seclusion.

Fig. 3. (*continued*).

National Park campgrounds is higher than pre-COVID-19 but may be explained by desires to social distance in the pandemic. Table 2 contains full descriptions of the demographics used in regressions.

3.5. Statistical analysis

Between subject logistic regression was performed with the dependent variable defined as 1 ("will book") and 0 ("will not book"). This binary dependent variable was defined as "will book" when the response to the 7-point intention to book question was greater than the midpoint of 4. This simplified analysis can be justified on several grounds. First, as shown in the results (see Table 3), the distribution was bimodal, with approximately half the responses choosing the extreme values of 1 and 7. Second, industry is primarily interested in whether a booking is made (the strength of conviction to make the booking does not generate extra revenue). Third, the midpoint 4 was classified as a "no" intention to book because this neutral midpoint is unlikely to reliably result in a booking. Finally, results are qualitatively similar if an alternative cut point for the yes/no divide is used or if ordinal logistic regression is used on the original 7-point scale. Interpretation of logistic regression coefficients B followed Taplin (2016), who recommended the following approximate effects on the probability of booking from increasing an independent variable by 1: when the probability is smaller than 20%, the probability is multiplied by exp(B), when the probability is between 20% and 80% the probability is increased by adding B/4; and when the probability is greater than 80%, the probability of not booking is divided by exp(B).

The independent variables in the logistic regression were defined by the 11 factors (first option coded as 0 and second option coded as 1) as per Figs. 2 and 3, and the control variable (likelihood of booking if COVID-19 did not happen). The regression was repeated with demographics (assigned values provided in column 1 of Table 2) included. To simplify analysis and reporting, a few observations preferring not to mention gender or health condition were coded as 0.5 (results are similar if coded differently). Due to missing values for affordability and education (Table 2), sample size is reduced from 666 to 665 when demographics are included. This sample size easily exceeds standard benchmarks of 10 or 20 observations per independent variable, especially since the main variables corresponding to 11 hypotheses are by design uncorrelated.

Note that due to the random allocation of respondents to scenarios the 11 variables corresponding to the 11 manipulated factors (H1 to H11) are approximately independent (uncorrelated) with each other and all other variables, so multicollinearity is not an issue and removing insignificant hypothesised variables from the regression (e.g., through stepwise regression) has negligible impact on results. Interaction effects were also tested for inclusion in the logistic regression as effects of two factors may not be additive. Analysis was performed in the statistical software package R.

4. Results

The distribution of responses to the intention to book question is summarised in Table 3.

Table 4 shows regression results for the 11 hypotheses, with values indicating the difference in log odds of booking intention between the scenario where the respective variable is present or high and the scenario where the respective variable is absent or low. Regression results testing the 11 hypotheses are similar regardless of whether demographics are included or not (Table 4), so henceforth we concentrate discussion on results with demographics. In terms of demographics, booking intention is significantly lower for females (p = .002), older respondents (p = .009) and those with fewer previous visits (pvisit) to ASW (p = .042). This finding is in line with existing research on risk perceptions which generally supports relevance of demographic variables (Lechowska, 2018; Nardi et al., 2020; Neuburger & Egger, 2020): Women, older respondents and those with less familiarity tend to exhibit greater caution.

Results for hypotheses are discussed under subheadings motivated by the model (Fig. 1).

4.1. Exogenous factors: risk perception and real risk

The presence of high numbers of COVID-19 cases in the destination had the strongest effect on booking intention of domestic tourists (B = −1.778; p < .001). This means changing from the low COVID-19 situation to the high COVID-19 situation decreased the log odds of booking intention by 1.778. This is an enormous practical effect: approximately dividing the probability of booking by 6 (= 1/exp (-1.778)) if it was less than 20% or subtracting 1.778/4 = 44% if it was between 20% and 80%

Table 2
Demographics and control variable (with coded values for regressions)

Code	Variable	n	%
	Female		
1	Female	368	55%
0	Male	297	45%
0.5[a]	Prefer not to say	1	0%
	Age		
1	18-25	18	3%
2	26-35	68	10%
3	36-45	144	22%
4	46-55	160	24%
5	56-65	128	19%
6	66-75	131	20%
7	Above 75	17	3%
	Education		
1	Did not complete Year 12 high school	34	5%
2	Completed high school	48	7%
3	Vocational/trade certificate	158	24%
4	University qualification	425	64%
	Missing	1	0%
	Affordability of travel to ASW		
1	1-Absolutely not	3	0%
2	2	18	3%
3	3	36	5%
4	4	89	13%
5	5	107	16%
6	6	112	17%
7	7-Very easily	300	45%
	Missing	1	0%
	Children in travel group		
1	Yes	359	54%
0	No	307	46%
	Unhealthy (has a COVID-risk health condition such as diabetes, lung or heart disease, compromised immune system)		
1	Yes	118	18%
0	No	536	80%
0.5[a]	Prefer not to say	12	2%
	pvisit (Number of previous overnight visits to ASW)		
1	0	9	1%
2	1	11	2%
3	2	38	6%
4	3	55	8%
5	4	73	11%
6	5-9	277	42%
7	10-19	150	23%
8	20+	53	8%
	Control (likely to visit ASW within a year if COVID-19 did not happen)		
1	1-Very unlikely	7	1%
2	2	4	1%
3	3	6	1%
4	4	17	3%
5	5	31	5%
6	6	84	13%
7	7-Very likely	517	78%

[a] 'Prefer not to say' were coded for regression as the midpoint between the two other values for the variables 'gender' and 'unhealthy'. Regression results are similar if they are coded as 0 or 1, or treated as separate groups.

Table 3
Distribution of the original booking question and the transformed booking variable for logistic regressions (response > 4).

Very unlikely				Very likely			book
1	2	3	4	5	6	7	(>4)
19%	9%	7%	10%	14%	13%	29%	56%

(this approximation might be inaccurate because it may move the probability below 20%). This provides not only strong support for hypothesis H1 but suggests high numbers of COVID-19 cases have a crippling effect on booking intentions.

4.2. Mitigation A: interventions aimed at increasing control, trust and knowledge

Allowing international visitors also has a strong effect on booking intentions of domestic tourists (B = −1.537; p < .001). Allowing international visitors either multiplies a small probability of booking by 0.215 (dividing by 4.7) or decreases a moderate probability by 38% (approximately), if all other conditions remain unchanged. Thus, strong support is also found for H2.

Requiring social distancing, which means a few places may be closed or access restricted to limit numbers, has a practical but statistically insignificant (B = 0.300; p = .110) effect on booking intention. Social distancing is estimated to increase the probability of booking by about 8% (SE = 4.5%), but as this effect is not statistically significant, we do not find strong support for H3. The hygiene measures (H4) and space message (H6) were statistically insignificant (p = .740 and p = .989) and hence we do not find support for these hypotheses. Note that the insignificant hygiene message included cleaning, temperature checks as well as mandatory face masks for employees, all overseen by certified managers. Requiring mandatory download of the Australian COVID-19 tracing app significantly reduces booking intention (B = −0.460; p = .016), providing support for H5. Requiring the app reduced the probability of booking by approximately 12%.

Including a flexible cancellation policy has a strong effect (B = 0.514; p = .007), providing support for H7. Providing free cancellation until 3 days prior to check-in is estimated to increase the probability of booking by approximately 13%. However, this is relative to the alternative of a one-day non-refundable deposit and there are financial consequences of allowing cancellations of bookings.

4.3. Mitigation B: interventions aimed at increasing associated benefits

The #everythingwelove retentive advertising message (with pictures) which aimed at reminding past visitors of the immutable destination image and of their connection with the destination significantly increased booking intention (B = 0.400; p = .033), providing support for H9. This message increased the probability of booking by an estimated 10%. Solidarity-invoking advertising in form of the #loveASW plea to support the region and its tourism providers in challenging times resulted in a practically important but statistically insignificantly increase in booking intention (B = 0.308; p = .102). This advertising is estimated to increase booking probability by about 8% (SE = 4.5%), but as this effect is not statistically significant, we do not find strong support for H10.

A 30% reduction in price (compared to a 10% increase) significantly increased booking intention (B = 0.405; p = .029), providing support for H11. Discounts are estimated to increase the probability of booking by 10% (which is of practical importance but must be interpreted in the context of a reduction of 40% in revenue per booking relative to increasing prices). In contrast, the wellbeing message (H8) was statistically insignificant (p = .247).

4.4. Interaction effects

No interaction effects between high. COVID and the other variables were statistically significant (p > .1). Hence the data is consistent with each of the other variables having the same effect in both a worsening COVID-19 situation and the historical low COVID-19 cases. Examining all 55 two-way interactions between manipulated variables revealed one statistically significant interaction between Cancellation and App (p = .036). However, we interpret any potential interaction effect with

Table 4

Logistic regression results of booking intention using the 11 independent variables corresponding to the 11 hypotheses.

	Without demographics				With demographics			
	B	SE	p		B	SE	p	
H1. high.COVID	−1.685	0.192	.000	***	−1.778	0.198	.000	***
H2. Inter.visitors	−1.500	0.188	.000	***	−1.537	0.194	.000	***
H3. Social.dist	0.325	0.182	.075	.	0.300	0.188	.110	
H4. Hygiene	0.000	0.184	.998		−0.063	0.189	.740	
H5. App	−0.451	0.185	.015	*	−0.460	0.190	.016	*
H6. Space	0.036	0.182	.841		0.003	0.187	.989	
H7. Cancellation	0.504	0.184	.006	**	0.514	0.189	.007	**
H8. Wellbeing	0.190	0.183	.299		0.220	0.190	.247	
H9. #everythingwelove	0.377	0.182	.039	*	0.400	0.187	.033	*
H10. #loveASW	0.314	0.184	.087	.	0.308	0.188	.102	
H11. Discount	0.405	0.185	.029	*	0.401	0.190	.035	*
control (no COVID)	0.306	0.093	.001	***	0.230	0.099	.020	*
Female					−0.614	0.197	.002	**
Age					−0.196	0.075	.009	**
education					0.024	0.116	.834	
affordability					0.115	0.067	.086	.
Children					−0.073	0.198	.711	
unhealthy					−0.313	0.247	.205	
Pvisit					0.139	0.068	.042	*
constant	−0.981	0.652	0.132		−0.674	0.914	.461	

Note: Statistical significance: ***p < .001; **p < .01; *p < .05; . p < .1.
The control variable refers to the intention to book if COVID-19 did not happen.

caution due to the large number of interactions examined and the p = .036 being only just lower than 0.05 (adjusting for the large number of interactions examined produces an insignificant result). A lack of interactions between effects implies the effects in Table 4 can be interpreted as additive. For example, using both the #everythingwelove retentive advertising and #loveASW solidarity messaging is estimated to increase the log odds of booking intention by 0.400 + 0.308 = 0.708 (an increase in the probability of booking of 18% (SE = 6.6%). Alternatively, including all 8 options in Table 4 with positive coefficients has an estimated effect of 2.15 on the log odds of booking intention. This equates to an approximate increase in the probability of booking intentions of 53.8% (SE = 12%), a higher effect than either high COVID-19 numbers or allowing international visitors (but not of both effects simultaneously).

Finally, although there are numerous possible interactions between respondent demographics and hypothesised independent variables, we briefly provide some exploratory results that might be worthy of formal testing in future research. Requiring the app (H5) appears to lower booking intentions only for respondents without the app, suggesting requiring the app is detrimental due to civil liberty arguments rather than health arguments. Similarly requiring the app is not detrimental for unhealthy respondents. Female respondents are less likely to book than males (Table 4) however this effect disappears with a cancellation policy. There is also evidence the wellbeing message (H8) is effective for respondents who can easily afford a visit but very detrimental for those who can not. These interactions are reported as their unadjusted p-values are less than 1%. Although in hindsight they might appear logical, none were hypothesised in advance and the large number of potential interactions involving demographics suggests caution is required in drawing definitive conclusions form this study.

5. Discussion

This randomised study analysed recovery marketing efforts to restore intention to revisit a domestic tourism destination in the immediate aftermath of the most acute stage of a lingering public health crisis. Hypothesis H1 received support with results indicating high case numbers of COVID-19 have large, negative effects on domestic booking intentions. On a general level, this confirms that pandemics are relevant tourism deterrents (Floyd et al., 2003; Karabulut et al., 2020). This finding also indicates that perceived negative risk is strongly associated

with the actual infection numbers, so real risks drove perceived risks as anticipated in the literature (Liechtenstein et al., 1978; Sjöberg, 2000) and this did not differ significantly depending on respondent demographics.

5.1. Mitigation A: interventions aimed at increasing control, trust and knowledge

This study analysed a number of tourism recovery interventions for their impact on risk acceptance as operationalised through booking intention. Increasing perceived control proved to be a partially effective risk mitigation strategy for domestic tourism. Most notably, hypothesis H2 received strong support indicating that exerting control over international visitor arrivals can have large positive effects on domestic booking intentions. This perception may have been fuelled by political support for border closures, mandatory hotel quarantine for international arrivals and negative media coverage of COVID-19-outbreaks on international cruise ships. These findings corroborate existing knowledge about the impact of media coverage on tourist behaviour in disaster contexts (Novelli et al., 2018; Walters & Clulow, 2010).

We did not find similarly strong support for Hypothesis 3 which hypothesised an effect of increased control through social distancing measures on booking intentions. This effect might have been significantly positive if the design had not mentioned the negative tourism experiences that are a logical consequence of social distancing requirements. Further research might disentangle these two effects but this study took the pragmatic approach that one is not possible without the other. Moreover, health measures may also imply an unintended signalling effect of risk (Cruz-Milán et al., 2016; Groeneboom & Jones, 2003). Overall, social distancing might be interpreted positively despite potential detrimental effects on the vacation experience.

The same idea of trade-offs between control over risks and tourism experience impacts is most likely applicable to restrictive hygiene measures (hypothesis H4) and to introducing mandatory COVID-19 tracing apps (hypothesis H5). Both measures did not increase booking intentions of domestic visitors. The implementation of hygiene measures in tourism and hospitality facilities, including temperature checks and mandatory masks for staff, did not show a total combined effect on booking intentions. While Hypothesis H4 is thus not supported, Hypothesis H5 received support: Requiring mandatory download of the Australian COVID-19 tracing app significantly *reduced* booking

intention, despite its potentially positive effects on public health. Analysis of interaction effects suggested the app is detrimental to booking intentions due to civil liberty arguments and privacy concerns rather than health arguments. Antagonistic trade-offs may arise due to the particular situation of domestic tourists also being citizens of their destination country: Support of risk mitigation measures in the domestic tourism field may not be easily separable from opinions as citizens. For example, the findings regarding negative impacts of mandatory COVID-19 tracing apps and the lack of impact of suggested hygiene measures (mandatory wearing of masks) make sense in the Australian context where at the time of data collection these measures had been unpopular, if not unnecessary due to low case numbers.

Hypothesis H6 (using 'space' as a hook to promote perceived control over infection risks in the destination) did not find support. Space is linked to a complex set of perceptions in the context of a pandemic and is a point in case for "spinning the unsafe image into assets" (Walters & Mair, 2012, p. 89), as uncrowded and remote place may gain in attractiveness during a pandemic (Zenker & Kock, 2020). Contradicting previous research (Walters & Mair, 2012) and asserted assumptions for the COVID-19 context (Zenker & Kock, 2020), the results of this study do not indicate that this hypothesised effect is taking place. Alternatively, since these are past visitors, it could be all respondents were aware of the space benefits regardless of the scenario they were presented with; advertising 'space' may still be advantageous to respondents unfamiliar with the area.

Hypothesis H7 (cancellation) speculated on the possibility of increasing control by reducing financial consequences associated with an adverse event. The hypothesis received support with increased flexibility provided through fully-refundable cancellation policies exerting a strong effect on booking intentions. The effectiveness of flexible cancellation policies has sometimes been postulated, in particular for the COVID-19 context (Assaf & Scuderi, 2020), but this study is among few to support this claim with robust causal evidence.

5.2. Mitigation B: interventions aimed at increasing associated benefits

According to the psychometric model of risk perception, risk acceptance can also be influenced by increasing perceived benefits associated with risk-taking. The collected evidence supports this general proposition. Hypotheses H8 (stressing wellbeing benefits), H9 (stressing emotional and experiential benefits) and H10 (stressing social benefits through solidarity) posit an effect of differently framed advertising messages. We did not find evidence that a hint to the mental and physical health benefits of tourism influences intention to book (H8). In contrast, results did provide some support for hypotheses H9 and H10: Advertising orientated towards reminding past visitors about the undiminished desirability of a destination (more) and invoking solidarity (less) can support intention to book but they are not a panacea and not necessarily superior to other measures. Nevertheless, this finding is in line with existing research on post-disaster advertising, which postulates effectiveness of retentive advertising that reminds potential visitors of the destination image and of their connection with the destination (Armstrong & Ritchie, 2008; Avraham, 2020; Chacko & Marcell, 2008; Walters & Mair, 2012); as well as effectiveness of solidarity-invoking communication (Carlsen & Hughes, 2008; Henderson, 2008; Walters & Clulow, 2010).

Increasing perceived benefits can also happen through an intervention on the monetary costs associated with visiting. Hypothesis H11 received support as price (discounts vs price increases) did have an effect. This study thus adds to the notable body of research highlighting the effectiveness of price discounts in tourism disaster situations (e.g., Hystad & Keller, 2008; Ladkin et al., 2008; McKercher & Pine, 2005; Novelli et al., 2018).

5.3. Interaction and combined effects

Through an exploration of potential interaction effects, this study also found the effectiveness of the interventions was similar in both pandemic incidence scenarios (low and high COVID-19 cases). This may be because with a lingering global pandemic latent risk and actual risk are very close to each other and respondents are aware of the presence of COVID-19 in other parts of the world and appreciate how easily it can spread.

Overall, it is notable that no single measure can easily compensate the strong negative effects on tourists' domestic booking intentions of high COVID-19-cases. However, combining all positive recovery measures in terms of product adaptation and communication can offset the negative effects of a worsening COVID-19 situation on the domestic tourism market to a notable degree (if this is accompanied by the drastic measure of banning international visitation). Therefore, this paper supports the possibilities of product alterations and advertising to change risk perceptions among domestic tourists, and thus agrees that such initiatives should be a major component of recovery strategies (Mair et al., 2016; Ritchie & Jiang, 2019; Scott et al., 2008).

5.4. Limitations and future research

While this research makes numerous contributions, it has its limitations. The study design applied a fictive scenario and focussed on booking intentions which may differ from actual booking behaviour (randomised experiments such as this have noteworthy advantages such as estimating causal effects rather than only correlations, but are hard to implement with actual behaviours). Limitations of the study also refer to the non-random recruitment of respondents, including the fact that respondents were voluntary and selected from two databases of previous visitors to the ASW region. The resulting sample was characterised by an over-representation of campers and a potential under-representation of people considering staying at friends' or relatives' properties which may limit generalisability of findings or reflect altered preferences during a pandemic.

There may also be other limitations to the generalisability of findings. Despite the scenario-based approach, respondents were most likely influenced by the local circumstances at the time of data collection, including the low levels of community transmission locally, but high and escalating number of cases elsewhere in the world. Nevertheless, this study has high value in contributing to the emerging understanding of tourism recovery marketing effectiveness in the context of global pandemics and thus can form the basis for future research. Future research should be expanded to include a multi-country analysis to accommodate for greater variance in context factors. While the implemented research design is powerful in analysing declared behavioural responses to contextual factors and recovery measures, future research is encouraged to further investigate the underlying determinants for the observed behavioural intentions (including the trade-offs between health and experiential benefits). Larger sample sizes would also provide more power to estimate the effects of the factors, and estimated interaction effects that are likely to exist.

6. Conclusion

This paper presented a study on the effectiveness of measures a tourism destination can undertake to encourage domestic tourists to visit during or in the immediate aftermath of a lingering public health crisis. This study not only advances research on recovery marketing (Mair et al., 2016), but has implications for broader considerations about tourists' handling of risk (Sönmez & Graefe, 1998; Williams & Baláž, 2013; Wong & Yeh, 2009). By including multiple recovery and risk mitigation strategies in a randomised experiment within one study the effectiveness of different strategies becomes directly comparable. This provides governments and tourism managers with strong causal
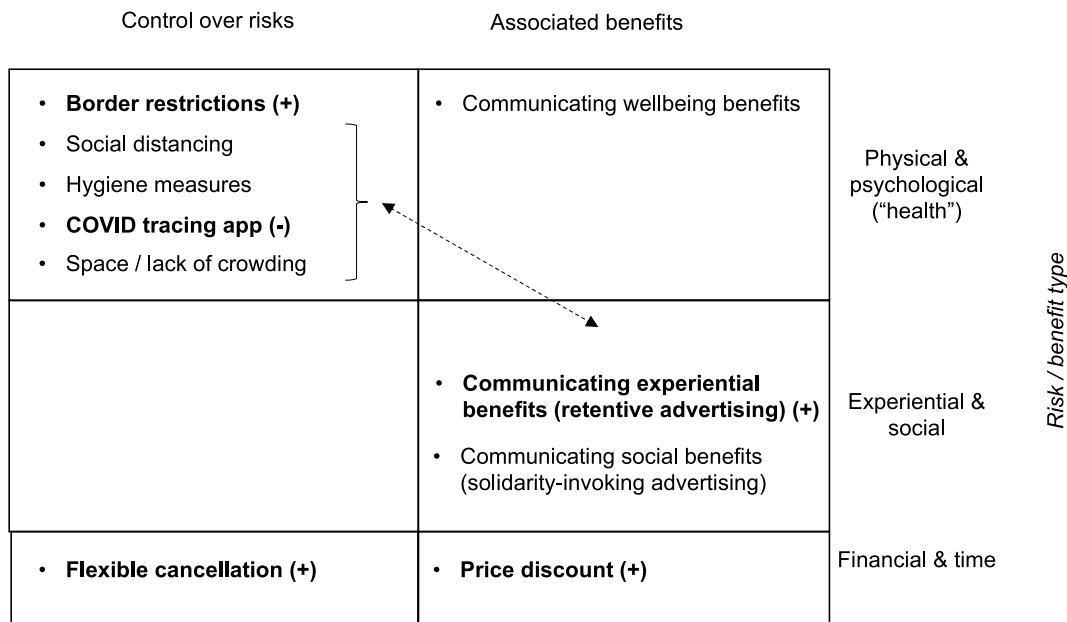
Drivers of risk acceptance

Fig. 4. Effectiveness of measures to recover domestic tourists' intention to visits.
Note: Measures written in bold showed statistically significant effects on booking intentions at p < .05 in the here-presented study. Positive signs indicate positive effects and negative signs indicate inverse effect on booking intentions. Dashed arrows indicate potential trade-offs.

evidence concerning the relative merits of different approaches to increase booking intentions on domestic tourism markets in the event of lingering pandemics.

Existing literature argues perceived risk strongly influences tourists' intention to visit (Ritchie & Jiang, 2019). The psychometric approach, which has dominated the study of risk perceptions (Fischhoff et al., 1978; Slovic, 1987), distinguishes two drivers of risk acceptance: "increasing control over risk factors" and "increasing associated benefits". Perceived risk in tourism decision making can also be organised into various types such as physical, psychological, financial (including time), social and experiential risk (Roehl & Fesenmaier, 1992). Fig. 4 presents an overview of findings utilising these two dimensions of intervention design.

This study makes a number of theoretical and practical contributions. This study is in agreement with authors arguing that real risks strongly influence perceived risks (Liechtenstein et al., 1978; Sjöberg, 2000) and confirms that tourism is highly susceptible to the actual incidence of a pandemic disease, as has been suggested previously (Floyd et al., 2003; Pforr, 2009). In practical terms, in order to increase domestic tourists' willingness to book, it is crucial to keep the pandemic incidence low with other measures fading in comparison. This study contributes to the existing tourism disaster recovery literature by highlighting that recovery measures can influence risk acceptance of domestic tourists. As expected from existing literature, strengthening "associated benefits" generally tended to increase booking intentions of participating domestic tourists (except for stressing wellbeing benefits). However, in contrast to theoretically driven expectations, this study did not find unanimous evidence supporting the effectiveness of increasing domestic tourists' "perceived control" over the pandemic risks. While the drastic measure of banning international tourists as well as flexible cancellation policies showed strong effects on domestic tourists' booking intentions, the other measures were somewhat less promising. Investigating potential trade-offs between increasing control over pandemic risks and reducing associated experiential tourism benefits is an important avenue for future research and will be critical in making generic risk perception/acceptance models applicable to the tourism context.

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