

Managing Travellers' Predicted Future Travel Behaviour in a post-COVID-19 World: A Tourism Supplier Perspective

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Abstract

This research aims to assess the influence of COVID-19 on the travel and tourism industry from a supply-side perspective. More specifically, this research identifies the influential determinants to help manage tourists (main target markets') predicted behaviour and changes in travel patterns due to COVID-19. The exploratory research made use of an online questionnaire. The questionnaire's link was posted on a social media page in 2020, and a convenience snowball sampling method was used to gain access to travel and tourism suppliers. 111 responses were obtained. The multivariate analysis involved exploratory factor analyses (EFA) in identifying the dependent (tourists future travel behaviour) and the independent variables [suppliers' initiatives to connect with their target market(s) during the pandemic, the predicted management and marketing strategies the travel and tourism industry will adopt after COVID-19 and perceptions regarding the future of the travel and tourism industry (in a post-COVID world)] that were included in regression analyses. A set of linear regression analyses was performed to show whether there is a significant relationship between the factors that may provide additional guidelines for managing travellers' predicted travel behaviour due to COVID-19. This research provides valuable insights into the strategies the various sectors within the tourism industry implement and plan to adopt to regenerate their tourism operations post COVID-19. Moreover, since this research is primarily focused on the supply-side (tourism suppliers), the sectoral feedback is valuable in streamlining national tourism industry guidelines post-COVID-19.

Keywords: COVID-19, Supply-side analysis, predicted future travel behaviour, intervention strategies, business behaviour

Introduction

The worldwide outbreak of COVID-19 has brought the world to a standstill, and tourism has been one of the worst affected of all major economic sectors (UNWTO, 2020a, 2021). Several indicators reveal that a global economic crisis will follow the health crisis, creating a significant recession in tourism, leisure, and hospitality (UNWTO, 2020c). Between 2000 and 2015, major disruptive events include the 11 September terrorist attacks (2001), the severe acute respiratory syndrome (SARS) outbreak (2003), the global economic crisis unfolding in 2008/2009, and the 2015 Middle East Respiratory Syndrome (MERS) outbreak and these were all crises that affected global tourism (Gössling et al., 2020). None of them led to a longer-term decline in the global development of tourism. This implies that tourism as a system has been resilient to external shocks (unpredictable changes) (Gössling et al., 2020). However, there is much evidence that the impact and recovery from the COVID-19 pandemic will be unprecedented and that COVID-19 will be different and transformative for the tourism sector. The WTTC (World Travel and Tourism Council) further predicted that once the outbreak is over, it could

take up to 10 months for the industry to recover (World Economic Forum [WEF], 2020a). This recovery may, however, take much longer.

While it is difficult to speculate what precisely the aftermath of COVID-19 will be on the travel and tourism industry, even more than before, governments and tourism industry stakeholders need to consider the costs, risks and impacts of global environmental dangers on travel and tourism. In the twenty-first century, two immense drivers of change to the tourism industry are climate change and global health emergencies such as COVID-19 (Jamal & Budke, 2020). When a destination is affected by a natural disaster, pandemic, human-made attack such as terrorism, or any other unfortunate events, marketing strategies should be planned and implemented to recover destination image, attractiveness and competitiveness (S raphin et al., 2019). The question, however, remains, how this will be done once the virus has been contained? Therefore, this research aims to assess the perceived future travel behaviour from a supply-side perspective. Tourists predicted future travel behaviour is the dependent variable. The independent variables include perceptions relating to infection risk in the different tourism supplier sectors, initiatives to connect with target market(s) during the pandemic, the predicted management and marketing strategies the travel and tourism industry will adopt after COVID-19 and perceptions regarding the future of the travel and tourism industry (in a post-COVID world). Currently, there are no guidelines aimed at the regeneration of the supply-side of the travel and tourism industry. Thus, this research provides valuable insights into the strategies the various sectors within the tourism industry implement and plan to adopt to regenerate their tourism operations after COVID-19. Moreover, since this research is primarily focused on the supply-side (tourism suppliers), the sectoral feedback is valuable in streamlining national tourism industry guidelines after the pandemic.

Literature review

The travel, tourism and hospitality sectors were/are particularly affected due to COVID-19. The regulations surrounding COVID compliance protocols have been introduced to ensure safety in the workplace. According to the Centres for Disease Control and Prevention (CDC, 2020), employers must enforce three activities to prevent and reduce transmission among employees, maintain healthy business operations, and maintain a healthy work environment. These initiatives provide valuable guidance to businesses. However, enforcing and mandating the guidelines is a costly venture, especially since tourism suppliers could not and still cannot operate in many cases due to restrictions and the continued spread of the virus. This further exacerbates economic pressures already faced by many businesses to operate at a reduced capacity.

The pandemic has a detrimental effect on tourism suppliers and will also influence tourists' future travel behaviour. Other pressures that have been in the spotlight before COVID-19 include the effects of travel on global warming and carbon emissions, mainly related to aviation and cruising (Carbon Brief, 2018). Some authors and socio-environmental activists believe that the negative environmental impacts only exacerbated the potential of health-related concerns such as viral and biological outbreaks (WEF, 2020a). If visitors' future travel behaviour is expected to be more environmentally conscious and pro-sustainable tourism-driven, the chance of a shift in sources markets is a foreseeable challenge that will need to be addressed. Therefore, it is fair to state that some travellers will likely be inclined to travel more domestically and regionally to minimize the impact on the environment in terms of future travel behaviour. Domestic markets can, therefore, be anticipated to recover first (G ssling et al., 2020). As the pandemic is likely to cause global travel disruption well into the second or third quarter of 2021, local DMO's and tourism stakeholders must create innovative and disruptive management and marketing campaigns to attract interest from domestic tourism anticipating

the effects of pricing post-COVID-19 (Matiza & Kruger, 2021). Dual pricing structures are already being implemented to try and encourage domestic travel.

The COVID-19 pandemic has further exposed the central importance of perceived risk in tourist decision-making and planned behaviour and has emphasized the need to explore perceived risk and its influence on the inherent safety perceptions of tourists (Li et al., 2020; Wang et al., 2020). Neuburger and Egger (2021) examined the relationship between perception of COVID-19, travel risk perception and travel behaviour among travellers in the DACH region (Germany, Austria, Switzerland). Three segments were identified: 'The Nervous' (perceives the severity of COVID-19 and travel risk perception as high and is willing to avoid travelling by changing or cancelling travel plans), 'The Reserved' (feels neutral towards the risk associated with travelling) and 'The Relaxed' (seems unfazed by the risk associated with travelling). The results revealed a significant increase in risk perception of COVID-19, travel risk perception and travel behaviour over a short period of time.

Similarly, Matiza and Kruger (2021) segmented post-COVID-19 pandemic tourists based on three psychographic factors of perceived risk (physical health-related-, social- and psychological risk). The survey was conducted during May and June 2020 when most European countries could ease certain restrictions, but developing countries such as South Africa experienced their highest infection rates. Three segments were identified, 'Dogmatic tourists' (who seems optimistic about travelling in the future), 'Sceptical tourists' (who appeared to perceive a medium level of risk and be cautiously optimistic when thinking of travelling in the future) and 'Apprehensive tourists' (highly cautious when it comes to travelling in the future). Compared to Neuburger and Egger (2021) similar segments emerged apart from the 'Dogmatic tourists' who are more optimistic about travelling in future. The afore-mentioned studies were conducted from a tourist perception, and limited research has focused on tourists' predicted future travel behaviour from a supplier perspective. To fill the gap in the literature, this research identifies supply-side perspectives on the future travel behaviour of tourists.

Method of research

This research is exploratory and made use of an online questionnaire. Due to the ongoing lockdowns enforced around the world, an online survey was deemed the only way to gain access to the population and is, therefore, the most appropriate method to obtain many responses. #tourisminmyblood is a Facebook page created on 11 April 2020 by four South Africans. The page is open to everyone in the tourism industry worldwide and serves as a platform for discussions amongst industry role-players, for networking and sharing stories and experiences during COVID-19. The group administrators granted the researchers permission and posted the link to the questionnaire on the page. The data were collected using a self-administrated online questionnaire distributed on the social media page. A convenience snowball sampling method was, therefore, used to gain access to travel and tourism suppliers. For example, followers on the page were instructed to share the questionnaire's link to their database. The survey was hosted on the page from June 2020 until August 2020, and 111 responses were obtained. The authors acknowledge the limitation of a small sample size. However, given the current challenges faced by the tourism industry suppliers, and since this is exploratory research, the results are nonetheless considered sufficiently relevant and significant to consider. The online questionnaire was designed in the Research Analytics online survey software QuestionPro©. There is currently limited empirical research on the influence of COVID-19 on the travel and tourism industry, especially from a supply-side. The research discussed in the literature review mostly only analyzed existing media reports to make assumptions. Therefore, the researchers developed the questionnaire based on these

assumptions and on the reports from the UNWTO (2020a, b, c) and WEF (2020a, b) as discussed in the literature review section. The questionnaire consisted of five sections: Section A captured respondents' socio-demographic information, Section B captured information on the travel and tourism operations' business profile, Section C captured information regarding the operations' main target markets and anticipated trends resulting from COVID-19, Section D captured respondents' opinions regarding the travel and tourism industry post-COVID-19 and Section E captured any comments and suggestions about the relief initiatives and support for the industry and the strategies that respondents feel will help the industry recover.

Socio-demographic and business profile of the respondents

Regarding the socio-demographic profile, most respondents were female (67%), an average age of 51 years with a tertiary education (54%). In terms of the business profile, a significant percentage of respondents were suppliers in South Africa (88%) from the Western Cape (28%) and Gauteng (21%) (the country's economic hub). Twelve percent (12%) of the respondents were operating in Africa, the United Kingdom or Europe. The operations have been existence an average of 15 years and were classified as micro-enterprises (1 to 9 employees) (51%). Accommodation was the tourism sector (59%) most represented, followed by those who work in MICE (Meetings, Incentives, Conferences and Events) (14%). Unsurprisingly recreation and entertainment (2.14) followed by accommodation (2.48) and food and beverage (2.75) had lower levels of perceived risk. Digital and social media ($\bar{x} = 4.46$) followed by formalized and promotional media ($\bar{x} = 3.12$) were regarded as essential to reach target market(s), while print and broadcast media is considered unimportant ($\bar{x} = 1.96$). Since most of the respondents were from South Africa, consistent with South Africa's main source markets, Europe was listed as the main target market (27 mentions). The respondents also indicated that due to the unpredictable long-term effects of COVID-19, they might have to reconsider their current target market(s) (43%).

Results from the multivariate statistical analyses

The data were exported to Microsoft Excel© and analyzed using IBM SPSS (Statistical Package for the Social Sciences) Version 27 (IBM Corp., 2020). The multivariate analysis involved exploratory factor analyses (EFA) in identifying the dependent (travellers predicted future travel behaviour) and independent variables (initiatives to connect with target market(s) during the pandemic, the predicted management and marketing strategies the travel and tourism industry will adopt after COVID-19 and perceptions regarding the future of the travel and tourism industry) in the regression analyses. The hypothesized regression model is illustrated in Figure 1.

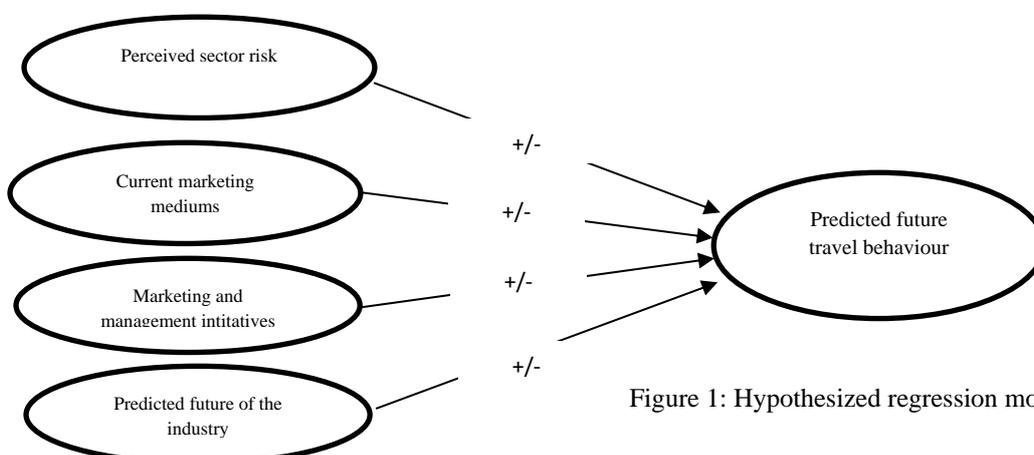


Figure 1: Hypothesized regression model



Results from the EFAs: Extracting the dependent and independent variables

EFAs using a principal-component factor extraction was performed to determine the factor structures. All the items correlated at least 0.4 with at least one other item, suggesting reasonable factorability (Sarstedt & Mooi, 2019). The Kaiser-Meyer-Olkin measure of sampling adequacy was above the commonly recommended value of 0.7 (Kaiser & Rice, 1974), and Bartlett’s test of sphericity was significant ($p < .05$) (Dziuban and Shirkey, 1974). Each of the scales' internal consistency was examined using Cronbach’s alpha (reliability coefficient, above 0.6) and the average inter-item correlations (should lie between 0.15 and 0.55) (Cohen, 1988).

Identifying the dependent variable: Predicting travellers’ future travel behaviour

Respondents were asked how tourists travel behaviour may change due to COVID-19. Four factors were extracted (Table 1), and based on the mean values (\bar{x}), respondents indicated that *mindful and independent travel behaviour* ($\bar{x} = 3.59$) was most likely to occur as a result of COVID-19 followed by *precautionary and reluctant travel behaviour* ($\bar{x} = 3.38$). *Domestic and regional travel behaviour* ($\bar{x} = 3.27$) was also a likely behavioural change among travellers, while *conditional and abstained travel behaviour* ($\bar{x} = 3.14$) was predicted to transpire to some extent.

Table 1: Results from the EFA on travellers’ future travel behaviour

| COVID-19 influence on the future travel behaviour of travellers | Precautionary and reluctant travel behaviour | Domestic and regional travel behaviour | Mindful and independent travel behaviour | Conditional and abstained travel behaviour |
|--|---|---|---|---|
| Increase the purchasing of travel and medical insurance | 0.766 | | | |
| Make more informed decisions based on in-depth research on the destination and supporting infrastructure | 0.655 | | | |
| Need to be convinced and reassured of attractions/establishments’ safety measures | 0.645 | | | |
| Demand greater clarity of cancellation policies | 0.639 | | | |
| Travel to countries with a strong bilateral relationship | 0.590 | | | |
| Make more direct contact with establishments for reassurance concerning the safety of travelling | 0.575 | | | |
| Avoid peer-to-peer accommodation options | 0.569 | | | |
| Rely more on online reviews and testimonies | 0.566 | | | |
| Travel in smaller groups | 0.547 | | | |
| Prefer take-away food and beverage options | 0.500 | | | |
| Be hesitant to make use of e-hailing transport services | 0.432 | | | |
| More domestic airline travels | | 0.820 | | |
| More regional self-drive trips | | 0.799 | | |
| More regional airline travels | | 0.768 | | |
| More domestic self-drive trips | | 0.757 | | |
| Travel more regionally within economic areas | | 0.726 | | |
| Travel more domestically | | 0.721 | | |
| Prefer eco-friendlier and fair-trade options | | | 0.727 | |



| | | | | |
|--|------|------|------|-------|
| Prefer destinations that they are familiar with, e.g. have visited before | | | | 0.741 |
| Be more mindful, e.g. environmental conscientious | | | | 0.703 |
| Avoid 'mass' tourist attractions | | | | 0.593 |
| Prefer contactless check-in options | | | | 0.591 |
| Continue practising social distancing | | | | 0.557 |
| Avoid layovers and instead, fly directly | | | | 0.537 |
| Avoid crowded experiences | | | | 0.527 |
| Travel more independently | | | | 0.457 |
| Will not travel until a vaccine is available | | | | 0.698 |
| Avoid travelling if they are retired or have pre-existing medical conditions | | | | 0.672 |
| Have less disposable income to travel | | | | 0.621 |
| Be more reluctant to travel | | | | 0.584 |
| Avoid countries that were epicentres | | | | 0.436 |
| Reliability coefficient | 0.87 | 0.88 | 0.82 | 0.71 |
| Average inter-item correlation | 0.37 | 0.55 | 0.34 | 0.34 |
| Mean value | 3.38 | 3.27 | 3.59 | 3.14 |

* 5-point Likert scale: 1 = not at all to 5 = definitely. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.78; Bartlett's test of sphericity was significant [$\chi^2(630) = 2088.34, p < 0.05$]; variance explained was 54%.

Identifying the independent variables: Current marketing mediums, marketing and management initiatives and predicting the future of the industry

Table 2 shows three initiatives employed to connect with target market(s) during COVID-19. Unsurprisingly, *refunds and amendments* ($\bar{x} = 3.99$) was most likely to transpire, followed by *social media engagement* ($\bar{x} = 3.74$). Since the survey was conducted under strict lockdown conditions with limited to no tourism and leisure activities allowed, *deals and promotions* was less likely to occur ($\bar{x} = 2.56$).

Table 2: EFA results on initiatives to connect with target market(s) during COVID-19

| Initiatives to connect with target market(s) during COVID-19 | Social media engagement | Deals and promotions | Refunds and amendments |
|---|--------------------------------|-----------------------------|-------------------------------|
| Inspirational social media posts and messages of encouragement | 0.846 | | |
| A strong social media presence, e.g. Instagram stories, Facebook posts etc. promoting your business | 0.829 | | |
| Social media posts with practical tips and guidelines to travel safely | 0.794 | | |
| Sharing engaging content such as information updates, latest statistics and videos | 0.695 | | |
| Vouchers and special deals for after the lockdown | | 0.860 | |
| Online polls and competitions | | 0.756 | |
| Virtual tours and experiences | | 0.541 | |
| Refunds for cancellations | | | 0.812 |
| Amendments of bookings to later in the year | | | 0.714 |
| Personal messages to customer database in the form of e-mails and newsletters | | | 0.540 |
| Reliability coefficient | 0.84 | 0.70 | 0.61 |
| Average inter-item correlation | 0.58 | 0.45 | 0.32 |
| Mean value | 3.74 | 2.56 | 3.99 |

* 5-point Likert scale: 1 = not at all to 5 = definitely. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.82; Bartlett's test of sphericity was significant [$\chi^2(45) = 394.13, p < 0.05$]; variance explained was 66%.



Respondents were asked how the industry will adopt new management and marketing strategies due to COVID-19. Table 3 shows the four factors that were extracted. According to the respondents, *health, safety and training* ($\bar{x} = 3.87$) followed by *ease, fees and policies* ($\bar{x} = 3.75$) would be the most adopted strategies. Respondents believed that *trust, flexibility and incentives* ($\bar{x} = 3.25$) and *repositioning, local and youth priority* ($\bar{x} = 3.31$) would be implemented to a moderate extent.

Table 3: EFA results on management and marketing strategies to be adopted by the industry

| Management and marketing strategies the travel and tourism industry will adopt after COVID-19 | Health, safety and training | Trust, flexibility and incentives | Repositioning, local and youth priority | Ease, fees and policies |
|---|-----------------------------|-----------------------------------|---|-------------------------|
| Greater health and safety measures aimed at guests and staff | 0.885 | | | |
| Greater training of staff in terms of health and safety | 0.863 | | | |
| Health screenings upon arrival, e.g. at airports | 0.851 | | | |
| Emphasizing health and safety procedures in marketing and policies | 0.824 | | | |
| Requesting health certificates from travellers | 0.711 | | | |
| Restricting the number of visitors | 0.576 | | | |
| Increasing rebranding campaigns to gain travellers trust | | 0.800 | | |
| More innovative and technology-based measures to connect with travellers | | 0.777 | | |
| Greater flexibility of packages | | 0.698 | | |
| Incentivized loyalty programmes | | 0.670 | | |
| Discounts and promotions to attract visitors | | 0.553 | | |
| Greater marketing campaigns aimed at international markets | | 0.472 | | |
| Greater marketing campaigns aimed at domestic markets | | | 0.751 | |
| Greater emphasis on youth travel | | | 0.737 | |
| Redefining main source markets | | | 0.517 | |
| Ease of travel, e.g. visas on arrival or e-visas | | | | 0.832 |
| Revising single supplement fees | | | | 0.596 |
| Revising cancellation policies | | | | 0.592 |
| Reliability coefficient | 0.88 | 0.79 | 0.61 | 0.61 |
| Average inter-item correlations | 0.58 | 0.39 | 0.34 | 0.36 |
| Mean value | 3.87 | 3.25 | 3.21 | 3.75 |

* 5-point Likert scale: 1 = not at all to 5 = definitely. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.76; Bartlett's test of sphericity was significant [$\chi^2(153) = 920.15, p < 0.05$]; variance explained was 62%.

Finally, respondents were asked to indicate their perception of the future of the travel and tourism industry. Five factors were extracted (Table 4). *Micro-economic and restructuring measures* ($\bar{x} = 3.87$), *sustainable and environmental travel measures* ($\bar{x} = 3.69$) followed by *domestic and intra-regional measures* ($\bar{x} = 3.60$) were indicated as the measures that will influence the future of the industry the most. Respondents also agreed that *macro-economic and fiscal measures* ($\bar{x} = 3.24$) would likely influence the industry, while respondents were neutral towards *business recovery and employment measures* ($\bar{x} = 2.66$).



Table 4: EFA results on the future of the industry

| Future of the travel and tourism industry | Macro-economic and fiscal measures | Micro-economic and restructuring measures | Business recovery and employment measures | Sustainable and environmental travel measures | Domestic and intra-regional measures |
|--|------------------------------------|---|---|---|--------------------------------------|
| Sectorial safety nets (fiscal policies/funds) will be developed | 0.826 | | | | |
| Local tourism industry safety nets (fiscal policies/funds) will be developed | 0.749 | | | | |
| Governments will provide tax relief for the tourism industry | 0.687 | | | | |
| Loan relief programs will be provided under legislation | 0.669 | | | | |
| Governments will prioritize the health and safety of tourists | 0.662 | | | | |
| Greater support within the tourism industry will be gained as a result of COVID-19 | 0.627 | | | | |
| Global tourism industry safety nets (fiscal policies/funds) will be developed | 0.557 | | | | |
| Destinations will prioritize the importance of the tourism industry | 0.527 | | | | |
| Stringent protocols will be developed to ensure tourist health and safety | 0.484 | | | | |
| Tourism management will be reimagined | | 0.783 | | | |
| Tourism marketing will be re-evaluated | | 0.782 | | | |
| Tourism pricing will be revised | | 0.641 | | | |
| Destinations will have to rebrand marketing messages | | 0.550 | | | |
| Tourism reliant destinations will diversify beyond tourism operations | | 0.497 | | | |
| Reassessing the minimum wage bill for the tourism industry and sector employees | | 0.407 | | | |
| Employment will recover within 12 months of containing COVID-19 | | | 0.789 | | |
| Employment will recover within 6 months of containing COVID-19 | | | 0.740 | | |
| The industry will recover within 12 months after containing COVID-19 | | | 0.719 | | |
| The industry will recover within 6 months after containing COVID-19 | | | 0.665 | | |
| Tourism operations will encourage pro-environmental behaviour | | | | 0.655 | |
| Tourism operations will encourage sustainable travel practices | | | | 0.626 | |
| Registering employees for unemployment insurance will increase | | | | 0.523 | |
| Natural resources will not be exploited for financial gain | | | | 0.448 | |
| Domestic tourism will play a more significant role | | | | | 0.846 |
| Regional (same Economic Area) tourism will play a more significant role | | | | | 0.819 |
| International arrivals will play a more significant role | | | | | -0.504 |
| The industry will support local suppliers (or national enterprises) more | | | | | 0.466 |
| Reliability coefficient | 0.85 | 0.74 | 0.78 | 0.6 | 0.76 |
| Average inter-item correlation | 0.39 | 0.33 | 0.48 | 0.31 | 0.41 |
| Mean value | 3.24 | 3.87 | 2.66 | 3.69 | 3.60 |

* 5-point Likert scale: 1 = completely disagree to 5 = completely agree. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.71; Bartlett's test of sphericity was significant [$\chi^2(406) = 1396.02, p < 0.05$]; variance explained was 52%.



Results from the linear regression analyses

The variables identified in the EFAs and the sectors' level of perceived infection risk were included in the regression analysis to determine which factors had the most significant influence on the predicted travel behaviour (Table 1). A set of linear regression analyses was performed to show whether there is a significant relationship between the factors that may provide additional guidelines for managing travellers' predicted travel behaviour due to COVID-19. The stepwise regression model had the best results. Table 5 shows that the R-value represents the simple correlation, indicating an adequate prediction level for all four models. The R² values were all above the recommended value of 0.25 (Ellis & Steyn, 2003). The independent variables statistically predicted the dependent variable significantly in all four models.

Table 5: Regression model predictors

| Prediction criteria | Model 1: Precautionary and reluctant travel behaviour | Model 2: Domestic and regional travel behaviour | Model 3: Mindful and independent travel behaviour | Model 4: Conditional and abstained travel behaviour |
|--|--|--|--|--|
| R-value | 0.715 | 0.573 | 0.754 | 0.589 |
| R ² value | 0.513 | 0.328 | 0.568 | 0.347 |
| Adjusted R ² value: | 0.50 | 0.303 | 0.552 | 0.316 |
| Total variance explained by variables in model | 50% | 30% | 55% | 32% |
| F-ratio | $F(3, 107) = 37.400, p = 0.001^*$ | $F(4, 106) = 12.947, p = 0.001^*$ | $F(4, 106) = 34.839, p = 0.001^*$ | $F(5, 105) = 11.178, p = 0.001^*$ |

Results and discussion

Managing travellers' predicted travel behaviour

The discussion of the linear regression analyses is consequently discussed. The statistically significant independent determinants for managing the individual future travel behaviour factors are displayed in Table 6. Where possible linkages with the literature are made, however, these are limited due to a lack of empirical investigations on the topic. Practical recommendations based on the results are suggested that tourism suppliers can consider during and post-COVID-19. It is nevertheless challenging to suggest practical implications that can be generalized due to individual challenges faced by the different tourism sectors and a developing versus developed country perspective. These suggestions are therefore only guidelines and should be interpreted with caution. Since most of the respondents were South African, the recommendations also shed light on what tourism suppliers in this developing country can consider.

Table 6: Stepwise linear regression results for managing future travel behaviour

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|------------|---------------------------|--------|--------|
| | B | Std. Error | Beta | | |
| MODEL: PRECAUTIONARY AND RELUCTANT | | | | | |
| (Constant) | 0.503 | 0.278 | | 1.805 | 0.074 |
| Management and marketing strategies | | | | | |
| <i>Health, safety and training</i> | 0.246 | 0.067 | 0.313 | 3.672 | 0.001* |
| Future of the industry | | | | | |
| <i>Business recovery and employment measures</i> | 0.382 | 0.090 | 0.375 | 4.257 | 0.001* |
| <i>Sustainable and environmental travel measures</i> | 0.175 | 0.067 | 0.193 | 2.605 | 0.010* |
| MODEL: DOMESTIC AND REGIONAL | | | | | |
| (Constant) | 0.189 | 0.479 | | 0.394 | 0.694 |
| Management and marketing strategies | | | | | |
| <i>Health, safety and training</i> | -0.223 | 0.093 | -0.245 | -2.406 | 0.018* |
| Future travel behaviour | | | | | |
| <i>Precautionary and reluctant</i> | 0.411 | 0.123 | 0.354 | 3.340 | 0.001* |
| <i>Conditional and abstained</i> | 0.266 | 0.094 | 0.251 | 2.814 | 0.006* |
| Future of the industry | | | | | |
| <i>Domestic and intra-regional measures</i> | 0.479 | 0.085 | 0.463 | 5.650 | 0.001* |
| MODEL: MINDFUL AND INDEPENDENT | | | | | |
| (Constant) | -0.200 | 0.375 | | -0.534 | 0.595 |
| Management and marketing strategies | | | | | |
| <i>Health, safety and training</i> | 0.261 | 0.062 | 0.338 | 4.233 | 0.001* |
| Future travel behaviour | | | | | |
| <i>Precautionary and reluctant</i> | 0.361 | 0.083 | 0.367 | 4.342 | 0.001* |
| <i>Conditional and abstained</i> | 0.156 | 0.065 | 0.175 | 2.417 | 0.017* |
| Future of the industry | | | | | |
| <i>Sustainable and environmental</i> | 0.291 | 0.070 | 0.268 | 4.140 | 0.001* |
| MODEL: CONDITIONAL AND ABSTAINED | | | | | |
| (Constant) | 1.786 | 0.426 | | 4.196 | 0.001 |
| Marketing initiatives | | | | | |
| <i>Social media engagement</i> | -0.146 | 0.057 | -0.206 | -2.551 | 0.012* |
| Future travel behaviour | | | | | |
| <i>Precautionary and reluctant</i> | 0.266 | 0.115 | 0.242 | 2.308 | 0.023* |
| <i>Mindful and independent</i> | 0.302 | 0.116 | 0.271 | 2.600 | 0.011* |
| Future of the industry | | | | | |
| <i>Business recovery and employment</i> | -0.151 | 0.069 | -0.174 | -2.180 | 0.031* |
| Sectors' perceived level of risk | | | | | |
| <i>Perceived risk level</i> | 0.125 | 0.042 | 0.239 | 3.001 | 0.003* |

*Statistically significant, $p < 0.05$

Managing precautionary and reluctant travel behaviour

The stepwise linear regression results revealed that to help manage *precautionary and reluctant travel behaviour*, management and marketing strategies should focus on *health, safety and training*. At the same time, the industry's future would rely on *business recovery and employment*- as well as *sustainable and environmental travel measures*. Therefore, it may be proposed that adequate *health, safety and training* information, which follows national and international guidelines from reputable organizations such as the Department of Health (DoH), the National Institute for Communicable Diseases (NICD), and the World Health Organization (WHO) be implemented. The DoH (2021) and WHO (2021) offer free downloadable posters in various official languages that can remind staff and visitors about safety measures that need to be taken and precautionary information. These are cost-effective measures to inform both staff and travellers. However, staff should be regularly trained to ensure compliance, especially for staff who directly interact with travellers. Therefore, health, safety and training initiatives need to be regularly reviewed and updated within the business operation and their means. These measures can enable tourism suppliers to be prepared for future pandemics. Moreover, these

initiatives can reassure travellers and decrease their perceived risk associated with travelling (Li et al., 2020; Wang et al., 2020; Matiza & Kruger, 2021) and make them less reluctant to travel (Neuburger & Egger, 2021).

The results indicate that a perception of lagged recovery will be evident regarding the *business recovery and employment* measures. This recovery and employment could be six (6) to twelve (12) months after COVID-19 has been confined, or presumably, once a large enough concentration of the population is vaccinated (60-70% is provided as a guideline). Since full re-opening relies on the vaccination process, at the current vaccination rates, developing countries (like South Africa) might take much longer than developed countries in the global North (Aschwanden, 2021). Classifying tourism service providers as essential may need to be a strategy that many countries need to consider helping the industry recover during pandemics. Nevertheless, it should be stressed that the re-opening of a single industry or even multiple sectors should not outweigh the importance of keeping the general public (especially those with higher potential rates of mortality) safe.

Concerning *sustainable and environmental travel measures*, the tourism industry suppliers perceive that more pro-environmental travel behaviour will occur. This result is supported by the assumptions that travellers will be more cautious of negative environmental impacts associated with travelling (Carbon Brief, 2018; WEF, 2020a). This travel behaviour could particularly benefit nature-based tourism suppliers such as national parks, lodges, nature reserves and wildlife parks since they are more remote and appropriate social distancing can occur. This is also in line with trends (pre-pandemic), indicating that travellers (especially international arrivals) are more conscientious when travelling. For domestic tourism, this could mean shorter trips within the same region and self-drive travel for extended stays in other regions, particularly for escaping the confinement of “working at home” and getting back into nature. Destinations can use its wildlife and nature-based offerings in remote and pristine locations to their advantage to counterbalance reluctant travel behaviour.

Managing domestic and regional travel behaviour

It is anticipated that domestic markets will recover first (Gössling et al., 2020; Matiza & Kruger, 2021; Neuburger & Egger, 2021). However, Prideaux et al. (2020) caution that the recovery of the tourism industry from the consequences of the COVID-19 health crisis is unforeseeable and partially depends on the rebound of the global economy. Since many countries still rely on fiscal stimulus from governments, with an ever increase in government spending and support, residents might feel less assured of the economy's stability. For example, Deloitte (2021) reveals that especially travellers in developing countries have higher levels of net anxiety based on the global anxiety index. The numbers reveal that domestic tourism might not be the most stable rebound approach, especially considering spending (Deloitte, 2021).

The negative sign of the coefficient implies that *health, safety, and training* are a less important strategy to stimulate *domestic and regional travel behaviour*. *Precautionary and reluctant-* and *conditional and abstained travel behaviour* will be additional behavioural changes to consider and manage simultaneously. Unsurprisingly, to enhance *domestic and regional travel behaviour*, the industry should focus on *domestic and intra-regional measures*. The declined importance of *health, safety, and training* for domestic and regional travel are presumably due to the assumption that residents of a particular country have access to the same type/similar information. Therefore, it would be counterproductive to provide the information again. However, it should be stressed that tourism operators and suppliers should not automatically assume that domestic and local travellers are well informed, and therefore making use of available resources (posters etc.) is still a measure that needs to be reinforced. Also, for regional travel (i.e. within the same economic community), health guidelines and

protocols might vary, and therefore the use of global guidelines from the WHO is a good implementing measure to take, along with negative COVID-19 tests results for travel. This is further reinforced by the *precautionary and reluctant travel behaviour*, which emphasizes the contained items relating to increased uptake of travel insurance, informed decision-making based on research as well as reassurance that travel to a particular destination is considered safe – the question which remains is how to convince travellers and alter their risk perception. Regarding the *conditional and abstained travel behaviour* it is likely that for some (especially the elderly, frail or comorbidity traveller), even domestic and regional travel is out of the question without the uptake of vaccines. In addition, this entails that the wealthier retired segment would, for the foreseeable future, not be a viable group to target, especially to the destinations that are considered epicentres or hotspots. As part of a dual focus strategy to both resuscitate and future-proof tourism destinations against external shocks such as health crises events, domestic tourism may be promoted as a more attractive, affordable and safer form of tourism in the short to medium term. This may be achieved by instituting differentiated pricing structures supported by 'local' discounts or promotions for domestic tourists, loyalty programmes and flexible tourism packages (Matiza & Kruger, 2021).

Managing mindful and independent travel behaviour

In terms of *mindful and independent travel behaviour*, *health, safety and training* is a crucial strategy, while *precautionary and reluctant-* and *conditional and abstained travel behaviour* also needs to be considered and managed. *Sustainable and environmental measures* is another essential future measure that the industry will have to adopt. Again *health, safety and training* is reinforced, with high levels of training required for both staff and travellers on the necessary guidelines and practices for safe travel. This is supported by the *precautionary and reluctant travel behaviour*, which dictates that informed decision-making will be based on the available research and reassurance from the tourism providers and suppliers. Yet, based on the *conditional and abstained travel behaviour*, the more elderly, frail and comorbid traveller is unlikely to be persuaded without uptake of the vaccine, and especially to a destination that is considered higher risk such as epicentres, hotspots, or due to new variants of the virus in particular destinations/countries. These findings imply that tourism suppliers may have to re-evaluate their current target market(s) and be mindful of travellers changing needs and expectations. Therefore, it will be important to stress safety and health measures and any activities that make tourists feel safer to travel and decrease their risk perception (Matiza & Kruger, 2021; Neuburger & Egger, 2021). A potential solution is to pivot marketing strategies towards independent or solo travellers younger or classified as youth travellers while still addressing pricing especially single supplement fees.

Managing conditional and abstained travel behaviour

Finally, to manage *conditional and abstained travel behaviour*, the beta coefficient's negative sign implies that *social media engagement* as a marketing initiative will have to be revised further, implying that the industry may need to rethink messages and engagement on social media networks. *Social media engagement* is unlikely to have the positive effect that tourism operators and suppliers have relied on to some extent. More reputable sources will be needed to convince travellers of destinations' safety in an age of misinformation and “fake news” especially circulated within social media platforms. Therefore, tourism suppliers need to carefully think about the messages they want to share on social media platforms, and a more personalized approach may need to be adopted, i.e. newsletters to existing databases.

The results further show that *precautionary and reluctant travel behaviour* needs to be considered; however, *mindful and independent travel behaviour* also needs to be anticipated.

Concerning *precautionary and reluctant travel behaviour* the assurance and informed decision-making based on research is still highly influential, which indicates that travellers will base their decision to travel on reputable sources and their own investigation. Interestingly, *mindful and independent travel behaviour*, which includes items relating to destination familiarity, the avoidance of mass tourism, and the acceptance of eco-friendly travel, are highlighted. This finding confirms that travellers might be more willing to undertake environmentally conscientious trips that are isolated and remote to avoid mass visitor numbers.

Business recovery and employment had a negative relationship implying that this factor will not influence managing *conditional and abstained travel behaviour*. The reason for this is unclear. However, presumably within this segment, the expectation is that it will take much longer than twelve (12) months to recover after the virus has been contained or that a more pessimistic narrative for recovery exists in the psyche. The result can be explained by the fact that even though the industry recovers, some travellers will still be reluctant to travel, supported by the traveller segments identified by Matiza and Kruger (2021) and Neuburger and Egger (2021). In further support of the latter, the results show that the higher the sectors' perceived infection risk level, the greater the chance for continued *conditional and abstained travel behaviour*, implying that some sectors will recover quicker/slower than others. This indicates that the suppliers acknowledge that the various sectors will likely be influenced differently based on the risk level. In addition, it can be assumed that sectors such as food and beverage (e.g. restaurants and take-aways) are perceived as less risky than sectors relating to events, meetings, and festivals, which requires a large congregation of people in a particular place. Therefore, the various tourism sectors will have to reimagine their offerings to operate with the necessary health and safety measures during pandemics.

Conclusion

This research identified tourism suppliers' perspective on managing future travel behaviour due to COVID-19. The results give insights on which determinants can be used to manage the perceived future travel behaviour trends. Based on the results, short- to long-term practical implications could be made that suppliers can consider during pandemics. Several limitations should be considered when interpreting the results of this study. First, the study was exclusively online as necessitated by the lockdown and social distancing restrictions; thus, it did not accommodate potential respondents without internet access. Furthermore, due to various limitations, the survey instrument utilized was only in English, possibly excluding potential suppliers who were not fluent English speakers. Future studies with research funding may benefit from translation services and utilize multi-lingual questionnaires to be more inclusive. Second, even after numerous attempts to increase the sample size, the response rate remained low. Tourism suppliers were either hesitant to participate in the research or were overwhelmed by their current situation that they did not have the time or convenience to complete the survey. The results can therefore not be generalized. Future researchers may need to consider following a qualitative approach when researching tourism suppliers. Third, a social media page created by South Africans were used to distribute the questionnaire link. While international suppliers also follow the page, most of the respondents were from South Africa. The situation due to the pandemic in developing countries such as South Africa is much different from developed countries, and the differences in terms of infrastructure, governance, economics, population statistics, and political stability needs to be considered.

Therefore, further research is warranted that compare developing and developed country perspectives as the implementation of strategies will largely depend on economic prosperity and population growth figures since developed countries may recover sooner and have lower population growth rates. As also suggested by Neuburger and Egger (2021) and

Matiza and Kruger (2021), future research should aim for time-series studies or data collection at multiple points of time during a pandemic outbreak. In addition, future studies should compare the results of this study with various cultural and geographical regions. This will contribute to better understand the long-term effect of infectious diseases on the change of risk perception and travel behaviour over time and how the industry can adapt to ease recovery. *Health, safety and training measures* was the most prevalent determinant with either a positive or negative influence on future travel behaviour. Therefore, exploring whether stringent overt safety measures like health certificate requirements, the proliferation of sanitation stations and mandatory quarantining as part of the travel and tourism experience of the future will positively or negatively influence tourist decision-making and behaviour after the COVID-19 pandemic will be a critical next step in the contemporary tourism research (Matiza & Kruger, 2019).

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