Identifying Combination of Controllable Metrics of Responsible Tourism in COVID-19 Pandemic and Beyond: A Recovery Charter

Arup Kumar Baksi¹

Abstract

The trans-global pandemic inflicted by the novel corona virus, or COVID-19, has induced a stagnancy in the travel, tourism and hospitality industry. Nonpharmaceutical interventions (NPIs), at present, are the only prophylactic measures resorted to as the travellers' community awaits a post-pandemic new normal. With the rising intervention of human species with natural environment, there has been an observed increase in the novelty and virulence of pathogens. The industry and the academia posit a rise in sensible travel and responsible travel behaviour in postpandemic period with new norms and protocols. However, the grounded tourism industry had to walk a tightrope in balancing profitability with responsibility while recovering from the pandemic-inflicted shock. The industry and its operators need to identify the controllable metrics of responsible tourism that might be used to propagate a viable recovery charter. Researchers have drawn on political and behavioural economics to offer an integrated sustainabilityresponsibility model consisting of three phases, namely, awareness, agenda and action. Such models

propagated the concept of socio-environmental valuedriven responsible tourism. However, the relationship between the controllable issues in responsible tourism and the socio-environmental key performance indicators remained unexplored. This study explored the said relationship using the Temporal Causal Modelling (TCM) approach. TCM uses an autoregressive approach to build a causal model for a specified set of target series from a set of candidate inputs. Unlike the conventional time series, modelling TCM does not use an explicit predictor. The study identified a number of controllable metrics and further gathered evidence on impact of controllable metrics on socio-environmental key performance indicators. The study is significant from the industry point of view as the tourism industry attempts to gather insights into the possible policy prescripts for post COVID-19 recovery and sustenance.

Keywords: responsible tourism, COVID-19, impact, metrics, controllable

¹ Associate Professor, Dept. of Management and Business Administration, Aliah University, Kolkata, India

Introduction

The global growth trajectory of the tourism industry has been shattered and grounded by the pandemic inflicted by COVID-19. According to the World Tourism Organisation (UNWTO), the international tourist arrivals will be down by 20% to 30% in 2020 when compared with 2019 figures, equivalent to a loss of 300 to 450 US\$ billion in international tourism receipts (exports) - almost one third of the US\$ 1.5 trillion generated globally. The direct contribution of the travel and tourism industry today accounts for 3.3% of the total global GDP and 4.4% in OECD countries (average) with picks of 14%, 13% and 18% for countries like Spain, Italy and Greece respectively. Some countries are predicted to face more substantial blows than others due to their high reliance on the sector especially when considering an interesting comparison: out of the top 10 destinations by international tourists' arrivals (France, Spain, United States, China, Italy, Turkey, Mexico, Germany, UK and Thailand), 8 result to be the hardest hit by COVID-19, implying that the economic shock on tourism will be further exacerbated in these countries. According to the latest estimates, Asia will see the highest overall drop in travel and tourism revenue in 2020, with China accounting for the lion's share of lost revenue. In Europe, where the tourism industry employs around 13 million people, around €1 billion in revenues per month is expected to be lost as a result of coronavirus, with Italy and Spain as countries most affected. Italy is likely to close the year with 60% less tourists compared to 2019, levels equivalent to those registered in the 1960s, when the world was divided in blocks and air travel was a luxury for a few. The Spanish tourism sector would experience losses of around €55 billion by 2020 with Catalonia expected to be the region most affected registering a loss in tourism turnover of almost €11 billion.

Evidence suggested that consequences following crises and disasters tend to be amended and things return to the status quo (Kontogeorgopoulos, 1999). China rebounded from the virulence of SARS epidemic in the early 2000s, which adversely affected the tourist

inflow in the country (Zeng et al., 2005). Prominent destination stakeholding nations, namely, Sri Lanka, Thailand and Indonesia forayed into "disaster capitalism" to acquire lands in post-tsunami phase and initiated large-scale destination re-build that brought back international visitors (Cohen, 2011). However, Loannides and Gyimothy (2000) opined that the travel and tourism industry, in its evolutionary course, has reached a metaphorical fork whereby two outcomes are possible in post COVID-19 phase: (a) backtracking to pre-COVID-19 shadow-sustainable trajectory and (b) adopt a radically preemptive resilient-based responsible approach to make the industry sustainable (Nicolas, 2020; Loorbach et al., 2017).

Conventionally, the growth of travel and tourism is not without collaterals posing threats to environment, society and the ethno-cultural fabric. Sustainability assumed critical strategic objective for the policy makers. Sustainability indicators were formulated and the global bodies like United Nations Environmental Programme (UNEP), World Travel & Tourism Council (WTTC) and United Nations World Travel Organization (WTO) got together to prioritize the action plan. However, the initiatives for sustainability were often unidimensional in nature with the onus lying predominantly on the policy makers, facilitating agencies and the tourism service providers. The host community was relatively inert. The Cape Town Declaration (2002) approached the sustainability issue from a different perspective. The host community and the visitors were identified to be engaged in symbiotic relationship with shared responsibility.

The business case for responsible tourism focuses on building adaptive approaches and directing resources towards the perceived demands of relevant stakeholders. Businesses may be in a better position to understand the true bases of company productivity as they collaborate with stakeholders across profit and non-profit boundaries (Porter and Kramer, 2011). However, the travel and tourism business has a dilemma in identifying the controllable factors that are apprehended to have profound impact on the performance indicators of responsible tourism.

Research questions

There are three fundamental research questions governing the study:

- (i) RQ-1: What are the controllable metrics of responsible tourism (RTCMs) for the active stakeholders in the tourism context?
- (ii) RQ-2: What are the possible impacts of these metrics on socio-environmental key performance indicators (SEKPIs)?
- (iii) RQ-3: What will be the recovery charter for tourism sector post COVID-19 based on the relational alignment of RTCMs with SEKPIs?

Objectives of the study

The objectives of the study were two-fold:

- (i) to identify the controllable metrics (for active sectoral stakeholders in tourism context) for ensuring responsible tourism and
- (ii) to explore the relationship between the controllable metrics of responsible tourism (RTCMs) and the socio-environmental key performance indicators (SEKPIs), and extrapolate the same for a recovery-charter for the tourism sector.

Literature review

Within the burgeoning discussions and research on 'tourism and COVID-19', there have been observations to consider the pandemic as a transformative opportunity for the tourism industry (Mair, 2020). Transformative tourism, with responsible participation, has emerged as a condition to induce individual and social transformation (Reisinger, 2013, 2015; Lean et al., 2014; Lean, 2016; Kirillova et al., 2017a; 2017b; Soulard et al., 2019) and is likely to pave the way for tourism recovery post COVID-19 scenario (UNWTO, 2020). Pollock (2015) used the term 'conscious travel', which was apprehended to stimulate responsible transformation towards lifeaffirming, place-based regenerative economy where all stakeholders can symbiotically and synergistically co-exist with the biosphere. UNWTO drafted the One Planet Vision for a responsible recovery of the tourism sector which builds on the UNWTO Global Guidelines

to Restart Tourism (UNWTO, 2020) released by the Global Tourism Crisis Committee in May 2020. The objective of the scheme focused on a more resilient tourism industry grounded on sustainable ecology and economy. The vision document identified six actionable domains to be rolled out, controlled and monitored by the government and tourism industry, namely, public health, conservation of biodiversity, social inclusion, climate action, circular economy and governance & finance. Chang et. al., (2020) introduced a charter governing the shape of the 'new-normal' for tourism industry which combined social distancing norms (to fit into tourism types), personal protection equipment (to address health issues) and health management at the destination. The charter did not explicitly identify the role of technology in pandemic times and beyond, though it is likely to assume critical proportion in service transactions as 'smart-touch' might replace 'human-touch'. Further, technology has also been projected as the driving mechanism behind all controls and monitoring regarding responsible recovery of the industry. The growing concern about planetary vulnerability is likely to shape the new normal and the tourism transactions explained by the conventional theories of destination management, behavioural intentions and experiential absorption shall be re-theorized to capture the notion of responsibility as the only route to sustainability.

Responsible tourism got shape through the Cape Town Declaration (2002) whereby seven major focal areas were identified: (a) minimization of negative economic, environmental and social impacts, (b) generating greater economic benefits for local people and enhancing the well-being of host communities, (c) improving working conditions and access to the industry, (d) involving host community in decision making that affects their lives and life chances, (e) making positive contributions to the conservation of natural and cultural heritage and global diversity, (f) providing access for physically challenged people and (g) providing more enjoyable experiences for tourists through more meaningful connections with local people and developing a greater understanding of

local cultural and socio-environmental issues to build locals' pride and confidence. Goodwin (2013) observed that responsible tourism addresses the issues, which matter locally, centring the sustainability agenda and has deep-rooted implications in strategizing the socio-economic and environmental threats and opportunities, which arise as consequences of tourism activities (operational) and human intervention in the natural environment. Further, responsible tourism practices were posited to contribute in nullifying the perils of climatic shift and could provide actionable scarce-resource management (Frey and George, 2010; Iglesias et al., 2007). Academic contributors have been shaping the concept of responsible tourism as the means to address sustainability agenda (Bramwell et al., 2008; Buckley, 2012; Camilleri, 2014; Goodwin, 2011; Lee et al., 2013; Sharpley, 2014; UNWTO-UNEP, 2012). However, initially, the academia and the practitioners were apprehensive about its application in the business domain. In fact, Wheeller (1991), Cooper and Odzil (1992) etc. observed that responsible tourism was an act of elitism and hedonism that assuaged the guilt of the educated, affluent tourists. The fact that responsible tourism could be a mechanism for balancing out economy and ecology was observed at a much later stage as the researchers found evidence that community-based responsible tourism may be posited as a viable model to improve the quality of life of the host community (Chiu et al., 2014; McIntyre, 1993). Reinforcing the theory, Crouch and Ritchie (1999) suggested that the concept of sustainable tourism sought the consensus of all segments of society (including local populations), so that the tourism industry and other resource users can coexist together for a thriving economy.

Goodwin and Francis (2003) explained how responsible tourism may bring high quality engagement with local communities and their environments, and emphasized on the Global Code of Ethics in Tourism (1997) formulated by the World Tourism Organisation (2010). Miller (2001) opined for extra-government networks to foster, sensitize and

activate responsible tourism practices. While, charting a route for a responsible recovery, Jamal and Budke (2020) recommended to embed the issues of climatic shifts and global health emergencies into the policy framework. This resonates with UNWTO's (2020) notion of 'One Planet', which prescribes to integrate epidemiological indicators with tourism metrics to ensure a responsible and sustainable recovery. However, tourism, as an asymmetrical and network of multiple standalone industries, had conflicting outlook towards endorsing responsible tourism as the profitlines often exhibited a diminishing trend and hence, might be vulnerable in the face of disruptive forces, namely the pandemic inflicted by COVID-19. Merwe and Wöcke (2007) observed that small ventures (namely small hotels, restaurants, logistic service providers, etc.) might not perceive responsible tourism to deliver business advantages across the pool of stakeholders. However, on the other hand, Bohdanowicz (2006) implied that the Scandinavian hoteliers were willing to make changes in response to emerging customer demand for "green" operations, combined with the growing evidence of financial benefits that are derived from managing resourceefficient facilities and posited that the geo-political, economic and socio-cultural contexts can have a significant influence on the environmental attitudes of hotel operators (Bohdanowicz, 2006). Strategically speaking, responsible tourism must create 'sharedvalue' for the stakeholders (both visitors and host community) across the value-chains. The responsible route to sustainable transitions touches every aspect of tourism value chain and explores adaptive capabilities.

Like a double helix, Sustainable Development Goals (SDGs) and the global response to COVID-19 pandemic are intertwined and cannot be tackled by a piecemeal approach. The UNDP (2020), in their 2030 Agenda, has clarified their role as a SDG integrator to support nations in dealing with COVID-19 challenges. The post-pandemic recovery initiatives of the tourism sector shall be aligned with the SDGs and shall follow a responsible charter to address emerging issues,

namely, public health, poverty and hunger, and build resilience. Public and private enterprises must work in harmony to ensure compliance with SDGs. Such corporate behaviour is convergent with Porter and Kramer's (2011) "shared value" framework. The priorities outlined in the UNWTO's (2020) Global Guidelines to Restart Tourism (GGRT) in times of receding virulence of the pandemic and postpandemic phase, embarks on sustainable development goals (SDGs) and Paris Agreement. However, responsible tourism with projected sustainable scale-up is not without criticisms. Responsible tourism failed to address the structural injustice inherent in the tourism system. Whyte (2010) explained this paradox in the context of indigenous tourism, which adopted a model of 'mutually beneficial exploitation'.

The shifting trends induced by the COVID-19 pandemic, not only in economic operations, but also in human behaviours, are likely to shape the next normal. The forces that are likely to work behind this shape are: (a) metamorphosis of demand pattern and emergence of digital demand, (b) replacement of human touch with smart touch, (c) changes in supply chain resilience based on digitization, (d) regulatory uncertainty and (e) evolution of the virus itself. In an empirical study conducted by Ghosh (2020) to assess the tourist arrival pattern from China to Australia from 1996 (Q1) to 2020(Q1), it was found that economic policy

uncertainty weighted by a pandemic asymmetrically impacts tourist arrivals. Despite the theoretical inputs and construction of measurement indices with reference to performance in line with the principle of responsible tourism, there is lack of empirical evidence about identification of the controllable metrics of responsible tourism and, therefore, it ends up as uncontrolled human interventions nullifying the expected responsible behaviour. In the context of COVID-19 pandemic and associated uncertainty, the combination of controllable metrics in responsible tourism assumes critical significance to charter the recovery process, and hence, needs to be identified. Hanafiah et al. (2016) assessed the impact of responsible tourism impacts on quality of life (QoL) and posited 'responsible destination planning' and 'responsible environmental practice' as dualdimensional model to influence QoL. Stanford (2010) focused on visitor management system as a dimensional component of responsible tourism. Mathew and Thampi (2020) observed that 'prohibition of littering' and 'do's and don'ts' in destinations had maximum impact on visitor management system. Both the variables refer to evocation of responsible behaviour among the travellers and were suggestive of adhering to controllability requirements on the part of the service providers. Stanford (2010) also identified a set of actions in conjunction with the spirit of responsible tourism and associated a set of influencers (Table-1) with the same.

Table-1: Action sets and influencers for Responsible Tourism (Pre-COVID-19 Normal)

| SI No. | Action | Influencers |
|--------|----------------------------------|---|
| 1 | Recycling | Infrastructure and Facilities |
| 2 | Crime prevention | Precaution |
| 3 | Water conservation | Awareness, habit and facilities |
| 4 | Experiencing local culture | Knowledge and understanding of significance |
| 5 | Spending money / Share-of-wallet | Unique nature of experience and scope |

Source: Stanford (2010)

Considering the pre-COVID-19-normal, one could observe the domains from which the responsible actions were likely to evolve, namely, natural environment (recycling, water conservation), social

(crime prevention), ethno-cultural (experiencing local culture) and economic (spending money/ share-of-wallet). The post-COVID-19 recovery route is likely to induct 'public health and hygiene' as a major action-set

element, in addition to 'technology infusion' with service transactions and 'host-community interface' (Table-2). Further, the behavioural pattern of the 'hostcommunity' is likely to embed notions of intense and shifting responsibility while interacting with the visitors. The post-pandemic new-normal is yet to take shape, but it shall demand greater sense of responsibility from the tourists and the hostcommunity while: (a) interacting with each other, (b) while intervening with nature, (c) while interacting with ethno-cultural spread and (d) while ensuring personal health and hygiene. While awareness and adoption, emotional solidarity and dealing with social stigma (inflicted by COVID-19) are apprehended to be the uncontrollable issues driven by individual and group behavioural norms; the precautionary measures may assume semi-controllable status based

on administrative initiatives. The infrastructure and facilities should be controllable depending on the policies and governance of local administration and participation of private players. The key performance indicators of sustainable tourism or green-tourism or ecotourism were defined by the United Nation Environmental Programme (UNEP), World Travel & Tourism Council (WTTC) and United Nation World Travel Organisation (UNWTO) and can be classified into economic, environmental, social and ethnocultural heads. The greening of supply chain in tourism context (specifically for hoteliers, restauranteurs and souvenir marketers) will also be pivotal in shaping the new normal in post COVID-19 phase (Sabath and Krishnamoorthy, 2018) considering its minimal environmental intervention.

Table-2: Action sets and influencers for Responsible Tourism (Post-COVID-19 New-Normal)

| SI No. | Action | Influencers | | | | |
|--------|---------------------------|--|--|--|--|--|
| 1 | Public health and hygiene | Infrastructure and Facilities, Awareness and Practice | | | | |
| 2 | Technology usage | Infrastructure and Facilities, Awareness and Adoption, Green supply chain | | | | |
| 3 | Host-community interface | Awareness, Emotional solidarity, Stigma | | | | |

Higgins-Desbiolles (2020) considers COVID-19 crisis as an opportunity to rectify the previous operating model and critically assess the unsustainability of the precrisis travel and tourism industry. Fletcher (2020) referred to political will that enforced restrictions on human and vehicular mobility to arrest the prevailing contagion, thereby, stamped the requirement to regulate tourist flows according to certain sustainability standards. The controlling issues in responsible travel would assume significance as proximity tourism is expected to spike in post-COVID-19 phase of tourism recovery (Korstanje, 2020; Yu et al., 2020). This forecast is based on the fact that with enhanced social and environmental awareness (Lew, 2020), the post-crisis tourists would choose to travel to destinations closer to their place of residence. Romagosa (2020) supported this notion of proximity travel in post-COVID-19 period and emphasized on continuing with the inertia of administrative and

industry control and monitoring of responsible travel behaviour.

Tourism business ventures cannot control all the determinants that influence a business outcome. However, identification of controllable determinants is critical to design policy and trigger a recovery charter for the tourism industry in post-COVID-19 phase to ensure economic gain, environmental protection and socio-cultural vibrancy. Further, the impact of combined controllable metrics on socio-environmental key performance indicators (SEKPIs) will also be significant in understanding the long-term recovery imperatives of the tourism industry making policy prescriptions.

COVID-19 has opened up avenues to redefine and remodel tourism framework. Much deliberations on 'responsible routes to ensure sustainability' in pre

COVID times did not trigger a habitual shift amongst the stakeholders of the industry. This inertia can be attributed mostly to the inert nature of passive stakeholders or the host-community. The pandemic-effect is likely to decouple these passive stakeholders from a state of inert-audience to an active participant to propagate the sense of responsible traveling. At the same time, the active sectoral stakeholders (the tourism industry as a whole) are likely to align their operations with this behavioural shift of the host and the travelling community. The controllable metrics are apprehended to play a critical role in balancing this operational and behavioural interface has been scarce

and they either solely focused on sustainability issues governing tourism activities or tried to showcase the responsibility charter for the traveller.

Theoretical model for empirical testing

The proposed theoretical model has two major latent constructs, namely 'responsible tourism' and 'socio-environmental performance'. This study emphasized on identifying the specific controllable metrics for responsible tourism which are expected to have a significant impact on socio-environmental key performance indicators in the post COVID-19 phase in the context of tourism industry. The model has been represented in Figure 1:

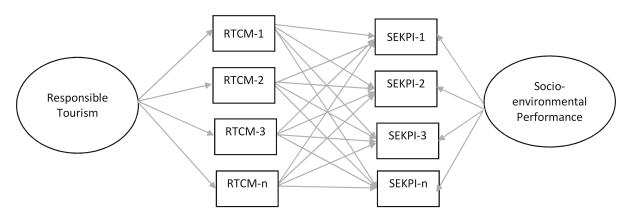


Figure 1: Proposed theoretical model

Methodology

A hermeneutic phenomenological methodology was adopted (Campelo et al., 2014; Pernecky and Jamal 2010) for the electronic platform. A hermeneutic circle was created by assessing the socio-environmental and ethno-cultural background of the research setting in the context of COVID-19 pandemic and by coconstituting the research process and data collection with participants and by establishing iterative criteria to validate our findings with them (Laverty 2003). Birbhum and Bankura, two districts in the state of West Bengal, India, were chosen as sites for study considering their attractions to the visitors based on traditional and transgenerational practice of art and crafts, ethnicity, indigenous rituals and festivals having deep-rooted socio-environmental implications,

pilgrimscape and archeological heritage. The destinations are rural in nature with autochthonous spread (tribal people). Rural destinations and microinteriors are apprehended to be the preferred choice of tourists in post COVID-19 as these places are not known for 'overtourism'. However, the vulnerable biodiversity, autochthonous spread of inhabitants and significant transgenerational ethno-cultural legacy of the said destinations demand responsible approach in tourism recovery. Both the destinations are severed by the impact of COVID-19 in terms of tourism activity. Tourism, in Birbhum district, is the most significant non-agricultural form of livelihood, and, with the entire industry grounded, the host-community is struggling for recovery.

The socio-environmental performance indicators with respect to responsible tourism were abstracted from the frameworks developed by United Nations Environment Programme (UNEP), UN World Tourism Organisation (UNWTO) and World Travel & Tourism Council (WTTC). Secondary data pertaining to the two

districts under study were obtained across 25 key socio-environmental performance indicators (Table-3) from the annual reports of the referred districts. A period of three years (2017-2019) was considered for the study and mean for each indicator was computed for the impact study.

Table-3: Socio-environmental performance indicators

| Sl. No. | Codes | Socio-environmental performance indicators |
|---------|----------|--|
| 1 | SEKPI_1 | Number of endangered species identified |
| 2 | SEKPI_2 | Perceived value of forest resources to tourism |
| 3 | SEKPI_3 | Proportion of time spent on nature tourism out of the span of stay |
| 4 | SEKPI_4 | Number of hotels with environmental policy in place |
| 5 | SEKPI_5 | Number of local-community services on offer |
| 6 | SEKPI_6 | Health safety and hygiene protocols |
| 7 | SEKPI_7 | Environmental awareness campaign conducted in the destination |
| 8 | SEKPI_8 | Number of hotels and restaurants recycling 25% (minimum level) of waste generated |
| 9 | SEKPI_9 | Safety and security measures adopted |
| 10 | SEKPI_10 | Percentage of bio-toilets and technology-enabled waste management establishments provided by local administration |
| 11 | SEKPI_11 | Community participation in tourism activity |
| 12 | SEKPI_12 | Women/ men as a percentage of all tourism employment |
| 13 | SEKPI_13 | Percentage of energy consumption from renewable sources |
| 14 | SEKPI_14 | Satisfaction of volume of tourists visiting the destination |
| 15 | SEKPI_15 | Existence of typical local products (handicrafts, cuisine), number of shops, restaurants offering them |
| 16 | SEKPI_16 | Demand/supply ratio of water |
| 17 | SEKPI_17 | Number of restaurants with environmental policy in place |
| 18 | SEKPI_18 | Initiatives of heritage conservation |
| 19 | SEKPI_19 | Number of cultural events (festivals), and level of attendance |
| 20 | SEKPI_20 | Number of guides per tourist |
| 21 | SEKPI_21 | Crime Prevention scheme |
| 22 | SEKPI_22 | Availability of interpretive programmes, facilities and materials (e.g. guided walks, visitor centres, museums, information in printed and electronic media) and number of tourists using them |
| 23 | SEKPI_23 | Technology usage in conservation process |
| 24 | SEKPI_24 | Amount of revenue generated at heritage sites and attractions (user fees, licences, retail and merchandising, etc.) |
| 25 | SEKPI_25 | Number of historic/traditional buildings used for tourism services (accommodation, restaurants, shops) |

Source: UNWTO (2015), WTTC (2015), UNEP (2014)

Necessary clubbing of indicators was done to amplify its scope of coverage as a broad perspective of social, cultural, ethnic and environmental performance as an output to responsible tourism practices in these two districts. Exhaustive body of research focusing on the measurement of controllable metrics for responsible tourism is scarce, if not absent. Few researchers (Hanafiah et al., 2016; Xin and Chan, 2014; Hafiz, 2014; Darson et al., 2013; Goodwin, 2012 and Spenceley, 2010) have attempted to develop the dimensions for responsible tourism, but the controllable metrics were not identified. Therefore, a surrogation technique was used to generate scale-items. Following a phenomenological approach, a 33-item scale was developed to capture the controllable metrics for responsible tourism in post-pandemic phase. The population of the study, to obtain primary data, covered the tourism service providers and the tourism facilitating agencies of the districts chosen for the study. The sample frame was carefully developed so that it incorporates the length and breadth of the tourism service providers and the facilitating agencies. Secondary data source and key-informants were used to identify the service providers in the study area. Affected by the lockdown scenario, the study focused on convenience sampling using virtual mode of connecting with the prospective respondents. Accordingly, the study used 'unrestricted self-selected survey' (Barratt et al., 2014; Poynter, 2010; Fricker, 2008; Berson et al., 2002) method whereby an onlinesurvey instrument was developed and propagated through social-media and harvested e-mails (from known prospects) only. It was acknowledged that the convenience sampling method might affect the

external validity of the results to such extent that it could be generalized on the entire population (Ihantola and Kihn, 2011). However, the study followed the observations by Landers and Behrend (2015) and van Tonder and Petzer (2018), and focused on internal validity instead of the external as the research question was grounded on probability of occurrence under uncertain conditions (e.g. COVID-19 environment) rather than frequency of existing occurrence. Therefore, the aim of the study was to provide initial insight into the combinations of controllable metrics of responsible tourism in the context of tourism operators and service providers in the study area, which are expected to impact the socio-environmental key performance indicators in post COVID-19 recovery scenario. The sampling plan also considered the asymmetrical nature of the tourism industry, which is an agglomeration of standalone services/ enterprises. 259 service providers and facilitating agencies were surveyed with an electronic structured instrument (e-questionnaire) which was piloted over a sample of 75 for its internal consistency (scale reliability) and validity (discriminant and convergent) with Confirmatory factor analysis (CFA). Prior to this, the content validity of the survey instrument was assessed through a

focus group discussion (FGD) carried out on Google Meet platform involving representations of relevant stakeholders from the industry, academicians and researchers. The survey instrument was targeted to identify the controllable metrics of responsible tourism from the stakeholders' perception.

Table-4: Typographical segments covered in the study

| SI. No. | Typographical segments interviewed | Birbhum Number interviewed | Bankura Number interviewed | Segment Total |
|---------|--|----------------------------------|----------------------------------|------------------|
| 1 | Accommodation service providers (Hotels/ Resorts/Homestay/Govt. Tourist Lodge) | 36 | 21 | 57 |
| 2 | Dining service providers (restaurants/ farm house/others) | 16 | 9 | 25 |

Table-4: Typographical segments covered in the study

| Sl. No. | Typographical segments interviewed | Birbhum Number interviewed | Bankura Number interviewed | Segment Total |
|---------|--|----------------------------------|----------------------------------|------------------|
| 3 | Logistic service providers | 14 | 8 | 22 |
| 4 | Tour guides | 21 | 7 | 28 |
| 5 | Souvenir/collectible services (handicraft outlets/ local traditions/ others) | 29 | 22 | 51 |
| 6 | Community-based tourism services | 12 | 5 | 17 |
| 7 | Tour operators/ Travel agencies | 11 | 7 | 18 |
| 8 | Local administration (Forest dept./ Block Office/ Panchayats/ other relevant offices) | 14 | 9 | 23 |
| 9 | Service providers and administrators offering specific tourism products (Theme parks/ Craft villages/ Theatrical Villages/ Reserve forest/ Pilgrim centres etc.) | 10 | 8 | 18 |
| | Total (across segments) | 163 | 96 | 259 |

Confirmatory Factor Analysis (CFA) was carried out to assess the validity issues in the measurement model (Figure 2). Standardized loading was represented in Table-5. Cronbach's alpha score was found significant for internal reliability (.872).

Table-5: CFA results

| Construct dimensions | Scale-Items | Standardized Regression (loading) | Cronbach's α | |
|-----------------------------|---|---|--------------|--|
| | awareness of ecological fragility and vulnerability of the destination (CDPH1) | 0.830 | | |
| | assessing tourist load and assigning carrying capacity (CDPH2) | 0.822 | .872 | |
| Controllable destination | segregation and mapping of buffer zones (CDPH3) | 0.765 | | |
| and public health | networking primary health centres and sub-divisional hospitals with tourism operations (CDPH4) | 0.764 | | |
| management metrics (RTCM_1) | distribution of personal hygiene and safety products (sanitizers, disposable masks, sanitary napkins, disinfectants etc.) from tourism touch points (CDPH5) | 0.743 | | |
| | tele-medical/e-medical services to tourists (CDPH6) | 0.718 | | |
| | integration of epidemiological indicators in assessing tourism services (CDPH7) | 0.664 | | |

| Construct dimensions | Scale-Items | Standardized Regression (loading) | Cronbach's α |
|---|---|---|--------------|
| | waste generation and its impact (CEBM1) | 0.819 | |
| Controllable ecological and | local biodiversity and intervention techniques (CEBM2) | 0.802 | |
| biodiversity | vehicular intervention in identified buffer zones (CEBM3) | 0.791 | |
| management metrics (RTCM_2) | availability of ecofriendly infrastructure & resources and mode of use (CEBM4) | 0.776 | |
| | usage of renewable energy and water harvesting (CEBM5) | 0.683 | |
| | awareness about the local culture and ethnicity, its historical significance and present-day implications (CSEM1) | 0.844 | |
| Controllable social & ethno- cultural | awareness about responsible intervention with local culture and ethnicity (CSEM2 | 0.800 | |
| management metrics | awareness about responsible intervention with local heritage and archaeology (CSEM3) | 0.765 | |
| (RTCM_3) | awareness of traditional festivals and its implications (CSEM4) | 0.730 | |
| | awareness of crime redressal system (CSEM5) | 0.657 | |
| | awareness of tourism impact of the local community (CHCM1) $$ | 0.929 | |
| Controllable | community participation in responsible tourism practice (CHCM2) | 0.889 | |
| host- community management | community networks and reciprocity in propagating responsible tourism (CHCM3) | 0.882 | |
| metrics (RTCM_4) | community-led initiatives in promoting responsible tourism (CHCM4) | 0.826 | |
| | social innovation models to propagate responsible tourism (CHCM5) | 0.823 | |
| Controllable | technology to disseminate information about the destination in terms of resources and vulnerability (CTVM1) | 0.887 | |
| technology- based visitor | technology usage in tracking visitor/ tourist movement (CTVM2) | 0.879 | |
| management metrics | technology-enabled services in rural tourism context (CTVM3) | 0.852 | |
| (RTCM_5) | technology to market tourism products and souvenirs on digital platform (CTVM4) | 0.736 | |
| | technology to enhance tourism experience (CTVM5) | 0.711 | |

 ${\bf Extraction\,Method: Principal\,Component\,Analysis.}$

 $5\,components\,extracted.$

Five major dimensions (latent constructs) for controllable metrics for responsible tourism were identified: (a) destination and public health management (PHM), (b) ecological and biodiversity management (EBM), (c) social & ethno-cultural management (SEM), (d) host community management (HCM) and (e) technology-based visitor management system (TVM). Adequate fit was achieved with the data as the CMIN/DF was found to be 2.292 (ref. value: < 3, Arya et al., 2019) (Table-6a). The values of Comparative fit index (CFI) (.929), goodness of fit index

(GFI) (.933), Tucker-Lewis coefficient (TLI) (.907) and Normed fit index (NFI) (.916) were found to be greater than 0.9 and the root mean square error of approximation (RMSEA) value (0.039) was found significant (< 0.08) (Hair et al., 2010; Gefen & Straub, 2004). The goodness-of-fit indices for the conceptualized measurement model is established with the corresponding GFI, CFI, TLI, and NFI values, which are above the threshold value 0.9 and the RMSEA value was less than 0.05 (Hair et al., 2010; Gefen and Straub, 2004) (Table-6b).

Table-6a: Model Fit Analysis (CMIN/DF)

| Model | NPAR | CMIN | DF | Р | CMIN/DF |
|---------------|------|---------|-----|------|---------|
| Default model | 91 | 589.092 | 257 | .000 | 2.292 |

Note: NPAR- Number of distinct parameters, DF-Degrees of freedom, P-Significance value, CMIN/DF: minimum discrepancy divided by degree of freedom.

Table-6b: Model Fit Analysis (NFI, GFI, CFI, TLI, RMSEA)

| NFI | GFI | TLI CFI | | RMSEA |
|-------|-------|---------|-------|-------|
| 0.916 | 0.933 | 0.907 | 0.929 | 0.039 |

Note: NFI-Normed fit index; GFI-Goodness-of-fit index; TLI-Tucker Lewis index; CFI-Comparative fit index; RMSEA- Root mean square error of approximation

The reliability issue had been addressed adequately as the composite reliability (CR) was found to be >0.7 for all constructs (Table-6). Convergent validity was established as the average variance extracted (AVE) was found to be greater than 0.5 for all constructs and CR > AVE. The maximum shared variance (MSV) was found consistently less than AVE, which established discriminant validity (Hair et al., 2010). The analysis also reported Hancock's *H* [MaxR (H)] measure of reliability, which required fewer assumptions than

Cronbach's α (Hancock and Mueller, 2006). Hancock's H reflected the minimum achievable or anticipated construct reliability associated with the measurement model of each factor (Hancock and Mueller, 2006). It ranged from .954 (technology usage in visitor management) to .988 (host-community management), and hence, exceeded the recommended minimum value for of H = .70 (Hancock and Mueller, 2006) (Table-7). The measurement model has been represented in Figure 2.

Table-7: Construct validity [CR/AVE/MSV/MaxR(H)]

| | TVM | PHM | EBM | SEM | нсм | CR | AVE | MSV | MaxR(H) |
|-----|--------|-------|--------|-------|-------|-------|-------|-------|---------|
| TVM | 0.779 | | | | | 0.880 | 0.608 | 0.011 | 0.954 |
| PHM | -0.092 | 0.860 | | | | 0.952 | 0.739 | 0.546 | 0.978 |
| EBM | -0.100 | 0.739 | 0.834 | | | 0.919 | 0.696 | 0.546 | 0.983 |
| SEM | -0.107 | 0.730 | 0.475 | 0.788 | | 0.890 | 0.620 | 0.533 | 0.985 |
| НСМ | 0.000 | 0.067 | -0.006 | 0.033 | 0.822 | 0.911 | 0.675 | 0.004 | 0.988 |

Note: TVM-Technology usage in visitor management; PHM-Public health management; EBM-Ecological and biodiversity management; SEM-Social and ethno-cultural management; HCM-Host-community management. Diagonal elements show square roots of AVEs (average variance explained).

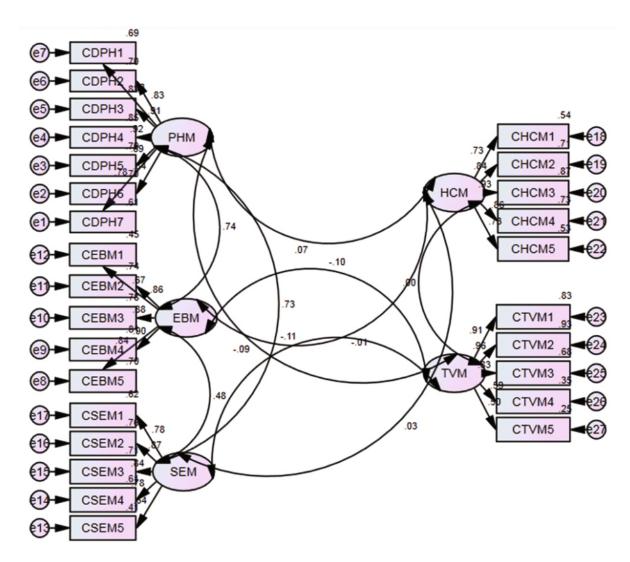


Figure 2: The measurement model

Legends used: TVM-Technology-based visitor management; PHM-Public health management; EBM-Ecological and biodiversity management; SEM-Social and ethno-cultural management; HCM-Host-community management.

Temporal causal modelling (TCM) was used to uncover causal relationships between the controllable metrics and the socio-environmental key performance indicators (SEKPIs). The procedure builds an autoregressive time series model for each target and includes only those inputs that have a causal relationship with the target. This approach differs from traditional time series modelling where one must explicitly specify the predictors for a target series. Since TCM typically involves building models for multiple related time series, the result is referred to as a *model system*. In the context of TCM, the term *causal* refers to Granger causality. A time series X is said to

"Granger cause" another time series Y if regressing for Y in terms of past values of both X and Y results in a better model for Y than regressing only on past values of Y.

We use the IBM SPSS Modeler function to generate the stream of functional nodes to be used for TCM. The data is bifurcated into candidate inputs (from data generated for controllable metrics of responsible tourism) and target series (socio-environmental performance data). In the time series modelling, 'predefined roles' of data were selected. The data pertaining to socio-environmental performance indicators was tagged as both input and target. The

TCM procedure determined the best inputs for each target from the set of candidate inputs. Confidence interval width was fixed at 95% and the outlier threshold was also limited to 95%. The overall Model Quality (Figure 3) is displayed on a bar chart and an associated dot plot of the model fit for all models. There was a separate model for each target series. The model fit was measured by the chosen fit statistic - R

Square. The R square value ranged from 0.25 to 0.88. The significant contributors to the model were: 'ecological and biodiversity management metrics' (RTCM_2) (R square = 0.50), 'social & ethno-cultural management metrics' (RTCM_3) (R square = 0.62), 'host-community management metrics' (RTCM_4) (R square = 0.75) and 'technology-based visitor management metrics' (RTCM_5) (R square = 0.88).

Overall Model Quality 11 10 9 8 3. 2 0 -0.12 -0.12 0.25 0.5 0.62 0.75 0.88 -0.250 0.38 **Overall Model Quality** -0.25 -0.12 0.12 0.25 0.38 0.5 0.62

Figure 3: The Overall Model Quality

R Square

The study filtered out the top ten models (Figure 4). The target variables under socio-environmental performance indicators that were found to be included in the top models are SEKPI_16 (demand/supply ratio of water, $r^2 = 0.83$), SEKPI_5 (number of local-community services on offer, $r^2 = 0.82$), SEKPI_23 (technology usage in conservation process, $r^2 = 0.81$), SEKPI_3 (proportion of time spent on nature tourism

out of the span of stay, $r^2 = 0.79$), SEKPI_1 (number of endangered species identified, $r^2 = 0.79$), SEKPI_11 (host-community participation in tourism activity, $r^2 = 0.78$), SEKPI_7 (environmental awareness campaign conducted in the destination, $r^2 = 0.75$), SEKPI_4 (number of hotels with environmental policy in place, $r^2 = 0.73$), SEKPI_10 (percentage of bio-toilets and technology-enabled waste management

establishments provided by local administration, $r^2 = 0.71$), SEKPI_6 (health safety and hygiene protocols, $r^2 = 0.55$). The major predictors are RTCM_3 (social & ethno-cultural management metrics), management

metrics) RTCM_4 (host-community management metrics) and RTCM_5 (technology-based visitor management metrics). The RMSE value for the model was also found significant.

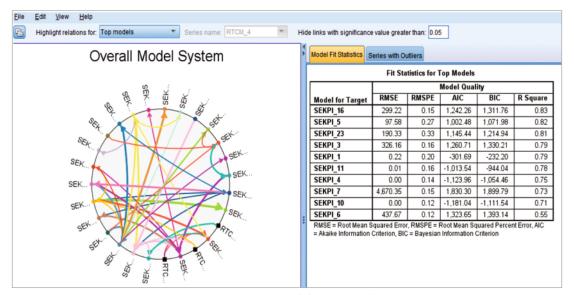


Figure 4: Top Models extracted

Impact diagrams were obtained from the Overall Model System, which initially showed the series that are affected by the selected series. Impact diagrams showed three levels of effects, where the first level was the series of interest. Each additional level showed more indirect effects of the series of interest. The impact diagram (Figure 5) for RTCM 3 (social & ethnocultural management metrics) was found to be a direct input to SEKPI 5 (number of local-community services on offer), SEKPI_9 (safety and security measures adopted), SEKPI 15 (existence of typical local products (handicrafts, cuisine), number of shops, restaurants offering them) and SEKPI 19 (number of cultural events (festivals), and level of attendance) and also exhibited significant (the thickness of the lines indicates the significance of the causal relations) indirect impact on series SEKPI 1 (number of endangered species identified), SEKPI 7 (environmental awareness campaign conducted in the destination) and SEKPI 18 (initiatives of heritage conservation). The impact diagram (Figure 6) for RTCM 4 (host-community management metrics) was found to be a direct input to SEKPI 11 (hostcommunity participation in tourism activity), SEKPI 14 (satisfaction of volume of tourists visiting the destination), SEKPI 10 (percentage of bio-toilets and technology-enabled waste management establishments provided by local administration), SEKPI 6 (health safety and hygiene protocols) and SEKPI 24 (amount of revenue generated at heritage sites and attractions, namely, user fees, licences, retail and merchandising, etc.) and also exhibited significant indirect impact on series SEKPI_1 (number of endangered species identified), SEKPI 2 (perceived value of forest resources to tourism), SEKPI 7 (environmental awareness campaign conducted in the destination), SEKPI_12 (women/ men as a percentage of all tourism employment) and SEKPI 17 (number of restaurants with environmental policy in place). Impact diagram was also obtained (Figure 7) for RTCM 5 (technology-based visitor management metrics) which showed direct impact on SEKPI_3 (proportion of time spent on nature tourism out of the span of stay), SEKPI 21 (crime prevention scheme), SEKPI_18 (initiatives of heritage conservation), SEKPI 4 (number of hotels with environmental policy

in place), SEKPI_25 (number of historic/traditional buildings used for tourism services, namely, accommodation, restaurants, shops), SEKPI_19 (number of cultural events (festivals), and level of attendance) and SEKPI_2 (perceived value of forest resources to tourism). It also displayed significant indirect impact on SEKPI_9 (safety and security measures adopted), SEKPI_7 (environmental awareness campaign conducted in the destination)

and SEKPI_22 (availability of interpretive programmes, facilities and materials (e.g. guided walks, visitor centres, museums, information in printed and electronic media). The chart that was displayed in each node of the impact diagram showed the last L+1 values of the associated series at the end of the estimation period and any forecast values, where L is the number of lag terms that are included in each model.

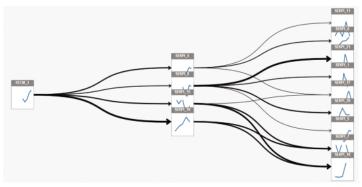


Figure 5: Impact diagram for RTCM_3

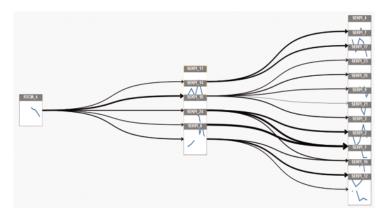


Figure 6: Impact diagram for RTCM_4

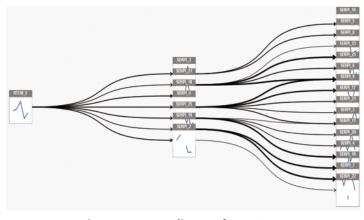


Figure 7: Impact diagram for RTCM_7

Conclusion and discussion

This paper focused on identification of the controllable metrics of responsible tourism and further attempted to identify the possible impact, if any, with the socioenvironmental performance indicators. With the COVID-19 pandemic as the backdrop, the study was posited on the theoretical underpinning that for a sector as asymmetrical and abstract as tourism and with the probability of collateral damages intertwined with perceived economic gains, it is desirous for business organizations to know what they can control to charter a recovery from a grounded position. To impose responsibility on the stakeholders, the impact of these controllable metrics on the performance indicators is critical. The study developed a measurement construct for the controllable metrics and was tested for reliability, validity and dimensionality. The study was conducted in the districts of Birbhum and Bankura of West Bengal, India. Locations were chosen based on their tourism significance, tourist traffic (both domestic and overseas), ethno-cultural legacy, fragile rural ecosystem and heritage. Five major controllable metrics were identified, namely, controllable destination and public health management metrics, controllable ecological and biodiversity management metrics, controllable social and ethno-cultural metrics, controllable host-community management metrics and controllable technology-enabled visitor management metrics. The study resonated the observations of Jamal and Budke (2020) that integration of issues, namely, climatic shifts and global health emergencies into the policy framework would pave the path for recovery. The findings of the study also reinforced the theory of achieving sustainable goals with responsible executions (Bramwell et al, 2008; Buckley, 2012; Camilleri, 2014; Goodwin, 2011; Lee et al, 2013; Sharpley, 2014). Further, the findings extended the work of Eagles et al. (2002), who critically examined the requirement of the key monitoring factors (KMFs) for sustainable tourism and identified a broad set of three KMFs, namely, environmental, social & economic. The major controllable metrics of responsible tourism identified for the local administration and the service providers in the study area are: host-community management, technologyenabled visitor management, ecological & biodiversity management and social & ethno-cultural management, which established two of the three postulates of the researcher with regard to actioninfluencer combinations (technology usage and hostcommunity interface) in the context of post-COVID-19 recovery scenario. With regard to the third actioninfluencer combination, namely, public health and hygiene, the study revealed that 'host-community management metrics' could influence percentage of bio-toilets and technology-enabled waste management establishments provided by local administration and health safety and hygiene protocols. The fact that 'destination and public health management metrics' could not be significantly linked with the socio-environmental performance indicators implicated poor destination-infrastructural facilities and lack of awareness amongst the stakeholders. It also hinted towards the lack of adequate number sensitization programmes and initiatives on behalf of the local administration and service providers.

Applicability and Generalizability

Temporal causal modelling (TCM) was used to identify the granger causality of variations in the target variables (socio-environmental key performance indicators) which can be attributed to the category input variables (controllable metrics of responsible tourism). The findings reinforced the theory of "shared network" of Porter and Kramer (2011) as it was established that businesses might assume better position to understand and assess productivity as they collaborate with stakeholders across profit and nonprofit boundaries. The controllable metrics are critical for strategizing responsible tourism and creating a "shared network" of the service providers and the stakeholders. The study also resonated the observation of Merwe and Wöcke (2007) about small hotels and allied tourism ventures not emphasizing on the sustainable issues due to cost constraints and a fear to lose profit margin. Both Birbhum and Bankura, having rural backdrops, ethno-cultural spread,

indigenous demography (tribes), vulnerable ecosystem and rich archaeological heritage, offer a perfect case of business dilemma to strike a balance between economy and ecology. At the same time, these two destinations are likely to see spikes in travel demands in the post-COVID-19 phase, and, hence, are likely to play significant role in the recovery process of domestic tourism in India. Initiatives of homestay, farmstay, water conservation, flipped kitchens, periodical assessment of carrying capacity, technology enabled service touch-points and use of alternative source of energy must be initiated, monitored and controlled to revamp tourism activities crippled by the pandemic.

The study has serious implications for the host community. For long, the host community has remained inert towards the tourism initiatives of the locality, except for the service providers and the direct stakeholders. COVID-19 has induced a sense of xenophobia amongst the host community. The norm of 'social distancing' has been observed to culminate into social-stigma driven by perceived-xenophobia and is likely to reduce emotional solidarity with the tourists. This inertness has diluted the sense of responsibility, which must be revived to reverse the disruptive trend. The standardization of recovery charter for tourism industry in post COVID-19 phase shall be difficult as destinations/ nations have assorted geo-demographical and socio-economic ecosystems to deal with. However, the study shall provide a broad base to ground the recovery plans. Future extrapolations of the study can be done by incorporating the economic variables and destination branding issues in light of the new normal.

References

- Barratt, M. J., Ferris, J. A. & Lenton, S. (2014). Hidden Populations, Online Purposive Sampling, and External Validity: Taking off the Blindfold. Field Methods, 27(1), 3-21.
- Berson, I. R., Berson, M.J. & Ferron, J.M. (2002). Emerging risks of violence in the digital age: lessons for educators from an online study of adolescent girls in the United States. Journal of School Violence, 1 (2), 51–72.
- Bohdanowicz, P. (2006). Environmental awareness and initiatives in the Swedish and Polish hotel Industries Survey results. International Journal of Hospitality Management, 25(4), 662–682.
- Bramwell, B., Lane, B., McCabe, S., Mosedale, J., & Scarles, C. (2008). Research perspectives on responsible tourism. Journal of Sustainable Tourism, 16(3), 253-257.
- Buckley, R. (2012). Sustainable tourism: Research and reality. Annals of Tourism Research, 39(2), 528–546.
- Camilleri, M. (2014). Advancing the sustainable tourism agenda through strategic CSR perspectives. Tourism Planning & Development, 11(1), 42–56.
- Campelo, A., Aitken, R., Thyne, M. & Gnoth, J. (2014). Sense of Place: The Importance for Destination Branding. Journal of Travel Research, 53(2) 154–166.
- Chang, C. L., McAleer, M. & Ramos, V. (2020). A Charter for Sustainable Tourism after COVID-19. Sustainability, 12, 1-4.
- Chiu, Y. T. H., Lee, W. I. & Chen, T. H. (2014). Environmentally responsible behavior in ecotourism: Antecedents and implications. Tourism Management, 40, 321–329.

- Cohen, E. (2011). Tourism and land grab in the aftermath of the Indian Ocean tsunami. Scandinavian Journal of Hospitality and Tourism, 11(3), 224–236. https://doi.org/10.1080/15022250.2011.593359
- Cooper, C. P. & Ozdil, I. (1992). From mass to 'responsible' tourism: The Turkish experience. Tourism Management, 13(4), 377–386.
- Crouch, G. I. & Ritchie, J. B. (1999). Tourism, competitiveness, and societal prosperity. Journal of Business Research, 44(3), 137–152.
- Darson, M., Wahab, M., Kassim, E. & Hanafiah, M. (2013). Responsible tourism: Linking perceived benefits and practices in Pangkor Island. Hospitality and Tourism: Synergizing Creativity and Innovation in Research, 29, 54-77.
- Davies, C. (2008). Reflexive Ethnography: A Guide to Researching Selves and Others. London: Routledge.
- Ekstrom, K. M. (2006). The Emergence of Multi-Sited Ethnography in Anthropology and Marketing. In Handbook of Qualitative Research Methods in Marketing, edited by Russell Belk. Cheltenham-Northampton: Edward Elgar, 497-508.
- Fletcher, R., Murray Mas, I., Bl_azquez-Salom, M., & Blanco-Romero, A. (2020). Tourism, degrowth, and the COVID-19 Crisis. Political Ecology Network, 24 March 2020. https://politicalecologynetwork.org/2020/03/24/tourism-degrowth-and-the-covid-19-crisis/. Retrieved on 29th March, 2020.
- Frey, N. & George, R. (2010). Responsible tourism management: The missing link between business owners' attitudes and behaviour in the Cape Town tourism industry. Tourism Management, 31(5), 621–628.
- Fricker, R. D. (2008). Sampling methods for web and e-mail surveys. In: Fielding N, Lee RM, Blank G, editors. The Sage handbook of online research methods. London: Sage Publications Ltd; 195–216.
- Gefen, D. & Straub, D. W. (2004). Consumer trust in B2C e-commerce and the importance of social presence: experiments in e-products and e-services. Omega, 32(6), 407–424.
- Goodwin, H. (2012). There is a difference between sustainable and responsible tourism. Retrieved September 12, 2019, from World Travel Market: http://www.wtmlondon.com/page.cfm/ Action=library/libID=1/ libEntryID=86.
- Goodwin, H. (2011). Taking responsibility for tourism. Woodeaton: Goodfellow Publishers Limited.
- Goodwin, H., & Francis, J. (2003). Ethical and responsible tourism: Consumer trends in the UK. Journal of Vacation Marketing, 9(3), 271–284.
- Hafiz, M., Jamaluddin, M., Zulkifly, M. & Othman, N. (2014). Exploring responsible tourism development facet. Theory and Practice in Hospitality and Tourism Research, 4(3), 173-187.
- Hair, J., Black, W., Babin, B. & Anderson, R. (2010). Multivariate data analysis (7th ed.): Prentice-Hall, Inc. Upper Saddle River, NJ, USA.
- Hanafiah, M. H. Azman, I., Jamaluddin, M. R. & Aminuddin, N. (2016). Responsible Tourism Practices and Quality of Life: Perspective of Langkawi Island communities. Procedia-Social and Behavioral Sciences 222, 406

 –413.
- Hancock, G. R.. & Mueller, R.O. (2006). Structural equation modeling. In The reviewer's guide to quantitative methods in the social sciences by Hancock, G. R. Stapleton, S.L. & Mueller, R.O. Taylor and Francis, 371-383.
- Higgins-Desbiolles, F. (2020). The end of global travel as we know it: an opportunity for sustainable tourism.
 The Conversation, 17 March 2020. https://theconversation.com/the-end-of-global-travel-as-we-know-it-an-opportunity-for-sustainable-tourism-133783. Retrieved on 29th March, 2020
- Iglesias, A., Garrote, L., Flores, F. & Moneo, M. (2007). Challenges to manage the risk of water scarcity and climate change in the Mediterranean. Water Resources Management, 21(5), 775–788.

- Ihantola, E. M. & Kihn, L. A. (2011). Threats to validity and reliability in mixed methods accounting research. Qualitative Research in Accounting & Management, 8(1), 39–58.
- Ioannides, D. & Gyimóthy, S. (2020): The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path, Tourism Geographies, 22(3), 1-9, DOI:10.1080/14616688.2020.1763445
- Jamal, T. and Budke, C. (2020). "Tourism in a world with pandemics: local-global responsibility and action", Journal of Tourism Futures, Vol. 6 No. 2, pp. 181-188. https://doi.org/10.1108/JTF-02-2020-0014
- Kirillova, K., Lehto, X., & Cai, L. (2017a). Existential authenticity and anxiety as outcomes: The tourist in the experience economy. International Journal of Tourism Research, 19(1), 13–26.
- Kirillova, K., Lehto, X., & Cai, L. (2017b). Tourism and existential transformation: An empirical investigation. Journal of Travel Research, 56(5), 638–650.
- Kontogeorgopoulos, N. (1999). Sustainable tourism of sustainable development? Financial crisis, ecotourism, and the 'Amazing Thailand' campaign. Current Issues in Tourism, 2(4), 316–332. https://doi.org/10.1080/13683509908667859.
- Korstanje, M. (2020). Tourism and the war against a virus? University of Leeds, 1 April 2020. https://northernnotes.leeds.ac.uk/tourism-and-the-war-against-a-virus-also-in-spanish/. Retrieved May 2nd, 2020.
- Landers, R. N. & Behrend, T. S. (2015). An Inconvenient Truth: Arbitrary Distinctions Between Organizational, Mechanical Turk, and Other Convenience Samples. Industrial and Organizational Psychology, 8(2), 142-164.
- Laverty, S. (2003). Hermeneutic Phenomenology and Phenomenology: A Comparison of Historical and Methodological Considerations. International Journal of Qualitative Methods, 2 (3), 1-17.
- Lean, G. (2016). Transformative travel in a mobile world. Boston: CABI.
- Lean, G., Staiff, R., & Waterton, E. (Eds.). (2014). Travel and transformation. Current Development in the Geographies of Leisure Series. Ashgate Publishing.
- Lee, T. H., Jan, F. H. & Yang, C. C. (2013). Conceptualizing and measuring environmentally responsible behaviors from the perspective of community-based tourists. Tourism Management, 36, 454–468.
- Lew, A. (2020). How to create a better post-COVID-19 World. Medium, 16 March 2020. https://
- medium.com/@alanalew/creating-a-better-post-covid-19-world-36b2b3e8a7ae. Retrieved March, 29th,
 2020.
- Lloyd, B. (2015). Addressing sustainable development goals: Shared value on the agenda at the 2015 world economic forum in Davos. Retrieved August 14, 2019, from http://sharedvalue.org/groups/addressingsustainable-development-goals-shared-value agenda-2015-world-economic-forum-davos
- Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability transitions research: transforming science and practice for societal change. Annual Review of Environment and Resources, 42(1), 599–626. https://doi.org/10.1146/annurev-environ-102014-021340
- Mair, S. (2020). What will the world be like after coronavirus? Four possible futures. The Conversation. https://theconversation.com/what-will-the-world-be-likeafter...d=IwAR2wr9pzssSdBSxjaHaWba9-iHSF3flYgZ9BVI1jAx Y4YIXVAImcJcNdjM. Retrieved June 1st, 2020
- Mathew, T. M. & Thampi, S. P. (2020). The level of awareness and impact of age factor on the awareness of visitor management system. NMIMS management Review, 38(4), 115-126.
- McIntyre, G. (1993). Sustainable tourism development: Guide for local planners. Madrid: World Tourism Organization (WTO).

- Merwe, M., & Wöcke, A. (2007). An investigation into responsible tourism practices in the South African hotel industry. South Africa Journal of Business Management, 38(2), 1–15.
- Miller, G. (2001). Corporate responsibility in the UK tourism industry. Tourism Management, 22(6), 589–598.
- Nicol_as, E. S. (2020). EU pledges help, as tourism faces Euro 400bn hit. EU Observer. https://euobserver.com/coronavirus/148137, Retrieved May, 2nd, 2020.
- Pernecky, T., and T. Jamal. (2010). (Hermeneutic) Phenomenology in Tourism Studies. Annals of Tourism Research, 37 (4), 1055-75.
- Pollock, A. (2015). Social entrepreneurship in tourism: The conscious travel approach. Tourism Innovation Partnership for Social Partnership (TIPSE), UK.
- Porter, M. E., & Kramer, M. R. (2011). Creating shared value: How to reinvent capitalism And unleash a wave of innovation and growth. Harvard Business Review, (January-February), 62–77.
- Poynter. R. (2010). The Handbook of Online and Social Media Research Tools and Techniques for Market Researchers. John Wiley & Sons Ltd., UK.
- Reisinger, Y. (2013). Transformational tourism: Tourist perspectives. Boston: CABI.
- Reisinger, Y. (2015). Transformational tourism: Host perspectives. Boston: CABI.
- Romagosa, F. (2020). The COVID-19 crisis: Opportunities for sustainable and proximity tourism, Tourism Geographies, 22(3), 690-694, DOI: 10.1080/14616688.2020.1763447
- Sabat, K.C. & Krishnamoorthy, B. (2018). An empirical study to understand the factors influencing green supply chain management adoption in India. NMIMS Management Review, 35(4), 94-108.
- Sharpley, R. (2014). Teaching responsible tourism. In D. Dredge, D. Airey, & M. J. Gross (Eds.). The Routledge handbook of tourism and hospitality education, Abington: Routledge. 171–184.
- Spenceley, A. (2010). Responsible tourism: Critical issues for conservation and development: Routledge.
- Stanford, D. (2010). Kohlberg's Stages: informing responsible tourist behaviour, in Tourist Experience Contemporary Perspectives by Sharpley, R. & Stone, P. R. Routledge, Taylor & Francis, 247-264.
- UNWTO. (2020). Impact assessment of the COVID 19 outbreak on international tourism. Updated 27 March 2020. https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism. Retrieved April, 27th, 2020.
- UNWTO. (2020). Global Guidelines to Restart Tourism. https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-05/UNWTO-Global-Guidelines-to-Restart-Tourism.pdf, Retrieved, June, 18th, 2020
- UNWTO-UNEP. (2012). Tourism in the green economy: Background report. Retrieved June 29, 2019, from http://sdt.unwto.org/en/content/publications-1
- UNWTO (2015). Sustainable development goals: Knowledge platform. Retrieved June 29, 2019, from https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals
- van Tonder, E. & Petzer, D. J. (2018). The interrelationships between relationship marketing constructs and customer engagement dimensions. The Service Industries Journal, 38(13-14), 948-973, doi: 10.1080/02642069.2018.1425398.
- Wheeller, B. (1991). Tourism's troubled times: Responsible tourism is not the answer. Tourism Management, 12(2), 91–96.

- Xin, T. K. & Chan, J. K. L. (2014). Tour operator perspectives on responsible tourism indicators of Kinabalu National Park, Sabah, Procedia Social and Behavioral Sciences, 1-10.
- Yu, M., Li, Z., Yu, Z., He, J. & Zhou, J. (2020). Communication related health crisis on social media: a case of COVID-19 outbreak. Current Issues in Tourism. doi: 10.1080/13683500.2020.1752632. Retrieved April, 20th, 2020.
- Zeng, B., Carter, R. W., & De Lacy, T. (2005). Short-term perturbations and tourism effects: The case of SARS in China. Current Issues in Tourism, 8(4), 306–322. https://doi.org/10.1080/13683500508668220

Arup Kumar Baksi is Associate Professor in the Department of Management and Business Administration, Aliah University, Kolkata, West Bengal. He holds a Ph.D. in Business Administration from The University of Burdwan, West Bengal. Dr. Baksi completed his MBA from the same University with specialisation in Marketing. He has more than 100 research papers in national and international journals of repute in addition to 2 books and 18 book chapters in edited volumes. Dr. Baksi has also presented his papers in more than 60 national and international conferences and has conducted 5 sponsored research projects. He can be reached at baksi.arup@gmail.com, baksi.arup@aliah.ac.in.