

Sustainable tourism research: an analysis of papers published in the *Journal of Sustainable Tourism*

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This paper reviews a content analysis of papers published in the *Journal of Sustainable Tourism*, the only journal exclusively devoted to sustainable tourism research over the past 15 years (1993–2007). Based on a detailed examination of the contents, a database was developed which consists of information about (1) volume/number/year; (2) study areas; (3) forms of tourism; (4) subject themes; (5) research perspectives; (6) concept and measurement and (7) methodology. A series of trends describing the growth of sustainable tourism research has been identified. The findings present the journal's contribution to theoretical debates, methodological sophistication and practical implications in sustainable tourism development. Future directions for sustainable tourism research are also discussed.

Keywords: content analysis; research methods; research perspectives; sustainable tourism

Introduction

Tourism is recognized as a resource-intensive industry; it needs, therefore, to be accountable in terms of sustainability at both local and global scales. Sustainable tourism (ST) is a major focus in the debate on environmentally integrated tourism development, but existing research shows that sustainability is a complex concept, and one that requires more critical and comprehensive analysis (Butler, 1999; Mowforth & Munt, 2003). Several influential papers have enhanced the understanding of the highly complex and intertwined issues of ST, quality of life, equity and the environment (Butler, 1999; Collins, 1999; Farrell & Twining-Ward, 2004; Hunter, 1997; Wall, 1997). It is argued that ST needs to be conceptualized in a more comprehensive way so as to appraise meaningfully and critically its interconnectedness with the natural, social and economic elements at multiple scales and time periods (Farrell & Twining-Ward, 2004; McKercher, 1999). ST therefore can be best construed either as an "adaptive paradigm" (Hunter, 1997) or as "adaptive management" (Farrell & Twining-Ward, 2004), which addresses issues of unpredictability of events, uncertainties about the outcome of events and complexities of scale and times.

An important point about the concept of sustainability is that it is defined, interpreted and implemented differently by individuals, stakeholders and social groups; it is often referred to as a "balance" or "wise" use of resources. Four basic principles for the concept of sustainability have been considered: (1) the idea of holistic planning and strategy-making;

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(2) the importance of preserving essential ecological processes; (3) the need to protect both human heritage and biodiversity and (4) development based on the idea that productivity can be sustained over the long term for future generations (WCED, 1987). Applying these concepts to ST, the World Tourism Organisation (WTO, 1998, p. 21) defines ST development as meeting the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to the management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems. However, critics of ST argue that the concept is fundamentally misguided. Many questions have been raised about its vagueness. For example, Butler (1999) argued that there is lack of specificity of human needs, time period to determine if human needs have been satisfactorily met and uncertainties in situations where needs may be conflicting. Similarly, other authors argue that ST tends to be defined as a single rather than a multisectoral approach, emphasizing growth in order for viability to be maintained (Wall, 1997). It has also been suggested that, although ST has areas of mutual concern with sustainable development, it has its own specific tourism-centric agenda which may even work against sustainable development (Hunter, 1995). Some authors define ST in broader terms, transferring the principles of sustainable development into the context of tourism needs (Hardy & Beeton, 2002). The content of ST debate has broadened to include not only environmental but economic, social and cultural issues, political power and social equality. But critics argue that the viability of sustainability remains a key issue in ST, as it is unrealistic to balance competing interests and, therefore, trade-off decisions will undoubtedly create priority for certain interests (Hunter, 1997).

The Journal of Sustainable Tourism (JOST) has been and remains the only journal devoted exclusively to ST research. It is ranked fourth (based on journal awareness and quality rating), just behind long-established general tourism journals including Annals of Tourism Research, Tourism Management and Journal of Travel Research (McKercher, Law, & Lam, 2006). As such, papers published in the journal may be considered authoritative on this aspect of tourism. Initially articulated goals for the JOST in its first issue included "to foster research and practice in ST; to help develop both a theoretical base for the subject and reliable empirical evidence of its results and impacts; to provide interdisciplinary perspectives and an international outlook on the subject matter" (Bramwell & Lane, 1993, p. 3).

The growing body of ST literature and the accumulated evidence from the ground indicates that a review of research in this field is necessary. In the light of the 15th anniversary of the *JOST* in 2007, we attempt to evaluate its progress. This paper evaluates what the journal has accomplished and how well its stated goals have been met. To this end, a content analysis of manuscripts published in the *JOST* from Volume 1 to 15 is conducted. The results are used to identify research trends and knowledge gaps, which in turn will help determine frameworks for their application in practice and policy development. We have organized our results around seven questions that relate back to the goals and accomplishment of the *JOST*: (1) How has the journal expanded over the study period? (2) What is the journal's geographic focus (i.e. study locations)? (3) What types of tourism have been covered? (4) What subject themes have been examined? (5) What research perspectives have been studied? (6) What research methods have been employed? (7) Has the understanding of ST as a concept and its measurement changed over time?

It is important to state at this point that the *JOST* does not have a monopoly of publishing research into ST. But it contains the largest number of papers on the subject and can be claimed to be a research convergence point for researchers in the field.

Methods

Although philosophical discussion of scientific knowledge, paradigmatic and disciplinary debates can provide hypotheses regarding the evolution of tourism knowledge, the empirical study of the content of its literature provides grounded evidence about the evolution of such knowledge, paradigm or discipline (Xiao & Smith, 2006, 2007). Many researchers have used content analysis to track trends in scholarly traditions and have identified patterns of development of specific concepts and themes. Content analysis is a research technique for making replicable and valid references based on the systematic and objective analysis of communications (Babbie, 2007). The technique has been applied to tourism studies, for example, Xiao and Smith (2006) used qualitative and quantitative methods to analyze the comprehensive subject index of the Annals of Tourism Research (1973–2003). They reported the journal's contribution to both theoretical constructs and methodological developments, identified patterns describing the growth of tourism knowledge and provided perspectives on the evolution of tourism scholarship. Reid and Andereck (1989) looked at the use of statistical techniques in tourism journals. Longitudinal observations with regard to the changes of subject areas and research techniques have also been conducted in the area of hospitality (Baloglu & Assante, 1999).

For the purpose of this study, a content analysis of the first 15 volumes of the *JOST* (1993–2007) was conducted. A total of 341 papers were reviewed; book reviews, reports or comments were not included in the analysis. In order to be comparable with trends in other tourism journals such as *Annals of Tourism Research*, the analysis was split into three 5-year periods: 1993–1997, 1998–2002, and 2003–2007. Research was conducted in two stages: a quantitative analysis of papers published during the 15-year period, followed by a qualitative synthesis and subjective reflection of the social world of ST scholarship (Berg, 2001).

During the first stage, the selected issues of the JOST were read and coded on the basis of the following data attributes: (1) volume/number/year; (2) location where the study was conducted, not the location of authors; (3) type of tourism discussed (e.g. ecotourism, indigenous tourism, urban tourism); (4) subject theme (e.g. theoretical discussion, impact assessment, visitor behavior); (5) research perspective (e.g. visitor, local community, manager); (6) concept and measurement and (7) methodology. The categories of tourism types were initially borrowed or adapted directly from the papers using titles, keywords (available from 1999) and abstracts. They were condensed later into five main categories, based on the focus of tourism resource discussed in the papers. The categories of research subject themes were derived from a variety of sources. First, a conceptual and empirical distinction was made. Conceptual papers refer to those discussing concepts and theoretical issues, and do not employ data analysis. Empirical papers are defined as those employing qualitative or quantitative data analysis. The subject themes of empirical papers were adopted from paper titles, keywords (available from 1999) and abstracts, subject index from the Annals of Tourism Research, as well as previous research (Baloglu & Assante, 1999; Donohoe & Needham, 2006). The categories of research perspective were based on the subject of data collection. The research methodology categories were adopted from Babbie (2007) and Bernard (2006). To ensure the reliability of the analysis, coding was undertaken separately by the two authors. Coding issues, questions and discrepancies were frequently discussed each week. A systematic spot check was performed on every fifth paper for a given year to check the consistency between each researcher's coding.

The second stage analysis includes a critical review of the discourse on contemporary definitions and measurements. Only those definitions and measurement criteria most commonly referenced in the journal were selected for this part of the research.

Results

Journal expansion

The rising interest in ST as an academic field can be seen through the expansion of *JOST* over its first 15 years. The journal was launched with two 64-page issues in 1993 as an outlet devoted to ST. As the number of subscriptions and quality manuscripts grew, it was enlarged to four 96-page issues in 1997. The journal further expanded in 2000 from four to six issues per year. One hundred twelve page issues became the norm in 2005, with a further expansion in 2007. A total of 66 papers were published in the first 5-year period (1993–1997). The number of papers doubled in the second 5-year period (1998–2002) reaching to 125 papers, and reached 150 in the third 5-year period (2003–2007).

The increasing complexity and magnitude of ST research is also reflected in the expansion of the journal's editorial board, the increased proportion of empirical studies, as well as the emergence of a wide range of special issues. Currently, the editorial board involves scholars from USA, New Zealand, Greece, United Kingdom, Israel, South Africa, Canada, Norway, China, Japan, Switzerland and Australia. New members from various institutes, locations and disciplines have strengthened the journal with greater philosophical, theoretical and methodological diversity. Since the journal's inception, conceptual discussion about ST has been one of the main foci. In 1993, over 45% of the papers were conceptual contributions. This reflects a natural path of knowledge growth for a young field where earlier research often focuses on the conceptualization of core phenomena (Xiao & Smith, 2006). As the concept of ST received widespread acceptance in the tourism literature and garnered attention from businesses, governments, non-governmental organizations and tourists, efforts were concentrated on understanding its practical implications. In 2007, 85% of the published papers were empirical studies. In addition to standard issues, JOST has published special issues to foster in-depth discussions on established and newly emerging topics and approaches, including collaboration and partnership, tourism and its interactions with climate change, access to rural lands, impacts and policy responses for the Mediterranean basin, the roles of non-governmental organizations, carrying capacity and sustainability. These issues were examined from various disciplinary perspectives including sociology, geography, political science, anthropology, management, education, psychology, leisure/recreation and environmental studies. These special issues are indications of the cross-fertilization of knowledge around major subject areas.

Study locations

One of the stated goals for the *JOST* was for it to have an international outlook on the subject. To evaluate whether the *JOST* had met its goal, we examined the locations where the studies were conducted. There were 285 papers, or 83% of total contributions, based on empirical studies. Since its inception, studies covering 62 countries have been published in the journal. The top five contributing countries represented in the studies include the United States, Canada, United Kingdom, Australia and New Zealand, confirming a similar finding by Kim's (1998) content analysis comparing *Annals of Tourism Research* and *Journal of Travel Research*. The 62 countries were then condensed to seven categories (Figure 1), so as to provide a continental comparison.

During the early period (1993–1997), about half of all studies were focused on the United States, Canada, New Zealand and Australia. About 16% of papers were devoted to European countries, followed by Asia and South Pacific (11%), Africa (8%), South and Central America (8%) and Arctic region (6%). During the mid-period (1998–2002), the

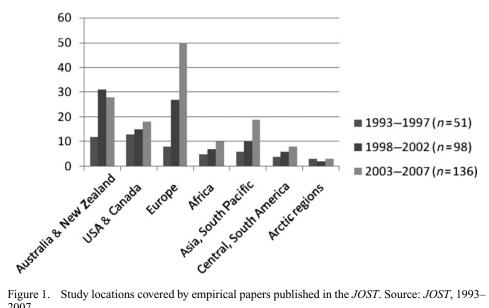


Figure 1. Study locations covered by empirical papers published in the JOST. Source: JOST, 1993– 2007.

proportion of studies conducted in the United States, Canada, New Zealand and Australia decreased slightly to 47%, while a noticeable increase was observed in studies conducted in Europe (28%). The proportion of studies from Asia and South Pacific (11%) did not change during this period, but fewer studies were conducted in Africa (7%), South and Central America (6%) and the Arctic region (2%). Most recently (2003–2007), the proportion of studies conducted in the United States, Canada, New Zealand and Australia has declined to 34%, making Europe (37%) the dominant study location. About 15% of the studies were conducted in Asia and South Pacific regions, followed by 8% in Africa, 6% in South and Central America and 2% in the Arctic region. Two sample z-tests were conducted to identify if statistical differences exist in the distribution of study locations during the three periods. Results show significant differences: decline in studies conducted in United States, Canada, New Zealand and Australia (z = -38, p = 0.000), and increases in Europe (z = 7.5, p < 0.000) and Asia and South Pacific (z = 6, p < 0.000).

Types of tourism studied

During the early stage (1993–1997), 58% of the papers covered nature-based tourism and ecotourism, 30% covered general tourism and 12% covered other types of tourism such as cultural tourism and urban tourism (Figure 2). During the mid-period (1998-2002), more than 50% of the papers focused on general tourism while only 38% focused on naturebased tourism and ecotourism and 12% on cultural/heritage tourism and alternative forms of tourism. Most recently (2003–2007), tourism in general has remained the key focus of research (46%). Nature-based tourism and ecotourism are still important (36%) though to a lesser degree, while interests in cultural/heritage tourism, alternative tourism and urban tourism have surged (18%). Based on the content analysis, three main trends can be observed with respect to the type of tourism examined in JOST papers. First, ST research has shifted its focus from niche tourism to mass tourism. Statistical tests confirm the differences, that is, the proportion of general tourism papers is significantly higher in the later (2003–2007)

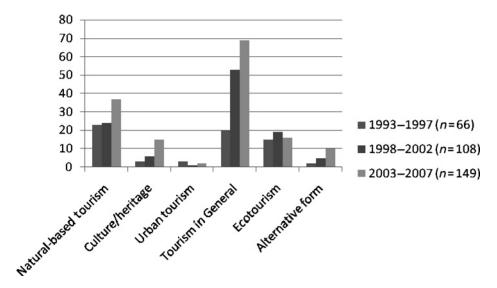


Figure 2. Major types of tourism covered by JOST papers. Source: JOST, 1993–2007.

than in the early period ($z=-2.3,\ p<0.05$). This finding also indicates a transition in the focus of ST from the public sector (e.g. parks and protected areas) to the private sector (e.g. urban tourist sites). Second, interest in cultural and heritage tourism during the later period has risen compared to earlier periods ($z=-3.6,\ p<0.000$). This indicates the growing awareness of the importance of cultural sustainability. Another noticeable finding is that a variety of alternative tourism products has been analyzed within the context of ST. These include indigenous tourism, farm tourism, conference tourism, sex tourism, archaeology tourism, casino tourism, community tourism and films and TV-induced tourism.

Perspectives in sustainable tourism

The perspectives employed in the 341 papers were coded into 18 categories: tourism destination/product, visitor, theoretical, integrated perspective, manager/planner, tourism operator, local community, policy, government, methodology, consultant, tourism worker, non-government organization, tour guide, tourism student, general public, volunteer (Table 1). During the early period, the most frequently employed research perspectives include tourism destination or product (23.6%), management (19.3%) and visitor (17.4%) perspectives. During the later periods (1998–2007), the focus shifted to the role of non-governmental organizations, tour operators and the local communities in ST development. This may also indicate shifts in research focus from public organizations to private organizations, and from visitors to the local community. Although the majority of the papers only emphasize a single perspective, there is an increasing trend toward providing integrated and synthesized views.

Major subject themes

JOST papers were coded into several broad subject themes and specific sub-themes. Although there is some variation in the rank order of broad subject themes (based on the number of papers on each theme), we find that the order has remained consistent over the

Perspective	Frequency	Percent
Destination/product	90	26.4
Visitor	52	15.2
Theoretical	38	11.1
Integrated	36	10.6
Manager/Planner	27	7.9
Operator	26	7.6
Local community	23	6.7
Policy	18	5.3
Non-profit organization	8	2.3
Methodology	7	2.2
Tour guide	5	1.5
Government	4	1.2
Tourism student	2	0.6
Public	2	0.6
Consultant	1	0.3
Tourism worker	1	0.3
Volunteer	1	0.3
Total	341	100.0

Table 1. Research perspectives covered by *JOST* papers.

Source: JOST, 1993-2007.

years. Five subject areas appear most frequently in each of the three 5-year periods: tourism impact, sustainability assessment, development, visitor behavior and attitude, and planning. Among these subject areas, only sustainability assessment is explicitly associated with ST. The other four themes were also found in the top interests in general tourism research (Xiao & Smith, 2006). This may suggest that trends in ST research closely reflect broader trends in general tourism research. Twenty sub-themes were found to represent new subject trends in seven broad subject areas: local participation, energy and climate change, collaboration and partnership, technology, culture, tourist typology and implementation. A rise in the number of papers on collaboration and cultural sustainability and a concomitant drop in economics, environmental assessment and marketing constitute a third pattern. When sub-themes are examined, hardly any trends can be distinguished, and there are no shifts representing any change that is significant for any sub-areas.

Methodological discourse

As shown in Table 2, the majority of papers (139 or 41%) has applied qualitative methods, closely followed by quantitative (125 or 37%) and mixed methods (21 or 6%), while 16% were theoretical papers. The data collection methods used in the analysis of ST have remained almost unchanged, with social survey methods and case study as the two most common methods applied. Recently, there has been a tendency to introduce more sophisticated analytical methods in data modeling and scale testing, such as multi-dimensional modeling, geographical information systems and computer simulation.

Definitions and indicators of sustainable tourism

The development of concepts and theories is one of the key missions of *JOST*. The conceptual foci of ST appear to be in the areas of its scale, scope, impact, context and process.

Table 2. Research methods applied in *JOST* papers.

	Type of research			
Methodology	Qualitative and quantitative	Quantitative	Qualitative	Theoretical or review
Theoretical analysis; review				54
Case study	7	61		2
Survey			98	
Survey & interview; survey & secondary data analysis; survey, interview & focus group; survey and focus group Interview; interview, focus	10	66	15	
groups & grounded theory; interview, documents & case study				
Secondary data analysis; data modeling	4	10	12	
Ethnography		2		
Total	21	139	125	56

Source: JOST (1993-2007).

Adapting the principles of sustainable development, ST was initially viewed as a resolution for negative tourism impacts and the long term viability and wellbeing of destinations. As a positive approach intended to reduce the tensions created by the interactions between the tourism industry, visitors, the environment and the communities, ST focused on minimizing environmental and cultural impacts, optimizing visitor satisfaction and maximizing long term economic growth for the region where tourism is developed (Bramwell & Lane, 1993; Lane, 1994). Likewise, it was suggested that the target situation is "balanced tourism development" where "all objectives carry the same weight and are juxtaposed" (Müller, 1994, p. 132). However, this predominant definition of ST was criticized as being overly tourism centric and parochial in terms of its scope, scale and sectoral context (Hunter, 1995). As a result, when operationalizing ST, many issues critical to the concept of sustainable development were deemed necessary to be taken into consideration. The notion of balancing all goals in ST was also thought to be unrealistic, and, therefore, trade-offs in priorities became inevitable. Clarke (1997) had identified several chronologically sequenced evolutions in the understanding of ST. The early dominant understanding put ST in the polar opposite position to mass tourism. The negative social and environmental impacts experienced at destinations were attributed solely to mass tourism. However, during the 1990s, ST and mass tourism were seen more as concepts with a continuum of various sustainability dimensions rather than as two contrasting concepts. Indeed, tourism scholars like Butler (1999) and Wall (1997) argued that even mass tourism can be sustainable and ecotourism can be unsustainable. This implied that ST issues were more relevant and presumably more realistic at smaller scales. This position was then replaced by the understanding that ST is the goal to be achieved, rather than a specific type of tourism product, and that sustainability might be a practical concept even at a larger (mass tourism) scale. As a result, operationalizing current knowledge about ST to move toward the goal of sustainability became the focus of tourism research. The most recent position is one of convergence which suggests that ST is a goal which is applicable to all forms of tourism regardless of scale. Further to Clark's (1997) earlier suggestions, recent scholars have argued that ST is attainable at local, regional, national and global scales (Hardy & Beeton, 2001).

Another important development in the concept has been the recognition of different interests of all tourism stakeholders, which is considered a key factor differentiating ST from maintainable tourism (Hardy & Beeton, 2001). If all interests are not recognized, tourism in a region may continue to operate but not be sustainable. It is likely that one of the stakeholder groups involved in tourism will not have full confidence in tourism, thus increasing divisions between the competing interests. This position also reinforces Hunter's (1997) argument that ST is a concept which may involve trade-offs between competing interests. The most recent conceptual development in ST is proposed by Farrell and Twining-Ward (2005). With a world full of uncertainties, the authors suggest that ST should be managed to enhance its resilience to disturbance rather than focus on achieving stability. They consider this as a form of adaptive management. Their paper presents readers with seven introductory steps for the understanding of ST in the context of complex system dynamics, in the hope of enabling a more effective transition to sustainability.

ST concepts can only be implemented efficiently if there are useful, reliable and comprehensible sustainability indicators (SI) available to evaluate visitor impacts. Overall, the development of sustainable indicator follows its conceptual evolution. Three patterns can be observed over the 15-year period: (1) the scale of ST measurement has shifted from project-oriented to destination-oriented; (2) the content of sustainable measurement has also broadened to include not only quantitative but also qualitative indicators and (3) a variety of planning frameworks have been used to development sustainability indicators. These frameworks include Carrying Capacity, Limits of Acceptable Change, Visitor Preference and Experience, Destination Lifecycle, Comfort Indicators and Visitor Impact Management.

Discussion and conclusion

In general, the JOST has achieved the original intent of being a diverse, interdisciplinary and international journal. The journal has maintained a comfortable niche and differentiated its own position and audience from other leisure and tourism journals. The increase in the size of the journal has highlighted the growing interest in ST. The move from more conceptual pieces to empirically based papers reflects the maturity of ST studies, as the theoretical propositions laid out earlier are now being tested. Also, JOST has provided a mix of work of interest to both academics and practitioners. The journal appears to have improved its geographical representation, with more studies now conducted outside North America and Western Europe. Publications in *JOST* represent a wide range of disciplines and a broad span of perspectives. The application of an integrated perspective to ST studies has been identified as a new trend. As part of this trend, more emphasis is now placed on collaborative arrangement, stakeholder analysis and holistic interpretations. When we look at the different types of tourism studied under the rubric of ST, at the early stage (1993–1997), rural tourism and ecotourism received most attention and it is reflective of the initial application of the concept to such destinations. During the later period, ST as a concept became more inclusive of other types of tourism. It could be argued that this trend indicates the level of maturity in our understanding of the tourism systems as complex and adaptive. Although the broad subject areas of the journal are relatively stable over time, the special issues provide focused attention to various emerging issues such as climate change and globalization. The journal also continues to embrace a full range of methodology with an approximate even mix of qualitative and qualitative approaches.

In terms of the scope of the concept, the results indicate an evolutionary trend in views about ST. For instance, ST is no longer considered to mean minimal disturbance in pristine areas only, but rather as an application in a range of natural and built settings. It is now accepted that ST is not a specific type of tourism product but a goal to be achieved. Research on ST has thus been channeled into practical ways of assisting all forms of tourism to move toward sustainability. Most recently, tourism is viewed as a complex system and its best management described as a form of adaptive management. Regarding criteria and indicators for measuring ST, results indicate that there has been a gradual shift in the use of indicators over time, and this corresponds to the change in the concept of ST itself.

The findings of this study indicate several shortcomings in need of attention. First, research in developing countries, especially in Africa and Central and South America, is still poorly represented. In part this reflects the fact that most tourism is between developed countries, that tourism to and within developing countries is still very small in extent, and that most tourism researchers are based in the developed world. The fact that this journal is published in the United Kingdom may have created barriers for authors from non-English speaking countries. One could argue that this gives reason enough to construe ST as a "western construct". One has to be very careful when attempting to apply ST principles in local settings in developing countries, where culture, social norms and political contexts are very different than they are in the developed world. This has happened in other contexts, for example, when the idea of national parks was exported from North America to the developing world, it had major socioeconomic and political implications not anticipated elsewhere. Also, in many developing countries of Asia, Africa and Latin America sustainable tourism development needs to walk the fine line between environmental conservation and livelihood fulfillment. This issue has been raised recently by some tourism scholars who argue that in the context of developing countries a "sustainable livelihood approach" is more relevant and appropriate than a ST approach (Wall & Tao, 2008).

Second, we did not detect significant changes in the application of research methods. This may be perceived from the Kuhnian perspective of scientific knowledge in that the study of tourism is still in its pre-science stage (Kuhn, 1970). The methods used in tourism studies are largely borrowed from other disciplines. Research on ST is still very descriptive in content as well as analysis which may limit the choices of research method. Efforts could be made to incorporate more experimental or quasi-experimental research. Within social survey method, longitudinal studies are needed to trace development and change over time.

Third, although the journal has presented a wide range of disciplines, the journal appears to be multidisciplinary rather than interdisciplinary. Interdisciplinarity occurs when at least some of the independent, intervening and dependent variables in a specific hypothesis being tested are derived from the specialized knowledge of different disciplines. There is still room for improvement in integrating social sciences with other disciplines as well as integrating across social science disciplines.

In conclusion, the *JOST* has made significant contributions in the development, articulation, improvement and synthesis of ST concept and its various discourses. As a journal devoted exclusively to ST, it has been successful in establishing a distinct identity apart from other mainstream tourism journals. Given the current prominence of global environmental change and energy issues in the academic, government, business communities and other public arenas, the *JOST* will have an important role to play in driving, enabling and shaping future debates on these and other relevant issues.

Notes on contributor/s

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