

University of Massachusetts Amherst
ScholarWorks@UMass Amherst

Travel and Tourism Research Association:
Advancing Tourism Research Globally

2009 ttra International Conference

Themes, relationships and trends in North American tourism research: A co-citation analysis of three leading journals (1996-2007)

Pierre J. Benckendorff PhD
James Cook University

Follow this and additional works at: <https://scholarworks.umass.edu/ttra>

Benckendorff, Pierre J. PhD, "Themes, relationships and trends in North American tourism research: A co-citation analysis of three leading journals (1996-2007)" (2016). *Travel and Tourism Research Association: Advancing Tourism Research Globally*. 41. https://scholarworks.umass.edu/ttra/2009/Presented_Papers/41

This is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Travel and Tourism Research Association: Advancing Tourism Research Globally by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Themes, relationships and trends in North American tourism research: A co-citation analysis of three leading journals (1996-2007)

Pierre J. Benckendorff, Ph.D.
James Cook University
Townsville, Australia.

ABSTRACT

*The evaluation of research output and performance is becoming increasingly common as the field of tourism matures. This paper builds on the evaluative bibliometric work which has dominated the tourism literature by adopting a relational approach to provide insights into the intellectual structure of tourism research in North America. The study presents citation and co-citation analyses of papers authored by North American researchers in *Annals of Tourism Research*, *JTR* and *Tourism Management* between 1996 and 2007. A general picture of the field is drawn by examining the most-cited authors and works as well as co-citation patterns. The analysis is extended by the use of network analysis to explore the links between title words and influential works in the field. The paper also addresses the conference theme by identifying emerging themes and influences in tourism research. Results indicate that tourism research in North America has been strongly influenced by sociology and anthropology, geography, behavioural psychology and marketing. The study also identifies three major clusters or research focus: tourism and community impacts, destination image, and tourism as a socio-cultural phenomenon.*

INTRODUCTION

According to Xiao and Smith (2006), tourism is a maturing field with a considerable specialist literature, and relationships with parent disciplines that are now fairly stable and well understood. In a mature research field, various forms of ‘score-keeping’ are undertaken to investigate the most productive and influential scholars, institutions and publications. As a result there has been renewed interest in ranking tourism journals based on both perceived quality and influence (Jamal, Smith, & Watson, 2008; McKercher, Law, & Lam, 2006; Pechlaner, Zehrer, Matzler, & Abfalter, 2004; Ryan, 2005). This interest has extended to the ranking of individual academics and institutions based on publication and citation counts (Jogaratham, Chon, McCleary, Mena, & Yoo, 2005; Jogaratham, McCleary, Mena, & Yoo, 2005; McKercher, 2007, 2008; Ryan, 2005; Zhao & Ritchie, 2007). These recent attempts build on the earlier work of Sheldon (1990, 1991).

While the analyses of tourism research performance have been useful in identifying the most influential publication outlets and scholars, it is possible to go beyond the ranking of authors and journals by developing a more complex picture of the tourism research knowledge domain. This includes a better understanding of the literature which has influenced tourism researchers, key themes of this research and the links between research themes.

There are a number of techniques for analysing research contributions, themes and trends in a particular field. These techniques range from qualitative (and often subjective) evaluations to objective quantitative measures of research contribution. Collectively most of the quantitative approaches form part of the field of *bibliometrics*, which encompasses the measurement of “properties of documents, and of document-related processes” (Borgman & Furner, 2002, p. 3). Generally speaking, the various techniques can also be categorised as either *evaluative* or *relational* (Borgman & Furner, 2002; Thelwall, 2008). Evaluative techniques seek to assess the impact of scholarly work, usually to compare the relative scientific contributions of two or more individuals or

groups. The ranking or rating of publication outlets, authors or institutions that have been increasingly common in tourism are examples of this type of research. In contrast, relational techniques seek to illuminate relationships within research, such as the structure of research fields, the emergence of new research themes and methods, or co-authorship patterns.

A common relational bibliometric technique involves the use of citations as a basis for further analysis. Citation analysis is based on the premise that heavily-cited articles are seen as exerting a greater influence than those less frequently cited. Citation analysis is commonly conducted on a small sample of source journals that are well regarded within a discipline or field. In some cases analysis has been limited to a single influential journal, but more frequently two to four influential journals are analysed. Because the citations used in research papers form the basic unit of analysis, even a single journal can provide a large, highly aggregated data set for monitoring recurrent patterns, sometimes over relatively long time horizons (Leydesdorff, 1998). While the collection and analysis of detailed citation data has in the past posed the biggest challenge for this type of analysis, databases like ISI World of Science (WoS) and Scopus have improved their coverage and are now much more accessible.

Co-citation analysis is an extension of citation analysis. While a list of the most cited authors can help indicate who is shaping the field and the most cited works can illustrate key concepts that are driving a field, the addition of co-citation analysis to a bibliometric study adds insight into the intellectual structure of a field of study. The basis of co-citation analysis is that pairs of documents which often appear together in reference lists (i.e. are co-cited) are likely to have something in common. A list of all possible pairs of works cited among all citations in a given document enables a researcher to obtain the basic data for co-citation frequencies and co-citation networks (Pasadeos, Phelps, & Kim, 1998). When two authors or papers are frequently cited together there is a good likelihood that their ideas relate to each other. If collections of documents are arranged according to their co-citation counts then this should produce a pattern reflecting conceptual relationships. These relationships mean that the authors address the same issues, although it must be appreciated that this does not necessarily mean that they agree with each other. Schildt & Mattsson (2006) highlight that although some co-citations are unrelated, a sufficiently large sample of cited articles moderates the random “noise” created by articles combining diverse topics or research traditions.

Co-citation analysis has proved to be a useful empirical technique for describing the intellectual structure of disciplines. It has been applied in a range of other areas including internet advertising (Kim & McMillan, 2008), family business research (Casillas & Acedo, 2007), operations management (Pilkington & Fitzgerald, 2006), services management (Pilkington & Chai, 2008), strategic management (Acedo, Barroso, & Galan, 2006), performance measurement (Neely, Gregory, & Platts, 2005), and international management (Acedo & Casillas, 2005). In the tourism field, Xiao and Smith (2008) have noted a need for further research to map citations and intellectual networks.

Co-citation analysis has increasingly been used to construct a proximity matrix of interactions which can then be visualised using networks. The strength of the tie between two works is calculated based on the number of articles that cite them both. Clustering algorithms can then be used to generate network diagrams which typically indicate most influential sources and clusters that refer to schools of thought or ‘invisible colleges’. The increasing use of sophisticated visualizations is an important development in relational bibliometrics and has led to the creation of a new field known as knowledge domain visualization. The work of Hu & Racherla (2008) in the related field of hospitality provides a good recent example of this technique.

The purpose of this paper is to provide a window through which the knowledge domain of North American tourism research can be visualised. This is achieved by investigating the research

contributions of US and Canadian academics in three leading tourism journals, *Annals of Tourism Research* (hereafter *Annals*), *Journal of Travel Research (JTR)* and *Tourism Management* between 1996 and 2007. The research seeks to provide insights into the intellectual structure of the tourism field in North America. The key research questions examined by this paper include:

1. Which authors and publications have influenced tourism researchers in North America?
2. What are the relationships and networks among influential cited works in the field of tourism?
3. What schools of thought are presented among co-citation networks?

It is not the intent of this study to provide commentary on the quality of scholars and the institutions that employ them. Indeed, it must be noted at the outset that this study concurs with the views of Beed & Beed (1996, p. 369), who observe that “the correlation between influence and quality is uncertain”. Furthermore, this study does not pretend to present a definitive view of tourism research in North America, but rather to add to the extant knowledge by applying several bibliometric techniques to elucidate the key themes, relationships and trends in tourism research.

METHODOLOGY

Despite the common use of citation rates and indices in other disciplines, the data required for citation-based evaluative approaches are operationally difficult to prepare because of the considerable pragmatic challenges associated with constructing a dataset which is likely to be representative of the entire tourism knowledge domain (McKercher, 2008; Schmidgall, Woods, & Hardigree, 2007). These problems are compounded by the fact that the tourism field has not historically been well served by citation databases like WoS. This means that it has often been difficult to calculate citation indices for scholars in the tourism field. Recent developments have introduced more inclusive alternatives such as Elsevier’s Scopus and Google Scholar.

This study provides a bibliometric analysis of North American tourism research by using papers published in *Annals of Tourism Research*, *Journal of Travel Research* and *Tourism Management* between 1996 and 2007 as source data. The date limits are set by Scopus, which has incomplete records for papers published before 1996. The raw data were extracted from the Scopus dataset. These three journals were selected because they are prominent and influential publication outlets in the field of tourism, with a number of studies over the last 19 years consistently ranking them as the top three most influential journals (McKercher *et al.*, 2006; Pechlaner *et al.*, 2004; Ryan, 2005; Sheldon, 1990; Zehrer, 2007). Since this study is concerned with tracking the most influential contributions to tourism research in North America it makes sense to focus on the most influential international journals in the field. These journals are also ‘mainstream’ tourism journals with a broad treatment of topics and wide geographical coverage. Since this paper is concerned with analysing papers published by US and Canadian researchers only articles published by authors affiliated with institutions in these two countries at the time of publication were included. Following past studies of this type, the analysis does not include reviews, conference reports, editorials, notes, letters or errata.

The data extracted from Scopus included a total of 715 source articles (*JTR* = 263, *Annals* = 252, *Tourism Management* = 200) by 861 different authors. The discrepancy is due to multiple articles by the same author and because many authors also feature as co-authors with others. *Table 1* shows North American authors and institutions with the most source articles published in the top three tourism journals from 1996-2007.

There are many North American tourism researchers who publish excellent work in other publication outlets and this table should not be interpreted as a definitive ranking of influential tourism scholars and institutions. The information is provided to help readers understand the authorship structure of the raw dataset. The dataset includes a number of international authors who

co-authored papers with North American researchers. The paper counts for these authors, and subsequently their institutions, only include papers co-authored with researchers from the USA and Canada. US researchers authored or co-authored 583 papers while Canadian authors were associated with 151 papers.

Table 1. Leading North American contributors to *Annals, JTR & Tourism Mgt*, 1996-2007

| Author | Papers | Institutions | Papers |
|--------------------|--------|----------------------------------|--------|
| Dan Fesenmaier | 18 | Texas A & M University | 67 |
| Jim Petrick | 15 | Purdue University | 41 |
| Geoff Wall | 15 | Pennsylvania State University | 39 |
| Muzaffer Uysal | 14 | University of Waterloo | 37 |
| Samuel Kim | 13 | Virginia Tech | 36 |
| Alastair Morrison | 13 | Arizona State University | 34 |
| John Crompton | 12 | University of Central Florida | 29 |
| Dogan Gursoy | 12 | University of Calgary | 25 |
| Joseph O'Leary | 12 | University of Hawaii | 25 |
| Cathy Hsu | 11 | University of Illinois | 25 |
| Abraham Pizam | 11 | University of Nevada | 22 |
| Duarte Morais | 10 | Hong Kong Polytechnic University | 21 |
| Ercan Sirakaya | 10 | Northern Arizona University | 17 |
| Stephen Smith | 10 | Sejong University | 16 |
| Youcheng Wang | 10 | Temple University | 16 |
| Seyhmus Baloglu | 9 | College of Charleston | 15 |
| John Crotts | 9 | Michigan State University | 15 |
| Deborah Kerstetter | 9 | University of Texas | 15 |
| Christine Vogt | 9 | Kansas State University | 14 |
| Sevil Sonmez | 8 | University of Florida | 14 |

The data were further analysed using the *Sitkis* software package which has been purposely designed for conducting bibliometric analysis using WoS data (Schildt & Mattsson, 2006). The Scopus data had to be converted to the WoS ISI Export Format before it could be analysed with this software. *Sitkis* allows researchers to conduct various bibliometric analyses on both the source articles and the citations themselves. For co-citation analysis the software uses a dense network sub-grouping algorithm based on an iterative identification of tightly coupled areas to arrange citations into a matrix. This matrix can then be used to generate social network diagrams using the *NetDraw* software, which is included with the network analysis software suite *UCINET* (Borgatti, Everett, & Freeman, 2008).

RESULTS AND DISCUSSION

Several analyses were conducted on the Scopus dataset to address the research questions posed in the introduction of this paper. The 715 source articles produced a large dataset of 25,733 citations, covering 11,629 works and drawing on 6,167 different lead authors. These figures include a variety of references, including journal articles, books, conference papers, doctoral theses and reports. Among these, 3,127 works were cited more than once but many had very few citations and were either unlikely to have had a significant impact on the development of the field and/or were too recent to have had time to impact on the literature. Most of the cited works are relatively recent, with 96.5 per cent of all citations published after 1970.

In total, the citations were drawn from 7,808 different publications, illustrating the diversity of work which influences the tourism field. *Table 2* provides a list of the top 25 authors most often cited

by North American researchers in *Annals*, *JTR* and *Tourism Management*. The Scopus dataset includes all authors for a citation but the software used for this analysis was designed for WoS data which is limited to the first author. However, if it is assumed that the first author normally makes the most substantial contribution to paper then this list should provide a reasonably good approximation of the authors who have been the most influential sources for North American tourism researchers.

Table 2. Most cited first authors in *Annals*, *JTR* & *Tourism Management*, 1996-2007

| Author | Total Citations | 1996-1999 Citations | 2000-2003 Citations | 2004-2007 Citations | No. Cited Works | McKercher (2008) |
|--------------------|-----------------|---------------------|---------------------|---------------------|-----------------|------------------|
| Erik Cohen | 187 | 41 | 59 | 87 | 40 | 4 |
| Arch Woodside | 142 | 31 | 41 | 70 | 51 | 38 |
| John Crompton | 139 | 33 | 39 | 67 | 30 | 1 |
| William Gartner | 122 | 30 | 41 | 51 | 25 | 43 |
| Richard Butler | 121 | 42 | 32 | 47 | 43 | 5 |
| Philip Pearce | 111 | 20 | 40 | 51 | 36 | 7 |
| Abraham Pizam | 110 | 33 | 38 | 39 | 37 | 9 |
| Chris Ryan | 110 | 17 | 34 | 59 | 56 | 14 |
| Graham Dann | 100 | 19 | 27 | 54 | 32 | 18 |
| Colin Michael Hall | 99 | 28 | 17 | 54 | 47 | 3 |
| Rick Perdue | 97 | 20 | 36 | 41 | 23 | 25 |
| Dean MacCannell | 85 | 19 | 29 | 37 | 9 | 6 |
| Peter Murphy | 83 | 39 | 18 | 26 | 28 | - |
| JR Brent Ritchie | 83 | 16 | 33 | 34 | 33 | 12 |
| Seyhmus Baloglu | 78 | 3 | 25 | 50 | 24 | - |
| Don Getz | 75 | 15 | 15 | 45 | 27 | 13 |
| Claire Gunn | 75 | 19 | 23 | 33 | 11 | - |
| Martin Oppermann | 73 | 10 | 15 | 48 | 31 | 22 |
| John Urry | 71 | 28 | 14 | 29 | 22 | 2 |
| John Ap | 68 | 14 | 31 | 23 | 9 | - |
| Nelson Graburn | 68 | 19 | 20 | 29 | 23 | - |
| Charlotte Echtner | 66 | 11 | 16 | 39 | 13 | - |
| Kreg Lindberg | 64 | 21 | 18 | 25 | 14 | 44 |
| Douglas Pearce | 63 | 27 | 10 | 26 | 26 | 10 |
| Valene Smith | 63 | 26 | 15 | 22 | 14 | 34 |

The list of authors contains a number of prominent international scholars in the tourism field, but also has a strong North American flavour, with several US and Canadian authors. The far right column of the table provides a comparison with the most recent international ranking of tourism scholars undertaken by McKercher (2008). McKercher's ranking used a different methodology to previous papers because it was based on citation data collected from *Google Scholar*. Many of the most cited authors in this study are also included in McKercher's list, although there are notable exceptions. The original analysis also included *Hair et al.* (72 citations) but Joseph Hair is not included in the above list because the citations for this author are for a general statistical reference.

The table provides a summary of citations over three periods to more easily discern key trends. The results indicates that all of the top authors have sustained citations over all three time periods, with most authors increasing their citations in the most recent four year period. Authors who have shown a strong increase in citations (and therefore have become more influential) include Erik Cohen, Seyhmus Baloglu, Chris Ryan, Arch Woodside and Martin Oppermann. Peter Murphy, Valene Smith and Douglas Pearce have been cited less frequently in recent times.

While the analysis of most cited authors is useful, it is arguably more interesting to explore the most cited individual works. *Table 3* provides a list of articles which were cited 20 or more times.

Forty-two works were cited 20 or more times by the sample of North American papers. Eight titles are not included on the above list because they are either general methodological references or introductory textbooks.

Table 3. Most cited works in Annals, JTR and Tourism Management, 1996-2007

| Author | Title | Publication Source | Citations |
|--|---|------------------------------|-----------|
| MacCannell (1976) | <i>Tourist: A New Theory of the Leisure Class</i> | Book | 48 |
| Butler (1980) | <i>Concept of a Tourist Area Cycle of Evolution: Implications for Management of Resources</i> | Canadian Geographer | 47 |
| Mathieson & Wall (1982) | <i>Tourism: Economic, Physical and Social Impacts</i> | Book | 42 |
| Cohen (1988) | <i>Authenticity and Commoditization in Tourism</i> | Annals of Tourism Res. | 41 |
| Urry (1995) | <i>Consuming Places</i> | Book | 41 |
| Smith (1977, 1989) | <i>Hosts and Guests: An Anthropology of Tourism</i> | Edited Volume | 40 |
| Crompton (1979) | <i>Motivations for pleasure vacation</i> | Annals of Tourism Res. | 39 |
| Gunn (1979, 1988, 1994, 2004) | <i>Tourism Planning</i> | Book | 38 |
| Murphy (1985) | <i>Tourism. A Community Approach</i> | Book | 33 |
| Woodside & Lysonski (1989) | <i>A general model of traveler destination choice</i> | Journal of Travel Res. | 33 |
| Fakeye & Crompton (1991) | <i>Image Differences between Prospective, First-Time, and Repeat Visitors to the Lower Rio Grande Valley</i> | Journal of Travel Res. | 32 |
| Echtner & Ritchie (1993) | <i>The Measurement of Destination Image: An Empirical Assessment</i> | Journal of Travel Res. | 30 |
| Lankford & Howard (1994) | <i>Developing a Tourism Impact Attitude Scale</i> | Annals of Tourism Res. | 29 |
| Liu & Var (1986) | <i>Resident attitudes toward tourism impacts in Hawaii</i> | Annals of Tourism Res. | 28 |
| Gunn (1972, 1988) | <i>Vacationscape: Designing Tourist Regions</i> | Book | 27 |
| Perdue, Long & Allen (1990) | <i>Resident Support for Tourism Development</i> | Annals of Tourism Res. | 27 |
| Cohen (1972) | <i>Toward a Sociology of International Tourism</i> | Social Research | 26 |
| Long, Perdue & Allen (1990) | <i>Rural resident tourism perceptions and attitudes by community level of tourism.</i> | Journal of Travel Res. | 26 |
| Ap (1992) | <i>Residents' perceptions on tourism impacts</i> | Annals of Tourism Res. | 25 |
| Pizam (1978) | <i>Tourism's Impacts: The Social Costs to the Destination Community as Perceived by its Residents</i> | Journal of Travel Res. | 25 |
| Gartner (1989) | <i>Tourism Image: Attribute Measurement of State Tourism Product Using Multidimensional Scaling Techniques.</i> | Journal of Travel Res. | 24 |
| McCool & Martin (1994) | <i>Community Attachment and Attitudes Towards Tourism Development</i> | Journal of Travel Res. | 24 |
| Cohen (1979) | <i>A Phenomenology of Tourist Experiences</i> | Sociology | 23 |
| Gartner (1993) | <i>Image Formation Process</i> | J Travel & Tourism Marketing | 23 |
| Allen, Long, Perdue, & Kieselbach (1988) | <i>The Impact of Tourism Development on Residents' Perceptions of Community Life</i> | Journal of Travel Res. | 22 |
| Goodrich (1978) | <i>A new approach to image analysis through multidimensional scaling</i> | Journal of Travel Res. | 22 |
| Lindberg & Johnson (1997) | <i>Modeling Resident Attitudes toward Tourism</i> | Annals of Tourism Res. | 22 |
| Mayo & Jarvis (1981) | <i>The Psychology of Leisure Travel</i> | Book | 22 |
| Allen, Hafer, Long & Perdue (1993) | <i>Rural residents' attitudes toward recreation and tourism development</i> | Journal of Travel Res. | 21 |
| MacCannell (1973) | <i>Staged Authenticity: Arrangements of Social Space in Tourist Settings</i> | Am. J. of Sociology | 21 |
| Milman & Pizam (1988) | <i>Social Impacts of Tourism on Central Florida</i> | Annals of Tourism Res. | 21 |
| Boorstin (1961) | <i>The Image: a Guide to Pseudo-Events in America</i> | Book | 20 |
| Dann (1981) | <i>Tourist motivation: An appraisal Annals of Tourism Research</i> | Annals of Tourism Res. | 20 |
| Johnson, Snepenger & Akis (1994) | <i>Residents' Perceptions of Tourism Development</i> | Annals of Tourism Res. | 20 |

Experienced tourism researchers will not be surprised by many of the works on this list, but it does provide new researchers and those from other parts of the world with a better indication of the sources that are influencing North American researchers. The most cited works in tourism include a mix of both books and journals. *Annals* and *JTR* have been particularly influential in this regard. It is noteworthy that several of these works were published between 1975 and 1979, a period which has been associated with the emergence of the field (Graburn & Jafari, 1991). However, the list includes a good distribution of works across three decades. The influence of several authors is amplified by the fact that their works appear more than once. The works represent several disciplinary perspectives, including geography, sociology, psychology and anthropology.

The citation information in *Table 3* can be used to conduct a co-citation analysis to better understand the relationships between the most cited works. The co-citation analysis identifies pairs of works that are frequently cited together in the same paper. From this information it is possible to construct a co-citation matrix of the works included in *Table 3*. Using this matrix, it is then possible to construct a network of influential tourism works using social network analysis. *Figure 1* shows the pattern of citations for the most influential articles.

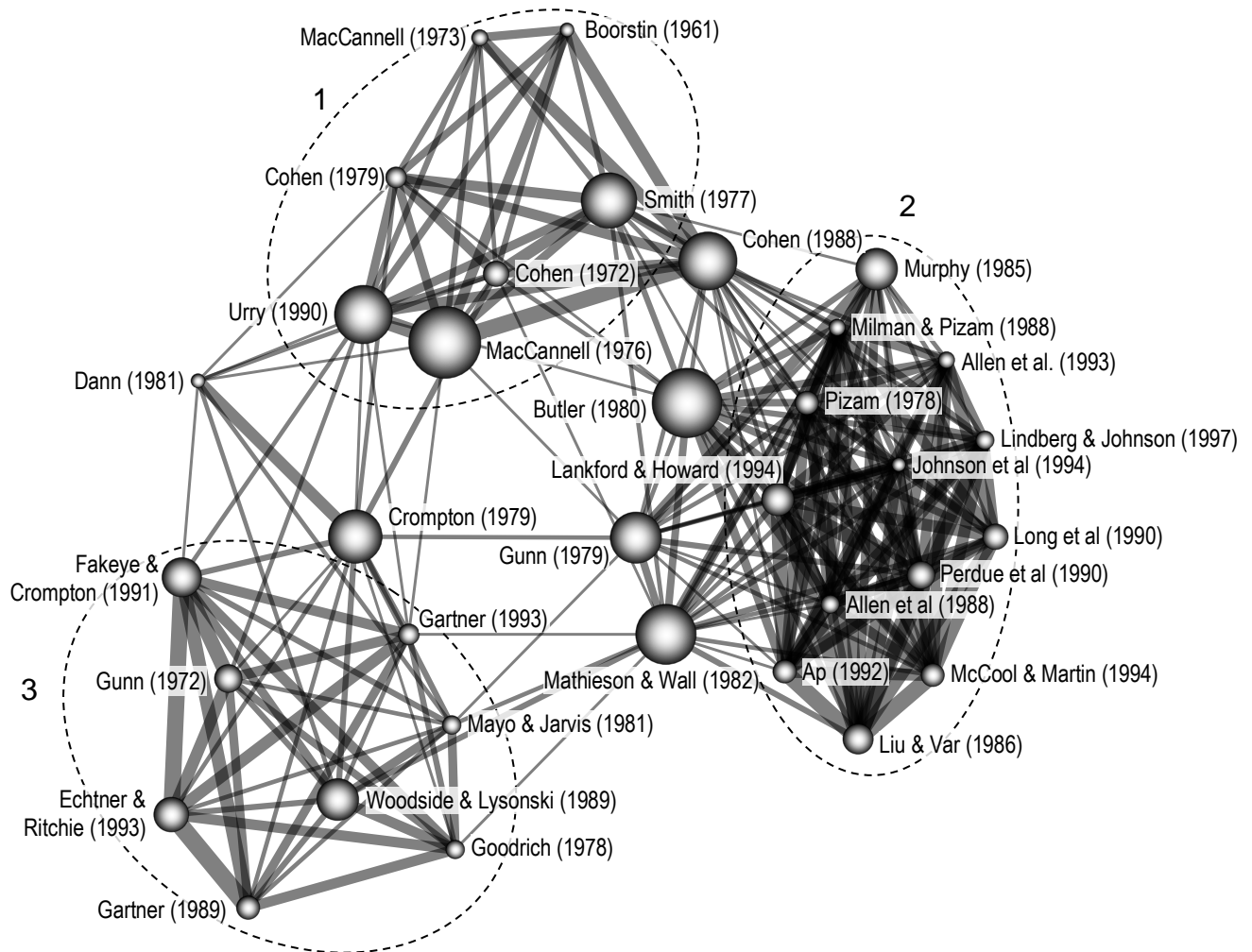


Figure 1. Co-citation / network analysis of most influential works

This network provides a diagrammatical representation of the relative distances between works, and illustrates structural patterns and differing positions within the network. The figure shows only those links with three or more co-citations in order to keep the diagram relatively uncluttered and easier to interpret. The thickness of the links represents the strength of co-citation ties, while the size of each node indicates the number of citations for each work.

A common network analysis technique involves identifying clusters of related nodes within the network. Three very clear clusters of work that are frequently cited together are evident from the network in *Figure 1*. The first cluster at the top left of the network represents a strong sociology / anthropology theme, and is concerned with tourism as a modern social and cultural phenomenon. This cluster revolves around the work of MacCannell (1976) and Smith (1977) and Urry's more recent work on the *Tourist Gaze*. MacCannell's work is frequently cited along with Urry's *Tourist Gaze* and Cohen's works on authenticity and the sociology of tourism. The postmodern emphasis of Urry's work and its attempt to present tourism as part of a broader pattern of social and economic interactions makes it widely applicable to a range of research topics. This suggests a collective body of sociology and anthropology work with a strong postmodern emphasis as a major cluster of influence for tourism researchers in North America.

The second cluster is the dense network of works at the right of the figure. This cluster has a very clear focus on the attitudes and perceptions of residents and communities. Measuring the community impacts of tourism is a strong theme. Like the first cluster, this cluster draws on Cohen's work on authenticity, but it is also linked with the seminal works of Gunn (1979), Butler and Mathieson & Wall. There is a relatively small group of researchers who are frequently cited together in this area that make up the core of the cluster, including Perdue, Allen, Long, Johnson and Pizam.

The third cluster at the bottom left of the network is further removed from the other two areas of focus but there are some links to the work of Urry, MacCannell (1976), Gunn (1979) and Mathieson & Wall. Destination image is the consistent theme that binds together the nodes in this cluster. Gunn's *Vacationscape* and Woodside & Lysonski's work on destination choice are at the core of this cluster.

Several works act as important bridges between these clusters. These works are relevant to more than one cluster, suggesting that they have broad application. Butler's seminal work in applying the product lifecycle to destinations has been one of the most influential and forms an important hub. This is at least partly due to the intuitive nature of his destination lifecycle model, and partly because the model can be linked with a variety of topics including social, environmental and economic impacts, sustainability, demand and visitor characteristics such as motivation and satisfaction. Cohen's work on authenticity is co-cited with works from the sociology/anthropology cluster and the resident / community impacts cluster. Crompton and Dann's work on motivation connect the destination image cluster with the sociology / anthropology cluster.

Citation analysis is generally not a useful method for identifying emerging scholars and works because of the delays associated with the editorial and publishing process. However, an attempt has been made in this paper to identify more recent works that may become influential. The works listed in *Table 3* all had a yearly citation rate of 1.8 or better between 1996 and 2007 and this same threshold was applied to identify newer emerging works. Two works were identified using this method. It is also possible for works to be 'sleepers'. These are works that are not cited for several years following publication but for some reason or another they are then noticed and heavily cited after a certain year. The analysis therefore also investigated works with a high yearly citation rate from the time they were first cited in the dataset. Only works with more than ten citations published between 1996 and 2007 were included in this analysis and a cut-off of 1.8 citations per year was again

applied. Seven additional works met these thresholds and are included in *Table 4*. If these works continue to be cited at their current rates they have the potential to become classic works.

Table 4. Emerging works of influence, *Annals*, *JTR* & *Tourism Mgt* 1996-2007

| Author | Title | Publication Source | Citations |
|------------------------------------|--|------------------------|-----------|
| Jurowski, Uysal, & Williams (1997) | <i>A theoretical analysis of host community resident reactions to tourism</i> | Journal of Travel Res | 18 |
| Baloglu & Brinberg (1997) | <i>Affective images of tourism destinations</i> | Journal of Travel Res | 17 |
| Grewal, Monroe & Krishnan (1998) | <i>The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions</i> | Journal of Marketing | 15 |
| Baker & Crompton (2000) | <i>Quality, satisfaction and behavioral intentions</i> | Annals of Tourism Res. | 12 |
| Baloglu & McCleary (1999) | <i>A model of destination image formation</i> | Annals of Tourism Res. | 12 |
| Akis, Peristianis & Warner (1996) | <i>Residents' attitudes to tourism development: The case of Cyprus</i> | Tourism Management | 11 |
| Gursoy, Jurowski & Uysal (2002) | <i>Resident attitudes: A structural modeling approach</i> | Annals of Tourism Res. | 10 |
| Morgan & Pritchard (1998) | <i>Tourism Promotion and Power: Creating Images, Creating Identities</i> | Book | 10 |
| Vogt & Fesenmaier (1998) | <i>Expanding the functional information search model</i> | Annals of Tourism Res. | 10 |

It is clear that many of these emerging works continue to focus on themes such as community impacts and attitudes to tourism and destination image. The work by Grewal et al is a surprise inclusion which does not fit with the major themes already identified. Most of the source papers citing this work were written by Jim Petric and co-authors. The presence of this work on the emerging list is therefore linked with the recent prolific publication outputs of Petric and colleagues. The work of Vogt & Fesenmaier may represent an emerging research theme related to information search but more research is needed to confirm this.

CONCLUSIONS

The purpose of this paper was to provide a window through which the knowledge domain of North American tourism research could be examined. The citation and co-citation analyses which have been presented make a number of useful contributions. A major contribution is the use of several bibliometric techniques to analyse the 25,733 citations in the 715 articles published by North American researchers in *Annals*, *JTR* and *Tourism Management* between 1996 and 2007. This quantitative relational analysis adds to previous evaluative studies and qualitative review articles relying largely on observations and reflections. The analysis has highlighted the most influential authors, works and journals and has identified a number of important links between influential works. The network analysis of co-citations indicates that tourism research in North America continues to be multi-disciplinary and is largely being driven by the disciplines of sociology, anthropology, psychology, geography and marketing. Researchers are also drawing on works authored by scholars in a number of countries, however scholars from the United States, Canada, the United Kingdom and Australia and New Zealand have been the most influential.

Despite the contribution this paper has made, there are several limitations which need to be noted. This study only focuses on articles which appeared in *Annals*, *JTR* and *Tourism Management* between 1996 and 2007. The research is concerned with relatively recent research themes evident in the most influential tourism journals and does not profess to provide to present a definitive view of tourism research in North America. Might the analysis reach different conclusions if other journals were included? Perhaps, but the analysis is based on over 25,000 citations. It is common for bibliometric studies of this nature to limit their analyses to a small number of leading and influential journals in a field. While *Annals* has traditionally taken a strong sociology / anthropology perspective, *JTR* & *Tourism Management* moderate this literature somewhat. The purpose of this paper was to

identify the most influential literature used by North American researchers and in this context it seems appropriate to examine source papers from the three leading tourism journals. It would certainly be interesting to explore whether different citation patterns exist between the top three journals. This would highlight whether different journals have particular disciplinary emphases. While this paper was focussed on North America, a geographic comparison of key research emphases in different regions of the world would also highlight some useful patterns. Given the time lag associated with publishing journal articles, future research might also include papers from leading conferences in an attempt to provide a more accurate forecast about emerging trends. However, capturing this data would be costly and time consuming.

Further analysis might include co-author analysis, to examine the collaborative networks between tourism scholars. An analysis of the location of authors could be extended to examine the geographical or organisational distance between co-authors. Cross-institutional collaborations could also be explored. Such information may show the level of international collaboration and flow of knowledge between different institutions and countries.

REFERENCES

- Acedo, F. J., Barroso, C., & Galan, J. L. (2006). The resource-based theory: Dissemination and main trends. *Strategic Management Journal*, 27(7), 621-636.
- Acedo, F. J., & Casillas, J. C. (2005). Current paradigms in the international management field: An author co-citation analysis. *International Business Review*, 14(5), 619-639.
- Beed, C., & Beed, C. (1996). Measuring the quality of academic journals: The case of economics. . *Journal of Post Keynesian Economics*, 18(3), 369-389.
- Borgatti, S. P., Everett, M. G., & Freeman, L. C. (2008). *Ucinet version 6*. Natick: Analytic Technologies.
- Borgman, C. L., & Furner, J. (2002). Scholarly communication and bibliometrics. *Annual Review of Information Science and Technology*, 36, 3-72.
- Casillas, J., & Acedo, F. (2007). Evolution of the intellectual structure of family business literature: A bibliometric study of fbr. *Family Business Review*, 20(2), 141-162.
- Graburn, N. H. H., & Jafari, J. (1991). Introduction : Tourism social science. *Annals of Tourism Research*, 18(1), 1-11.
- Hu, C., & Racherla, P. (2008). Visual representation of knowledge networks: A social network analysis of hospitality research domain. *International Journal of Hospitality Management*, 27(2), 302-312.
- Jamal, T., Smith, B., & Watson, E. (2008). Ranking, rating and scoring of tourism journals: Interdisciplinary challenges and innovations. *Tourism Management*, 29(1), 66-78.
- Jogarathnam, G., Chon, K., McCleary, K., Mena, M., & Yoo, J. (2005). An analysis of institutional contributors to three major academic tourism journals: 1992-2001. *Tourism Management*, 26(5), 641-648.
- Jogarathnam, G., McCleary, K. W., Mena, M. M., & Yoo, J. J. (2005). An analysis of hospitality and tourism research: Institutional contributions. *Journal of Hospitality & Tourism Research*, 29(3), 356-371.
- Kim, J., & Mcmillan, S. J. (2008). Evaluation of internet advertising research: A bibliometric analysis of citations from key sources. *Journal of Advertising*, 37(1), 99.
- Leydesdorff, L. (1998). Theories of citation? *Scientometrics* 43(1), 5-25.
- Mckercher, B. (2007). An analysis of prolific authors. *Journal of Hospitality and Tourism Education*, 19(2), 23-30.

- Mckercher, B. (2008). A citation analysis of tourism scholars. *Tourism Management*, 29(6), 1226-1232.
- Mckercher, B., Law, R., & Lam, T. (2006). Rating tourism and hospitality journals. *Tourism Management*, 27(6), 1235-1252.
- Neely, A., Gregory, M., & Platts, K. (2005). Performance measurement system design: A literature review and research agenda. *International Journal of Operations & Production Management*, 25(12), 1228.
- Pasadeos, Y., Phelps, J., & Kim, B.-H. (1998). Disciplinary impact of advertising scholars: Temporal comparisons of influential authors, works and research networks. *Journal of Advertising*, 27(4), 53-70.
- Pechlaner, H., Zehrer, A., Matzler, K., & Abfalter, D. (2004). A ranking of international tourism and hospitality journals. *Journal of Travel Research*, 42(4), 328-332.
- Pilkington, A., & Chai, K.-H. (2008). Research themes, concepts and relationships. *International Journal of Service Industry Management*, 19(1), 83.
- Pilkington, A., & Fitzgerald, R. (2006). Operations management themes, concepts and relationships: A forward retrospective of ijopm. *International Journal of Operations & Production Management*, 26(11), 1255.
- Ryan, C. (2005). The ranking and rating of academics and journals in tourism research. *Tourism Management*, 26(5), 657-662.
- Schildt, H. A., & Mattsson, J. T. (2006). A dense network sub-grouping algorithm for co-citation analysis and its implementation in the software tool sitkis. *Scientometrics*, 67(1), 143-163.
- Schmidgall, R., Woods, R. H., & Hardigree, C. (2007). Hospitality's most influential scholars: Fifteen years of citation analyses (1989-2004). *Journal of Hospitality and Tourism Education*, 19(2), 32-43.
- Sheldon, P. J. (1990). Journal usage in tourism: Perceptions of publishing faculty. *Journal of Tourism Studies*, 1(1), 42-48.
- Sheldon, P. J. (1991). An authorship analysis of tourism research. *Annals of Tourism Research*, 18(3), 473-484.
- Thelwall, M. (2008). Bibliometrics to webometrics. *Journal of Information Science*, 34(4), 605-621.
- Xiao, H., & Smith, S. L. J. (2006). The maturation of tourism research: Evidence from a content analysis. *Tourism Analysis*, 10, 335-348.
- Xiao, H., & Smith, S. L. J. (2008). Knowledge impact an appraisal of tourism scholarship. *Annals of Tourism Research*, 35(1), 62-83.
- Zehrer, A. (2007). The justification of journal rankings: A pilot study. *Scandinavian Journal of Hospitality and Tourism*, 7(2), 139 - 156.
- Zhao, W., & Ritchie, J. R. B. (2007). An investigation of academic leadership in tourism research: 1985-2004. *Tourism Management*, 28(2), 476-490.

Contact information:

Dr. Pierre Benckendorff
 School of Business
 James Cook University
 Townsville, Qld. 4815
 AUSTRALIA
 Phone: +61 7 4781 4590
 Pierre.benckendorff@jcu.edu.au