

THE IDENTIFICATION AND MAPPING OF TOURISM CLUSTERS: AN ECONOMIC DEVELOPMENT STRATEGY FOR SMALL COUNTRIES

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Abstract

The purpose of this paper is to introduce the concept of clustering and mapping of tourism assets as an appropriate development strategy applied to the case of a small island developing state, and to detail the first requirements of the cluster process. The research approach was a qualitative method based on study of secondary and primary sources, review of relevant case studies, and development of an applied case study. The major finding is that the adoption of a tourism cluster strategy must begin with identification and classification of the elements required for an operational cluster, in accordance with international best practice and before actual cluster maps can be prepared. The practical implication of this study is that it is immediately germane to a cluster mapping exercise for the small island of Trinidad and Tobago. This paper is original because no published research is available on the development of tourism clusters in Trinidad and Tobago and will be valuable in informing the first cluster mapping exercise to be undertaken for the country. The research is limited to the extent that no stakeholder consultations were undertaken specific to the business of this paper, but stakeholder input from previous recent research exercises conducted by the author was incorporated.

Keywords: Tourism Cluster Strategy, Classification of Tourism Clusters, Tourism Cluster Mapping, Small Island Tourism

INTRODUCTION

The potential of tourism as a strategic economic sector is often neglected in countries which are based on natural-resource extractive industries producing commodities for export. The strategy of employing an approach to tourism development based on identifying and mapping clusters is new having emerged from European Union (EU) initiatives in 2005. The purpose of this paper is to develop a framework for the identification and mapping of tourism clusters applied to Trinidad and Tobago (TT) a small island nation in the Caribbean Sea which is dependent on crude oil and natural gas production for its economic wellbeing. The tourism cluster framework (TCF) can serve as a model for small islands through the identification of types of clusters that are more applicable to countries so situated and which are significantly different from EU countries. The problem is that, with the rapid fall in oil and gas prices, the country is experiencing symptoms of a recession and the tourism industry is being viewed as a major area for earning foreign exchange but lacks a well-formulated plan and development framework.

There is a reasonably vast body of work on the subject of tourism but in the Caribbean region tourism is relatively under researched as confirmed by Lu and Nepal (2009) who found that only six percent of tourism studies were done on the Latin American and Caribbean leaving a large gap in the knowledge of the field. More recently, development in the field of tourism has employed an approach based on clustering of attractions as a regional development strategy. This strategy represents an application of the industrial clusters model which was first indicated by Alfred Marshall and subsequently elaborated by Porter (1990) as a 'development diamond'. Current research on cluster tourism (CT) has also embraced the tool of tourism cluster maps which is a graphical representation of the tourism assets, key stakeholders, and potential clusters on one page.

There is an increasing interest in the literature on clustering and mapping of tourism assets, but there remains a gap in the application of clustering to small island developing states (SIDS) which are viewed as beach-tourism focused with little attention paid to other potential visitor attractions. The purpose of this paper is to contribute to redressing this imbalance in the study of CT by applying the concept to a SIDS such as TT which can serve as a model for the wider Caribbean region. The strategy of enquiry utilizes a qualitative research design involving study of relevant published articles and industry reports, and an observation study to identify potential CT assets in the field. The investigation of CT is limited to tourism assets and attractions that can easily be grouped into clusters because of accessibility to a range of visitors. The paper concludes that the proposed framework for identifying and mapping tourism clusters can make a vital contribution to the systematic organization of the tourism product portfolio in small islands such as TT the subject of the case study.

The importance and relevance of the paper derives from the agreement in July 2015 for undertaking a tourism and entertainment cluster mapping and value chain analysis study (CS) for TT based on a partnership arrangement among the Ministry of Tertiary Education and Skills Training, the National Training Agency, and the Arthur Lok Jack Graduate School of Business (ALJGSB) as the lead agency. The exercise is expected to “play a pivotal role in providing a comprehensive understanding of both the tourism and entertainment sectors” and providing new opportunities for business development (ALJGSB, 2015). Further, the exercise is expected to “uncover, discover, and design for Trinidad and Tobago a tourism value proposition” which will identify products and services based on “the deliberate orchestration of all players and elements that integrate the tourism cluster ecosystem” (ALJGSB, 2015).

This paper targets a broad tourism stakeholder audience which includes the development and monitoring agencies of the government of TT such as the Tourism Development Company, and the private sector participants such as: managers of visitor attractions, associations of hotels, tour operators, taxis and transport providers, airlines, and other service providers. The main argument of this paper is that the conduct of a tourism mapping project requires that a certain process be observed consistent with the specific stages identified from international best practice, and that tourism clusters, if systematically identified, mapped and developed, can contribute to the earnings-gap created by the decline in the major natural resource industry.

The acknowledged first step in the process is a cluster identification and evaluation exercise which will highlight the potential participants in clusters as well as the synergies to be created all critical to a general cluster mapping exercise. The core case study application in this paper presents a tourism assets classification framework, an exercise for identifying tourism assets capable of forming clusters, and, as a guide to the CS, a preliminary cluster map which incorporates the key tourism assets as sites and attractions, public and private stakeholder organizations, and varied participants identified in this paper.

RESEARCH METHODOLOGY

The research methodology adopted for this paper was a qualitative method based on study of secondary and primary sources plus a case study using TT as the case. The relevance of the qualitative approach to this study is that it draws data from: people; organizations; texts; settings and environments; objects, artifacts, media products; events and happenings (Cooper & Schindler, 2008). The secondary approach focused on a review of published documentation including peer-reviewed journals downloaded from major online databases, technical reports sourced from the websites of international tourism agencies, and reviews of case studies and

cluster maps prepared for a range of countries. The secondary data were used to identify the major themes that emerged from the area of study and to sort those themes into categories of relevance and priority for preparation of the framework proposed. The primary research was based on field visits for observation of visitor sites and attractions which have the potential for incorporation in clusters of tourism assets. The primary data constituted field notes and photographic files of existing visitor sites and attractions which were used to assess the viability of such attractions for incorporation in clusters (Creswell, 2009). Based on the site visits, appropriate tourism assets were identified for inclusion in the clusters formulated as relevant to the TT case.

The Major Themes from the Tourism Literature

The main themes identified from the literature centered around: sustainable tourism; island tourism; tourism marketing; tourism models, frameworks, and systems; and CT as an increasingly accepted tourism development strategy. Sustainable tourism is linked to community-based tourism and considered the solution to problems of overuse and leakage of funds as in the case of Japan where local communities were forced to adopt more self-sustaining development policies (Shikida, Yoda, Kino, & Morishige, 2009).

The literature on island tourism was investigated because the paper focuses on a small island, but according to Moyle, Croy, & Weiler (2010), most of the research on island tourism is based on the Pacific and Greek islands. Moyle et al. used an exploratory research approach and identified the need for island communities to manage and mitigate the negative impacts of tourism on the lifestyle of locals by developing educational programs which explain the benefits of tourism.

A dominant theme in the research on tourism is the role of marketing in promoting a tourism destination, which is critical to the development of CT, and covered issues such as: tourism destination management and marketing (Konecnik, 2004); culture and heritage products as niche tourism products (Brown and Cave, 2009); interpretation as a central component of modern heritage tourism and the concept of de-marketing (Fullerton, McGettigan, & Stephens, 2009); and the connection of marketing to entrepreneurship, prominence of stakeholder perspectives, and interdisciplinary approaches (Tsiotsou & Ratten, 2010).

Invariably, researchers tend to focus on the examination and formulation of different models, frameworks, and systems which can be applied under specific conditions in specific jurisdictions, highlights of which are: a model for managing tourism-friendly destinations (Anuar, Nazrin, Ahmad, Jusoh, & Hussain, 2012); a community-based relationship model (Shikida et al., 2009); a classification system for a small island tourism management (Hughey, Ward, Crawford,

McConnell, Phillips, & Washbourne, 2004); classes of heritage attractions (Daengbuppha, Hemmington, & Wilkes, 2006); and a typology of attractions (Swarbrooke, 2001); cultural heritage models which are linked to tourism sustainability in small islands (George, 2010); the value co-creation model (Della Corte, Savastano, & Storlazzi, 2009); and tourist experience models (Ritchie, Wing Sun Tung, & Ritchie, 2011). This overview of the relevant literature demonstrated that, while the concept of island tourism has been explored and various models elaborated, little consideration was devoted to cluster models appropriate to small islands.

The Application of Cluster Theory and Strategy to Tourism

Against the background of the development of tourism models, the concept of cluster theory and the allocation of industry clusters to the strategic development of tourism regions emerged. The concept of clusters was first recognized almost 100 years ago by Alfred Marshall, cited in Ivaniš (2011), who analyzed the patterns of economic activity in English industrial firms and observed that industries congregate because of the presence of a collective labor force, specialized suppliers, and knowledge dispersion. However, cluster theory was not fully explored until Porter (1990) extended the concept to explain the clustering of competitive industries in the form of a 'diamond' to show vertical links with buyers and suppliers, and horizontal links with customers, technology and channels, as a process for developing the competitive advantage of a nation. A relevant distinction was made between cluster theories as "explaining the creation of conducive business environments that encourages firms/organizations to collocate in a strategic area and cluster strategy which is a business strategy to enhance competitiveness of firms or to create economic growth and regional prosperity" (Chhetri, Arrowsmith, Chhetri, & Corcoran, 2013, p. 561).

The concept of clustering was further applied to the tourism industry with clusters defined as: "geographically proximate groups of interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions (e.g. universities, standards agencies and trade associations) in particular fields that compete but also cooperate" (Porter, 1998, pp. 197-198). Because of the agglomeration of different entities in a cluster, Kachniewska (2013) viewed a cluster as "a network of companies, their customers and suppliers of materials and components, equipment, training, finance and so on" (p. 38). The trend towards applying cluster theory to the tourism industry has led to the practice of cluster mapping as a development tool for achieving competitiveness and sustainability as detailed by da Cunha and da Cunha (2005), and adopted by Fernando and Long (2012) to the formulation of a CT competitiveness model.

A strategy based on clustering is viewed as a simple concept which consists mainly of a framework and processes that make it possible for different regions to deal with economic issues by “moving away from narrowly focused projects and programs to more systematic and integrated strategies” in which the required actions of all stakeholders are identified (Gollub, Hosier, Woo, 2002, p. 11). It was argued that a cluster framework “fosters the effective use of information, the negotiation of priorities among the tourism market constituency, forming diverse alliances among private and public market partners for positive change” (Gollub et al., p. 55).

The particular experience of the tourism clusters value chain in Northeast Brazil, provided the following lessons: collaboration is the primary requirement; recognition by all participants that they are integral parts of the value chain; value chain innovation can be achieved from simple initiatives such as collaborative marketing, improved communications, engaging in collaborative solutions approaches, and innovation implementation through sustained action and not dependence on the government (Gollub et al., 2002). The highly relevant study of Northeast Brazil, confirmed that a cluster approach can facilitate learning by cluster members about global trends impacting tourism demand and supply conditions, their cluster uniqueness, competitive requirements, and future prospects which learning can form the basis of a new trust in tourism development.

This paper incorporates the relevant themes gleaned from the reviews of international experiences in the literature in the exploration of CT which are utilized to formulate a tourism cluster classification framework, conduct a cluster elements identification exercise, and prepare an indicative cluster map as a guide for the CS initiative recently commissioned in TT.

Types, Models, and Benefits of Cluster Development

The experience of tourism cluster development in EU countries is that there are several different cluster types and elements, and the clustering of sites can be based on several approaches which were identified as geographic area, type of attraction, customer life style and demography. Additional types were identified by: economic sector; use of modern technology; basic objectives; governance system; form of cooperation; level of awareness; scope (international or local); life cycle stage; and structure (Kachniewska, 2013). Clusters were also typified by Ivaniš (2011) as local, regional, national, cross-border, spontaneous, and planned. An examination of the process of identifying cluster types indicates a basic tendency towards convergence of approaches by researchers.

In addition to the recognition of different cluster types, separate models were also identified in the international arena with studies of Croatia (Cvijanović, Vuković, & Ugrenović, 2013); Romania (Mazilu, 2013; Kachniewska, 2013; Canada and Australia (Jackson & Murphy,

2002); and cluster networks (Soteriades, 2012; Grimstad, 2011). It is generally accepted by researchers that tourism cluster development follows certain stages which cover: formation; business development; settled market; and declining stage (Schejbal, 2012). Utilizing this staged process a tourism cluster scheme was developed, akin to a cluster map, depicted as a circle with an outer ring of international agencies, regional government, professionals schools, law firms, insurance, banks, universities, and central governmental agencies; and an inner ring of cooperating companies of travel agencies, restaurants, accommodation, marketing, transport, and vendors (Schejbal, 2012).

The dominant argument in favor of a cluster development strategy is the considerable benefits derived from concentrating economic activity in a particular region or country. Such benefits were recorded as: facilitating rapid access to market information; obtaining specialized inputs and technical support more efficiently; permits filling large orders on a cooperative basis; strengthening market development through shared promotional expenses and transportation costs; and general cost sharing (Cvijanović et al., 2013). Other benefits of clusters include raising levels of innovation, minimizing business costs, improved organizational dynamics, increasing competitiveness through higher quality of products and services to meet tourist demands for value for money (Ivaniš, 2011). Further, effective networks claim benefits of: economies of scale; shared marketing information; cooperation and innovation; increased synergies and productivity; resource development and knowledge transfer; joint marketing; increased competitiveness; and sustainable competitive advantage which all go to creating a rewarding visitor experience (Soteriades, 2012).

The realization of the benefits of clustering depends on cluster members committing to: cooperation in market research and marketing; standardization of products and services; pursuit of innovation, development and introduction of new products and services; spreading of risk; cooperation with governmental agencies in local community programs and projects; exploring competitive financing sources; and lobbying local government and national government (Ivanis, 2011). In the case of SIDS, governmental agencies have a vital supporting role in the development of tourism clusters such as: providing transport and communications infrastructure, a stable legislative framework, and facilitating linkages rather than targeting specific industries; reducing the tendency to oligopoly rather than providing subsidies; and improving the infrastructure for doing business (Jackson and Murphy, 2002). If governmental action is effective, the operation of CT generates productivity increases, a developed capacity for innovation, new business formation, and heightened competitiveness with reduced dependence on governmental support.

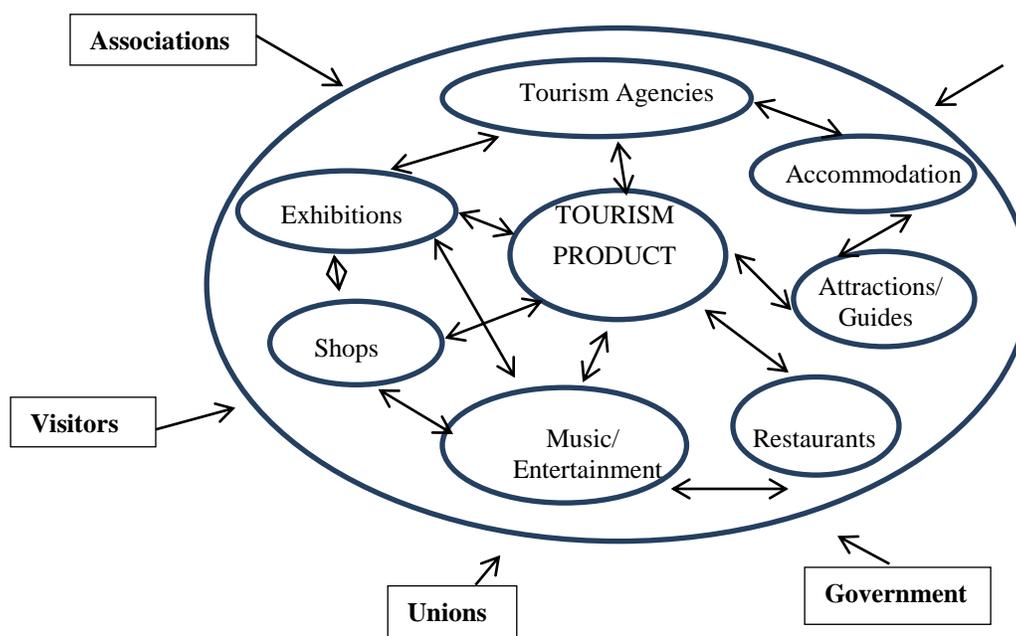
Approaches to Tourism Cluster Mapping

The most recent innovation in CT development strategy is the preparation of cluster maps which was first promoted by the EU with the intention of focusing on innovation, the knowledge economy, and sustainable competitiveness. The EU established the European Cluster Observatory (ECO) in 2005 in pursuance of cluster-based strategies as central to industrial policy. Thus, cluster mapping tools and analysis were introduced to support the policy direction of the EU, and by 2007 mapping was applied to all regions of Europe. As a monitoring mechanism, the ECO developed a cluster evaluation model incorporating four inputs: company financial performance and statistical analysis; surveys of cluster firms, cluster organizations, and social media; interviews of member firms, cluster leaders, and cluster boards; and benchmarking with other regions, clusters, cluster organizations, and creation of peer evaluation teams (Ketels, Lindqvist & Sölvell, 2012). This strategy was picked up in the U.S. which, in 2012, implemented a web-based mapping tool similar to the ECO and led by the Department of Commerce and Harvard Business School to map both clusters and cluster organizations (Ketels et al., 2012).

Clusters in the EU comprise a range of 29 sectors but are dominated by: IT; food; energy; health; automotive; and green technology. It is notable that tourism, creative industries, and entertainment represent fewer clusters in Europe (Ketels et al., 2012) which areas are relevant to TT and the Caribbean. In terms of the top 10 objectives of cluster development, the EU assigned the highest priority to: identity and brand creation (65%); innovation and R&D (64%); strategy and vision (55%); business environment (40%); growth and investment (35%); and export promotion (32%) (Ketels et al., 2012, p.19). In order to manage the overall process of cluster development, the EU adopted a process of: forming a High Level Advisory Group in 2006 to identify and analyze regional clusters and entering into the European Cluster Memorandum committing development agencies to the use of cluster programs; establishing the European Cluster Policy Group in 2008 to advise member states on support for world class clusters; and creation of a European Forum of Clusters in Emerging Industries in 2012 to focus on the role of clusters in driving the development of emerging industries (Ketels et al., 2012). A modified version of this implementation structure for CT development is suggested in this paper for application to TT and the Caribbean islands.

One of the earliest cluster development maps was produced as a local development strategy by da Cunha and da Cunha (2005) and replicated here because of its applicability to small islands (Figure 1).

Figure 1. Tourism Cluster Representations



Source: Adapted with minor amendments from "Tourism cluster competitiveness and sustainability: Proposal for a systemic model to measure the impact of tourism on local development" by S.K. da Cunha and J.C. da Cunha, 2005, *Brazilian Administration Review*, 2(2), 47-62.

The da Cunha and da Cunha (2005) cluster model was adopted by Fernando and Long (2012) in applying cluster analysis to the service industry. Fernando and Long defined a tourism cluster as "a set of attractions, less differentiated and concentrated in one geographical area and providing political and social harmony by collective value chains and management networks" (p. 79). The authors argued that modern tourism is experience-based and oriented towards competitiveness but tourism clustering was a greatly under-researched area. In addressing tourism cluster competitiveness, six determining factors were identified as: core resources involving inherited resources including natural and cultural/heritage resources, and created resources such as infrastructure and events as the foundation for competitiveness; supporting factors such as service quality and accessibility; destination management involving private and public sector management; demand conditions which are shaped by awareness, perception, and preference; innovations focused on product/service differentiations and tourism experience; and situational conditions relating to economic, social, cultural, demographic, environmental, regulatory, technological, and competitive trends and events (Fernando and Long, 2012, pp. 80-81).

Application of a Tourism Cluster Strategy to TT

In terms of actual cluster initiatives, Dragusin, Constantin, and Petrescu (2010) studied the major characteristics of initiatives in advanced, developing, and transition countries concluding that clustering is a complex business that is under-researched in developing countries but “can create major opportunities for underdeveloped regions accelerate their technological development and growth, due to its synergy effect” (p. 300). The general experience points to the need for measuring and mapping spatial clusters based on the following requirements: identification of industries that are related to the hospitality and tourism sector, and use of an appropriate spatial scale and techniques to determine the clustering requirements. The overall conclusion was that the spatial clusters were potentially able to become growth centers where inter-firm collaboration and sharing of pooled resources and markets can be facilitated based on dispersed tourism-led economic growth through CT initiatives (Chhetri et al., 2013).

TT is a country comprising two small islands, at the end of the Caribbean island chain, with Trinidad as the main island measuring 4,828 square kilometers (1,800 square miles) and a population of 1.3 million people; with Tobago significantly smaller at 300 square kilometers (160 square miles) with a population of 55,000 people. The economy of Trinidad is based on the exploitation of crude oil and natural gas, while Tobago is tourism oriented. It is a long held view that tourism can play a significant role in the diversification of the economy (Ministry of Planning and the Environment (MPE), 2011), and the current decline in earnings from the natural hydrocarbon resource, has fueled discussion on the diversification conundrum. However, it has been argued that “Tobago has a major challenge in restructuring its tourism industry to contribute to the diversification thrust of TT” (Allahar, 2014, p. 331).

At the governmental policy level, it was indicated that tourism clusters are to be developed in TT based on a number of non-traditional tourism areas such as sport, leisure, health, business and conference, festivals, culture, and ecotourism (MPE, 2011). The requirement was seen as establishing a framework for national tourism development, but no such framework emerged which deficiency this paper intends to remedy. Cluster development strategies are normally focused on specific regions or areas within the physical boundaries of a country, and such an approach is applicable to TT where specific clusters are already in existence such as an energy cluster in Point Lisas based on downstream production of petrochemicals from the TTs natural gas resource. The energy cluster can be extended to a broader region based on a concept of a dispersed cluster complex to which is added oil refining at Point-a-Pierre, and liquid natural gas production at Point Fortin because the three clusters are all located on the West coast from the central to the south of the island. Resort clusters can be identified in Tobago based on the existing agglomeration of facilities in the South-West and the

North-East regions of that island, and because of the small scale, the entire island can be viewed as one region. A dispersed cluster can also be identified around various facilities and events which are hosted at different times of the year and in different regions of TT.

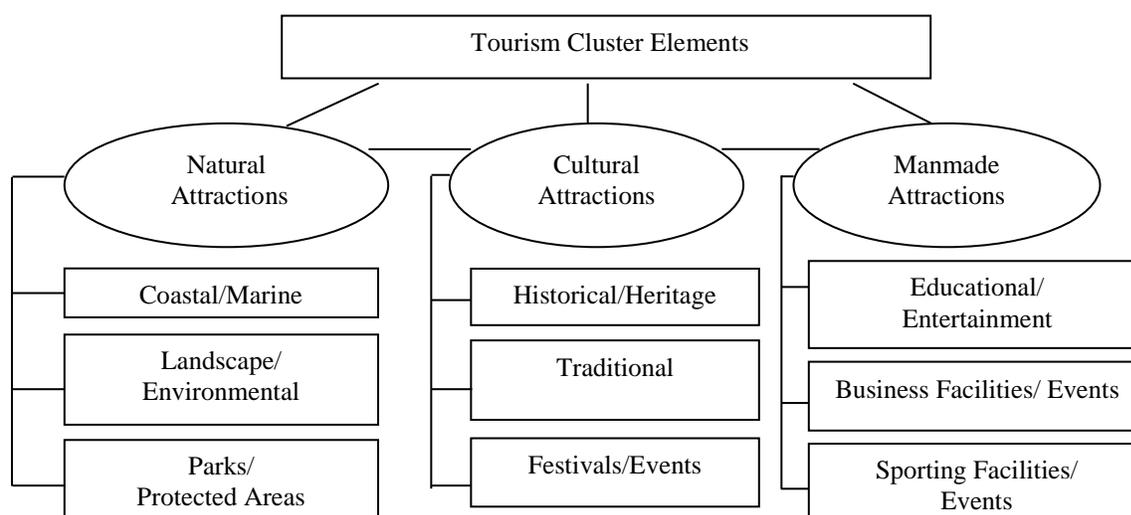
As a two-island state, there is significant potential for developing clusters based on tourism assets with a portfolio comprising: pristine beaches; ecotourism attractions such as coral reefs, rain forests, swamps, and leather-back turtle nesting; industrial tourism sites of oil and gas production; a natural pitch lake; historical & heritage buildings; and festivals (Allahar, 2015, p. 4). The pioneering CS introduced earlier provides the first initiative in TT which can build on the existing dynamic agglomerations of tourism assets identified in this paper.

Development of a Tourism Cluster Framework for TT

This paper integrates the lessons from the international cases of CT presented in the discussion and which contributes to the formulation of a TCF that is applicable to TT. The TCF also builds on and extends the visitor attractions framework by identifying and classifying the key assets that can comprise clusters in a small developing country as the first stage of a tourism cluster process (Allahar, 2015). Based on the observation study and field visits to tourism assets, the tourism cluster elements were defined as natural, cultural, and manmade attractions which are presented as a tourism cluster framework (TCF) which in its simplicity and ease of replication constitutes an original contribution of this paper (Figure 2).

The TCF represents a classification of the main tourism attractions or asset group, the selection of which was influenced by the rich natural and cultural resource base of the country and by an increasing level of touristic interest in certain manmade facilities and events.

Figure 2. Tourism Cluster Framework



Source: Collaboratively developed by the author and planning consultant Gerard Frontin

The proposed framework can be implemented by tapping into tourism assets and attractions contained in the database of the tourism agencies, and will facilitate easy identification and inventory of touristic opportunities associated with the various asset features. Consistent with the TCF classification, potential asset-based clusters were identified and systematized under three major categories of tourist or visitor attractions in TT shown in Table 1. Natural assets were identified as comprising coastal-marine assets, landscape and environmental assets, and parks and protected areas; cultural assets were identified as historical/heritage features, traditional features, and cultural events; manmade assets constituted business facilities and events, entertainment facilities, and sporting facilities and events. Within each asset category, criteria for inclusion were described and specific visitor sites and attractions were suggested for inclusion as cluster components.

Table 1. Identification of Potential Tourism Assets

<p><u>Natural Assets</u></p> <p>Selection Criteria: Key representative natural environmental features that provide the setting or focus for recreational, educational, or research activities.</p> <p>Coastal-Marine Assets: Recreational beaches and reefs: North Coast Trinidad, South West and North East Tobago; Buccoo and Speyside reefs.</p> <p>Associated Activities: Swimming, water skiing, wind surfing, boating, scuba diving, sport fishing, leather-back turtle viewing, marine research.</p> <p>Landscape and Environmental Assets: Scenic landscapes, routes, corridors, viewpoints (Chaguaramas, Fort George, North and East Coasts routes); flora and fauna (botanic gardens, northern and central ranges); distinctive landforms (San Fernando Hill); unique geological formations (pitch lake); water features; swamps, river gorges (Caroni Swamp, Grande Riviere and Matelot rivers).</p> <p>Parks and Protected Areas: National parks (Chaguaramas); nature and scientific reserves (Aripo, Asa Wright); nature trails (Tobago rain forest); recreation parks (Queen's Park); nature-oriented theme parks (Wild Fowl Trust).</p> <p><u>Cultural Assets</u></p> <p>Selection Criteria: Inherent cultural features and events generally reflecting the distinctive way of life and presenting opportunities for education and recreation.</p> <p>Historical/Heritage Features: Archaeological sites (Banwarie); historical sites & districts (Magnificent 7); ceremonial sites (Woodford Square, Shore of Peace); cemeteries; museums; archives; historic architecture (Belmont, St. Clair).</p> <p>Traditional Features: Art galleries; religious places and celebrations (Temples, Churches, Mosques); libraries; educational & research institutions; performing arts centers; arts & craft; local cuisine; towns and villages; modern architecture; special traditional economic activities (Sugar Cane Museum, oil refining).</p>

Cultural Events: National, regional, religious, ethnic festivals (Hosay, Tobago Heritage); special cultural events (Carnival); indigenous sporting events (Tobago goat and crab racing).

Manmade Assets

Selection Criteria: Contemporary features not generally unique to our local culture or environment but representing important tourism focal points.

Business Facilities and Events: Natural resource-based modern business enterprises (Petrochemicals, LNG); international scale industrial plants (Pt. Lisas, Pt.-a-Pierre, Pt. Fortin); trade exhibitions; locally hosted regional and international meetings and conferences; petroleum interpretation; commerce; product exhibitions.

Entertainment Facilities: Restaurants; night clubs; members clubs; amusement parks; movie centers; shopping centers.

Sporting Facilities and Events: Golf courses; tennis centers; hockey centers; horse racing; motor racing; football and athletic stadiums; cricket facilities; marinas; local, regional, international sporting events.

Source: Compiled collaboratively by the author and planning consultant Gerard Frontin.

To facilitate the understanding of the tourism asset categories by stakeholders, the activities associated with each cluster were highlighted as: swimming, water skiing, and marine research, landscapes, flora and fauna, and swamps in respect of coastal-marine and environmental assets; historical, cultural, and architectural interpretation and participation in activities, and social research; and dining, shopping, and sporting in respect of manmade assets. The exercise was undertaken as the first step in triggering a broader mapping exercise as contemplated in the TT cluster study initiative.

Application of an Indicative Cluster Map for Trinidad and Tobago

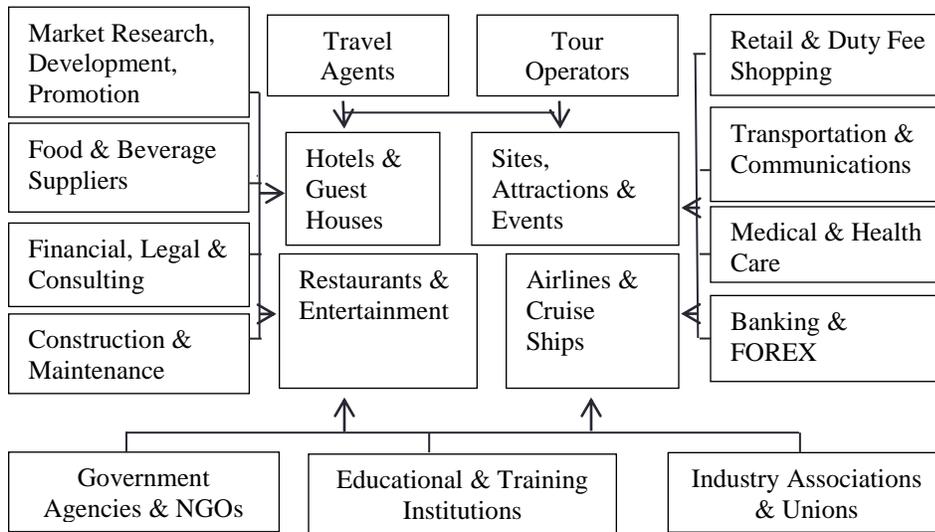
The preparation of tourism cluster maps is increasingly being utilized as a development tool in many parts of the world where tourism is seen as a pillar of economic development. In addition to the ECO initiatives which involve extensive coverage of European countries, a major cluster mapping project was initiated in the U.S. by Harvard's Institute for Strategy and Competitiveness led by Michael Porter. This paper reviewed the cluster maps available from various sources including: Bali which identified the main clusters as transport and logistics, construction, retail, and culinary (Ghani, Mawardi, Rashdi, Van Garderen, & Weisenberger, 2013); Utah which included entertainment, accommodation, cuisine, marketing and visitor services, meeting facilities and venues, cultural and heritage attraction, retail trade, transportation, and recreational facilities (Utah Office of Tourism, 2013); Puget Sound, Washington map which is a detailed map identifying the five major cluster development partners and 12 main categories of attractions which include urban, nature, sports, festivals, shopping,

and food and wine features (Prosperity Partnership, 2009); and Cairn, Australia (Harvard Business School, n.d.).

As one of the few developing country examples, cluster mapping was used as an analytical tool to identify all the key stakeholders in Sierra Leone, and it was found that there were several non-profit organizations active in the tourism cluster, but private organizations were few in number. It was concluded that measures needed to be devised to address any discords in the system as well as policies, mechanisms, and institutional modalities that produce the skilled human resources that can operate within a system of genuine collaboration and ownership between the private and public sectors (Shakya, 2009).

An author-generated tourism cluster map was prepared as a guide for TT, based on the Cairn, Australia example, because no appropriate small island case was available. The relevant cluster elements highlighted in the research (Gollub et al., 2002; Kachniewska, 2013; Schejbal, 2012) were incorporated in the TT map where relevant. The indicative TT map comprises a core of four elements including: accommodation and meeting facilities; visitor sites, attractions and events; restaurants and entertainment venues; and airlines and cruise ships as the core of the map (Figure 3).

Figure 3. Indicative TT Tourism Cluster Map



Source: Adapted by author from Cairn, Australia. www.isc.hbs.edu

The major support for the core includes major stakeholders of government agencies and non-governmental organizations; educational and training institutions; and industry representative groups such as associations and trades union. Impacting the core from the top are travel agent

and tour operator services which are critical to foreign visitors. The left side of the map identifies key service inputs such as: market research and development, and promotion; food and beverage suppliers; financial, legal and consulting services; and construction and maintenance. The right side of the map highlights the vital inputs to be available from local retail and duty free shopping; local transportation and communications services; medical and health care services; and commercial banking and foreign exchange facilities.

CONCLUSION

The research on clustering indicated that success will depend on formulating an effective tourism plan, developing industry-wide supply chain strategies, providing subsidies for coaching, training and skills upgrade, and promotion of international linkages in order to stimulate vibrant spatial employment clusters. Because of the relative novelty of a strategy of cluster mapping, the TT initiative is timely and relevant. Small countries, especially island destinations such as TT, must take a futuristic look at tourism cluster policy and the success factors gleaned from international experience. In the case of the EU, cluster initiatives success was based on: the existence of firms in the cluster that met the market test; the presence of strong regional government; the nature of the organizational arrangements for managing the cluster and types of activities pursued; quality of cluster management; and mix of activities aligned to the specific needs of the cluster (Ketels et al., 2012).

The EU has the broadest experience of cluster programmes and the main lessons learnt are that cluster programmes can enhance a strategy of competitiveness if: design and implementation of cluster efforts become more consistent which can be achieved through use of benchmarking and standards and training of managers; the impacts are increased through a portfolio approach which addresses the varying needs of clusters depending on their respective stage of development and leveraging the linkages across clusters; and, in the case of developing countries, the focus is on the development of new clusters especially in areas where established clusters do not exist or are not functioning as a coordinated system (Ketels et al., 2012, p. 45).

In this context, this paper concludes that it is necessary to support the TT cluster initiative by formulating a TCF to guide the overall process which faltered in the past for lack of such a guiding framework. Further, to advance the process of clustering, an indicative tourism cluster map presented in this paper is now available to the researchers who can proceed to refine the map based on in-depth study of tourism cluster dynamics, field investigations, and extensive stakeholder consultations. The overall conclusion is that, in acknowledgement of the management weaknesses in small developing countries, an effective structure must be created

for ensuring that the benefits of CT initiatives are realized. This structure should involve the creation of a tourism stakeholder group to advise on policy and to monitor the various formation processes, and a tourism products and services forum to provide input into future CT development.

The research is limited to the extent that limited consultation with stakeholders was undertaken and only on an unstructured basis. Therefore, there is scope for future research through more in-depth study of the subject of CT as a strategic development tool for SIDS, and the identification and quantification of the benefits derived from such initiatives in the context of contributing to foreign exchange earnings and general economic development.

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