

Investigating the collaboration between public and private sectors for sustainable tourism development: An empirical study at Da Nang, Vietnam

¹ Nguyen Thi Bich Thuy, ² Chau Ngoc Tuan, ³ Vo Le Xuan Sang

¹ Faculty of Business Administration, University of Economic, The University of Danang, Vietnam

² Faculty of Statistics – Informatics, University of Economic, The University of Danang, Vietnam

³ Faculty of Business Administration, University of Finance and Accountancy, Quang Ngai, Vietnam

Abstract

Tourism destination is considered as an overall tourism product provided by many related stakeholders. With the fragmented nature of the tourism industry, cooperation for sustainable development is essential to ensure the long-term success of the destination, especially the collaboration among stakeholders in public and private sectors. The study employs quantitative research method with empirical survey data collected at Danang, Vietnam. By examining the organizations of eleven areas in the public and private sectors, the results show that the degree of cooperation between the public sector and private sector is still low and fragmentary; and the private sector plays the centrality role in this destination network. The paper also provides discussions on stakeholders' collaboration and the need for a centrality role of the public sector in the network in order to achieve sustainable development for tourism destinations.

Keywords: tourism destination, network analysis, sustainable tourism development, public sector, private sector

1. Introduction

Tourism development is really important to the economic development of many countries, and its progress is often tied to cultural, social, technological and infrastructure benefits. However, tourism destination is a complex system; its tourism products are created by the co-creation and contribution of the public and private sectors. A tourism destination consists of a series of related groups that differ in scales and functional areas, linked by many dynamic relationships (Baggio 2011) [2]. Identifying the key stakeholders associated with the responsibilities for tourism development is important. For that reason, it is crucial to identify stakeholders and consider their consensus in tourism management (Gray 1989) [16]. There are many potential benefits from tourism cooperation activities. Developing a cooperative strategy is emphasized important in achieving sustainable competitive advantage (Nordin 2003) [28]. Studies have shown that trust created from sustainable cooperation plays a central role in developing a strong tourism industry (Hjalager 2000) [19]. Developing and establishing synergies that increase the resources, knowledge and capabilities of the parties is essential in achieving the goals of sustainable tourism (Byrd 2007) [6]. Sustainable cooperation among the various stakeholders has been proven to contribute to the development of a destination's brand (Brooker & Burgess 2008) [5].

The concept of sustainable development requires fair economic, social and environmental objectives. Economic objectives are the priority of private sector towards profit orientation, while the public sector is more interested in achieving social and environmental goals. Many studies show that the different perspectives of these two sectors often create

barriers that make cross-sectoral collaboration difficult to achieve (Czernek & Niezgodna 2012) [12]. However, the different goals of sustainable tourism are not independent, but they are in mutual influence to achieve the main goal: the sustainable development of destination. As a consequence, the objectives of sustainable tourism should be pursued in the cooperation between public and private sectors.

When looking for sustainable forms of tourism development, researchers have widely focused on the competitiveness of the destination (Serrato, Valenzuela & Rayas 2013) [37]. Competitiveness of the tourism industry is considered a critical factor in the economic sustainability of tourism (Wondowossen *et al.* 2014) [42]. It becomes a major topic regarding to tourism development as competition affects the profitability of destinations (Maharaj & Balkaran 2014) [24]. According to these authors, by working together, organizations in public sector and private sector can carry out many necessary activities to achieve sustainable ecological, economic and social objectives, and suggest solutions to increase the number of visitors and productivity of tourism activities, thereby improving the competitiveness of the destination. Consequently, the public-private partnership in tourism industry is an important factor to address common goals and unify policies and strategies. Public-private partnerships in the tourism sector are highlighted in the literature on their roles in facilitating their actors in planning and developing infrastructure, managing and marketing tourism products, and developing human resource (De Lacy *et al.* 2002; Albrecht 2013; Mariani & Kylänen 2014; Wondowossen *et al.* 2014) [9, 1, 26, 42]. Collaborative approaches between public and private sectors are needed to expand and

enhance tourism development (Hawkins 2004) ^[18]. Poon (1993) ^[33] emphasized that public and private sector cooperation is the key to the success of any tourism destination.

However, the cooperation between these two sectors does not always achieve the most appropriate goals; activities can often be ineffectively executed, nor may tourism policies sometime work effectively. Such results will negatively affect the competitiveness of a destination or a region, resulting in poor exploitation of available sources. As a result, the development of tourism networks increasingly becomes important tool for economic development, and network analysis approach becomes the diagnostic tool for management to improve interactions among tourism organizations (Scott, N, Cooper & Baggio 2008) ^[36]. The collaboration in the network is the key for innovation and knowledge sharing. Networks are considered as an important pathway to manage public-private partnerships and understanding of stakeholder about tourism governance (Palmer 1996; Tyler & Dinan 2001) ^[29, 40].

This study focuses on the Danang destination, Vietnam, an emerging tourism destination in a developing country, where the promotion of public-private partnerships to promote tourism products and services is perceived to be weak. The objective of this study is to analyze the network to determine the current network structure of public-private partnership in Danang. The research results allow identifying the important factors that need to be improved in the public-private partnerships, and identify constraints to propose solutions and new models to allow members of the tourism business network operating optimally, contributing to poverty reduction, enhancing competitiveness and sustainability of this destination.

2. Theoretical background

2.1 The concept of public-private partnership (PPP)

PPP is a model of cooperation between public and private sector, such as non-governmental organizations, business associations or companies, to complete projects that have positive impacts on both private businesses and local development (Institutul pentru Politici Publice 2004) ^[20]. According to European Commission concept, PPPs are established to provide services to the public, particularly at the local level. Generally, the term PPP refers to the forms of cooperation between public and private sector agencies to ensure finance, development, renovation, management or maintenance of infrastructure or provision of services.

National and sectoral strategies can be developed on the basis of public-private partnerships. These partnerships have gradually contributed to improving the cooperative environment among political and social stakeholders. The role of the public sector has been reflected in large investments in the necessary infrastructure of a nation. However, due to budget constraints and the need for new and modern infrastructure (Dragicevic 2007) ^[11, 32] the State must find new ways to finance for further development, especially sustainable development (Peric 2007) ^[31, 32]. This is why PPPs have been affirmed around the world as a new and concrete way of thinking to fund economic development projects over the past decades (Peric & Dragicevic 2007) ^[11, 32]. In other words, PPP becomes a "development tool" (Peric &

Dragicevic 2007) ^[11, 32]. As a result, this cooperation can be interpreted as the way to solve economic and social development problems in the society where the public sector is difficult to obtain its own solutions due to financial limitation, while the private sector does not intend to have individual investment because there is not enough return on investment funds.

PPPs have been successfully used in a number of areas: health, education, transportation, tourism, infrastructure development, construction, agriculture, environment, information and communication technologies, and energy. PPPs in the tourism industry continue to develop and become increasingly popular around the world. Governments recognize that such arrangements can have immediate positive effects, and private sector considers these forms cooperation as the abilities to access to markets and new opportunities. Tourism is considered as one of the areas in which a successful PPP model can be successfully applied. There are some benefits of PPP in tourism: develop new destinations, support for tourism development, conservation of renewable resources, successful advertisements for tourism destinations, and arouse potential in the destinations.

2.2 The role of public-private partnership in sustainable tourism development

PPPs play an important role in the development of tourism in every nation in the world. Previous studies have shown that the fundamental differences between the public and the private sectors can interfere the interdisciplinary cooperation (Faulkner 2002; Caffyn & Jobbins 2003) ^[12, 7]. First, the private sector focuses primarily on business while the public sector sets broader social and environmental goals. Second, businesses will not participate in social cooperative projects that require them to incur long-term costs before they can recover any expected benefits. Third, public sector pursues long-term orientation, while the private sector concerns with measures that help them quickly achieve tangible benefits from cooperation. However, cooperation towards sustainable development is involved in long-term, intangible and non-measurable objectives. As a result, it is important for the public and private sectors to cooperate in developing new tourism initiatives and managing tourism development. Governments and the tourism industry can work together in a variety of ways and a number of different activities at the regional level. For example, develop tourism strategies, create policy networks or jointly invest in collaborative marketing campaigns. Tourism development often requires the involvement of governments because they have the power to control essential resources such as public land (beaches, mountains, national parks and lakes) and responsibilities for activities such as regional economic development, planning, and border security, social and environmental protection.

PPP is also an important factor in establishing tourism initiatives and enhancing the competitiveness of destinations. The financial advantage of this type of cooperation is obvious because it opens the possibility of investment for private sector to implement projects that can not be developed based on the tight financial budget of the public sector. In addition, it allows private sector using financial resources as well as innovative business approaches to implement and manage

projects. Consequently, PPPs are considered to be appropriate and have a positive impact on the development of a tourism destination. Since 1990, the World Tourism Organization has published a series of reports and publications highlighting the importance of PPP in tourism. These reports provide solid evidence base for the use of PPP in tourism, illustrates the partnership between different sub-sectors, geographic size, destination and market segmentation. Reports have also shown how cooperation can expand relationships and strengthen communities, how to link elements in the tourism value chain and improve access to tourism initiatives to ensure fairness and equity.

2.3 Network theory approach in research on public and private sector in destinations

The network theory approach to study stakeholders' collaboration has attracted attention since 1960. The relationships between organizations and the impact of these relationships to organizational structure and behavior have been widely studied. Network theory has provided valuable information on the exchange of information and resource coordination among multiple stakeholders in a collaborative relationship (Fyall, Garrod & Wang 2012) [14]. Tourism destinations are described as places requiring cooperation and collaboration among stakeholders to produce the same product for tourists (Pechlaner *et al.* 2012) [30]. As a result, network theory is popularly used in the context of tourism destinations. Three important concepts in understanding social network analysis are "actor" or "node", "tie" or "link", and "network". Actors are entities, people, organizations, or events. Links are relationships, in any form, between any pair of actors. Links can be in types of media, publications, exchange of resources, or members having bridging relationships with each other (Tichy, Tushman & Fombrun 1979) [39]. An Actor can directly or indirectly participate in many relationships, or independently link to each other. A network has its own characteristics and can be "dense" network (have multiple links) or "sparse" network (have few links).

"Density" is the number of links between pairs of actors in the network. A high-density network lead to effective communication and high availability of information and resources on the network (Meyer *et al.* 1991) [27]. Another characteristic of the network is "centrality". A network with a central actor that receive link from many other actors is considered as a high centric network, and a network with some central actors (forming sub-cluster network) is considered as a low centric network. The central actor denotes the ability to access information and resources from other actors in the network (Wasserman & Faust 1994) [41]. Network analysis technique involves in identifying the location of each actor in the network structure such as centrality, isolation, and bridge actors. If an actor has many links to other actors in the system, it has more network characteristics than those of other actors. Centrality is one of the most common measurements used to evaluate the linkages in network analysis. The centrality of a node is usually determined by the three main parameters: degree centrality, closeness centrality, and between centrality (Freeman 1978; Scott 2017) [13, 35]

The degree centrality of a node is the number of direct links from that node to other nodes in the network (Freeman 1978;

Krackhardt 1990; Shih 2006) [13, 23, 38]. This parameter measures the linkage involvement of an actor in the network by determining how many existing linkages from this actor to other actors. It reveals whether an actor is well connected or not in the local network (Scott 2017) [35]. Two indicators used to measure the centrality are in-degree centrality – the number of links an actor receives from other actors in the network and out-degree centrality – the number of links an actor send to other actors in the network.

Closeness centrality displays the distance between a node and other nodes in the network (Wasserman & Faust 1994) [41].

Between centrality quantifies the number of times a node acts as a bridge role to create the shortest pathway connecting two other nodes in the network (Freeman 1978; Scott 2017) [13, 35]. The between centrality of a node is high when many shortest linkages of other pairs of nodes must to pass through this node, and it has the capability of providing high level of control over resources and communication among other actors in the network (Freeman 1978) [13]

Scott (2017) [35] argued that actors with high centrality roles could be considered as "brokers" or "gatekeepers", so they can control other actors in the network. Such brokers will help to link other less centralized actors, especially those are out of the edge of the network. In this study, such actors are called "bridge" actors as they can establish a connection among distributed clusters. Actors with high centrality play important roles in decision-making, and are the strategic actors in the processes of communicating ideas, information, and operation decisions of the network (John & Cole 1998) [22]. Network theory also indicates that the higher centrality an actor plays, the more influential role it has in comparison with other actors in the network.

3. Research Methods

Quantitative research is done with the network analysis technique. Data were collected through interviews using structured questionnaire that describes the structure and network characteristics of Danang tourism destination. The official questionnaire for quantitative research consists of two parts. The first part is relating to the basic information of the participating institutions. The second part is used for collecting data about the availability and the degree of linkages among stakeholders within this destination. A value of zero is used for the case when there has no linkage between two stakeholders, and the scale of six levels (from one to six) of Mandell (1994) [25] is determined for the degree of a linkage between them. In this view, a network involves the development of linkages among their parties: organizations or individuals. The nature of these linkages exists in a continuous process, from the loose linkages to the coordination to make linkages more structured.

The population of this research are tourism-related businesses and organizations involving in STD. Eleven areas representing for two research sectors were chosen according to Presenza and Cipollina (2009) [34] and Ying (2010) [43]: accommodation, food and beverage, cultural attractions, natural attractions, recreation operators, entertainment organizations, tourism intermediaries, transportation, tourism media, organizations or local agency, government bodies. The sample are 178 organizations in above eleven areas; interviewees are seniors

or middle managers of organizations. Data collection was conducted in a combination of interviews and online survey. Data was then evaluated to be appropriate for analysis. The sample includes 10 organizations in the public sector, 168 organizations in tourism industry.

Network analysis technique was applied with the collected data using UCINET software 6.0. This software is used for network analysis to determine the overall network structure and its characteristics through calculating the indicators of degree and strength of the linkages (Borgatti, Everett & Freeman 1999) [3]. This software also allows the implementation of hypothesis testing with statistical techniques: verify the average value of network density, the density of linkages between each pairs of actor, and analysis of variance on the mean difference in degree of linkage and centrality of actors in the two research sectors.

4. Results

4.1 General description of Danang destination network

The degree of stakeholders' collaboration in the network

Using the scale with seven levels marked from zero to six for assessing the degree of linkages. The detail of the results are as follows: 22% of linkages marked at zero; 25% of linkages marked at one; 32% of linkages marked at two; 16% of linkages marked at three and 4% of linkages marked at four; there has no linkages assessed with five and six. Table 1 presents the average values that each area assesses on their relationships with stakeholders in other areas in the network regarding the marketing and management activities for Danang destination.

The average degree of majority linkages are below two, account for 65.29%; average degree from two to three account for 34.71%; and there have no linkages with average degree above three. Activities are still at temporary collaboration instead of official coordination with a consensus on the common goals among stakeholders for the marketing and management of the destination. As a result, stakeholders in public sector and private sector at Danang tourism destination have no strategic thinking about the coordination in marketing and management for sustainable destination development.

Table 1: The degree of collaboration among stakeholders at Danang destination network

	Accommodation	Food & Beverage	Cultural attractions	Natural attractions	Recreation operators	Entertainment organizations	Tourism Intermediaries	Transportation	Tourism Media	Organizations or local agency	Government bodies
Accommodation	1.62	2.18	2.04	1.08	1.82	2.02	2.28	2.22	2.02	0.54	0.76
Food & Beverage	2.25	1.75	1.31	1.28	2.03	0.97	2.28	2.22	0.63	0.50	0.38
Cultural attractions	1.86	2.14	1.14	0.86	2.00	0.57	2.14	2.57	2.29	0.86	1.14
Natural attractions	2.17	1.67	1.33	0.33	1.33	0.83	2.33	1	1.17	0.33	0.67
Recreation operators	2.6	1.5	1.25	0.5	1.25	0.75	2.13	2.5	1.75	0.25	2.63
Entertainment organizations	2.50	0.83	1.33	1.17	2.17	0.44	2.17	2.11	0.83	1.17	1.28
Tourism Intermediaries	2.71	2.29	2.14	2.05	1.90	2.19	1.71	2.10	1.67	1.24	1.24
Transportation	2.05	2.21	1.84	2.11	2.21	2.11	2.05	0.63	0.84	1.05	1.05
Tourism Media	1.29	1.86	2.86	0.71	1.86	1.86	2.14	2.14	0.71	0.71	0.71
Organizations or local agency	0.83	0.50	0.83	0.67	1.17	0.67	1.17	0.67	0.83	0.67	2.33
Government bodies	0.75	1.25	1	1.75	1.25	1.75	1.5	2.25	2.25	1.25	1.25

4.2 The overall structure of Danang destination network

The linking results of the stakeholders in the two sectors described by the asymmetric square matrix, having the same number of rows and columns of eleven, indicating information on the relationships between each pair of actors. These results serve as a basis for calculating the network structure using UCINET software. However, in order to calculate the indicators that determine the degree of relationships, the characteristics of the network, and to test the two hypotheses, the original data has been transferred from the average value of the degree of linkages among stakeholders to the data that is measured with two values of zero and one (Dei Chiappa & Presenza 2013) [10]. In particular, average values less than two will be converted into the value of zero; average values greater than two will be converted into the value of one. After that, matrix with the values of zero and one was established.

The main network indicators were computed and presented in table 2 and 3.

Table 2: General indicators of linkages between public and private sectors at Danang destination network

Whole network measures	
N of Observation	11
Sum	41
Density	0,373
<i>Density test</i>	
Average bootstrap density	0.3809
Estimated standard error for density	0.1295
Proportion of differences as small as observed	0.0002

The results show that there have 41 linkages among

stakeholders in eleven tourism areas in Danang destination network. The density of the network is 0.373. This means that the ratio or probability of the existence of a linkage between any two random actors in the network is 37.3%. This result shows that there has a network of stakeholders in the sample since the density is greater than zero, but it is considered a weak network when comparing to the ideal network density of 1 or 100% (Hanneman & Riddle 2005; Scott 2017) [35].

Performing a test on the population using bootstrap method built with 5000 sub-samples of the network. The average bootstrap density of this sample is 0.3809, and the standard deviation is 0.1295 with $p = 0.0002 < 0.05$. As a result, this density test has statistical significance, so the collaboration among stakeholders in public and private sectors for tourism activities at Danang destination is still low.

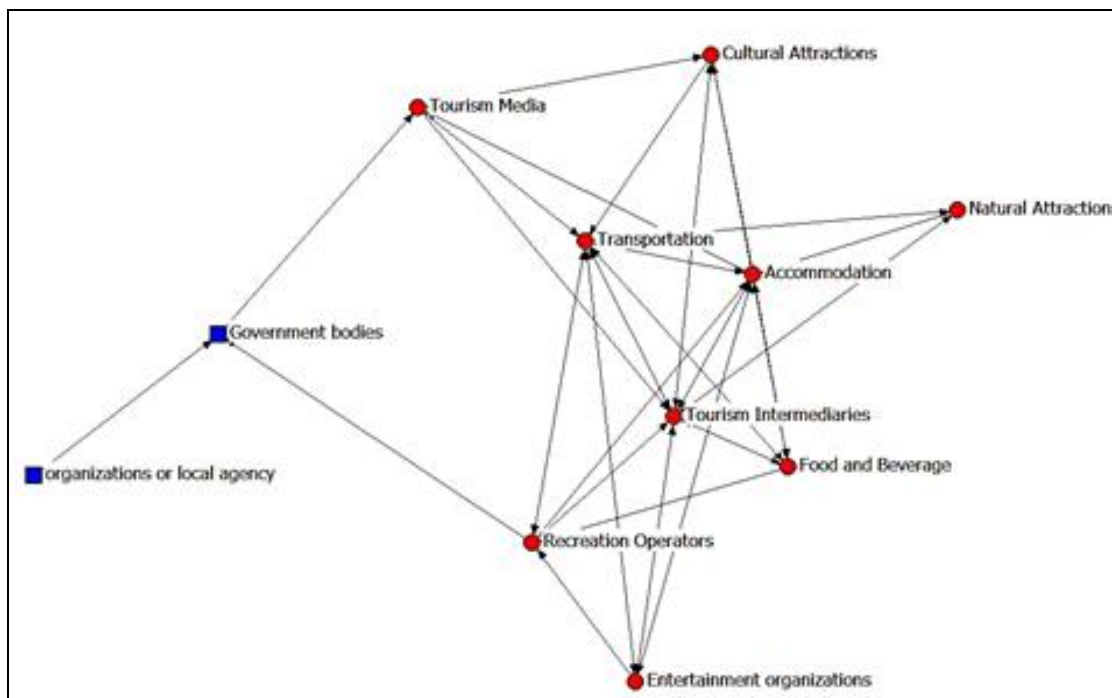


Fig 1: The overall network structure of the linkages between public and private sectors at Danang destination

A diagram showing the linkages among stakeholders at Danang destination network clarifies the overall network density (figure 1). In this diagram, circular nodes and square nodes represent for stakeholders in private sector (tourism industry) and public management (public sector) respectively; and the arcs show the relationships between pairs of nodes representing for the linkages in business operations and tourism management. The results also indicate that there are more relationships among stakeholders in one area; most actors in private sector locate in the central area of the network; organizations in public sector and local community tend to have relationships with others in their areas to form the clusters and locate far away from the central area of the network. Business areas in the tourism industry such as accommodation, catering services, transportation, tourism intermediaries, amusement parks, tourist attractions closely link together. Additionally, these areas have more linkages with stakeholders in other areas. Overall, the density of

Danang destination network is still low, and the distribution of many actors are scattered and far from the center of the network.

The low density of linkage between public sector and private sector result in limited contribution of private sector to policy planning and tourism strategy development, and the ability to link for providing information and allocating resources from public sector to private sector will not be effective.

4.3 The discriminant results of centrality

Measurement indicators about centrality including degree centrality, closeness centrality and betweenness centrality are shown in table 3. The network has the average out-degree centrality of 25% (in average, an actor has sent about 25 links to other actors in the network) and the average in-degree centrality of 47% (in average, an actor has received about 47 links from other actors in the network).

Table 3: Measurement indicators about the centrality of two study sectors at Danang destination network

	Degree centrality			Closeness centrality		Betweenness centrality	Eigenvector centrality
	Out-Degree	In-Degree	In-out different	Out-closeness	In-closeness		
<i>Khu vực tư nhân</i>							
Accommodation	6.000	6.000	0	41.667	58.824	11.333	0.415
Food & Beverage	4.000	4.000	0	40.000	52.632	3.333	0.310

Cultural attractions	4.000	3.000	-1	38.462	55.556	1.500	0.303
Natural attractions	2.000	2.000	0	33.333	47.619	0.000	0.207
Recreation operators	4.000	3.000	-1	40.000	50.000	8.000	0.318
Entertainment organizations	4.000	3.000	-1	40.000	47.619	2.000	0.259
Tourism intermediaries	6.000	8.000	2	41.667	76.923	15.167	0.415
Transportation	6.000	7.000	1	43.478	71.429	17.167	0.415
Tourism media	3.000	3.000	0	37.037	58.824	16.000	0.274
<i>Mean</i>	<i>4.333</i>	<i>4.333</i>		<i>39.516</i>	<i>57.714</i>	<i>9.313</i>	<i>0.324</i>
<i>Khu vực nhà nước</i>							
Organizations or local agency	1.000	0	-1	31.250	9.091	0.000	0.017
Government bodies	1.000	2.000	1	30.303	41.667	9.500	0.101
<i>Mean</i>	<i>1.000</i>	<i>1.000</i>		<i>30.777</i>	<i>25.379</i>	<i>4.750</i>	<i>0.059</i>
Network Centralization (Outdegree) = 25%							F= 20.8950
Network Centralization (Indegree) = 47%							p= 0.0152

4.4 Degree centrality

The number of in-degree and out-degree linkages of actors in private sector indicate that they have higher density linkages than those of actors in public sector. In which, areas having the highest density linkages are: tourism intermediaries (out-degree = 6, in-degree = 8), accommodation (out-degree = 6, in-degree = 6), transportation (out-degree = 6, in-degree = 7), food and beverage (out-degree = 4, in-degree = 4).

Organizations in public sector have the lowest density linkages in the network: Organizations or local agency (out-degree = 1, in-degree = 0), Government bodies (out-degree = 1, in-degree = 2).

To assess the degree of effort of organizations in each area in setting relationships with others, it should be considered the difference in the their number of in-degree and out-degree linkages and vice versa (Ying 2010)^[43]. For organizations in public sector, the difference between in-degree and out-degree of government bodies is 1. As a result, the number of linkages that organizations in Government bodies' area receive from are more than those they send to organizations in other areas. This indicates that organizations in public sector have not still played an active roles in setting relationships with organizations in other sectors, and they have not taken the role as key stakeholders influencing sustainable development of tourism destination. On the other hand, the number of linkages that organizations in tourism industry send to are more than those they receive from organizations in other sectors. In particular, the results in column 3, table 3 reveals that tourism intermediaries and transportations are areas having great differences between in-degree and out-degree with the values of 2 and 1 respectively.

4.5 Closeness centrality

The indicators of in-closeness and out-closeness reveal the extent to which a particular actor is reachable from and to other actors in the network. The results show that organizations in the tourism industry sector, especially those in accommodation, transportation and tourism intermediaries have the highest in-closeness centrality values of 58.824, 71.429, and 76.923 respectively. This means that these three areas can easily reach to other areas and become central roles that enable quick connection between any two actors in the network. Areas that have the highest out-closeness centrality are tourism intermediaries, transportation, and accommodation

with the values of 41.667, 43.478, and 41.667 respectively. They become the gateway in the network to link to other areas in tourism activities.

Areas in public sector have lower values of closeness centrality: organizations or local agency (outcloseness = 31.250, incloseness = 9.091), and government bodies (outcloseness = 30.303, incloseness = 41.667). For such areas, linking to other areas in the network will take time and resources, and it is hard for them to maintain such relationships.

4.6 Between Centrality

Most of areas in tourism industry have higher betweenness value than those of public sector, especially, the tourism intermediaries (betweenness = 15.167) and accommodation (betweenness = 17.167). These areas will play important intermediary roles between the other pair of actors in the network.

On the other hand, areas in public sector have lower betweenness centrality, especially, organizations or local agency (betweenness = 0). It means that organizations or local agency have less important roles in carrying out promotion activities relating to tourism.

An eigenvector centrality is an analytical effort in order to find out the most central actors in the "global" network structure. The results in table 3 show that areas with high eigenvector centrality are in tourism industry. Tourism industry is also the sector that has the highest value of eigenvector centrality (0.324). Anova results show that the difference in centrality among areas in three sectors have statistical significance ($F = 20.8950$ and $p = 0.0152 < 0.05$). It means that there is a difference in centrality among organizations in the tourism-related sectors. With the above analysis and testing results, it can be confirmed that the functional characteristics of the organizations involved in their centrality roles in the network structure.

Figure 2 shows the centrality of network of actors in public and private sectors, and the highly centralized nodes are in tourism industry. Particularly, service areas such as accommodation, transportation, tourism intermediaries, food and beverage have strong linkages with other stakeholders. This enables these actors rapidly interact with most of other actors in the network.

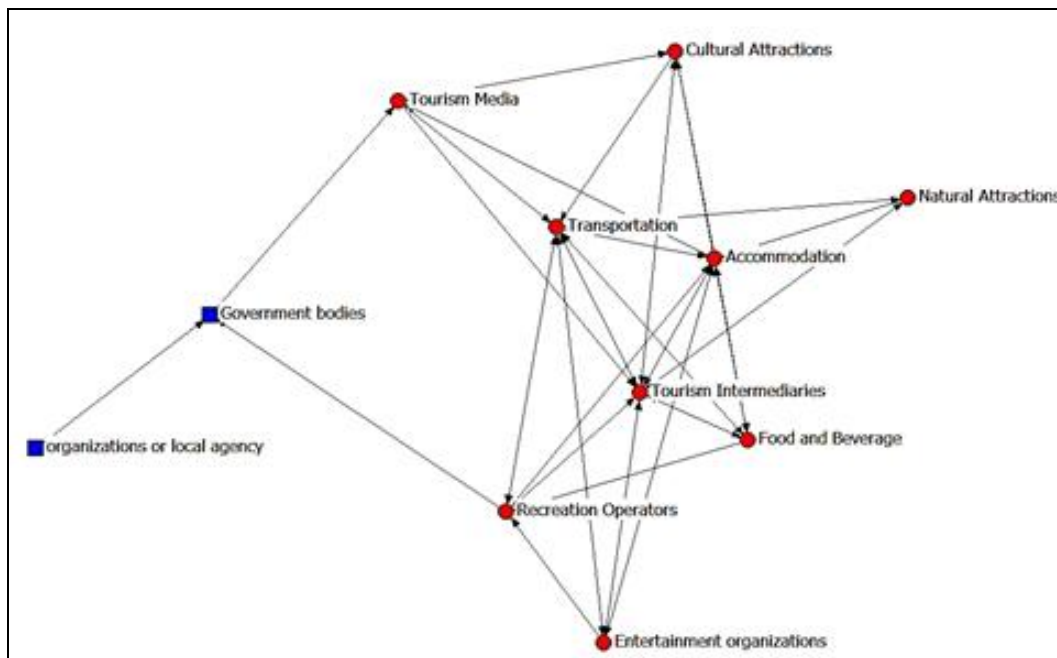


Fig 2: The network structure diagram represents the centrality of the actors.

5. Discussion and conclusion

By using the network analysis technique, the study results indicate the current level of collaboration between stakeholders in public and private sectors at Danang destination network, as follows:

The level of linkage between public and private sectors in the overall network of Danang destination network is still low and discrete. Collaborative activities between the two areas of the network have not reached a deep level; they are only at a temporary coordination to achieve short-term goals instead of close collaboration the long-term goals. There are many actors at the edge of the network, especially actors in the public sector, which have a low number of linkages. These conclusions are similar to some studies such as Bramwell and Lane (2000)^[4] and Jamal and Getz (1995)^[21].

The central actors in Danang destination network are mainly the organizations in private sectors such as accommodation, transportation, and tourism intermediaries. As a result, the private sector plays a more important role in tourism activities in Da Nang. These central actors have many linkages with other actors in the network, and therefore they have the advantage to form deep collaborative relationships with other actors. They can help quickly and optimally disseminate information in the network. These central actors can also help to prevent the risk to the network to help protect the network from being disrupted or completely defragmented, to make the linkages more and more sustainable. This contradicts with research in nations with high development of economic and tourism, for example, the research of Presenza and Cipollina (2009)^[34], Ying (2010)^[43], and Gazivoda (2015)^[15]

The results show the weakness on the role of the public sector, which partly explains the weaknesses in planning and management of Danang destinations. The objectives of sustainable development have not been sufficiently paid attention from the planning; there is unclear responsibility of management; the awareness of exploitation and protection of

resources is limited. The excessed exploitation of tourism resources at Danang in recent years leads to the depletion of natural resources and serious environmental degradation.

6. Limitations and future research directions

The limitation of this study is that the sample size is small and the sampling is convenient, so the results may not ensure for the generalisation to the whole research problem. In data collecting process, many managers are not really interested in the research, so the quality of the answers may not be good. In the near future, research proposals will be conducted to collect a more comprehensive representative sample to obtain more accurate conclusions. In addition, future research direction may also expand to understand stakeholders' collaboration in different sector at national destination, Vietnam.

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