

# Tourism Market and the Movement of Visitors in “Tourism Strategic Area” in Indonesia

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## Abstract

*Tourism industry has become one of important contributors of foreign exchange for Indonesia. In order to develop it, the central government has issued several policies, one of which is by assigning national tourism strategic areas across the country that also have a role to encourage other factors, such as economy, social-security, etc. This paper is an exploratory study on the existing tourism market in one of the national strategic areas, namely Sambas Regency in West Kalimantan, Indonesia. Besides, this study also observed the synchronization of this area with other attractions and other strategic areas (borderlands). After the tourism market was identified, the relation among the visitors' origins, the places they visited, and their next trips were explored to identify the dominant characters of the movement and places. This study used survey technique and network analysis. The findings conclude that the main tourism market in tourism strategic area was still dominated by domestic market with their specific characters. The visitors did not only visit the tourism attractions in Sambas, but also pass the border to go to the neighbouring country, either directly or through Sambas. This market niche can be “exploited” by Sambas regency by rearranging their attraction hierarchy, placing attractions around Sambas palace as the centre, and making the border either as an entrance or continued attractions.*

**Key words:** *Tourism, Market, Strategic, Movement, Indonesia*

## Introduction and setting

In Indonesia, tourism sector/industry is one of the largest contributors in terms of foreign exchange if associated with economic sector. In 2013, according to the Ministry of Tourism (2015), tourism sector ranked fourth in the category of foreign exchange earner after palm oil, coal, oil, and it produced 10,054.1 (in million USD). There is a tendency of increasing visiting rate (around 9-13%) every year. The Ministry also published, that in 2014, tourism sector attracted around 9,435,411 visitors. However, the neighbouring country, Malaysia, successfully attracted 25.72 million visitors in 2013, to which Indonesia contributed the second largest number of tourists after Singapore. Moreover, with its 34 provinces, Indonesian tourism sector will face the challenges of rapid economic development resulting in the

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importance of sustainable development and equal distribution of people welfare. In details, the problems faced by Indonesian tourism sector summarized inside the Ministry of Tourism Strategic Plan 2010-2014 are (1) lacking readiness of the tourist destinations to compete in the global market, (2) limited availability and utilization of information communication technology (ICT), (3) low quality and quantity of human resources, (4) minimum investment in tourism sector, and (5) lack of public and private partnerships. Based on these conditions, the central government through Government Regulation has issued a National Tourism Development Master Plan (2010-2015) which is the "interpretation" of Tourism Law (2009). In this regulation, the government has developed a number of tourism development instruments; one of them is National Tourism Strategic Areas (NTSA), distributed in 88 locations around the country. NTSA are the areas that have the main function or tourism potentials which are assumed to have important influences on other aspects, such as economic, social, culture, natural resources, environment, and defence and security. Of 88 strategic areas in Indonesia, two are situated in West Kalimantan: (1) Sambas area and (2) Sentarum Lake area. Interestingly, when synchronized with the National Spatial Plan, these tourism strategic areas are adjacent with the National Strategic Activity Centre (NSAC) which is located in the border area in the same regency (Sambas and Kapuas Hulu regency). NSAC is an urban area that is designated to encourage the development in the State's border areas. In terms of the closeness of the tourism strategic areas and the "entrance" or border areas, a potential tourism attraction and an international market (Sarawak-Malaysia and Brunei Darussalam) are real opportunities.

This study is a case study conducted in a national tourism strategic area of Sambas regency in West Kalimantan province, Indonesia. Sambas regency is located in northern part of West Kalimantan with a total area of 6,395.70 sq. km or about 4.36% of the total area of West Kalimantan (146,807 sq. km). Sambas Regency is divided into 19 districts and 183 villages with the northern and eastern parts of it facing Sarawak-Malaysia. According to the national spatial plan, Sambas has designated as a regional activity center which serves the activities at the provincial or regional scale. Moreover, Paloh and Aruk are also designated as a national strategic activity centre which is defined as an urban area that serves to encourage the development in the border areas. Having been viewed from the closeness to the neighbouring countries (as the visitor source) and its tourism potential, Sambas is set as one of the strategic areas in tourism sector. The determination of Sambas as a tourism strategic area is based on its function and potential. A location is designated as a strategic area if it meets the criteria that the location/area has a significant impact on one or more aspects, such as economic, social, cultural development, the empowerment of natural resources, as well as defence and security matters.

This paper is a means to identify and recognise a tourism market in a tourism strategic area as well as its influence on the border area of the strategic district. This identification process is expected to provide inputs for tourism product development in tourism strategic area to meet the needs of the visitors. In addition, several indicators related to the visitors' expectation and motivation to go to other places were also explored. Finally, the movement of the visitors' and interests from the tourism strategic area to the border area was also explored which aimed to measure how much and how interesting the tourism attractions or appeals in the border area and the neighbouring country are according to the visitors.

## Concept and theoretical framework

### Tourism strategic area

According to “dictionary” definition, strategic is defined as helping to achieve a plan or as object or location with an advantage. If we explore further, according to Indonesian Spatial Plan (2008), strategic area is an area with the priority for spatial arrangement in consideration to its significant influence on the matters, such as national sovereignty, and state defence and security, economy, social, culture, and environment. Furthermore, under National Tourism Development Master Plan (2011), strategic (in tourism) area is also introduced as an area which has a function and potential to develop the tourism sector and has significant influence on many aspects, such as economic, social, culture, empowerment of natural resources, as well as defence and security. Adopting from several authors, Muazir and Hsieh (2014) listed several understandings about strategic area which can be defined as an important location, target of cooperation, prestigious place, rich and important place, and selective and oriented place. Recently there are 88 tourism strategic areas in Indonesia.



**Figure 1.** Tourism Strategic Areas in Indonesia and Study Site

Source: Government Regulation No. 50 (2011)

### Tourism market and visitor movement

Tourism market and movement can be one of the methods to explore tourism activities. Movement patterns represent the sequence of movements by tourist/visitors from one attraction to another (Xia et al. 2010), while market represents people who might to come. The importance of these two approaches is to understand tourist mobility that influences by their behaviour and how to accommodate it (Mckercher & Lau, 2008). Tourism can be defined as the processes, activities, and outcomes arising from the relationships and the interactions among visitors, suppliers, host government, host communities, and surrounding environment that are involved in the attracting and hosting the visitors (Goeldner & Ritchie, 2012). Meanwhile, market can be defined as the people who might want to buy something, or a part of the world where something is sold. From both definitions, it can be assumed that tourism market is the people who might be attracted by the attraction provided by the hosts. In tourism studies, the core questions are what makes visitors travel and what they enjoy (Silkes, 2012). Understanding the factors, such as socio-demographics, destination familiarity, motivation, and experience would help to identify the target markets. Besides, market sophistication has many specific and varied needs that can often only be accommodated by a variety of destinations (Highet & Johnson, 1984). In the future, there will be

many direct and indirect influences on the visitors to decide their trips, not just beach and events, but also novelty seeking (Yeoman, 2009; Chang et al., 2007). In the "classic" work, tourism markets examined the visitors' arrivals, tourism receipts, opportunities, and constraints (Buckley & Wit, 1987). Poon (in Perez & Sampol, 2000) argued that the tourism market had been segmented along demographic, socio-economic, and physiographic characteristics, including motivation, hobbies, opinions, and more. Kim et al. (2008) also mentioned that visitors' motivation and segmentation could be based on demographic characteristics, such as sex, marriage, age, accompanying person, information, location, income, education level, and occupation.

Along with the information seeking about tourism market, one of the popular methods is by segmenting the market. Referring to Kim et al. (2010), as he cited from several authors, market segmentation had been commonly used to develop the understanding of the distinct characteristics of visitor segments. Several variables can be developed, such as demographics, socio-economics (occupation, income), geography, psychographics (motivation, interest), and behaviour (frequency of trips, activities). Besides, other variables such as the number of visitor arrivals, receipts, expenditure, market share to attraction, purpose of visit, source, most popular destination, norms and values, personality, and lifestyle can also be considered (Wade et al., 2001; Jie, 2001; Gonzalez & Bello, 2002). According to Armstrong & Kotler (2005), market segmentation is an activity to divide a market into distinct groups with distinct needs, characteristics, or behavior who might require separates products. Effective segmentation will also help to optimize the marketing activities as well as profitability (Richardson in McKercher, 2002). Market segmentation is considered as one of the most important strategic concepts to understand specific consuming characteristics. Good market segment consists of consumers with homogeneous needs and attitudes (Chen et al., 2010). Market segmenting makes use of different people who have different needs. The segmetation leads to a typology in which the grouping criteria are known in advance, such as sex, income, etc. (Dolnicar, 2002).

Tourism movement can be related with the concept of tours/trips inside the geographic element. According to Leiper (1979), tourist make temporary departure from the residence and become domicled in new lcoations, where spatially involves three elements, such as origin, destination, and transit. Continued by Masiero & Zoltan (2013); as they cited from Burton, tourist movement are motivated and concentrated by the availability of attractions and activities at the destination. From the movement information, the dominant location can be found. The dominant movement patterns are the sequences or patterns that are used by tourist most frequently, which can provide information about popular sites (Xia et at., 2010). Oppermann (1992) said that there are two components of (international) movement, which are movement between different locations and the stay of tourist at these locations. As cited by Bowden (2013) from Pearce's, tourist flow are a three-elements, which are origin-linkage-destination and takes into account three aspects of study, which are port of entry and departure, places visited and routes followed. One of the method to explore visitor movement is by knowing their network structure. According to Hwang et al. (2006), the concept of visiting several destinations during trip can be explored by trip patterns as network structures. They introduce centrality/centralization: betweenness centrality, closeness centrality, connectedness and cohesion, structure, and direction. The benefits from movement information are to understand visitor behavior for effective tourism management (Orellana et al., 2012), to develop attraction planning, development of accomodation nodes and transportation links (Smallwood et al., 2012), to develop scenarios and visualisation of directional travel flow (Holyoak & Carson, 2009), and overall, by understanding the movement within destination is the central understanding about how tourism works at the destination level (McKercher & Lau, 2008)

## Methodology

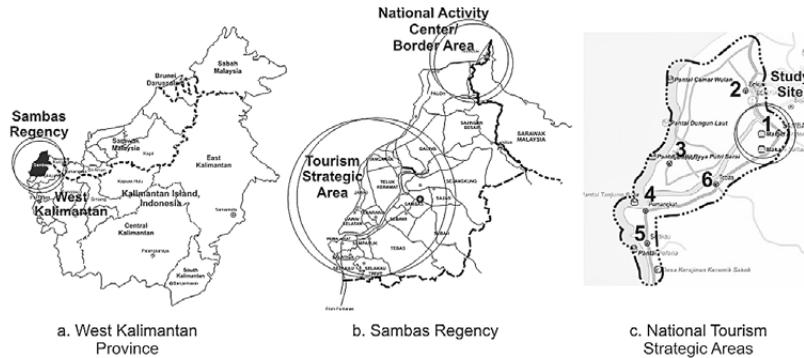
To explore tourism market characteristics, we performed survey method by exploring several basic visitors' information, such as demographics, socio-economics, geography, psychographics, and behaviour. In collecting the primary data, survey method was used by distributing the questionnaires. Based on the number of visitors (tourists) who came to Sambas, we distributed 353 questionnaires consisting of two parts of questions. The first part of questionnaires derived from the general questions about common visitor characteristic variables, such as demographics, socio-economics, geography, psychographics, and behaviour. The second part of the questionnaires led the respondents to the questions about their experiences and expectations on the condition of tourism attractions in Sambas city. In addition, the movement of the visitors' travel experiences were also explored in part two by asking other attractions that they might want to visit or had visited based on their experiences in travelling to border area (inside Indonesia) or the neighbouring country. The emphasis of the above issues was "executed" through "geographical" concept approach by showing the "visitor traffic" from their origins, visited attractions, and experiences in visiting the border area or the neighbouring country. In addition to the primary data, we also conducted an interview with the local government as well as collected the documents as a cross validation for each data collected. The results from the questionnaires were compiled then translated using statistical software to be able to measure the trend frequency and distribution.

Adopted from previous part, tourism movement can be described where tourist move from their origin to destination and between destinations. To explore these trends, one of the method is by analyzing its network structure. Accordingly, we performed a network analysis using NodeXL (Smith et al., 2010) to investigate the relation or connection among the visitors' origins, visited tourism attractions, and other trips at the same time. Besides, the visitors' origins, experiences in going to the border area were also explored to understand their characteristics. The final part of this paper is a discussion on the findings in relation to the theoretical framework which is also a reflection of the writers opinions as well as the implications from findings.

This study was conducted in a tourism strategic area in Sambas district (as the capital city of the regency) centred at Sambas palace, central mosque, tombs, waterfront area, and several locations outside Sambas city, such as Sebedang Lake. All of the sites were renowned as Sambas' tourism attractions. The distribution of questionnaires was carried out in December 2014. Subsequently, the data compilation, processing, and analysis were finished afterwards up to year of 2015

### Case study area

As one of the national tourism strategic areas, Sambas regency is located in the northern part of West Kalimantan with a total area of 6,395.70 sq. km, or approximately 4.36% of the total area of West Kalimantan (146,807 sq. km). Sambas regency is divided into 19 districts and 183 villages (Central Bureau of Statistic, 2014). The northern and eastern parts of Sambas are facing Sarawak-Malaysia. As one of the national strategic tourism areas, referring to the National Tourism Development Plan, Sambas regency development (strategic) area and potentials are divided into several districts; those are Sambas, Teluk Keramat, Jawai, Pemangkat, Selakau, and Tebas. Besides, being the tourism strategic area, as one of the border regencies in Indonesia, Sambas regency also has national strategic areas in terms of national spatial plan. Under



**Figure 2.** Tourism Strategic Areas in Sambas and National Strategic Activity Center

Source: Draft of Spatial Plan (2012-2032), Government Regulation No. 50 (2011)

the national spatial structure by considering its location and influence, Paloh-Aruk area was designated as the national strategic activity centre which serves as an urban centre that encourages the development in border areas. This urban centre is determined based on several criteria, such as cross-border checkpoint, major transportation node, and centre to encourage the regional economic growth.

As one of the tourism strategic areas in Sambas regency, Sambas district is renowned for its "heritage" collections, such as palace, mosques, several tombs, and the river ambience (waterfront) that stretches along the city. The detailed description of Sambas district is described as follows in Table 1.

**Table 1.** Sambas District Profile

No	Profile	Amount/Description
1	Area Cover	246.66 sq. km
2	Number of Villages	18
3	Number of Population	46,589
4	Population Density	189 / sq. km
5	Number of Schools	Elementary: 32, Junior High School: 10, Senior High School: 10
6	Number of Health Facilities	Hospital: 2, Health center: 3, Village childbirth center: 16
7	Number of Nurses	30
8	Number of Doctors	21
9	Main Tourism Potential	Historical building, river view, tombs, art and craft
10	Distance to Border area	90/92 km
11	Distance to Province Capital City	225 km

Source: Sambas' Central Bureau of Statistic, 2015

Sambas tourism strategic areas, as mentioned above, have several areas (in scale of districts) which are included as strategic areas. With the assignment of Sambas regency as a tourism strategic area, its several common and specific potentials and tourism strategic areas can be identified as follows in Table 2.

With its geographical location bordering with the neighbouring countries, Sarawak-Malaysia, Sambas regency with its strategic region would have benefit from a nearby source of inter-

**Table 2.** Tourism Potential and Constraints

Nº	Districts	Natural/ Historical Tourism Potential	Cultural Tourism Potential
1	Sambas	Palace, mosque, river view	Tombs, historical buildings, arts and crafts
2	Teluk Keramat	Plantation	-
3	Jawai	Beach	Historical buildings, tombs
4	Pemangkat	Beach	Tombs, historical and religion buildings, monument
5	Selakau	Beach	Tombs, religion buildings
6	Tebas	Cave, river view, hill	-
General Tourism Potentials		General Tourism Constraints	
<ol style="list-style-type: none"> <li>1. Directly adjacent to the international market, as well as informal relationships between residents of two countries that have been formed</li> <li>2. The presence of accommodation and local transportation</li> <li>3. Variety of tourism attractions</li> <li>4. Access (road) has been opened</li> <li>5. Community awareness to tourism issues has been raised and monitored by local government</li> <li>6. Determination as a strategic area</li> </ol>		<ol style="list-style-type: none"> <li>1. Tourism data is not developed/recorded yet</li> <li>2. Limitation of basic infrastructures</li> <li>3. The length of the distance between attractions</li> <li>4. Limitation of events and promotion</li> <li>5. The absence of regional cooperation between countries</li> <li>6. The lack of tourism development budget</li> <li>7. The absence of tourism grand/master plan and related plans</li> </ol>	

Source: Muazir et al., 2015

national visitors. In scale of province (West Kalimantan), it is assumed that most of the foreign visitors came from Malaysia (as recorded from Entikong immigration, 2013), with 24,856 visitors (out of 30,687). Besides, nationally, the number of the visitors from Malaysia to Indonesia was also recorded as the largest after Singapore with 1,430,989 visitors. On the other hand, the same case also happened in Malaysia where the number of Indonesian visitors was also recorded as the second largest after Singapore, amounting around 2,827,533 visitors coming to Malaysia in 2014. However, there was a difference in the number of visitors coming. Looking at a regional scale, one of the cross-border checkpoints between Sarawak and Sambas located in Aruk (Sambas) – Biawak (Sarawak, Malaysia), as recorded from the Ministry of Tourism Sarawak (2013), had 22,809 foreign visitors (out of 2,664,682 foreign visitors to Sarawak). It is assumed that only from one cross-border checkpoint, Sarawak succeeded in attracting almost the same number of visitors as the whole number of visitors coming to West Kalimantan province as ever recorded. If it is viewed from the domestic perspective, there is only one main access (road) connecting Sambas to other cities/regencies in West Kalimantan. This road also connects Sambas to the province capital city, Pontianak, with its international airport (around 225 km). In other words, for domestic/local visitors, Sambas can be accessed easily, although it takes 5-6 hours driving on more than 200 kilometres.

## Results

### Tourism market characteristic and expectation

Regardless of the existing market conditions, this study focuses more on the visitors' characteristics at the existing attractions without stressing on any principle differences between the visitors' origins (either international or domestic). From the results of the survey conducted, we found several important characteristics of the visitors to Sambas, as follows in Table 3.

**Table 3.** Tourism Market Characteristics

Variables	Category	%	Variables	Category	%	
Sex	Female	50.7	Ethnic	Malay	72.5	
	Male	47.6		Javanese	17	
	No answer	1.7		Dayak	2.5	
Religion	Islam	89.8		Chinese	1.7	
	No answer	6.2		Sudanese	1.1	
	Catholic	2.0		Travel reason	History	39.1
	Buddha	0.8			Knowledge	17.6
	Protestant	0.0			Recreation	14.2
	Other	0.3			Leisure	13.6
Age	Below 17	14.2			Family trip	5.4
	18 - 30	54	Scenery		3.1	
	31 - 40	12.3	Main activity	Sightseeing	47.6	
	41 - 50	9.9		Sightseeing and leisure	8.2	
	More than 51	9.6		Leisure	13	
Origin	Sambas	39.7		Eating and leisure	3.4	
	West Kalimantan	51		Taking picture	2.5	
	Outside West Kalimantan	7.9	Travel Frequencies	Once a year	31.2	
	Outside Indonesia	0.6		Once a month	28.6	
Education	Elementary	8.2		Event	17.8	
	Junior High School	10.5		Twice a year	7.6	
	Senior High School	43.3		Once a week	11.6	
	Vocational	6.5	Four times a year	1.1		
	Bachelor	20.4	Transportation	Motorcycle	49.6	
	Master	4.5		Car	39.7	
Occupation	Private Sector	32.6		Rental car	9.1	
	Student	29.4		Bus	0.8	
	Government	17	Internet user (searching travel information)	Active	51.8	
	Not Working	17.2		Not active	43.3	
Income (IDR)	0 - 1,000,000	15		Sometimes	3.1	
	1,000,001 - 2,000,000	13.3		Rarely	1.7	
	2,000,001 - 3,000,000	10.8	Expenditure Allocation	Food	26.2	
	3,000,001 - 5,000,000	8.2		Food, Transportation	13.3	
	More than 5,000,000	4.5		Transportation	14.1	
Expenditure (IDR)	0 - 100,000	42.5		Food, Transportation, Shopping	2.5	
	100,001- 500,000	21		Food, Entrance Fee	2.5	
	500,001 - 1,000,000	11.6	Accommodation	1.7		
	1,000,001 - 5,000,000	8.5				
	5,000,001 - 10,000,000	2				
Status	Single	55.5				
	Marriage	42				
	Other	2.5				

In addition to the basic characteristics listed above, we also explored the visitors’ “opinions” or responses related to the existing facilities and services at the destination area. In exploring the visitors’ responses, we asked them about the conditions of the facilities, such as road/ access condition, electricity, communication, security, people hospitality, etc. We also asked them about which facilities supported their tourism activities and which one did not support their activities. Besides, an option was provided for the visitors to express their preferences on the “optimum” facilities that concluded by questioning their expectations regarding the provision of the “alternative facilities” needed. The summary of the findings is described in Table 4.

**Table 4.** Visitor Opinion and Expectation

Variables	Category	%	Variables	Category	%	
Road/ Access	Support	58.1	Good Facilities	People hospitality	41.9	
	Not support	39.7		Road/access	14.2	
Electricity	Support	71.1		Fresh water	9.6	
	Not support	22.7		Security	6.8	
Fresh water	Support	64.6		Electricity	4.8	
	Not support	31.7		Environment	4.8	
Trash bin	Support	52.1		Telecommunication	2.5	
	Not support	43.6		Trash bin	2.3	
Telecommunication	Support	70		Shopping	1.7	
	Not support	27.5		Cleanness	1.4	
Internet access	Support	60.6		Other		
	Not support	35.4		Expected Facilities	Garden	9.9
Entertainment	Support	38.5			Free internet access	7.1
	Not support	57.8			Relaxing places	6.5
Shopping	Support	47	Playground		4.8	
	Not support	49	Entertainment		3.7	
Security	Support	85.3	Souvenir		2.8	
	Not support	11	Better environment		2.5	
Hospitality	Support	90.1	Shelter		2.5	
	Not support	7.1	Better land use		2.3	
Bad Facilities	Road/access	29.7	Toilet		2.3	
	Entertainment	26.9	Other			
	Trash bin	5.1	Other Interesting Places	Singkawang beach	17.3	
	Fresh water	4.8		Temajuk village	6.2	
	Telecommunication	3.1		Singkawang city	5.7	
	Internet access	2.8		Sebedang lake	4.2	
	Environment	1.7		Pasir Panjang beach	3.7	
	Cleanness	1.4		Bukit Jamur	2.5	
	Shopping	1.4		Sebedang lake, Singkawang beach	1.7	
	Information	1.1		Temajuk beach	1.4	
	Other			Singkawang, Mempawah	1.1	
		Other				

### Visitors' movement: origin, destination, and transit

The model developed here was gained by exploring the locations or point by point of trips performed by the visitors. The model sorting was started from the visitors' origins, places visited, and the possibility of other places to visit. In addition, the visitors' experiences in visiting the tourism attractions in the border area or the neighbouring country were also explored. To understand the trip trends or the movement from one place to another, several measurement techniques was performed in terms of network analysis. The measurements were ranging as follows: (1) "in-degree" to determine the amount (trend) of the tourism attractions already chosen as well as the trip experiences to border area/neighbouring country; (2) "out-degree" to find out the distribution of the visitors' origins; and (3) the combination of "in/out degree" to discover the diffusion of the visitors from their current attractions to other attractions in the same trips/activities. In addition to using the "degree" measurement, the existence of the important locations or places was also considered. The important location here was defined as one location that could be a "bridge" to another location or had a close relationship to other locations. This measurement was performed by measuring the network centrality using betweenness, closeness, and eigenvector formulas. Based on the calculation was found the "relationship graph" as follows:

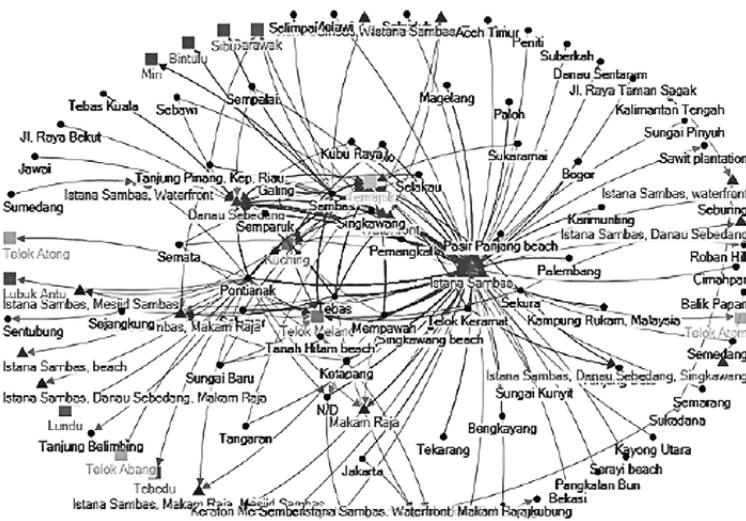


Figure 3. Market Network Graph

Source: Analysis (2015)

If we translate the graph into several measurements and calculate it using NodeXL, we can consider several values from the result.

In terms of the visitors' origins ("out-degree"), Pontianak as the provincial capital city became the main source of the visitors who came to the tourism attractions in Sambas although the distance between these two cities was far. Moreover, the residents of Sambas (including Tebas, Sekura, Telok Melano, and Selakau) and other cities passed through along the accessing roadway, such as Singkawang and Mempawah also contributed the most visitors. Interestingly, the inhabitants of one of the regencies located far from Sambas, namely Ketapang regency, were also interested in visiting the tourism attractions in Sambas. From the sur-

**Table 5.** Location Degree and Centrality (the highest)

Nº	InDegree		OutDegree		Betweenness		Closeness		Eigenvector	
1	Sambas Palace	53	Pontianak	21	Sambas Palace	7188.7	Balikpapan	1	Sambas Palace	0.082
2	Sebedang Lake	16	Sambas	13	Pontianak	2151.6	Sambas Palace, Sebedang Lake, Singkawang	1	Temajuk	0.036
3	Temajuk	16	Sambas Palace	12	Sambas	1167.6	Sambas Palace	0.007	Sebedang Lake	0.032
4	Telok Melano	10	Tebas	8	Sebedang Lake	983.2	Sebedang Lake	0.005	Pontianak	0.030
5	Kuching	8	Singkawang	8	Tebas	654.6	Temajuk	0.005	Sambas	0.025
6	Waterfront	7	Mempawah	6	Sambas Palace complex	578.2	Pontianak	0.005	Tebas	0.022
7	Sambas Palace, Waterfront	4	Sekura	6	Sekura	494.3	Sambas	0.005	Singkawang	0.022
8	Sambas Palace, Makam	4	Ketapang	5	Temajuk	427.5	Waterfront	0.005	Waterfront	0.020
9	Makam Raja	3	Telok Keramat	4	Sukadana	388	Tebas	0.005	Mempawah	0.019
10	Sambas Palace complex	3	Selakau	4	Ketapang	275.7	Tombs	0.005	Galing	0.018

Source: Analysis, 2015

vey, there were only two Malaysian visitors who visited Sambas Palace. They were interested in the palace because they wanted to see the historical building and the surrounding areas. Regarding the most visited attractions (“in-degree”), Sambas Palace was still the main tourism attraction for visitors followed by Sebedang Lake, waterfront area, King’s tombs, which, in fact, these location (except Sebedang Lake) were interconnected to each other and could be accessed by walking or using vehicle. For further travel location (attraction) options, many visitors were interested to continue their trips starting from Sambas Palace to Sebedang Lake and other attractions near Sambas Palace (waterfront area and tombs). This condition showed that Sambas Palace was one of the important attractions (locations) in terms of transit where the activities were diffused.

Related to the visitors’ interests in the border area or neighbouring country (Sarawak, Malaysia), Temajuk-Paloh was still attractive with its beach and turtle breeding. From “in/out degree” measurement, Temajuk (in Sambas), as well as Telok Melano and Kuching (in Sarawak) were popular locations in the border area and neighbouring country. For the frequency, 16.4% of the total visitors surveyed had visited Temajuk, and 19.3% of them visited Sarawak, Malaysia. From the results, it can be seen that the neighbouring country was more “attractive” for the visitors than the State’s border area. Judging from the origins of the visitors, Pontianak and Sambas were the sources of most visitors to the Temajuk. Likewise, many visitors who visited Sarawak, Malaysia came from Pontianak and Sambas.

Furthermore, to explore which location was important as its relations and "diffusion", we considered its centrality. Adopted from Wasserman and Faust (1994), betweenness is the one in the middle, the one between the others, and become a "bridge" between others. Also, closeness centrality reflects how close the actors are to each other, which means that an actor is central if it quickly interacts with all others. The third approach is eigenvector which is an effort to find the most central actors in terms of the overall network structure (Hanneman and Riddle, 2005). As the "special" locations which were capable at linking among locations (betweenness), Sambas Palace, Pontianak, and Sebedang Lake seemed to be the important locations in the network. Sambas Palace and Sebedang Lake were two attractions which became the main destinations as well as the transit areas to the next destinations (diffusion). On the contrary, Pontianak and Sambas were two locations that connected other locations to the tourism attractions in Sambas. If viewed from the level of the closeness, Sambas Palace, Sebedang Lake, and Temajuk were the locations that were close to other locations and could quickly interacted to other locations. Balikpapan with its "out-degree" had a high value of closeness because it only interacted directly with one of each location but not with all locations inside the network. Therefore, it was not accounted for as the important location in the "whole network", but it was in terms of only local context. To close our exploration in "centrality," in the scale of eigenvector, it was assumed that Sambas Palace, Temajuk, Sebedang Lake, Pontianak, etc. were still the most central locations in the whole network. Interestingly, Temajuk, which is a border area, was also included as the most central location when compared with the neighbouring country.

## Discussion and closing statement

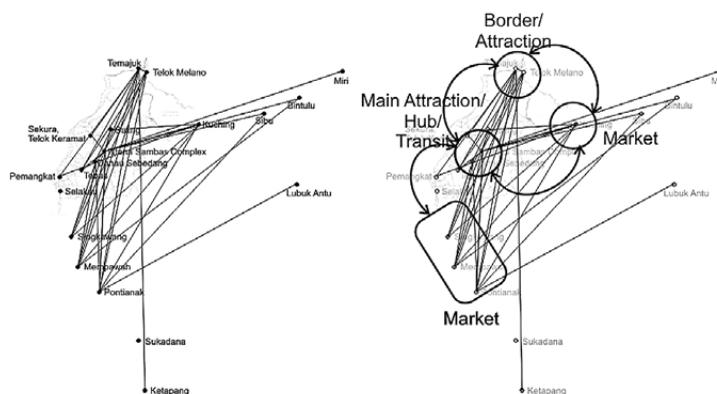
From the several findings above, some important things to consider in developing the tourism area (by looking at its visitors' characteristics) in Sambas are:

1. The main visitors to Sambas were domestic visitors who came from Pontianak, Sambas, Singkawang, Mempawah, and other areas that were connected by the main road along the coastal area. Most of the visitors had an interest or curiosity in historical building and recreational activities. Hence, their activities were mostly related with sightseeing, leisure, and culinary activities.
2. The tourism management and stakeholders need to pay attention on other visitors' characteristics in order to provide an appropriate "place" and service in accordance with the "segmentation." These characteristics range from occupation, age, level of education, expenditure and allocation, income level, vehicle facilities, and the provision of web-based information.
3. The visitors' expectations and interests are also worthwhile to consider the management of the existing tourism attractions. The visitors' expectations, interests, and imaginations about visiting one place (e.g. beach, village, city life, etc.) need to be considered to assess the quality and upgrade the facilities. Besides, the assessment on other attractions outside Sambas needs to be developed in order to raise the benefit from the existing attractions and their future development.
4. Related to the locations that were considered to be important or "central" inside the "constellation" (network) of the origins and attractions, Pontianak and other connected cities/regencies along the "north coast" became the important locations in contributing visitors to Sambas. Sambas Palace and Sebedang Lake acted as the central points in the network, either as the main attractions or as the starting points to the next trips. The

connecting trips of the visitors still circled around Sambas (Sambas Palace, Sebedang Lake, waterfront, and King’s tombs). Interestingly, the border area in Temajuk and the neighbouring country (Sarawak, Malaysia) also became the major attractions and places where visitors “desired” to visit. In addition, inside the network, Temajuk became the central point (important place) after Sambas Palace.

Related with several important facts mentioned above, the tourism development in Sambas can be arranged by considering the tourism market and the attempts to respond it. The tourism attractions that exist can be evaluated and adjusted to the market expectations. Moreover, other market variables are also needed to consider. To be more detailed, knowing and understanding the tourism market are useful to set the attractions to produce appealing needs for each segment (McKercher et al., 2002). Then, tourism segmentation (by selective targeting) can also help to construct the region appeals (Pearce, 1997). To meet the needs of the market, at least basic infrastructure is also worth to consider (Wade et al., 2001). Basic infrastructures are useful to connect the attractions or areas with the facilities that can provide pleasure and comfort for the visitors. After the market and attraction evaluation (matching) is conducted, the development prioritisation and differentiation of attraction may be delivered (Yeoman, et al., 2009). The prioritisation might focus on each character or visitor segment that exists. It can be geographical (so the access should be upgraded), or based on the visitors’ expectations (so new attractions are needed), or according to other considerations. After the “communication” takes place between the market and products (attractions), the market and its prospect needed to be picked up by packaging promotion efforts and awareness campaigns for the attractions and existing tourism products (Perez et al., 2005). The suitability and market changes should be continuously monitored (Koc, 2006) in order to keep tourism products and service adapting.

In terms of tourism attractions, the products or specific attractions (different from other competitors) are maintained and directed to create new segments. According to the Baud-Bovy & Lawson (2002), the development of tourism products can be initiated by specific product. The product itself can be located in the centre and spread over a region or blended with several interests. Related to the central location and diffusion, if each point is put inside a map, it will describe some important points in form of origins, attractions visited, and the next movements to the other attractions as well as the border areas. From these important locations, the tourism development in Sambas can be started by giving attention to the domestic and inter-



**Figure 4.** Original Network and Locations (left) and Recommendation (right)

Source: Analysis (2015)

national markets. The visitors from the province capital city (Pontianak) and in line with it can be a major concern in how to attract and satisfy them. In addition, in terms of its closeness to the international market, Sarawak-Malaysia, Sambas regency should be also strengthened by providing a good access and attraction options. The tourism attractions in Sambas can serve as a central or connector to other attractions, both within the region and in international market. As becoming the centre (hub), transit, and connector, Sambas tourism strategic areas can contribute to the border area (national strategic activity centre) by distributing trips. Likewise, the border area may become the main entrance for international visitors to Sambas. From both interactions, the development pulse from and to each area is expected to co-exist.

As a closing statement, it needs to be emphasised that the main tourism market in tourism strategic areas was still dominated by domestic market. These visitors did not only visit the tourism attractions in Sambas, but also reached the border area and neighbouring country. This market niche can be "exploited" by Sambas by rearranging their attraction hierarchy and by placing the attractions around Sambas Palace as the centre of activities which later can be diffused to other locations. Related with the border area, there are two functions that are born, as a part of a journey from the central and as the main entrance. The consequence of these two functions is to provide a good access and appropriate attractions.

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