

# Development Attractiveness Zone of UPI as Education Turism (Edutourism) and Viewtime Tourist in Each Zone (The Attractiveness Mapping use 3 Dimensional Mapping Techniques)

**E Maryani\* and N T Sugito**

Department of Geography Education, Faculty of Social Science Education,  
Universitas Pendidikan Indonesia, Bandung, Indonesia

\*enokmaryani@upi.edu

**Abstract.** Universitas Pendidikan Indonesia has been one part of the Attractiveness City of Bandung. As a teacher education center (formerly Teachers/Training College) with a cultural heritage building is Isola, there is have cool air and calm in North Bandung area has become an attraction center for education. UPI as well as attractions Edutourism North Bandung. Along with its strategic role in education UPI, UPI is also developing a variety of facilities with the main objective to support the quality of education such as the botanical gardens, various sports facilities, arts, education center Isola, and in 2013 developed educational museum. All that makes UPI improve eduturism. This research provides learning the importance of creativity and competence in opportunities that exist in the environment locally, regionally and internationally. Besides useful research findings in science is also useful in practice to strengthen campus as Edutourism and strengthen UPI as an educational institution.

## 1. Introduction

Tourism becomes a necessity when daily routine trap urban life. Refreshing needs to come not only when the annual holiday, but also weekly and even daily. To enjoy the atmosphere of different cities, eat and drink in a more relaxed atmosphere, familial, refreshment with a variety of items that are trend or just sightseeing while taking pictures of buildings of historical value is part of the recreation simple and festive. Moreover, supported by good accessibility intercity. Tourism is a complex activity and have dimensionless attraction is not only needed a diverse, unique and exciting, but also necessary structuring, management, integrated marketing and professional [1]. The development of tourism is directed to (1) build, explore and exploit, manage and maintain the attractions to increase community participation in tourism activities, (2) development of tourism based on the concept of regional development. West Java Tourism development divided by five area (WPW) the first is WPW B Botabek, WPW C Sukabumi, WPW D Bandung, WPW E East Proangan and WPW F Cirebon. WPW D administratively covers an area of City of Bandung, Bandung Regency, Sumedang Regency, Garut Regency, Subang Regency, Purwakarta Regency and Karawang Regency. The concept of economic growth, the region known as the Greater of Bandung and Sukapura development. Central City in this region known as Bandung Regency and, City of Bandung. Sumedang Regency and Garut regency as the hinterland. The function core of the greater Bandung is service center and the poles of growth. Public services accumulate in this



region, economic activity and be concluded transport West Java. Region Core Greater of Bandung has great potential to become a tourist destination, because (1) Core Greater of Bandung is a hinterland for Jakarta as a gateway to international travellers, (2) population is very potential for tourists / domestic, and (3) has a lot attraction, for example in City of Bandung, there are about 22 attractions [2]. Given the potential of the location, nature and social culture, Bandung has become as "Art Curtain Indonesia to the World" by the Directorate General of Tourism Indonesia (1996), with the Vision "Genah, Merenah tour Tumaninah" (Delicious, Right, and Comfort).

The existence of UPI has been one part of the attractiveness of city of Bandung. As a teacher education center (formerly teachers/training College) with a cultural heritage building Isola, have a cool air and cozy in North Bandung area it become an attraction center for education. UPI as well as attractions edutourism in North Bandung.

UPI have a long history of over 59 years, was open in 1954 with the primary mission to produce teacher, in 1957 turned into FKIP part of Padjadjaran University which is a new state university at the time, and then in 1963 became a stand-alone teachers training College [3]. In addition to permanent role as institution and a teacher, in 1999 developed the expansion of the mission (wider mandate) turns into Indonesian Education University (UPI) by opening a non-educational department but still produce some major flat form education personnel. The long development history, has been followed by floating various facilities that have both national and international standards. As bearers of the vision of "University of Pioneer and Excellence" with the mission of (1) education disciplines of education, educational disciplines and other disciplines of quality, globally competitive and relevant to national education goals, (2) conducts research to develop the theory and practice, (3) developing an integrated professional education teacher, and (4) disseminate innovative experiences and findings through various means both to academics and community [1]

UPI have important sector in education development, UPI also developing a variety of facilities with the main objective to support the quality of education such as the botanical gardens, various sports facilities, arts, education center Isola, and in 2013 developed the museum education. All kind of things that makes UPI have strengthened in Edutourism as central education. Edutourism an identity attached to an item or place and may reflect a character that is expected to have sales value more than others. Kotler and Keller [4] defines a brand as "a sign, symbol, design or a combination of the foregoing, the intention to identify the goods or services that can be distinguished from its competitors" [5]. Article 1 explains that the brand is a sign in the form of images, names, words, letters, numbers, color composition, or a combination of these elements that have different and used in the trading of goods and services ". In relation to the tourist destination, brandimage is imaging, the impression, the attractiveness of a region which is attached so that it can be distinguished from other areas. Brandimage Bandung past climatic conditions attached to a cool, comfortable, quiet and beautiful, has been equipped with a socio-cultural condition as the city whose inhabitants are friendly, the center of education, services, tourism, and trade.

Behind this potential, it turns out to date have not done UPI assess the attractiveness as a tourist destination, including zoning and rating predict the length of stay in each of the zone.

The purpose of this research to know the following.

- a. Make zoning the attractiveness of the campus UPI as a region by using the data Edutourism 3D, so it can be more clearly visualized zoning attractiveness of the campus UPI well as educational institutions and attractions.
- b. Measures based on the length of time spent travellers to stay in each zone, with segmentation consider rating and attractiveness in every zoning. Through these measurements can predict how much time should be reserved for
- c. visiting UPI appropriate goals and how much it costs to be incurred during the tour at UPI. Formulate a regional development plan Edutourism at UPI.

## 2. Methods

### 2.1. Time and location of research

The research was conducted on the main campus of UPI to determine the attractiveness of observation and interviews to understand the conditions, the role and function of the existing facilities in the UPI. UPI Bandung is located in Jalan Setiabudi 229 Bandung with an area of 615 766 m<sup>2</sup> ( $\pm$  61 ha). When the study was allocated for 8 months starting in March 2016 until October 2016.

### 2.2. Research methods

The study used a quantitative approach by using the survey method. Surveys are used to obtain factual information about an event or phenomenon that is currently underway. In addition this study include the population are quite a lot, so it is not possible to do in the census. Therefore the sampling technique by using the questionnaire as a data crawler. However, to complete the data and to obtain a thorough gamabaran, also used observation and documentation to trace the development of the attractiveness of the campus UPI.

### 2.3. Research design

This study includes three phases of activity, namely: the preparation, implementation, and reporting.

#### 2.3.1. Preparation research

- a. Consolidation of the research team;
- b. Reviewing research proposals and issues;
- c. Reviewing the schedule of research activities; and
- d. The division of duties of each researcher.

#### 2.3.2. Implementation phase research

- a. Developing instrument
- b. Collecting data in the form of documentation
- c. Observation attractiveness of the
- d. Creating a zoning map
- e. Analyzing viewtime data to measure and make tracking.
- f. Analyzing interpretation data

## 3. Results

### 3.1. Measurement point (GPS survey)

GPS measurements carried out on the main frame that will be used as the main polygon fastening point. The tools used in measurements with GPS is GPS Leica Geodetic Type with Positioning differential models with the data phase difference. Table 1 is a list of the coordinates of the connective points GPS survey measurement results.

**Table 1.** Point of coordinates (GPS survey)

X (m)	Y (m)	Titik
786429.799	9240907.370	BM 3
786690.615	9240864.826	BM4
786459.205	9240899.659	BM1
786429.799	9240907.370	BM3

### 3.2. Measurement horizontal framework

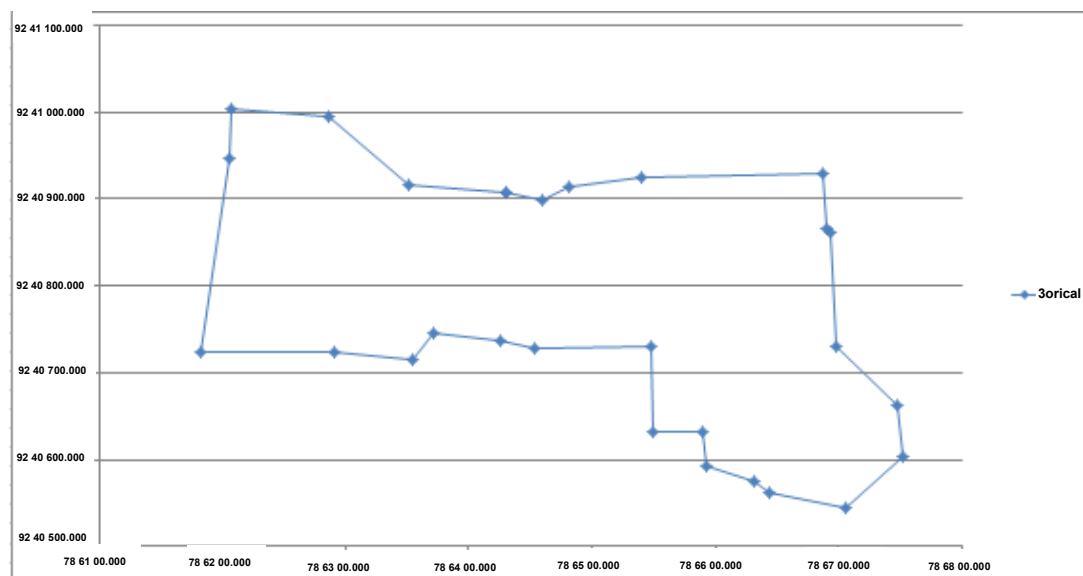
Measurement Horizontal Framework were calculated using a polygon. The technical specifications of the polygon measurements must comply with the specifications as follows:

- a. Tracking point basic framework with GPS navigation (temporary coordinates) to determine the distribution points.
- b. Using the tool ETS (precision of 1 second) to measure the true coordinates.
- c. The reading corner is done Ordinary (B) - Extraordinary (LB) and carried out 2 times the usual measurements - incredible.
- d. Direction of rotation clockwise binoculars.
- e. Errors and outstanding corner a maximum of 5 'per 1 series (1 series 2 measurements).
- f. Error geometric angles closed polygon.

Table 2 is a list of the coordinates of the point of measurement results KDH belt.

**Table 2.** Coordinates Horizontal Framework (KDH)

<b>X (m)</b>	<b>Y (m)</b>	<b>Titik</b>
786351.776	9240915.894	PT1
786285.974	9240993.916	PT2
786208.314	9241002.574	PT3
786206.411	9240945.972	PT4
786183.055	9240723.648	PT5
786291.708	9240723.801	PT6
786355.337	9240715.552	PT7
786372.239	9240746.426	PT8
786425.687	9240737.451	PT9
786454.278	9240727.936	PT10
786548.035	9240730.993	PT11
786549.837	9240631.777	PT12
786590.399	9240632.174	PT13
786592.621	9240593.145	PT14
786632.010	9240574.803	PT15
786643.651	9240561.368	PT16
786706.608	9240543.588	PT17
786752.043	9240602.946	PT18
786747.911	9240662.791	PT19
786697.426	9240730.422	PT20
786693.820	9240860.458	PT21
786686.986	9240928.527	PT22
786540.048	9240924.952	PT23
786481.676	9240913.256	PT24



**Figure 1.** Visualization Distribution of GPS measurement points and Detail measurement points

Detail measurement of Campus UPI Bandung situation get the restriction area / area of the object being observed, where the technical specifications of measurement include:

- a. Measurements made with a Tachymetry method.
- b. The map scale of 1: 1000.
- c. The contour interval of 0.5 m.
- d. Measured by Electronic Total Station.
- e. Distance measurement does not exceed 500 meters.
- f. Taking the high point of every detail along with the measurement object coordinates. If the point of detail not visible from the point of the basic framework of the skeleton point Help should be strapped to the point of the basic framework.
- g. Using the principle of radial
- h. Unit distances, coordinates, and height in metric with the tiniest fraction of a millimeter.
- i. Unit angle both horizontally and vertically in degrees with the smallest fraction of a second.
- j. Do high measurement BM against the ground and high tool against BM.
- k. Each measurement is carried along with the depiction sketch symbolizing each object measured.
- l. If the details are not visible from the point of the basic framework, then the auxiliary point made should be strapped to the point of the basic framework.



**Figure 2.** 3 Dimension Visualization of Campus UPI Bandung

### 3.3. Tourism Zoning Area In Campus UPI Bandung

Tourism areas in Campus UPI are classified into the following four zones.

- a. Sports and leisure zone
- b. Historical zone
- c. Botanical zone
- d. Religion zone

### 4. Conclusions

From the analysis, the study proposed the following conclusions: Region tourism UPI zoning has been in analysis with GIS, resulting in a zoning-travel zone in accordance with their respective functions, each travel zone can be mapped into a 3D map attached. There is a time difference of resistance among respondents in each zoning travel. Development of travel zoning can be done with reference to some of the following recommendations: Botanical Zone: garden Condition good enough only required the addition of plant collections and good treatment by the manager, and that some locations should be visited by the public, because the current botanical garden is a covered area that should not be careless people enter. Zone Museum: Museum recently opened in good condition and should be maintained by a manager with a good and true, the collection in the museum some places still vacant should be given supplemental biorama collection and other collections that match the theme of museum education Indonesia. Zoning Sport: sport management area should be optimized, because the sports area is a very important facility for UPI has a faculty of sports (FPOK). It shall sport area is free for the students because the campus is a campus facility must also pay more attention to the sports facilities to be maintained quality sports facilities. Zone religion: ITC has been very nice neighborhood and in accordance with its function as a house of worship and tutorials for students UPI region to increase the faith and devotion of students in accordance with the motto of UPI as religious campus. There are some suggestions were proposed in this study: There needs to be an alternative tracking that can be developed in the region with regard segmentation Edutourism UPI travellers. Support the high-resolution remote sensing data to produce maps more accurate travel zoning.

### References

- [1] Mulyani L F, Marsoedi M, Guntur G 2017 An Application of Geographic Information System to Identify the Suitability of Sea Cucumbers (*Holothuria scabra*) in West Lombok Waters *Journal of Indonesian Tourism and Development Studies* **5** 3 155–160
- [2] Pratama A, Octavia D 2016 Factor Analysis of Sustainable Tourism in Bandung City *e-Proceeding of Management* **3** 2 12
- [3] UPI 2013 *UPI Annual Report. Universitas Pendidikan Indonesia* (online) Retrieved from <http://ditrenbang.upi.edu/laporan-tahunan-upi/>
- [4] Kotler P, Keller K L 2012 *Marketing management (14th) Upper Saddle River* (N.J: Prentice Hall)
- [5] Indonesian Government Regulation 1991 *Indonesian Government Regulation No. 19*