IISTE

A Structural Model for the Development of Competitive Tourist Destinations : a Case Study of Jakarta

Sadar Pakarti Budi

Doctoral Student of Architechture and Planning Department
Faculty of Engineer of Gadjah Mada University
Jl. Grafika 2, Sekip, Yogyakarta 55281, Indonesia
E-mail : sadarbudi@yahoo.com
sadarbudi@mail.ugm.ac.id

Abstract

This study aims at researching the structural model for the development of tourist destinations. The research data was collected from tourists visiting major destinations within Jakarta. The software used in this structural model analysis is LISREL 8.81 for Windows. The study results show that the quality of tourist destinations is influenced by human resources competency, site facilities and infrastructure, and cultural attractions. In turn, the image or branding is influenced by this quality as well as by intensive marketing, cleanliness and health standards. Furthermore,   business competitiveness is influenced by the quality and the image of these destinations with a main emphasis on the development of cooperation.

Keywords: Model, Development, Tourism, SEM, Competitiveness, Jakarta

1. Introduction

World Economic Forum (2011) stated that tourism contributes significantly to gross domestic product (GDP) and creates jobs. In developing a tourist destination, image or brand and environment are two of the most important factors to identify alternative destinations and to determine marketing strategy. In turn, good services play a crucial role in developing image (Lee, 2009). With regards to business climate, some of the important factors are culture, training, entities, facilities, business services, infrastructure support, and natural resources (Kline, 2007). In addition, the competitiveness of the tourist destinations is determined by existing cultural attractions, natural and man-made attractions, facilities and infrastructure, and image (Crouch, 2008). A sustainable business development must be improved continuously in terms of their specific skills, which include human resource competency (Zimmerer & Scarborough, 2008). According to Michel E. Porter (2008), there are five forces required to create competitiveness in the tourism industry, namely the quality of service, the tourists' desire to visit, threats from other destinations, upcoming new destinations, and existing competition. Other sources stated that sustainable tourism can be developed if relevant stakeholders support conservation, maintain health standards, safety and security (UNEP & WTO, 2005). Another factor that also influences the competitiveness of a tourist destination is environmental sustainability (WEF, 2013). However, it should be noted that the development of a tourist destination should aim not only at economic sustainability but also environmental preservation (CSES, 2013). In principle, the main purpose of improving competitiveness is to improve economic welfare, environmental management, and quality of life (Crouch & Ritchie, 1999).

In Indonesia, tourism contributes to its gross domestic product, job opportunities, and income tax (Ministry of Culture and Tourism, 2011). The Indonesian government has a policy to develop its national tourism across 222 areas, among which is Jakarta (PP No.50, 2011). Jakarta has eight prominent tourist destinations as declared by DKI Jakarta provincial administration in its 2030 Spatial Planning: (1)*Taman Impian Jaya Ancol*; (2) *Taman Mini Indonesia Indah*; (3) *Kebon Binatang Ragunan*; (4) *Monumen Nasional*; (5) *Museum Nasional*; (6) *Museum Satria Mandala*; (7) *Museum Sejarah Jakarta*; (8) *Pelabuhan Sunda Kelapa* (Perda, 2011). In 2011, there were 19.57 million people visiting various tourist attractions in Jakarta: 10% were international tourists, 70% were from outside Jakarta and 20% were from the city itself. In addition, from 2010 to 2013 the average number of international tourists increased by 5.18% (BPS, 2013).

However, according to Center of Political Studies University of Indonesia, Jakarta is presented with several major problems, namely traffic congestion, flooding and community welfare (Puskapol UI, 2012). In addition, DKI Jakarta's Board of Environmental Management in 2013 stated that the city was facing issues with regards to natural resources and the environment such as the increase in oil fuel consumption, the increase of garbage volume, flood and drainage systems, and high levels of pollution (BPHLD,2013). These issues presented obstacles in the development of tourism especially in the aspects of destinations, human resources, and marketing as outlined in the Indonesian Government's current national policy (Law No.10, 2009).

Existing research results have identified the factors that influence competitiveness. Nonetheless, there are still relatively few studies that are aimed at creating a model to develop tourist destinations in cities by involving complex variables. The model created by Ritchie and Crouch in 2003 was an example of one that organized complete variables contributing to the main resources and attractions, policies, planning and development.

However, this model was criticized by Armenki because it did not describe the elements that possessed realistic relations (as cited in Paap & Raffay, 2011). Therefore, this study is aimed at exploring a structural model for the development of tourist destinations in the city, including the scale of relations between variables and their scale of influence. The variables in this model are related to tourist attractions, facilities and infrastructure, human resources, the image of the destinations, and business competitiveness. All variables used for modeling were selected from variables that had been used by several studies and report (Alina & Catalina, 2008; Barbosa, Oliveira, & Rezede, 2010; Crouch, 2008; Dwyer & Kim, 2003; Kline, 2007; Lee, 2009; WEF, 2013). All variables used for modeling were selected from variables that had been used by several studies and report (Alina & Catalina, 2008; Anderson, 2009; Barbosa, Oliveira, & Rezede, 2010; Crouch, 2008; Dwyer & Kim, 2003; Kline, 2007; Lee, 2009; WEF, 2013).

2. Method

Structural Equation Modeling (SEM) is used to analyze data. SEM is a technique to conduct multivariate analysis, developed to overcome the limitations in previous techniques such as regression analysis, linear analysis, and confirmatory factor analysis (Hox & Bechger, 1998). In this study, main variables are grouped into the quality of the tourist destinations, their image, and their business competitiveness.

Data collection is based on the surveys carried out on tourists visiting the sites. The survey itself took the form of a questionnaire in Likert scale, in which respondents determined their attitude towards every question presented. The respondents chose from several alternatives: strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree (Losby & Wetmore, 2012). The samples consisted of 200 respondents, in accordance with the requirement for reliable data sources (Hooper, 2008; Herzog & Boomsma, 2011; Malholtra, 2007). The samples were taken from several sites in Jakarta: *Taman Impian Jaya Ancol*, *Kota Tua*, *Kelapa Gading* shopping and culinary center, *Monumen Nasional*, *Tanah Abang* Texile Market, *Senayan* City shopping and culinary center, *Kota Kasablanka* shopping and culinary center, *Kebun Binatang Ragunan* and *Cagar Budaya Situ Babakan* (Figure 1). To analyze the relations and the roles of each variable, a software called LISREL 8.81 for Windows is used.

3. Results

Generally in a structural model, the larger the construct coefficient of a variable is, the bigger its influence on the structural model itself will be. In each variable, the higher the standardized loading factor (SLF) of an indicator is, the bigger that indicator will influence the variable. Indicators that are most influential to the variables are cultural attractions, facilities and infrastructure, human resources competence, intensive marketing, facilities and infrastructure in the business areas, as well as business cooperation (Table 1 and Figure 2). In other words, in order to develop tourist destinations, the main priority to be developed is cultural attractions, facilities and infrastructure on the sites, human resources competence, business facilities and infrastructure, and business cooperation.

As an illustration, human resource competence, facilities and infrastructure on the sites, and cultural attractions influence the increase of quality of tourist destinations in Jakarta such as Taman Mini Indonesia Indah. The increase of human resource competence, development of facilities and infrastructure on the sites, improvement and expansion of cultural attractions will indirectly improve image or branding of the sites. In addition to improving the quality of the locale, its image can be upgraded by prioritizing intensive marketing, environmental health and cleanliness, and environmental sustainability. Image is also influenced by business competitiveness, whose improvement depends mainly on the construction of business facilities and infrastructure, and strengthened by generating more business cooperation. An example is marketing cooperation between *Taman Impian Jaya Ancol* and *Taman Mini Indonesia Indah* in one city travel package, which in turn increased the number of tourist visits and contributed to the sustainability of economic growth and development in Jakarta.

The resulting structural equation modeling (SEM) can be seen in Figure 2. Every latent variable has a loading factor (LF): TA (0.29), MI (0.36) and HR (0.39), AQ (0.95), IA (0.86), and CB (0.82). For example, between exogenous variables TA, MI, and HR, the highest loading factor was HR. This means that human resources gives the highest contribution in increasing the quality of tourist destination area (AQ). Every indicator has a standardized loading factor (SLF) for example TA_1 (0.63) and TA_2 (0.80), meaning that cultural attractions (TA_2) has a higher contribution than natural and man-made attractions (TA_1).

The significance test showed no value for T-tst < 1.96 at $\alpha = 0.05$, meaning that the relations between variables of tourist attractions (TA), means and infrastructure (MI), human resources (HR), area quality (AQ), image of area (IA), and competitiveness of business (CB) are all significant. Similarly, the relations between variables and their indicators are significant (Figure 3).

The relations between TA and indicators of natural and man-made attractions (TA_1), as well as cultural attractions (TA_2) are significant. The relation between MI and indicators of air transport (MI_21), land transport (MI_22), sea transport (MI_23), and site means and infrastructure (MI_25) is significant; however, the

relation between MI and information and communication technology (MI_24) is not significant. The relation between HR and indicators of the number of tourism schools and courses (HR1), competence (HR2), attitude and friendliness (HR3), ethics and manner (HR4) is all significant. Meanwhile, area quality only has one specific indicator, namely the quality of the area itself, which is a latent variable score (LVS). The relation between image of area (IA) and indicators of environmental sustainability (ES), safety and security (SS), cleanliness and health (CH), price preference (PP), intensive marketing (MK) is all significant. The relation between CB and indicators of easy access to bank loans (CB1), business start up fund (CB2), business start-up duration (CB3), business facilities and infrastructure (CB4), business information (CB5), business cooperation (CB6), business license (CB7), business opportunities (CB8), business promotion (CB9), support from government and private institutions (CB10) is all significant (Figure 3).

The testing using confirmatory factor analysis (CFA) shows that the model is acceptable. The structural model complies with the goodness of fit test (GOF) as seen in Table 1. The model is fit because data analysis resulted in the value of Chi-square (χ^2)/df = 0.5952 or Chi-square (χ^2)/df $\leq$ 3. Another factor is also used to test the model and shows that this measurement model is a close fit. (Table 1).

Standardized loading factor (SLF) indicator has a strong validation as shown in Table 2. The SLF value of 0.50 has a strong validation to explain latent construct (Hair, Black, Babin, Anderson, & Thatam, 2006; Ghozali & Fuad, 2008; Kusnendi, 2008; Wijanto, 2008). However, other references stated that the weakest loading factor acceptable is 0.40 (Sharma, 1996; Ferdinand, 2000). This modeling results show that SLF is strong enough because the value is bigger than 0.50. The variables are reliable if Construct Realibility (CR) > 0.7 (Hair et al., 2006). In this study, all latent variables are reliable because the value of CR > 0,7.

4. Conclusion

The findings of the study complete our understanding of the model for developing tourist destinations especially inner city ones. The model shows that the quality of human resources, facilities and infrastructure and tourist attractions directly influence the quality and indirectly influence the image of those destinations. In addition, image or branding is directly influenced by its main indicators namely intensive marketing, cleanliness and health. On the other hand, business competitiveness is directly influenced by image and its own main indicators, namely business facilities and infrastructure, and business cooperation. In order to build competitive tourist destinations it is necessary to simultaneously develop the quality of the area, the image or branding, and tourism business competitiveness.

Reference

Alina CătăneŃ, Cătălina Radu, - "Competitiveness of Romania as a Tourist Destination", Oradea, publicat în Analele UniversităŃii din Oradea, Seria ŞtiinŃe Economice (B+), TOM XVII/2008, Volumul IV Management and marketing, p. 778-783, ISSN 1582-5450

Anderson, Kelly.(2009). *Raising Awareness through Ecotourism Architecture*. Master's thesis University of Cincinati. Retrieved from   https://etd.ohiolink.edu/ap

Barbosa, L.G.M., Oliveira, C.T.F., & Rezende, Cristiane. (2010). Competitiveness of tourist destinations : *The study of 65 key destinations for the development of regional tourism*. Retrieved from http://www.scielo.br/pdf/rap/v44n5/v44n5a04.pdf

BPHLD. (2013). *Masalah Utama Kota Jakarta*. Jakarta: DKI Jakarta's Board of Environmental Management.

BPS. (2013). *Statistical Report on Visitor Arrivals to Indonesia 2013*. Jakarta: Central Bureau of Statistics.

CSES. (2013). *Enhancing the Competitiveness of Tourism in the EU: An Evaluation Approach to Establishing 20 Cases of Innovation and Good Practice*. Kent: Centre for Strategy & Evaluation Services

Crouch, Geoffrei I., & Ritchie, J.R. Brent. (1999). *Tourism, Competitiveness, and Societal Prosperity*. New York : Journal of Business Research 44, 137-152.

Crouch, Geoffrei I. (2008). *Expert Judgment of Destination Competitiveness Attributes*. Melbourne: La Trobe University, School of Business.

Dwyer, Larry & Kim, Chulwon. (2003). *Destination competitiveness: determinants and indicators*. Retrieved from http://fama2.us.es:8080/turismo/turismonet1/economia

Ferdinand, A. (2000). *Structural Equation Modelling dalam Penelitian Manajemen*. Semarang : Badan Penerbit Universitas Diponegoro.

Ghozali, Imam., & Fuad. (2008). *Sturctural Equation Modeling : Teori, Konsep, dan Aplikasi dengan Program LISREL 8.80*. Semarang : Badan Penerbit Universitas Diponegoro.

Hair, Jr J. F., Black, W. C., Babin, B. J., Anderson, R. E.,& Thatam, R. L.(2006). Multivariate Data Analysis 6th Edition. Upper Saddle River, New Jersey: Pearson Education, Inc.

Herzog, Walter., & Boomsma, Anne. (2011). *Small-Sample Rebust Estimators of Nencentrality-Based and Incremental Model Fit*. London: Psycholoby Press.

Hooper, Daire., Coughlan, Joseph., and Mullen, Micael R. (2008). *Structural Equation Modelling: Guidelines for*

Determining Model Fit. Electronic Jounal of Business Research Methods. Retrieved from www.ejbrm.com/issue/download.html?idArticle=183

Hox, J. J., Bechger, T. M. (1998). An Introduction to structural equation Modeling. *Family Science Review*, Vol 11, 354-373.

Kline, Carol Suzanne. (2007). *The Role of Entrepreneurial Climate in Rural Tourism Development*. North Carolina: North Carolina State University. Retrieved from http://repository.lib.ncsu.edu/ir/bitstream/1840.16/4071/1/etd.pdf

Kusnendi. (2006). *Model-Model Persamaan Struktural Satu dan Multigroup Sampel dengan LISREL*. Bandung : Alfabeta.

Lee, Tsung-Hung. (2009). *A structural model for examining how destination image and interpretation services affect future visitation behavior: a case study of Taiwan's Taomi eco-village*. Journal of Sustainable Tourism, Vol. 17, No. 6, November 2009, 727-745

Losby, Jan and Anne Wetmore. (2012). *CDC Coffee Break: Using Likert Scale in Evaluation Survey* Work. Retrieved from http://www.cdc.gov/dhdsp/pubs/docs/cb_february_14_2012.pdf

Law No.10. (2009). *Undang-Undang Republik Indonesia Nomor 10.Tahun 2009 Tentang Kepariwisataan*. Jakarta : Kementerian Sekretariat Negara RI.

Malholtra, N. (2007). *Marketing Research: an applied orientation*. Fifth Edition. New Jersey: Pearson Prentice Hall.

Ministry of Culture and Tourism. (2011). *Neraca Satelit Pariwisata Nasional*. Jakarta : Ministry of Culture andTourism of Indonesia.

Papp, Zsofia and Agnes Raffay. (2011). *Factors Influencing the Tourism Competitiveness of Former Socialist Countries*. Human Geographies-Journal of Studies and Research in Human Geography 5.2, 21-30

Perda No.1.(2012). *Peraturan Daerah Provinsi DKI Jakarta No.1. 2012 tentang Rencana Tata Ruang Wilayah 2030*. Jakarta : Jakarta Capital City Government

Porter, Michael E. (2008). *The Five Competitive Forces That Shape Strategy*. Boston: Harvard Business Review.

PP No.50. (2011). *Peraturan Pemerintah Republik Indonesia Nomor 50 tahun 2011 Tentang Rencana Induk Pembangunan Kepariwisataan Nasional tahun 2010 – 2025*. Jakarta : Kementerian Sekretariat Kabinet RI

Puskapol UI. (2012). *Hasil Survey Aspirasi Warga Tentang Pemilukada DKI Jakarta 2012 Dan Masalah Kota Jakarta*. Jakarta : University of Indonesia. Retrieved from http://www.tribunnews.com/metropolitan/2012/04/22/

Sharma, S. (1996). *Applied Multivariate Techniques*. New York: John Willey & Sons. Englewood Chiffs, New Jersey.

UNEP & WTO. (2005). *Making Tourism Sustainable – A Guide for Policy Makers*. Paris; Madrid.

Wijanto, Setyo Hari. (2008). *Structural Equation Modeling dengan LISREL 8.8 : Konsep & Tutorial*. Yogyakarta : Graha Ilmu.

World Economic Forum. (2011). *The Travel & Tourism Competitiveness Report 2011*. Geneva. Retrieved from http://www.weforum.org/reports/travel-tourism-competitiveness-report-2011

World Economic Forum. (2013). *The Travel & Tourism Competitiveness Report 2013*. Geneva. Retrieved from http://www.weforum.org/reports/travel-tourism-competitiveness-report-2013

Zimmerer, T. W., & Scarborough, N. M. (2008). *Kewirausahaan dan Manajemen Usaha Kecil*, 5th Edition, Book One. Jakarta: Translation of Salemba Empat.
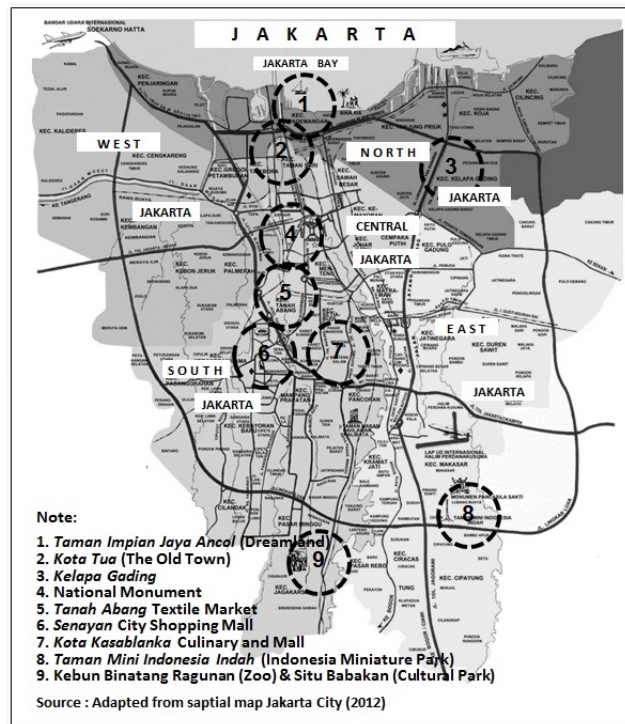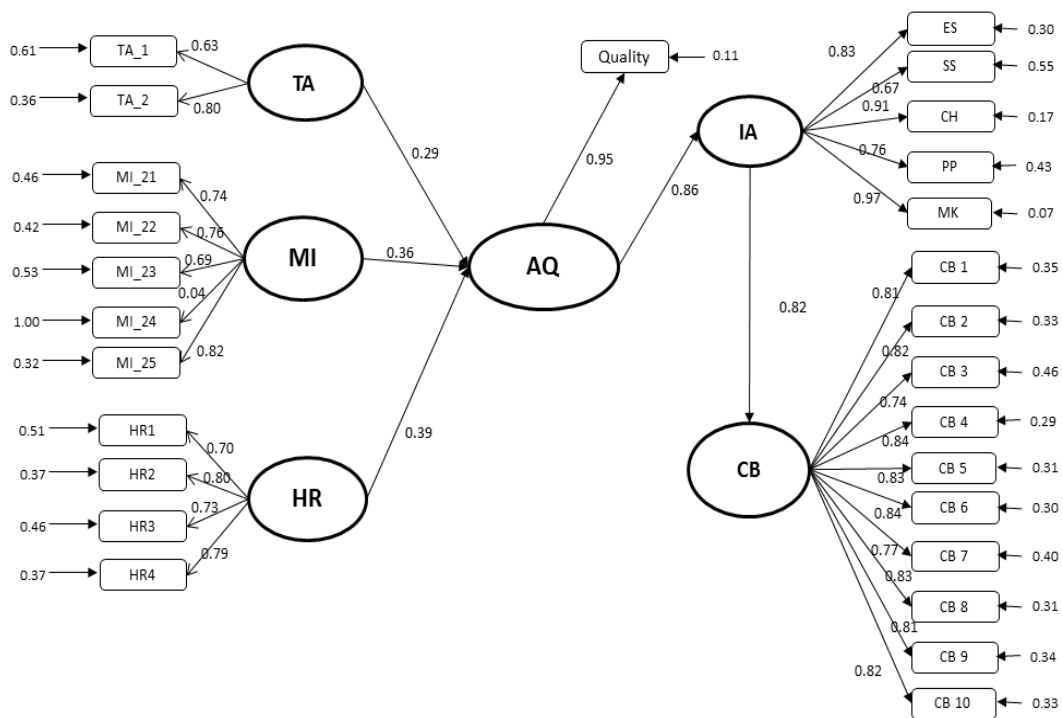
Figure 1 Location of Study

Chi-Square= 183.31, df= 308, P=value=1.00, RMSEA=0.000

TA	: Tourist Attraction	IA	: Image of Area
TA_1	: Nature and man-made attraction	ES	: Environmental Sustainability
TA_2	: Cultural Attraction	SS	: Safety and Security
MI	: Means and Infrastructure	CH	: Cleanliness and Health
MI_21	: Air Transport	PP	: Price Preference
MI_22	: Land Transport	MK	: Intensive Marketing
MI_23	: Sea Transport	CB	: Competitiveness of Business
MI_24	: Information and Communication Technology (ICT)	CB1	: Easy Access to Bank Loan
MI_25	: Site infrastructure	CB 2	: Business Start up Fund

17

HR	: Human Resources	CB3	: Duration to start business
HR1	: Number of Tourism School and Courses	CB4	: Business facilities and Infrastructure
HR2	: Competence	CB5	: Business Information
HR3	: Attitude and Friendliness	CB6	: Business Cooperation
HR4	: Ethics and Manner	CB7	: Business License
AQ	: Area Quality only having one indicator :	CB8	: Business Opportunities
	area quality itself	CB9	: Business Promotion

Indicator is the latent variable score (LVS)

CB10 : Support from Government and Private Institutions

Figure 2 Structural Model for the Development of Competitive Tourist Destinations
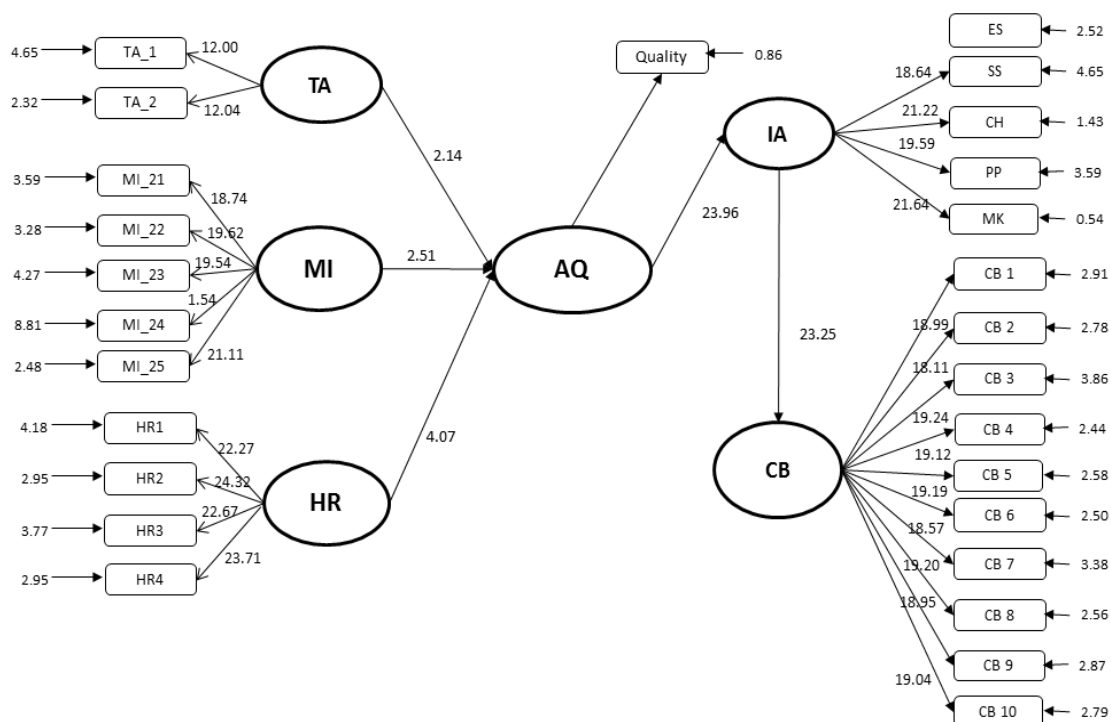
Chi-Square= 183.31, df= 308, P=value=1.00, RMSEA=0.000

Figure 3 T-test of Structural Model of Tourism Destination Development

Table 1 Analysis on Goodness of Fit (GOF) Test toward the Structured Model

GOF	Cut off Value	Research Results	Notes
Chi-square (χ^2)	Preferably small	183.315	*close fit*
Df		308	*close fit*
Chi-square (χ^2)/df	≤ 3	0.5952	*close fit*
Probability (*p-value*)	$\geq 0,05$	1.000	*close fit*
RMR	$\leq 0,05$ or ≤ 0.10	0.0558	*close fit*
RMSEA	$\leq 0,08$	0.000	*close fit*
GFI	$\geq 0,90$	0.989	*close fit*
AGFI	$\geq 0,90$	0.987	*close fit*
CFI	$\geq 0,90$	1.000	*close fit*
NFI	$\geq 0,90$	1.000	*close fit*
NNFI	$\geq 0,90$	1.023	*close fit*
RFI	$\geq 0,90$	1.000	*close fit*
IFI	$\geq 0,90$	1.021	*close fit*

Note :

df	: degrees of freedom	CFI	: Comparative Fit Index
RMR	: Root Mean Square Residual	NFI	: Normed Fit Index
RMSEA	: Root Mean Square Error of Approximation	NNFI	: Non Normed Fit Index
GFI	: Goodness of Fit Index	RFI	: Relative Fit Index
AGFI	: Adjusted goodness-of-fit statistic	IFI	: Incremental Fit Index

Table 2 Loading factor and the t-value

Latent Variable	Coefficient of Construct	Indicator	Standardized Loading Factor (SLF)	t-value	Errorvar
Tourist Attraction (x_1) CR : 67.98%, VE : 51.85%	0.29 (T=-2.14)	Natural and man-made attractions	0.63	12	0.6031
		Cultural attractions	0.80	12.04	0.36
Means and Infrastructure (X_2) CR : 77.34%, VE : 45.50%	0.36 (T=2.51)	Air transport	0.74	18.74	0.4524
		Land transport	0.76	19.62	0.4224
		Sea transport	0.69	19.54	0.5239
		Information and communication technology	0.04	1.54	0.9984
		Site means and infrastructure	0.82	21.11	0.3276
Human Resources (x_3) CR : 84.19%, VE : 57.17%	0.39 (T=4.07)	Number of tourism schools and courses	0.70	22.27	0.51
		Competence	0.80	24.32	0.36
		Attitude and friendliness	0.73	22.67	0.4671
		Ethics and manner	0.79	23.71	0.3759
Area Quality (h_1) CR : 90.25%, VE : 90.25%	0.86 (T=23.96)	Area quality	0.95		0.0975
Image of Area (h_2) CR : 91.88% VE : 73.20%	0.82 (T=23.25)	Environmental sustainability	0.83		0.3111
		Safety and security	0.67	18.64	0.5511
		Cleanliness and health standard	0.91	21.22	0.1719
		Price preference	0.76	19.59	0.4224
		Intensive marketing	0.97	21.64	0.0591
Comepetitiveness of Business ((h_3) CR : 95.06% VE : 65.86%		Easy access to bank loan	0.81		0.3439
		Business strut up fund	0.82	18.99	0.3276
		Business start-up duration	0.74	18.11	0.4524
		Business facilities & Infrastructure	0.84	19.24	0.2944
		Business informasiont	0.83	19.12	0.3111
		Business cooperation	0.84	19.19	0.2944
		Business license	0.77	18.57	0.4071
		Business opportunities	0.83	19.2	0.3111
		Business promotion	0.81	18.95	0.3439
		Support from government and private institutions	0.82	19.04	0.3276