

Critical Success Factors of Public-Private-Community Partnership in Bali Tourism Infrastructure Development

Ida Bagus Putu Adnyana¹, Nadjadji Anwar¹, Ria A.A. Soemitro¹ & Christiono Utomo¹

¹Institut Teknologi Sepuluh Nopember, Faculty of Civil Engineering and Planning, Surabaya, Indonesia

Correspondence: Ida Bagus Putu Adnyana, Institut Teknologi Sepuluh Nopember, Faculty of Civil Engineering and Planning, Surabaya, Indonesia. Tel: 62-821-3380-9777. E-mail: bagusadnyana32@gmail.com

Received: May 15, 2015 Accepted: June 3, 2015 Online Published: July 29, 2015

doi:10.5539/jsd.v8n6p208

URL: <http://dx.doi.org/10.5539/jsd.v8n6p208>

Abstract

According to the National Development Planning Agency (Bappenas), the limited budget of the Government of Indonesia to improve public facilities can be resolved through the approach of Public-Private Partnership (PPP). PPP beneficial for the parties involved in such cooperation, among others, the transfer of technology, transfer of risk, and increase accountability. Until now, the PPP has not involve the active participation of the community, it is necessary to add an element of society in the so-called Public-Private-Community Partnership (PPCP). This study aims to investigate Critical Success Factors (CSF) of PPCP. CSF of PPCP obtained from the literature study of PPP. Respondents came from the regency/city level agency heads such as: the private sector at management level, party people represented by Indigenous Chairman (*bendesa adat*), *penyarikan* (secretary) and *juru raksa* (treasurer). Data of the questionnaire results collected resulted in a significant index (rate of interest) and subsequently analyzed with the “factor analysis” to determine CSF of PPCP. This study resulted in CSF of PPCP by incorporating local communities into the PPP, which is an improvement proposal for Decree No. 13 of 2007 about cooperation between the government and the private sector in infrastructure. From the results of a factor analysis, obtained the nine CSF are: socio-cultural factors (values diversity of 29.914%), legal factors (14.198%), procurement factor (5.330%), risk factors (4.956%), a consortium factor (4.312%), technical factors (3.951%), economic factors (3.643%), financial factors (3.241%), and technological factors (3.224%).

Keywords: public, private, community, critical success factors, infrastructure.

Glossary: PPP: Public-Private Partnership, PCP: Public-Community Partnership, CSF: Critical Success Factors, BOOT: Build-Own-Operate-Transfer, BOT: Build-Operate-Transfer, NTO: National Tourism Organization, EATOF: East Asian Inter-Regional Tourism Forum, KMO: Kaiser-Meyer-Olkin, MSA: Mean sure of Sampling Adequacy.

1. Introduction

The development of infrastructure is to support economic activity of a country, especially in developing countries. On the other hand a very limited budget to build infrastructure in a short time, therefore it is necessary to accelerate the development of infrastructure PPP (Bappenas, 2010).

Presidential Decree No. 13 of 2010 is an amendment to Presidential Decree No. 67 of 2005 on PPP, which saw two stakeholders, namely government and private. The concept of PPP does not involve the active participation of the local community; it needs to make a model of PPCP.

Several research community participation, the development of tourism infrastructure has been done both in Indonesia and abroad, among others: community involvement and participation in tourism development in Tanzania (Michael M, 2009); Limits to community participation in the tourism development process in developing countries (Tosun, 2000); and strategy for increasing community participation in the management of rural water supply systems in the Middle East District South East Nusa Tenggara (Taopan, 2007). Active participation in the community approach has been widely published Indonesia in government regulations, among others: active community participation approach to support sustainable development (Gupta, 2005).

Local communities were used in this study is the Balinese community called the Village People. Balinese traditional village chosen as an object of study for the reason, among others: the people of Bali has its own uniqueness in keeping the culture of Bali, Bali province as a tourist contributor in Indonesia, and Bali is the

world's only tourist destination. Balinese traditional village is the unity of indigenous people in the province of Bali which has a tradition of unity and social life ordinances hereditary Hindu community in bond of *Tri Kahyangan Tiga* or village that has a particular area and its own assets and reserves the right to manage his own household (Regulation of Bali Province No. 3 of 2003). Communities than there are in Bali, based on the origin and local customs exist also in other areas, namely: *Huta/Nagori* in Sumatera Utara, *Gampong* in Aceh, *Nagari* in Minangkabau, *Marga* in Sumatera Selatan, *Tiuh or Pekon* in Lampung, *Lembang* in Toraja, *Banua and Wanua* in Kalimantan, and *Negeri* in Maluku (Act No. 6 Village Government, the Government of the Republic of Indonesia, 2014).

Previous studies only discuss the factors that influence the PPP. Factors in question are financially, consortium, technical, government guarantees, conditions of the project, and risk sharing. The study was conducted by Li. et.al in 2005, discusses the identification of Critical Success Factor in the PPP in the UK; Tiong in 1996 to discuss the identification of Critical Success Factor in BOT projects; and Zhang in 2005 to discuss the identification of Critical Success Factor in infrastructure development. Based on these phenomena, so it needs PPCP models on infrastructure development of tourism in Bali.

PPCP on infrastructure development in Bali include PPCP Ujung (Karangasem Regency, 2005), PPCP Tanah Lot (Tabanan Regency, 2000), PPCP Ulundanu Beratan (Tabanan Regency, 2011), PPCP Goa Lawah (Klungkung Regency, 2005), PPCP Goa Gajah (Gianyar Regency, 2010), PPCP Pasir Putih Bugarasi (Karangasem Regency, 1991), PPCP Kertalangu (Denpasar City, 1998), PPCP Mulya (Badung Regency, 2012) and PPCP GWK (Badung Regency, 1998). Model PPCP on tourism infrastructure development needed to implement the cooperation of three stakeholders, namely government, private, and community.

A research problem above is what is CSF of PPCP? and the research objective is to identify CSF of PPCP. While the originalities of research are: (1) Insert the active participation of local communities in PPP in Indonesia, (2) getting CSF of PPCP.

2. Methodology Research

This study uses primary (questionnaires and interviews) and secondary data (literature). To obtain the CSF of PPCP, will be the stage of this research as follows: (a) The study of literature and the pre-survey to search for variables that affect collaboration involving government, private sector, and local community (Li & Akintoye, 2005; Tiong, 1992; Zhang, 2005; Rachmawati, 2006), (b) making research instruments such as questionnaires and unstructured interviews as well as to test the validity and reliability, (c) conducting interviews and distributing questionnaires to the respondents to validate the factors previously arranged (Umar, 2003), (d) entered into the data processing of the results of questionnaires with statistical approach, namely factor analysis (Rimbawan, 2011; Rimbawan, 2013; Santosa, 2010; Sharma, 1996; Singarimbun, 1996; Supranto, 2004), then (e) dominant variable and similar variables grouped and named the CSF of PPCP.

3. Results and Discussion

3.1 Public-Private Partnership (PPP)

PPP is a public-private partnership involving a huge investment/capital intensive where the private sector to finance, build, and manage infrastructure and facilities, while the government as partners who handles care setting, in this case remain as owners of assets and controlling the implementation of cooperation (Kurdi, 2004).

Actually BOT is a form of the concession contract. Concession contract (Zhang, 2001) can be: Build-Own-Operate, Build-Lease-Transfer, Build-Own-Operate-Maintain, Build-Own-Operate-Transfer, Build-Transfer-Operate, Design-Build-Finance- Operate, Design-Build-Operate, Design-Build-Operate-Maintain, Rehabilitate-Own-Operate, Rehabilitate-Operate-Transfer.

The main difference from some form of PPP in the ownership, investment and commercial risks based research organization for economic co-operation and development (OECD, 2005) can be seen in Table 1.

Table 1. Characteristics of alternative forms of PPP

Parameter	Operation & Maintenance	Ownership	Investment	Commercial Risk	Duration (year)
<i>Management Support</i>	Public & Private	Public	Public	Public	1-2
O & M	Private	Public	Public	Public	3-5
<i>Leasing</i>	Private	Public	Public	Semi- Private	8-15
<i>Concession</i>	Private	Public	Private	Private	20-30
DBO	Private	Public	Public	Private	20-30
BOT/BOO	Private	Public & Private	Private	Private	20-30

Source: (OECD, 2005)

Based on the type and characteristics of the above contracts are commonly used variant of the scheme for BOOT is the BOT that have characteristics appropriate to the infrastructure projects and the allocation of risk is needed (Tiong, 1995). Based on the decomposition of the above forms of PPP, it can be said in general that cooperation BOT is a variant that is often used to increase private participation for infrastructure development in the region (Ramdani, 2004).

Problems often occur in developing countries (Askar, 2002) include: legal issues, the environment, the risk of unexpected, high- cost, effective determination of concession period, the contract clause issues, and risks to the Operate phase.

CSF is one of the company's activities that impact on the ability of the company to achieve its objectives. CSF is similar to the concept of management by exception in terms of focusing on the portion of a company's overall operations but CSF is more stable while management by exception can change from one period to the next (McLeod, 1995).

PPP in the field of regional planning and development of tourism in northern Brazil, examines the influence of content exploration socio-economic and political, to the arrangement of cooperation in the development of regional tourism. Cooperation between the organizations studied were various government spatial scale and level of functioning (Lidenberg & Bramwell, 2002).

The study of cooperation in tourism, and on marketing alliances and networks, the NTO and private non-profit organizations in Malaysia. Research presented in the event the Event Tourism and Destination Management International conference 2003 in China, to comprehensively assess the inter organizational alliances, partnerships and networking relationships between the Malaysian Tourism Promotion Board with private organizations and non- private (Othma, 2003).

In Indonesia, the policy of cooperation in tourism development in depth discussion about the issue of Public and Private Sector Partnership in the field of tourism, has been raised in Yogyakarta tourism symposium in 2001. Activity is part of a meeting of EATOF annual.

3.2 Community in Bali

Community in Bali who are in the neighborhood region called the traditional village. Existence of traditional village in Bali is recognized by Article 18 UUD 1945 and confirmed by the Bali Provincial Regulation No. 6 of 1986, which regulates the position, function, and role of traditional village as a unit of indigenous people in the Province of Bali. Institutions of traditional village is permanent and based on the Tri Hita Karana.

Understanding Indigenous Village has been formally stated in Article 1 (c) of Bali Provincial Regulation No.. 6 of 1986, which states that the traditional village is the unity of indigenous people in the Province of Bali which has a tradition of unity of social life and manners hereditary Hindu society in bonds of Tri Kahyangan Tiga that have a particular area and their own property and the right manage his own household.

Traditional Balinese village has the following characteristics : (a) Having a region with certain limits; (b) Having a clear members with specific requirements; (c) Having *Tri Kahyangan Tiga*; (d) Having autonomy either out or into; and (e) Having a customary rule management (*prajuru adat*) itself is based on its rules themselves

(*awig-awig*) both written and unwritten (Pitana, 1994).

3.3 Tools for Analysis

To obtain quantitative data on the degree of importance of a factor/variable in the questionnaire to describe the CSF, the perception created in the charging interval scale is a scale that shows the distance between the data with others and has the same weight (Sugiono, 2005) by providing scores on each answer. For that, scaled with the rating scale, where the raw data obtained in the form of numbers and then interpreted in a qualitative sense. In a scale model of the rating scale, respondents will answer one quantitative answer that has been provided (Sugiono, 2005).

Validity indicates the extent to which a measuring device is able to measure what you want to measure, while reliability is a term used to indicate the extent to which a measurement result are relatively consistent if the measurement is repeated twice or more (Singarimbun, 1996).

Factor analysis is a multivariate statistical analysis technique that aims to reduce the data. This analysis attempts to discover the relationship between each independent variable that can be made of one or a set of variables is smaller than the initial number of variables. Factor analysis is a technique that describes the relationship between the diversity of multiple variables in a small number of factors, in which variables have a high correlation grouped in one group (factor), whereas the correlation between variables in a group with other groups relative small. Between variables in a particular group has a very strong relationship, but the other variables in the other groups have a relationship that is comparatively small. Factor analysis can be used to identify and locate some concepts, the main factor, commonly called Exploratory Factor Analysis (Supranto, 2004).

3.4 Previous Research

The aspects that affect the CSF of PPP with the BOT scheme in previous research can be seen in Table 2.

Table 2. Aspects affecting PPP on previous research

No	Aspect	(Zhang, 2005)	(Tiong, 1992)	(Li., 2005)
1	Financial	√	√	√
2	Consortium	√	√	√
3	Technical	√	√	√
4	Government Guarantees	X	√	√
5	Risk Sharing	√	X	X
6	Procurement Services	X	X	√
7	Social	X	X	X
8	Culture	X	X	X

Note. √ = Aspects to be reviewed; X = Aspects to be investigated

3.5 Discussion

Questions of the questionnaire with a rating scale is not very important to very important with a rating scale of 1 to 5. Questionnaire concerning the following matters: financial analysis is right on target (A1), Financing budgeted stable (A2), the financial ability of the investor to adjust the increase in interest rates/inflation (A3), Commitment financing parties cooperate (A4), a balanced distribution of results (A5), the investment Scheduling payments (A6), rates are acceptable/approved by the cooperating parties (A7), relations and good cooperation of the parties involved (B1), good cooperation ability (B2), good leadership with entrepreneurial principles (B3), partisipasi involved come from various disciplines (B4), parties involved have the power of finance (B5), the good reputation of the government, private, and community (B6), Seasoned in PPCP (B7), the Consortium is tough and Strong (B8), Cost-effective in infrastructure development (C1), Taking into account the environmental impact (C2), Paying attention to safety and health (C3), the contract should clearly future cooperation parties involved (C4), an innovative Solosi (C5), an effective organizational structure and efficient (C6), advanced and appropriate technology (C7), accuracy in estimated development costs (C8), Collateral regulators/regulations of the government (D1), warranty contracts PPCP (D2), government involvement in infrastructure pembanguana (D3), the political conditions that favor Assurance (D4), fixed

interest rates and low (E1), the economic policies that support (E2), a stable macroeconomic conditions (E3), the exchange rate can be predicted (E4), promising economic growth (E5), the planned project promises to bring gains (F1), Flow attractive long-term cash for those who will lend capital (F2), Availability supplier during long-term operation (F3), the Competition is not much on the type of business (F4), which generated enough profit to attract investors (F5), government policy support project which will be built (F6), Commitment and responsibility of government, private, and community (F7), Regional enough marketing support (F8), the project is a requirement of government, private, and community (F9), a balanced distribution of risks and appropriate (G1), which can predict the risk scenario (G2), the insurance agreement (G3), a guarantee agreement (G4), future cooperation agreement/concession (G5), loan agreements when necessary (G6), operating expenses Agreement (G7), good cooperation between the government, private, and government authorities in the case of (H1), high commitment from the government, private, and community (H2), the Government is good and clean (H3), realistic cost benefit assessment (H4), the procurement process is competitive (H5), procurement processes are transparent (H6), development conducted the support of local communities (I1), active partisipasi Involving the local community (I2), Giving priority to local employment during the construction and operational (I3), Priority to local ingredients (I4), Adjusting to custom (I5), activities that do not conflict with religious social communities (I6), activity does not conflict with national law (J1), activity does not conflict with local customary law (J2), the legal language used Indonesian (J3), the legal domicile of activities in the local district (J4), listed in the contract dispute settlement measures (J5), in the manner specified contract completion unexpected circumstances (J6), listed in the contract firmness terminate the cooperation agreement (J7), a good working relationship each party (K1), the governing body's financial statements transparent (K2), Report of the activities of the management body (K3), correspondence/correspondents each party (K4).

Validity of the test results with the help of software SPSS 20 for Windows. Of the 72 variables tested its validity, there are three variables that are not valid are: Funding is budgeted stable (A2), and interest rates remain low (E1), the Competition is not much on the type of business (F4). The value of r table to test questionnaires 27 respondents is 0,381, obtained from 69 valid factors. Factors that are not valid are removed from the model, and are not included in the subsequent analysis.

The results of the reliability test of the factors that affect PPCP, the financial variables, the consortium, technical, government guarantees, economics, project conditions, risk, procurement, Socio-cultural, legal, and administrative obtained alpha values (αr), respectively for 69.3%; 71.5%; 77.5%; 80.6%; 68.7%; 76.2%; 86.2%; 63.3%, 83.2%; 60.1%, and 64.1%. Seen that all the alpha value has a value greater than 60% so that it can be concluded that the grains have a question is reliable.

A correlation coefficient with a sample size of 90 people will be said to have a meaningful relationship when the measured correlation coefficient is greater than the value of $r(0.05, 90-2) = 0.176$. In determining the feasibility of data, (Sharma, 1996) puts the correlation coefficient test on the first step. From the analysis of the correlation matrix section is seen that most of the correlation coefficients obtained showed values greater than 0.176 so that it can be proven that there was a significant association between variables.

KMO value in the development of tourism infrastructure, which consists of 69 variables to 32 variables corrected early critical success decent PPCP used in the factor analysis resulted in a value of 0.832 so as to be useful in the classification (Maritorious). The KMO values indicate a sample size sufficient proximity.

MSA calculations on the CSF of PPCP are to arrive at a group of variables with $MSA > 0.5$ through 4 iterations. Hair et al (1995:393) suggest not involve variables that have values less than 0.5 MSA in the extraction factor. Each iteration there is one factor that is excluded from the model because the value of the $MSA < 0.5$. The end result MSA values can be seen in Table 3. From the initial variables as much as 69 variables, 37 variables are reduced.

The results of the factor extraction method for PPCP Principle Component Analysis showed that the number of factors used were 9 units with the total cumulative amount of diversity worth 72.770%.

Communality values for all variables after extracted into a number of factors generally are above the value of 0.5. That is the common factor is still quite strong in explaining the diversity of variable origin.

Factor loading values were calculated in general will be considered if it is greater than 0.5 (Sharma, 1996). Table 3 shows the summary results of each of the 9 factors formed from 32 variables that affect PPCP. Of the 32 variables, that affect it turns out that has a loading value greater than 0.5 as many as 30 variables and loading under 0.5 by 2 variables. Results formation factor can be seen in Table 3.

Table 3. Results formation factor

No	Factor	Code	1.1.1. Variabel	Diversity Total (%)	Loading
1	Social Culture and	I1	Activities that do have the support of local communities	29.914	0.783
		I2	Involve the active participation of local communities		0.860
		I3	Giving priority to local workers when operational		0.,857
		I4	Giving priority to local raw materials		0.776
		I5	Suit a customs		0.843
		I6	Activities that do not conflict with religious social communities		0.815
2	Law And Administration	J3	Legal language used Indonesian	14.198	0.724
		J4	Legal domicile activities in the local area		0.610
		K2	The financial statements of the governing body is transparent		0.736
		K3	Activity report of the management body		0.659
3	Procurement of Goods and Services	B8	Consortium a strong and reliable	5.330	0.539
		D2	Contractual guarantees PPCP		0.689
		D3	Government involvement in providing assurance		0.537
		H5	The process of procurement of goods and services that are competitive		0.798
4	Risk	H6	The process of procurement of goods and services that are transparent	4.956	0.692
		G4	The agreement guarantees		0.686
		G5	Concession agreement		0.639
5	Consortium	G6	Loan agreement	4.312	0.849
		F7	Responsibility between the government, private sectors, and communities		0.660
		H1	Good cooperation between the government, private sector, and communities in terms of authority		0.717
6	Technical	H2	Strong commitment from the government, private sector and communities.	3.951	0.685
		C1	Cost effective		0.734
7	Economic	F3	Availability of providers at the time of long-term operational	3.643	0.543
		E2	Economic policies that favor		0.636
		E3	Macroeconomic conditions are stable		0.757
8	Financial	E4	The exchange rate can be predicted	3.241	0.787
		A5	Balanced revenue sharing		0.862
		A6	Investment scheduling payments		0.679
9	Technology	A7	Rates are acceptable	3.224	0.500
		C7	Advanced technology		0.800

Source: Results of Analysis (2013)

4. Conclusions

Based on the analysis and discussion, it is concluded that the CSF of PPCP on the development of tourism infrastructure, obtained nine CSF are: Socio-cultural factors (values diversity of 29.914%), legal factors (14.198%), procurement factor (5.330%), risk factors (4.956%), a consortium factor (4.312%), technical factors (3.951%), economic factors (3.643%), financial factors (3.241%), and technological factors (3.224%).

References

- Askar, M. A. (2002). Problems facing parties involved in build, operate and transfer projects in Egypt. *Journal of Management in Engineering*, 18(14), 173-178. [http://dx.doi.org/10.1061/\(ASCE\)0742-597X\(2002\)18:4\(173\)](http://dx.doi.org/10.1061/(ASCE)0742-597X(2002)18:4(173))
- Badung Regency. (1998). *Public-private partnership-building society of Garuda Wisnu Kencana*. Badung: the Department of Tourism.
- Badung Regency. (2012). *Public-private partnership-building society of Hotel Mulia*. Badung: the Department of Tourism.
- Denpasar City Government. (1998). *Public private partnerships-community of Kertalangu*. Denpasar: the Department of Tourism.
- Gupta, M. C., & Narasimham. (2005). Discussion of CFSs in competitive tendering and negotiation model for BOT projects by Tiong. *Journal of Construction Engineering and Management*, (5), 430.
- Kurdi, M. Y. (2004). *The development of public private partnerships in infrastructure*. Jakarta: Gramedia Pustaka Utama.
- Li, B., & Akintoye, A. (2005). Critical success factor in PPP projects in UK. *Journal Construction Management and Economics*, 23(6), 459-471. <http://dx.doi.org/10.1080/01446190500041537>
- Lidenberg, M. A., & Bramwell, B. (2002). Partnership and regional tourism in Brazil, annals of tourism research. *A Social sciences Journal*, 29(4).
- Ministry of Home Affairs. (1992). *Attempts of participatory approach in Indonesia*. Jakarta: Government of Indonesia.
- McLeod, R. (1995). *Management information systems* (Indonesian Edition). Jakarta: PT Prenhallindo.
- Michael, M. (2009). *Community involvement and participation in tourism development in Tanzania, in tourism management*. New Zealand: Victoria University of Wellington.
- National Planning and Development Board. (2010). *Public private partnership (PPP)*. Jakarta.
- OECD. (2005). *Investment for African development: making it happen; encouraging public private partnership in the utilities sector: the role of development assistance, background information in support of session 5 of roundtable sponsored by the government of Uganda*. Organization for Economic Co-Operation and Development (OECD) Investment Initiative. Retrieved from <http://www.OECD.org>.
- Othman, N. A. (2003). *Marketing alliances and network between National Tourism Organization (NTO) and profit/non profit organization: the case for Malaysia, the event tourism and destination management international conference*. China: the International Geographical Union (IGU).
- Pitana, I. G. (1994). *Dynamics society and culture Bali*. Denpasar: Bali Library.
- Rachmawati, F. (2006). *Identify critical success factors build operate transfer contract cooperation on building in Surabaya*. Surabaya: Graduate Program ITS.
- Ramdani, D. M. A. (2004). *System analysis of institution and financing railway infrastructure development in public private partnership framework (case study in Banten Province)*. Jakarta: University of Indonesia.
- Regency of Gianyar. (2010). *Development cooperation of tourism object of Gua Gajah*. Gianyar: Tourism Board.
- Regency of Karangasem. (1991). *Area development of Pasir Putih Perasi-Bugbug Phase I (Vol. Lease Agreement, 28 February 1991)*. Karangasem: Tourism Board.
- Regency of Klungkung. (2005). *Development cooperation of tourism object of Gua Lawah (Vol. SK. Regent No.. 215/2005)*. Klungkung: Tourism Board.
- Regency of Tabanan. (2000). *Development cooperation of tourism object of Tanah Lot (Vol. Letter Agreement No.1/HK/2000)*. Tabanan: Tourism Board.

- Regency. Tabanan. (2011). *Development cooperation of tourism object of Ulun Danu Beratan (Vol. No.2/HK/2011 Letter Agreement)*. Tabanan: Tourism Board.
- Regulation of Bali Province No. 3. (2003). *Changes to the Bali Provincial Regulation No. 3 of 2001 on Traditional Village*. Denpasar: Legal and Human Rights Bureau Regional Secretariat of Bali.
- Rimbawan, N. D. (2011). *Descriptive statistics for economics and business*. Denpasar: Udayana University Press.
- Rimbawan, N. D. (2013). *Inferential statistics for business and economics* (1st ed.). Denpasar: Udayana University Press.
- Santosa, S. (2010). *Multivariate statistical concepts and applications with SPSS*. Jakarta: PT Elex Media Komputindo.
- Singarimbun. (1996). *Survey research methods*. Jakarta: LP3ES.
- Sugiono. (2005). *Business research methods*. Jakarta: CV Bandung.
- Sharma, S. (1996). *Applied multivariate techniques*. New York: John Wiley & Son.,Inc.
- Taopan, B.S.N. (2007). *Strategy to increase public participation in rural clean water facility management in South Central Timor East Nusa Tenggara Province, in the Faculty of Civil Engineering and Planning*. Surabaya: Institute of Technology.
- The Government of the Republic of Indonesia. (2014). *Act no. 6 village government*. Jakarta: GOI.
- Tiong. (1995). *Risks and guarantees in BOT tender*. *Journal of construction engineering management*, 121(122), 183-188. [http://dx.doi.org/10.1061/\(ASCE\)0733-9364\(1995\)121:2\(183\)](http://dx.doi.org/10.1061/(ASCE)0733-9364(1995)121:2(183))
- Tiong, R. L. K. (1992). Critical success factor in winning BOT contracts. *Journal of construction engineering and management*, 118(2), 217-228. [http://dx.doi.org/10.1061/\(ASCE\)0733-9364\(1992\)118:2\(217\)](http://dx.doi.org/10.1061/(ASCE)0733-9364(1992)118:2(217))
- Tosun, C. (2000). *Limits to community participation in the development process in developing countries*. UK: Elsevier.
- Umar, H. (2003). *Organizational behavior research methods*. Jakarta: PT Gramedia Pustaka Utama.
- Wilmsen, C. (2008). *Partnerships for empowerment: participatory research for community-based natural resource management*. London Sterling VA: Earthscan.
- Zhang. (2005). Critical Success factors for Public Private Partnership in infrastructure development. *Journal of Construction Engineering and Management*, 131(131), 133-114. [http://dx.doi.org/10.1061/\(asce\)0733-9364\(2005\)131:1\(3\)](http://dx.doi.org/10.1061/(asce)0733-9364(2005)131:1(3))

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).