Economic Education Model for Tourism Sustainability: Evidence from Gorontalo in Indonesia

Meyko Panigoro[a], Ery Tri Djatmika[b], Sri Umi Mintarti Widjaja[c], Hari Wahyono[d], Sugeng Hadi Utomo[e], [a]Doctoral Program in Economic Education, Universitas Negeri Malang, Indonesia Faculty of Economics, Universitas Negeri Gorontalo, Indonesia, [b,c,d,e]Faculty of Economics, Universitas Negeri Malang, Email: [a]meyko.panigoro@ung.ac.id, [b]ery.tri.fe@um.ac.id, [c]sri.umi.fe@um.ac.id, [d]hari.wahyono.fe@um.ac.id, [e]sugeng.hadi.fe@um.ac.id

This study aimed to examine the relationship between the education and tourism sectors. In addition, this paper also provides the economic education model in enhancing community welfare and increasing gross domestic regional product (GDRP) in the tourism sector. This study applied both quantitative and qualitative methods. First, the quantitative method is applied to examine the relationship between education and GDRP. The education variable is proxied by the educational index while GDRP refers to GDRP in the tourism sector. The data were gathered from Indonesia Statistics (BPS) then it was analysed using a regression model. Furthermore, the qualitative method is involved to provide an economic model for coastal area in Gorontalo in Indonesia. The findings showed that economic education has a significant role in the tourism sector. Based on this result, the model of economic education proposed both formal and non-formal education. For formal education, it is provided in the form of a learning instrument consisting of creative economics education while in non-formal education, it disseminates through conference and entrepreneurial assistance.

Key words: *Economic education model, GDRP, tourism sector, society wellbeing.*

Introduction

The economic growth in Gorontalo province has experienced an alternation trend. For example, in 2017, it was about 6.74% and decreased steadily to the level of 6.52%, then it reached 6.72% in 2019 (BPS, 2019). In comparison to Indonesia's target of economic growth

by 7.3%, it obviously needs to be improved by all sectors. In fact, the economic growth in Gorontalo has dominated by the agriculture sector. On the other hand, the tourism sectors in Gorontalo have an opportunity to be developed. This is because of the abundant factor availability, especially beaches that not developed yet as tourism objects. The enlargement of the tourism sector potentially promotes the services sector and plays a key role supporting the growth of economy in many countries (Culiuc, 2014). In addition, the tourism sector directly affects other economic activities such as hotels and restaurants. In several developed countries, the tourism sector is a dominant factor to boost the economy due to the spill-over that impacts other sectors (Widiastuti, 2013). Besides, the tourism sector involves the enhancement of regional income from taxes. Sofronov (2018) revealed that tourism is the biggest industry in the world in creating job opportunities.

In 2016, the tourism sector in Indonesia contributed to gross domestic product by approximately 11%. In the global context, tourism also provides about 3.8 trillion USD toward global GDP with 262 million USD of job opportunities in 1997. In a decade, it rose dramatically to about 7.1 billion USD and promoted 383 million job opportunities. The growth increased almost doubled than the global GDP (Lumaksono et al., 2012). In Gorontalo, business and tourism are moderately contributing to GDRP. Precisely, it was about 10.91% in 2015 and drop to the level of 8.91% in 2016. However, in 2017, it experienced an upward movement to approximately 10% and it declined significantly to 6.39% in 2018 (BPS, 2019). In comparison, the tourism contribution is lower than in other sectors.

Tourism development is not only part of the government but also the role of communities. Giampiccoli and Saayman (2018) explained that tourism development should evolve the act of communities. However, the challenge is the awareness of society toward economic transformation. In general, people in Gorontalo working as farmers and fishermen that thought to move to the tourism sectors. For this case, the synergy between government, education institution and the community are obviously needed to enhance the economic welfare (Wulandari & Narmaditya, 2018; Wulandari et al., 2017). From the government perspective, it plays a role in providing the infrastructure to develop the tourism object. Meanwhile, from the educational sides, it supports in engaging the model economic education for society to improve the economic wellbeing (Kartini, 2016).

The model of education can be a form of non-formal education and formal education. Non-formal education programs can be a continuation or enrichment of part of the school program, development of school programs, and programs that are equivalent to school education. Therefore, non-formal education has greater flexibility than school education and can quickly be adapted to the needs of the community constantly changing (Komar, 2006; Serdyukov, 2017). Non-formal education is intended in the research development of the

economic model of the coastal society based on the economic sustainability of tourism is an organised, systematic and deliberate education planned to meet certain objectives and for certain participants whether for adults or children. The complexity of human economic behavior requires a development of educational programs with special characteristics that are able to make human resources, behave economically rationally and consider moral ethics of their actions, and are able to manage psychological reactions in economics (Urbina & Ruiz-Villaverde, 2019).

To create an education model, first, the researchers examined the relationship between education and GDRP. From the BPS (2019), it is known that the education index in Gorontalo province since it showed an inclining trend. In 2015, it was about 0.588 and reached 0.595 point the next year. It also experienced an increasing during the next period to the year of 2018 with the point of 0.611. In fact, this achievement is not followed by the trend in economic growth. It indicates that the existing education model is not optimal yet. Therefore, model economic needs to be developed to boost the GDRP, particularly for society in the coastal area.

Previous studies on the relationship between the role of economic education and economic growth have been conducted. For example, Reza and Widodo (2013) examined the impact of economic education on economic growth in Indonesia. Indeed, Kobzev-Kotásková (2018) conducted research in the Indian context. In addition, Hanif and Arshed (2016) conducted a research on the relationship school education and economic growth in the SAARC countries. However, there is little attention of the researcher to develop a model of economic education, especially in enlarging economic growth. Therefore, this study, for the first time provides the economic education model for tourism sector, which suitable for coastal areas in Gorontalo in Indonesia.

Methodology

This study applied both quantitative and qualitative methods. First, a quantitative method is applied to examine the relationship between education and GDRP in the tourism sector to be developed as a framework to provide an economic education model. Meanwhile, a qualitative method is intended to provide the economic education model for society. For the quantitative data, it was gathered from Indonesia Statistics (BPS) in Gorontalo from 2015 to 2018. The education variable is proxied by education index of society while GDRP is proxied by GDRP in the tourism sector. Further, the data was analysed using linear regression analysis by SPSS. In another hand, qualitative data was proposed following several stages including analysing the existing problems, developing product, evaluating the product design and reflecting the principal design.

Results and Discussion

The Relationship between Education and GDRP

From Table 1, it is shown that the coefficient (R) between the education index and GDRP tourism has amounted to 0.810. It implies that education index significantly promotes GDRP. This finding is supported by the partial test with t_{count} about 1.956 and t_{table} about 1.533, respectively. From this result, it remarks that the greater education received by the community will lead to economic growth, particularly from the tourism sector.

Based on this finding, the education aspect is definitely essential in enhancing regional economic growth, primarily in the tourism sector. This is due to the fact that education has a role in promoting greater human development and quality. It implies that more erudite people will lead to higher productivity, which potentially supports to the national income (Glewwe et al., 2014). The importance of education on the economic growth also supported by previous studies such as Reza and Widodo (2013); Kobzev-Kotásková (2018); Hanif and Arshed (2016). Based on this matter, the development of an education model must be a priority when the government wants to realise the targeted economic growth. Similarly, Purwanto (2006) mentioned that economic growth is caused by the engagement of human capital.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810[a]	.657	.485	1.39103
a. Predictors: (Constant), Education index				

Table 2: Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	102.441	47.755		2.145	.000
	Education index	155.820	79.650	1.810	1.956	.010
a. Dependent Variable: GDRP Tourism						

The Development of Economic Education Model

The framework of education model is based on Design Based Research (DBR) developed by Reeves (2000); Reeves et al. (2005) that can be seen in the Figure 1.

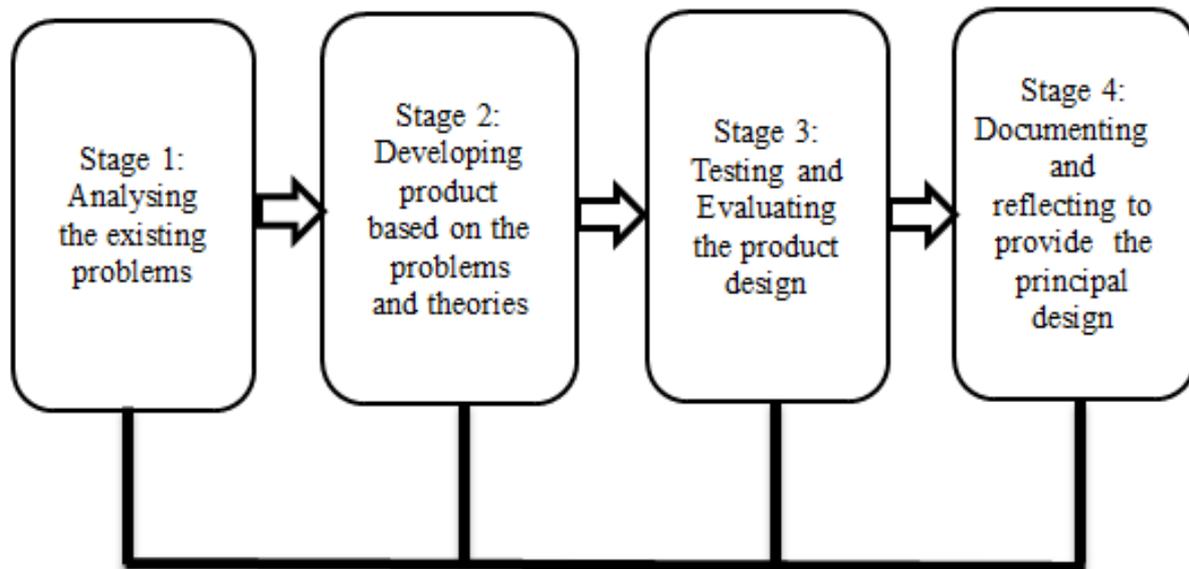**Figure 1.** The Model of Design-Based Research (DBR)

Figure 1 presents information to provide a model based on Design-Based Research. There are several stages including analysing the existing problems, developing products, evaluating the product design and reflecting the principal design.

Analysing the Existing Problems

The initial observations of researchers found that the contribution of the tourism sector in driving economic growth is insufficient. Nevertheless, Gorontalo has a very supportive tourism potential to be developed. This problem is caused by a lack of public awareness, especially in facing economic transformation. In general, the Gorontalo community earns a living as farmers and fishers, then to shift it to the tourism sector requires hard effort. Therefore, it needs to be given reinforcement from the educational aspect. Referring to the statistical analysis, it was concluded that education had a significant effect on the growth of tourism's GRDP. The correlation coefficient (R) between the education index and tourism GRDP is 0.810. This value indicates that the two variables have a very strong relationship.

This finding is also strengthened by a partial test where a t_{count} of 1.956 and t_{table} of 1.533 with a significance level of 0.000 indicate that the education index has an effect on increasing tourism GRDP. BPS (2019) shows that the education index in Gorontalo is increasing every year. This is an anomaly where the increase in the education index is actually inversely proportional to the contribution of tourism's GRDP. This indicates that the education model applied is not yet regional based. Departing from this phenomenon, researchers developed an economic education model that aims to encourage the growth of tourism's GRDP.

Product Development

Departing from the existing problems, the model of economic education of coastal communities based on the sustainability of the tourism economy was developed based on the needs of the community. The survey results show that the community around the coast does not yet have an understanding related to the development of the business world, especially those related to tourism potential. Therefore, the economic education model was developed in the form of teaching materials by focusing on materials on entrepreneurship and household financial management. The drafting process involves researchers as well as model developers, community representatives, academics, and also practitioners conducted through focus group discussions (FGD).

Testing and Evaluating the Product Design

After being developed, teaching material products were tested on the *Olele* coastal communities as samples. Evaluation of trial results is carried out and analysed by researchers and facilitators by referring to the results of the trials discussed in focus group discussion (FGD). The FGD was conducted by researchers together with a team of experts, facilitators, and the community as learning citizens. Test results show that, in general the devices are included in both categories. Teaching materials are developed into a creative economy education module. Evaluation of every aspect of material, presentation, language and appearance deserves to be used well.

Table 1: The average score of each aspect of teaching materials by a team of experts

No	Aspect	Standard	Average score	Category
1	Material	90	80	Excellence
2	Language	50	35	Good
3	Presentation	70	65	Excellence
4	Display	50	40	Excellence

Table 2: The average score of each aspect of teaching materials by the community

No	Aspect	Standard	Average score	Category
1	Material	60	45	Good
2	Language	35	25	Good
3	Presentation	60	45	Good
4	Display	50	35	Good

Documenting and Reflecting to Provide the Principal Model

Based on the results of the study, the concept of the economic education model refers to the creative economy and is implemented into a set of teaching material models in the form of modules that will be disseminated to coastal communities in training activities. The educational process is directed at increasing the creativity of the community in exploiting the potential of tourism to increase income.

Conclusion

The economic structure in the coastal area of Gorontalo Province is strongly supported by the tourism sector. Therefore, to increase economic growth, the tourism GRDP needs to be boosted. The growth of tourism's GRDP in the coastal area of Gorontalo Province is very much influenced by the education index of the surrounding community. For this matter, people need to be educated, especially related to how to improve their economic level through businesses related to the tourism sector. Lastly, the model of economic education designed by researchers in the form of learning tools containing creative economic education and socialised in the form of non-formal education such as seminars and entrepreneurship assistance.

REFERENCES

BPS (2019). Provinsi Gorontalo Dalam Angka 2019. Retrieved from https://gorontalo.bps.go.id/

Culiuc, A. (2014). Determinants of International Tourism. *IMF Working Paper,* WP/14/82.

Giampiccoli, A., & Saayman, M. (2018). Community-based Tourism Development Model and Community Participation. *African Journal of Hospitality, Tourism and Leisure, 7*(4), 1-27

Glewwe, P., Maiga, E., & Zheng, H. (2014). The contribution of education to economic growth: A review of the evidence, with special attention and an application to Sub-Saharan Africa. *World Development*, *59*, 379-393.

Hanif, N., & Arshed, N. (2016). Relationship between school education and economic growth: SAARC countries. *International Journal of Economics and Financial Issues*, *6*(1), 294-300.

Kartini, T. (2016). Pengembangan Model Pendidikan Pariwisata Berbasis Agrwisata Perkebunan Kopi di Kabupaten Jember. *Jurnal Pendidikan Ekonomi, 10*(1), 1-16.

Kobzev-Kotásková, S., Procházka, P., Smutka, L., Maitah, M., Kuzmenko, E., Kopecká, M., & Hönig, V. (2018). The impact of education on economic growth: the case of India. *Acta Universitatis Agriculturae Et Silviculturae Mendelianae Brunensis*, *66*(1), 253-262.

Komar, O. (2006). *Filsafat Pendidikan Non-Formal*. Bandung: Pustaka Setia.

Lumaksono, A., Priyarsono, K., & Heriawan, R. (2012). Dampak Ekonomi Pariwisata Internasional pada Perekonomian Indonesia. *Forum Pasca Sarjana, 35*(1), 53 – 68.

Purwanto, N. A. (2006). Kontribusi Pendidikan Bagi Pembangunan Ekonomi Negara. *Jurnal Manajemen Pendidikan UNY*, *2*, 1-7.

Reeves, T. (2000). Enhancing the worth of instructional technology research through "design experiments" and other developmental strategies. Paper presented at the American Educational Research Association Annual Meeting. Retrieved from http://itech1.coe.uga.edu/~treeves/AERA2000Reeves.pdf

Reeves, T. C., Herrington, J., & Oliver, R. (2005). Design research: A socially responsible approach to instructional technology research in higher education. *Journal of Computing in Higher Education, 16*(2), 96-115

Reza, F., & Widodo, T. (2013). The Impact of education on economic growth in Indonesia. *Journal of Indonesian Economy and Business*, *28*(1), 23-44.

Serdyukov, P. (2017). Innovation in education: what works, what doesn't, and what to do about it?. *Journal of Research in Innovative Teaching & Learning*, *10*(1), 4-33.

Sofronov, B. (2018). The Development of The Travel and Tourism Industry in the World. *Annals of Spiru Haret University. Economic Series*, *18*(4), 123-137.

Urbina, D. A., & Ruiz-Villaverde, A. (2019). A Critical Review of Homo Economicus from Five Approaches. *American Journal of Economics and Sociology*, *78*(1), 63-93.

Widiastuti, N. K. (2013). Pengaruh Sektor Pariwisata terhadap Kinerja Keuangan Daerah dan Kesejahteraan Masyarakat Kabupaten/Kota di Provinsi Bali. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, *2*(5), 292-311.

Wulandari, D., & Narmaditya, B. S. (2018). Triple Helix Model to Improve Financial Literacy of Students in Faculty of Economics. *Pertanika Journal of Social Sciences & Humanities*, *26*(4), 2857-2865.

Wulandari, D., Witjaksono, M., Soseco, T., & Narmaditya, B. S. (2017). The Development of Productive Economy Cluster through Siparti 3-S and Triple Helix in Kabupaten Lumajang, Indonesia. *International Journal of Economics and Financial Issues*, *7*(2), 25-31.