Analysis of Factors Affecting Tourism in Indonesia Based on Tourism Objects and Panel Regression

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Abstract. This article concentrates on the influence of the Creative Economy, Digital Technology, Infrastructure and Tourism Objects on Tourism Potential in Indonesia. The facilities and services provided by the community as part of all tourism activities must have the support of entrepreneurs, the government and the local government. The purpose of this paper is to identify the factors that significantly influence the tourism potential in 34 provinces in Indonesia. This analysis is based on the 2016-2020 times series panel data in 34 provinces in Indonesia with a total of 2550 data. The underlying parameters will be the desire to travel due to the availability of time and money, the ability to access the places visited through the use of transportation and information. Therefore, it is necessary to develop and innovate tourism infrastructure to support all tourism activities in order to increase the attractiveness of tourism objects which are the attractions of tourism destinations.

Keywords: Tourism; Creative Economy; Digital Technology; Infrastructure and Tourism Objects

1   Introduction

Web-based Digital Technology in Indonesia is a digital economy system as a support for the growth of the creative economy which plays an important role in Indonesia's economic development. The potential of the creative economy in the province of Indonesia can increase income and create jobs and prioritize social inclusion, cultural diversity, and increase human resources, this is because the creative economy is a concept about relying on ideas, policies, and creativity from human resources as the main factors in their economic activities, supported by digital technology, the creative economy can compete in terms of product marketing, Creative economy products are industries of the lower middle class that need serious attention and development from local governments. Economic growth in the digital era is inseparable from the influence of technology and marketing through social media.

The digital marketing industry can be accessed through the latest platforms and technologies. Various business activities from small to large scale take advantage of the development of digital technology to run their business. Digital Technology as a means of communication and marketing transactions plays an important role that can be used at any time in real time. This has caused the development of e-commerce in Indonesia to experience many developments. MSMEs as a support for the economy, have very large start-up business opportunities in the future. Micro, Small and Medium Enterprises (MSMEs) as the main support

and community business implementers who contribute to the economy in Indonesia must collaborate and make good use of start-up developments. MSMEs must follow changes, innovative to digital technology are MSMEs based on social media.

The creative economy, which is part of a global economic sector that is growing very rapidly and transformative where the creative economy has become a stronger driver of development, creating jobs in the cultural and creative sectors is proving to be more resilient overall with growth rates varying between subsectors. The tourism sector is challenged by the increasing demand for customer orientation, increasing international competition, volatile markets in an unsafe environment, changes in customer demand towards individualization and significant potential in various market segments. In addition, it is very important for the sector to be able to attract a specially trained workforce to work in the field of tourism,

The development of tourism has experienced the growth of the largest economic sector in the world by following the journey of time more and more destinations are opened and invested in tourism development, turning modern tourism into a major driver of socio-economic progress. The growth of tourism in the provinces of Indonesia, If tourism is to survive, it is necessary to make some improvements to transportation modes to meet the diverse needs of tourists must be considered. The mode of transportation plays a very important role in reaching faster to places that are tourist attractions, whether natural beauty, sea, or mountains as well as these faster modes, faster trains and lighter and faster planes have been identified to affect the number of tourist trips to an area,

Technological changes have encouraged the economic development of the tourism sector which has become a very competitive business. For tourism destinations around the world, indeed, competitive advantages are no longer natural, but increasingly man-made and driven by science, technology, information and innovation. The strength of global competitiveness, information technology, and socio-cultural dynamics impact and shape tourism destinations significantly. Place, culture, and identity seem to converge in the world of international travel. The Tourism Sector is inseparable from its supporting facilities, including the availability of hotels, restaurants, and other accommodations as a means of lodging equipped with other facilities, such as web availability, electronic payments, entertainment venues and shopping.

During their activities in the field of tourism, tourists will shop and spend their money for consumption on the way, and to understand the attractiveness of a tourist destination. In particular, the transport infrastructure, which provides the fundamental basis for transport services, is an important determinant in terms of tourist visits. In this case, the problem by researchers is limited to factors that affect the growth of tourism, creative economy, digital technology, infrastructure and tourist attractions in Indonesia.

a. The Influence of the Creative Economy on Tourism in Indonesia.
b. The Influence of Digital Technology on Tourism in Indonesia.
c. The Influence of Infrastructure on Tourism in Indonesia.
d. The Influence of Tourist Attractions on Tourism in Indonesia.
e. The influence of the Creative Economy, Digital Technology, Infrastructure, and Tourism Objects simultaneously on Tourism in Indonesia.

Problem Formulation

How the Influence of the Creative Economy, Digital Technology, Infrastructure, and Tourist Attractions on Tourism in Indonesia. In this case the researcher determines the framework of the research concept as follows:
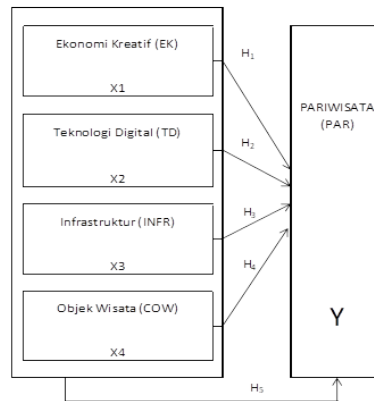
Figure 1. Research Concept Framework

a. How the Creative Economy affects Tourism.
b. How Digital Technology affects Tourism.
c. How Infrastructure affects Tourism.
d. How Attractions affect Tourism.
e. How the Creative Economy, Digital Technology, Infrastructure, and Tourist Attractions simultaneously affect Tourism.

Research Objectives
a. Researchers want to simultaneously analyze the Creative Economy, Digital Technology, Infrastructure, and Tourist Attractions affecting the tourism of 34 provinces in Indonesia.
b. To study and analyze the influence of Potential Tourist Attractions on tourism of each province in Indonesia.

2 Theoretical Studies

The implementation of good development is carried out in order to create a better community life and not damage the surrounding environment, this is in order to survive and the occurrence of a good natural balance. Tourism is a biological segment that can preserve and balance sustainable human life, this is because beautiful tourist attractions will be an attraction for tourists looking for tranquility, joy and comfort from the availability of nature.

Digital Economy Theory
It is at the crossroads of art, business and technology, a digital-based creative economy. It offers a scale not seen in traditional enterprises, while the integration of culture and creativity into high-end industrial value chains creates a demand for sophisticated consumer electronics and platform-based services. The Internet and new technologies have increased competition by providing greater access to opportunities to engage in creativity and entrepreneurship. Technology has not only opened up access but has lowered the cost of launching new ventures and made creative entrepreneurship more inclusive.

Creative Economy

The development of economic growth in Indonesia has begun to include activities sourced from creativity, skills and talents of individuals through cultural arts and intellectual property rights which are often referred to as the creative economy. The role of the creative economy makes the industrial sector in Indonesia and generates the GDP of the creative industry. Creative Industry GDP (PDB CI) prioritizes the role of the human factor through its talent and innovation. In job creation and people's income, the role of the creative economy is very transformative to stimulate innovation in other sectors.

Infrastructure

The role of transportation infrastructure in the development of destinations and tourism is still scarce. In many tourism studies, the relationship between transport and tourism is built only in terms of accessibility, where transport is seen as a link connecting tourists and the desired destination area. A model of tourism flows has also been developed, except for transportation which has a limited role. Lundgren (1982), for example, looked at transportation from a geographical perspective and analyzed the flow of tourism between metropolitan and rural destinations.

Tourism infrastructure is the basis for tourism development. Investment in tourism infrastructure is important in increasing tourist arrivals, and contributes to the satisfaction and motivation of visitors. As a tourism component of the region, tourism infrastructure is essential for the long-term growth of tourism and the general progress of tourist destinations by providing the necessary services to tourists.

3   Result and Discussion

The variables of this study consist of:
a.   Independent Variables (X) consist of: Creative Economy (X1), Digital Technology (X2), Infrastructure (X3), and Tourist Attractions (X4).
b.   Bound variable or dependent variable, namely Tourism (Y).
c.   Quantitative Method

Quantitative research methods of secondary data from National BPS data sources of all 34 provinces in Indonesia.

Based on Fixed Effect Research Model

| Tourism | =f (Creative Economy, Digital Technology, Infrastructure, Attractions) |
| Tourism | = | $\alpha + \beta_1 EK + \beta_2 TD + \beta_3 INF + \beta_4 COW$ |

Where:

Tourism	=	Number of Tourist Visits
EK	=	Creative Economy
TD	=	Digital Technology
INF	=	Tourism Infrastructure
OW	=	Sights

Table 1. Fixed Effect Model Panel Data Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.817.431	1.080.177	5.385.625	0.0000
EK?	0.224931	0.055704	4.037.945	0.0001
TD?	0.035108	0.008988	3.906.211	0.0001
INFR1?	0.255001	0.069071	3.691.873	0.0003
COW?	0.056352	0.027183	2.073.071	0.0397

The results of the calculation of estimates in table 1 above can be explained as follows:

Tourism = $\alpha + \beta_1 EK + \beta_2 TD + \beta_3 INFR1 + \beta_4 COW$

Tourism = $5.8174 + 0.2249\ EK + 0.0351\ TD + 0.2550\ INFR1 + 0.0564\ COW$

The conclusions of the Fixed Effect Panel Data Test above are as follows:

Based on the results of the calculation of eviews 10, the regression equation above can be analyzed the influence of each independent / free variable (Creative / EK economy, Digital Technology / TD, Infrastructure / INFR1, and Tourist Objects / COW) on the dependent / tied variables of Tourism / PAR, namely:

- The constant magnitude of 5.8174 explains that if the values of EK, TD, INFR1 and COW values are fixed (0), then the value of the PAR variable is 5.8174.
- The amount of regression coefficient The creative economy has a positive relationship of 0.2249 for the EK variable, and has a significant effect marked by a prob value (0.0001) smaller than 0.05, meaning that every change of 1% of the EK increase ratio, then PAR (Tourism) will experience an increase of 0.2249 units, in this case other factors are considered fixed.
- The amount of the Digital Technology regression coefficient has a positive relationship of 0.0351 for the TD variable, and has a significant effect marked by a prob value (0.0001) smaller than 0.05, meaning that every change in 1% of the TD increase ratio, then PAR (Tourism) will experience an increase of 0.0351 units, in this case other factors are considered fixed.
- The amount of the infrastructure regression coefficient has a positive relationship of 0.2550 for the INFR1 variable, and has a significant effect marked by a prob value (0.0003) smaller than 0.05, meaning that every change in the 1% increase ratio of INFR1, then PAR (Tourism) will experience an increase of 0.2550 units, in this case other factors are considered fixed.
- The amount of the Composite Regression coefficient of Tourist Attractions has a positive relationship of 0.0564 for the COW variable, and has a significant effect marked by a prob value (0.0397) smaller than 0.05, meaning that every change in the 1% increase ratio of COW, then PAR (Tourism) will experience an increase of 0.0564 units, in this case other factors are considered fixed.

Research Hypothesis Based on Panel Data from 34 Provinces in Indonesia

Table 4. Regression Equation Fixed Effect Model variable independent

Dependent Variable: PAR?

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.3856	1.0802	4.9859	0.0000
EK?	0.2249	0.0557	4.0380	0.0001
TD?	0.0351	0.0090	3.9061	0.0001
INFR1?	0.2550	0.0691	3.6919	0.0003
COW?	0.0564	0.0272	2.0731	0.0397
R-squared	0.61068	Mean dependent var		9.261.422
Adjusted R-squared	0.59386	S.D. dependent var		0.929295
S.E. of regression	0.59223	Sum squared resid		5.681.967
F-statistic	36.30173	Durbin-Watson stat		2.272.455
Prob(F-statistic)	0.00000			

With the result of the Sdjustre R2 value of 59.39%, which means that the variability of Tourism (PAR) can explain the disposable variability of the Creative Economy (EK), Digital Technology (TD), Infrastructure (INFR!) and Tourist Attractions (COW) in the Fixed Effect model is 59.39%. The results of the statistical F test give a value of 36.3017 and significant on the prob < 0.05 (0.0000) which means that all independent variables simultaneously affect the Tourism variable (PAR).

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