Indonesia Research in Tourism and Digital Tourism

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ABSTRACT
Tourism and digital tourism research documents have increased in the last 10 years, 2009-2019, reaching more than 200 documents per year. Tourism and digital tourism research documents in Indonesia have also increased since the first time in 2013, above 10 papers per year. Indonesia is still lagging behind in the publication of Tourism and digital tourism research, compared to China's first rank at 165 documents. Type of research publication Tourism and digital tourism, internationally reputed Scopus, in Indonesia is still limited to Conference Paper, Article, Conference Review and Book Chapter, so it requires a strong effort to catch up with other countries. At present, Scopus documents have increased in the last 10 years, 2009-2019, reaching more than 200 documents per year. However, Tourism and digital tourism research documents in Indonesia, for the first time in 2013, began to increase above 10 papers per year. This is supported by international collaboration, including China, France, Hong Kong, Macao, Malaysia, New Zealand, United Kingdom, United States. And supported by International institution collaboration, including Kiang Wu Nursing College of Macau, Universiti Utara Malaysia, University of Kentucky College of Medicine, University of Brighton, Hong Kong Polytechnic University, East China Normal University, Universite Paris 1 Pantheon-Sorbonne, and Massey University Auckland. Affiliation in Indonesia, Tourism and digital tourism research published in Scopus, 35 Affiliation, including Bandung Institute of Technology, Bina Nusantara University, Universitas Indonesia, Gadjah Mada University. Funding sponsor, 1979-2019, 159 funding sponsor, including National Natural Science Foundation of China, European Commission, Fundação para a Ciência e a Tecnologia and Ministry of Science and Technology, Taiwan. In Indonesia., 2013 to 2019, 4 funding sponsor, Binus University, Lembaga Penelitian dan Pengabdian Kepada Masyarakat, Ministry of Higher Education and Scientific Research, and Ministry of Maritime Affairs and Fisheries.

Keywords
Tourism, Digital Tourism, Research Trend, Article, Indonesia

1. INTRODUCTION
Asia and the Pacific recorded 6% growth in 2018, reaching 343 million international tourist arrivals. Arrivals in the region account for almost one-fourth of the worldwide total. Results were driven by South-East Asia (+7%) where most destinations posted strong growth, particularly Vietnam, which has seen a surge in international tourists in recent years from virtually all world regions. Indonesia and Cambodia enjoyed double-digit increases in arrivals, thanks to continued robust demand from China and India. Thailand, the most visited destination in South-East Asia, as well as the Philippines also recorded strong growth on the back of higher visitor flows from
Tourism is an activity associated with leisure travel. See the current progress of technology is growing rapidly. In phone, to invite more visitor come to DS screen for making a crowd (Koto & Bandung, 2017) and after using gamification. In the future, the system can be integrated with push notification method on user's correlation coefficient. The results showed, there was 61% increase in the user's attention to DS screen, before user interaction, we validated gamification method on DS system, to attention of users by calculating Pearson's method of presenting content using gamification techniques. To see the effect of proposed architecture to improve needed quickly. One of them is the Ministry of Tourism, which is now the go-digital, which in providing and this digital era of go-public can find out information just by opening handpohone and find what information is interest for tourists. In Indonesia, many places of supporting tourism such as shops, restaurants and entertainment interactive digital signage system architecture for tourism. We proposed a new signage system terminal and of interaction that effective and attractive for increasing visitor attraction. In this study, we proposed an such as video, images and text displayed on the screens are repeatedly. In addition, DS can be used as a medium of interaction that effective and attractive for increasing visitor attraction. In this study, we proposed an interactive digital signage system architecture for tourism. We proposed a new signage system terminal and method of presenting content using gamification techniques. To see the effect of proposed architecture to improve user interaction, we validated gamification method on DS system, to attention of users by calculating Pearson's correlation coefficient. The results showed, there was 61% increase in the user's attention to DS screen, before and after using gamification. In the future, the system can be integrated with push notification method on user's phone, to invite more visitor come to DS screen for making a crowd (Koto & Bandung, 2017)

2. LITERATURE REVIEW
The Ministry of Tourism is the lead institution for developing tourism in Indonesia. Its budget quadrupled in 2015 to IDR 1.2 trillion (about USD 80 million, less than 1% of public expenditure) mostly to improve tourism promotion (although it was cut by 30% in 2017). Marketing includes 100 Pesona Indonesia events for domestic visitors and 100 Wonderful Indonesia events for foreign tourists. WEF (2017) ranked the country’s brand strategy 47th for its level of accuracy, ahead of Malaysia (85th) and Thailand (68th). However, the campaign’s effectiveness in attracting tourists ranks only 51st, versus 7th for Malaysia and 20th for Thailand. The Ministry of Tourism bases its promotion efforts on market potential, using a weighted average of the number of tourists (40%), the previous rate of growth (30%) and total spending per visitor (30%); the latter favours Europeans because they tend to have a longer stay. At the end of 2017 this formula was prioritising spending on promotion in China, followed by Europe, Australia and Singapore. Digital tools help the Ministry to better focus its strategy (Ollivaud & Haxton, 2019)

Electronic Government (E-Government) was implemented to achieve the good governance. Ministry of Tourism (Kemenpar) has implemented E-Government, even though its implementation does not meet the expectation yet. Kemenpar’s performance value of PeGI (The ranking of E-Government of Indonesia) in 2014 was 2.47, it has decreased to 2.04 in 2015, and was ranked as a Low category. This declining value not only affects the governance and the quality of public service, but also shows that, there were obstacles encountered by Kemenpar to implement E-Government. The purpose of this study is to find factors which inhibited the implementation of E-Government. Quantitative approach with questionnaire and linear regression analysis will be conducted in this study. This study found that there were only 6 out of 9 factors proven that will inhibit the implementation of E-Government in Kemenpar, i.e lacking of objectives and strategies for implementation, lacking of collaboration and coordination within Kemenpar, the technology that has not integrated, the E-Government service frequently unavailable and resulted to low levels of intention to use, lacking of confidence in digital information, and the failure when using the service resulted to low levels of data storage security (Putri & Sensuse, 2019)

Utilization of Digital Signage (DS) in the tourism sector should be used as medium to provide information of interest for tourists. In Indonesia, many places of supporting tourism such as shops, restaurants and entertainment using DS as medium of information and communication to their customers. Usually DS using multimedia content such as video, images and text displayed on the screens are repeatedly. In addition, DS can be used as a medium of interaction that effective and attractive for increasing visitor attraction. In this study, we proposed an interactive digital signage system architecture for tourism. We proposed a new signage system terminal and method of presenting content using gamification techniques. To see the effect of proposed architecture to improve user interaction, we validated gamification method on DS system, to attention of users by calculating Pearson's correlation coefficient. The results showed, there was 61% increase in the user's attention to DS screen, before and after using gamification. In the future, the system can be integrated with push notification method on user's phone, to invite more visitor come to DS screen for making a crowd (Koto & Bandung, 2017)

Tourism is an activity associated with leisure travel. See the current progress of technology is growing rapidly. In this digital era of go-public can find out information just by opening handpohone and find what information is needed quickly. One of them is the Ministry of Tourism, which is now the go-digital, which in providing and
disseminating information can already said to be active, quick and efficient. The purpose of this research is to find out how the Strategy of Public Relations in the Ministry of Tourism Indonesia Tourism socializing through online media, so that people can know the news of any tourist destination in Indonesia quickly and accurately without having to waste a lot of time. This study uses a Management Theory George R. Terry namely the Planning (planning), Organization (organization), Actuating (Implementation), Controlling (monitoring). In the absence of a management, an organization institutions will have difficulty in achieving a goal. This study uses the paradigm of post-positivism and qualitative approaches. The collection of data obtained from observation and in-depth interviews to the staff of the Ministry of Tourism as a key informant who was directly involved in making Indonesia Tourism Strategy in socializing through Online Media. Results of this study was to determine the strategy the Ministry of Tourism of Indonesia, made to disseminate information through online media (Sari & Sunarya, 2017).

Many universities have integrated community engagement in their undergraduate programs. At The Hong Kong Polytechnic University, it is compulsory for all students to take at least one 3-credit subject on service-learning (SL). In each SL subject, there are purpose-designed academic teaching, rigorous service and structured assessment components. At full implementation, roughly 4,500 undergraduate students would enroll in around 70 subjects offered by a wide range of departments and faculties across the university. The subjects cover a diverse range of topics, such as digital divide, learning difficulties, engineering design, healthy living environments, orthotics, and eco-tourism. The target beneficiaries are equally diverse, including slum dwellers, disabled people, children with HIV, villagers without water nor electricity, new immigrants, mentally ill patients, ethnic minorities, and children of migrant workers. To date, students have served different groups of clients in Hong Kong, Chinese Mainland, Cambodia, Vietnam, Indonesia, Myanmar, and Rwanda. This chapter outlines the pedagogical design of the program, challenges and strategies for implementation, and the experiences gained so far (Chan & Ngai, 2017).

Scopus is a source-neutral abstract and citation database, curated by independent subject matter experts. Scopus includes more than 75 million records: (1) more than 68 million post-1970 records, including references; (2) more than 6.5 million pre-1970 records going back as far as 1788; (3) more than 8.5 million Open Access articles; (4) more than 9 million Conference papers. More than 24,600 active titles; (1) more than 23,500 peer-reviewed journals, of which more than 4,000 are Gold Open Access; (2) more than 740 book series; (3) more than 300 trade publications; (4) Articles-in-press (i.e., articles that have been accepted for publication) from over 8,000 titles from international publishers, including Cambridge University Press, the Institute of Electrical and Electronics Engineers (IEEE). Over 194,000+ books; (1) Including monographs, edited volumes, major reference works and graduate level text books; (2) Focuses on social sciences and arts & humanities, but also includes science, technology & medicine (STM). Scopus also provides features to help researchers go beyond search, into discovery and analysis (Scopus.com, 2019).

3. METHODOLOGY

Tourism and digital tourism research trend, menggunakan data Scopus.com, yaitu data Analyze search results, terdiri atas 11 type, Article 715 documents; Conference Paper 534 documents; Conference Review 93 documents; Book Chapter 91 documents; Review 36 documents; Book 18 documents; Editorial, and Letter 4 documents; Erratum, and Note 3 documents; Short Survey 2 documents.


Scopus search tools designed to help navigate across the over 75 million items indexed. Search: (1) Search by document, author or affiliation, or use Advanced Search; (2) Refine results in access type, source type, year, language, author, affiliation, funding sponsor and more; (3) Link to full-text articles your institution already subscribes to, along with other library resources; (4) Use the Document Download Manager to bulk retrieve results in .pdf format; (5) Export data to reference managers such as Mendeley, RefWorks and EndNote; (6) Stay up-to-date with Email Alerts, RSS and HTML feeds.

3. DISCUSSION AND ANALYSIS

Tourism and digital tourism research documents have increased in the last 10 years, 2009-2019, reaching more than 200 documents per year. Tourism and digital tourism research documents in Indonesia have also increased since the first time in 2013, above 10 papers per year. Documents by year in citations, all tourism and digital tourism research documents citations 10.685: (1) photo tourism: exploring photo collections in 3d, 2006, 1224 citations; (2) electronic word-of-mouth in hospitality and tourism management, 2008, 1012 citations; (3) mobile lives, 2010, 464 citations; (4) the future etourism intermediaries, 2002, 289 citations. Figure 1 display visual.
descriptive Scopus 1979-2019 tourism and digital tourism research, documents by year; Figure 2 display visual descriptive Scopus 1979-2019 tourism and digital tourism research, citations by year; Figure 3. display visual descriptive Scopus 2013-2019 tourism and digital tourism research in Indonesia, documents by year.

Figure 1. Scopus 1979-2019 tourism and digital tourism research, documents by year

Figure 2. Scopus 1979-2019 tourism and digital tourism research, citations by year
Document results

<table>
<thead>
<tr>
<th>Year</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>4</td>
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<tr>
<td>2018</td>
<td>13</td>
</tr>
<tr>
<td>2017</td>
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</tr>
<tr>
<td>2016</td>
<td>3</td>
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</tr>
<tr>
<td>2013</td>
<td>1</td>
</tr>
</tbody>
</table>


Figure 3 descriptive visual display document by source; Figure 4 descriptive visual display document in Indonesia by source.
### Figure 3. Scopus 1979-2019 tourism and digital tourism research, documents per year by source

<table>
<thead>
<tr>
<th>Source</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics</td>
<td>54</td>
</tr>
<tr>
<td>Advances in Intelligent Systems and Computing</td>
<td>30</td>
</tr>
<tr>
<td>Communications in Computer and Information Science</td>
<td>23</td>
</tr>
<tr>
<td>Applied Mechanics and Materials</td>
<td>17</td>
</tr>
<tr>
<td>Tourism Management</td>
<td>17</td>
</tr>
<tr>
<td>ACM International Conference Proceeding Series</td>
<td>16</td>
</tr>
<tr>
<td>Sustainability Switzerland</td>
<td>15</td>
</tr>
</tbody>
</table>

Documents by affiliation, 1979-2019, 160 Affiliation, among others: Chinese Academy of Sciences 13 documents; Universiti Teknologi Malaysia, Consiglio Nazionale delle Ricerche, and Politecnico di Milano 12 documents; Università della Calabria, and Bournemouth University 11 documents; Universita del Salento 10 documents; Ministry of Education China, Hong Kong Polytechnic University, Edinburgh Napier University, Universidade de Vigo, and Università degli Studi di Roma La Sapienza 9 documents; Massachusetts Institute of Technology, and Universidad Complutense de Madrid 8 documents

### Figure 4. Scopus 2013-2019 tourism and digital tourism research in Indonesia, documents per year by source

<table>
<thead>
<tr>
<th>Source</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOP Conference Series Earth and Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>IOP Conference Series Materials Science and Engineering</td>
<td>2</td>
</tr>
<tr>
<td>IOP Journal of Physics Conference Series</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Science Letters</td>
<td>1</td>
</tr>
<tr>
<td>Advances in Intelligent Systems and Computing</td>
<td>1</td>
</tr>
<tr>
<td>African Journal of Hospitality Tourism and Leisure</td>
<td>1</td>
</tr>
<tr>
<td>AIIP Conference Proceedings</td>
<td>1</td>
</tr>
<tr>
<td>Annals of Tourism Research</td>
<td>1</td>
</tr>
</tbody>
</table>

Documents by affiliation in Indonesia, 30 document results, 2013 to 2019, 35 Affiliation, among others: Bandung Institute of Technology, and Bina Nusantara University 3 documents; and Universitas Indonesia, Gadjah Mada University 2 documents

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Figure 5 descriptive visual display Scopus 1979-2019 tourism and digital tourism research, documents by affiliation

Figure 6 descriptive visual display Scopus 2013-2019 tourism and digital tourism research in Indonesia, documents by affiliation

Documents by affiliation

Documents by country/territory, 1979-2019, 99 Country, including China 165 documents; Italy 152 documents; United Kingdom 130 documents; Spain, and United States 128 documents; Australia 66 documents; Portugal 50 documents; Germany 49 documents; Malaysia 46 documents; Taiwan 42 documents; India, and Indonesia 41 documents; Russian Federation 37 documents; France, and Greece 36 documents; Japan 35 documents; Switzerland, and Turkey 23 documents; South Africa, and Thailand 22 documents

Documents in Indonesia international collaboration by country/territory, 30 document results, 2013 to 2019, international country collaboration, including Indonesia, China, France, Hong Kong, Macao, Malaysia, New Zealand, United Kingdom, United States
Documents in Indonesia international institution collaboration by institution, 30 document results, 2013 to 2019, international institution collaboration, including Kiang Wu Nursing College of Macau, Universiti Utara Malaysia, University of Kentucky College of Medicine, University of Brighton, Hong Kong Polytechnic University, East China Normal University, Universite Paris 1 Pantheon-Sorbonne, and Massey University Auckland

Figure 7 descriptive visual display documents Scopus 1979-2019 tourism and digital tourism research, documents by country or territory

Documents by type, 1979-2019, 11 type, Article 715 documents; Conference Paper 534 documents; Conference Review 93 documents; Book Chapter 91 documents; Review 36 documents; Book 18 documents; Editorial, and Letter 4 documents; Erratum, and Note 3 documents; Short Survey 2 documents

Documents by type in Indonesia, 30 document results, 2013 to 2019, 4 type: Conference Paper 16 documents; Article 10 documents; Conference Review 3 documents; and Book Chapter 1 documents

Figure 8 descriptive visual display documents by type, Scopus 1979-2019 tourism and digital tourism research

Figure 9 descriptive visual display documents in Indonesia by type, Scopus 1979-2019 tourism and digital tourism research
Documents by subject area, 1979-2019, 26 Subject area, including Computer Science 570 documents; Social Sciences 499 documents; Business, Management and Accounting 361 documents; Engineering 309 documents; Environmental Science 228 documents; Earth and Planetary Sciences 173 documents; Mathematics 127 documents; Arts and Humanities 92 documents; Economics, Econometrics and Finance 79 documents; Decision Sciences 68 documents; Agricultural and Biological Sciences 63 documents; Physics and Astronomy 49 documents

Documents by subject area in Indonesia, 30 document results, 2013 to 2019, 14 Subject area, including Engineering 13 documents; Computer Science 12 documents; Social Sciences 10 documents; Environmental Science 9 documents; Business, Management and Accounting, Earth and Planetary Sciences, and Physics and Astronomy 4 documents; and Decision Sciences, Energy 3 documents

Figure 10 descriptive visual display documents by subject area, Scopus 1979-2019 tourism and digital tourism research
Figure 11 descriptive visual display documents in Indonesia by subject area, Scopus 1979-2019 tourism and digital tourism research
Documents by funding sponsor, 1979-2019, 159 funding sponsor, including National Natural Science Foundation of China 17 documents; European Commission, Fundação para a Ciência e a Tecnologia 11 documents; Ministry of Science and Technology, Taiwan 10 documents; European Social Fund, Ministerio de Economía y Competitividad 6; European Regional Development Fund, Federación Española de Enfermedades Raras 5 documents; Australian Research Council, Seventh Framework Programme 4 documents; Arts and Humanities Research Council; Chinese Academy of Sciences, Fundamental Research Funds for the Central Universities, Ministry of Education and Science of the Russian Federation, Ministry of Education, Culture, Sports, Science and Technology, Ministry of Higher Education, Malaysia, Ministry of Science, Technology and Space, National Aerospace Science Foundation of China, National Foundation for Science and Technology Development, Research Councils UK, and Russian Foundation for Basic Research 3 documents
Documents by funding sponsor in Indonesia, 30 document results, 2013 to 2019, 4 funding sponsor, antara lain: Binus University, Lembaga Penelitian dan Pengabdian Kepada Masyarakat, Ministry of Higher Education and Scientific Research, and Ministry of Maritime Affairs and Fisheries

Figure 12 descriptive visual display documents by funding sponsor, Scopus 1979-2019 tourism and digital tourism research
Figure 13 descriptive visual display documents in Indonesia by funding sponsor, Scopus 1979-2019 tourism and digital tourism research

4. CONCLUSION
Tourism and digital tourism research documents have increased in the last 10 years, 2009-2019, reaching more than 200 documents per year. Tourism and digital tourism research documents in Indonesia have also increased since the first time in 2013, above 10 papers per year. Indonesia is still lagging behind in the publication of
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