The Feelings of Co-creative Actions for Tourism during the Covid-19 Pandemic

Soji Lee

School of International Cultural Relations, Tokai University
5-1-1, Minamisawa, Minami-ku, Sapporo-shi, Hokkaido, Japan

Abstract.

Tourism has traditionally been considered as the activity contributing to human quality of life and well-being. Under the current situation of the Covid-19 pandemic, tourism has been hardly damaged, but it is important to look ahead and consider the factors for revitalizing tourism. This study focused on the feelings of co-creative actions in tourism from the characteristic expression in social media during the Covid-19 of infection in Japan. The key factor of this research is the Service-Dominant Logic (SDL) advocated by Vargo and Lusch. SDL signifies the exchange of services and is based on the concept that value is created only when one entity provides services, and another entity receives them. Applying SDL to the field of tourism, the main entity providing services is the “tourism industry” and “residents” while the entity receiving services is the “customer/consumer” as a “tourist.” In SDL, co-creative activities are attracting attention because both the provider and the recipient can create values as a service. In the process of the Covid-19 pandemic entering from subsidence periods to expanding periods, this study analysed how tourism-related emotional expressions transitioned, and the tendency of feelings of resilience based on social media. As a result, this research could obtain the following three features. First, co-creative activities were perceived as more positive activities during the Covid-19. Second, service-related emotional expressions are continued to be expressed during the Covid-19. Thirdly, the expression with a temporal perspective representing the future were used.

Keywords: Service Dominant Logic, Co-creative Action, Tourism, Covid-19, Temporal Perspective

1. Introduction

Tourism as an industry has become a major socio-economic force in both developing and developed markets. Its effectiveness as a source of economic development has made strategic planning efforts essential in economic policy in almost every country in the world. In addition, there is no other industry where people could cross the world and connect many cultures, making tourism a source of cross-cultural exchange. The features of tourism contain the sharing of well-being and uneconomical values between tourists and residents. Tourism research should be considered from both the supply and demand sides of the tourism industry and should explore how the tourism experience is related to quality of life (QOL) and well-being. An important research topic related to tourism is how the tourism experience affects
quality of life and well-being. A study by Uysal, Sirgy, Woo and Kim (Uysal et al., 2016) explores a framework of connections between tourists and community. Tourists are consumers of different tourism and hospitality products and services at their destinations, and the community consisting of different providers serves as a host to tourists. The effects of well-being could be understood on this framework. In particular, well-being is evaluated by the subjective well-being (SWB) aspect, and positive and negative psychological aspects are being discussed. The Uysal, Perdue, and Sirgy (Uysal et al., 2012) studies provide the most comprehensive discussion of quality of life and tourism.

Tourism, however, also suffers from economic instability such as recession and stagnation, and social instability in the form of war/terrorism. The coronavirus (Covid-19) that occurred in Wuhan, China in 2019 will spread worldwide in 2020, and in 2021, new variants will occur in several countries and the infection will spread worldwide. This situation has reached a scale of a pandemic showing the most influential crisis of the 21st century. Tourism has been most significantly impacted over the world. The world economic activities including tourism have caused human interaction on a global scale due to the rapid spread of infection of the Covid-19. The impact on tourism is that borders are closed, cruise ships are docked, commercial aircraft operations around the world are restricted, and hotels, restaurants and attractions in tourist areas continue to be closed. In tourism, research focusing on the Covid-19 is in progress. The Covid-19 pandemic is much larger and more serious than previous virus infections, so we need to evaluate a new theoretical foundation scrutinizing existing theories. In this research, we propose a new approach to tourism based on the service theory due to assess the impact of the Covid-19 on tourism.

In the field of marketing, Vargo and Lusch (Vargo & Lusch., 2004, A) advocated the change of the concept of exchange form Good Dominant Logic (GDL) to Service Dominant Logic (SDL). These researches (Vargo & Lusch, 2004, B) (Vargo & Lusch, 2008, A) (Vargo & Lusch, 2008, B) (Vargo et al., 2010) put in the center a service not a good as the economic exchange, and systematized the process of creating a new service from the perspective of marketing. The key factor of this research is SDL signifying the exchange of services and is based on the concept that value is created only when one entity provides services and another entity receives them. Applying SDL to the field of tourism, the main entity providing services is the “tourism industry” and “residents”, while the entity receiving services is the “tourist” as the “customer/consumer”. In this research, during the expanding period of the Covid-19 pandemic in Japan, these following experiments are executed. First, references to keywords related to co-creation in SDL are extracted. Second, references to keywords related to the concept of “service” which is the central concept of SDL, are extracted. Finally, during the pandemic expansion period, emphasized keywords will be extracted. These experiments could verify whether the interpretation of the SDL concept is appropriate or not. The analysis of these results could characterize emotions of resilience during the Covid-19 pandemic.

2. Service-Dominant Logic

In conventional marketing, the mainstream of exchange is the “value exchange” in which a company determines the value, that is price, of goods, and the customer pays the price to
acquire the product. This model of exchange has been called Goods Dominant Logic (GDL). In GDL, all the value of goods is provided by the company, and the customer receives the value of goods. The customer paid the cost to the company in return for enjoying the value. GDL is a logic modeling the economic activity centered on the exchange of things containing money. On the other hand, Vargo and Lusch (Vargo & Lusch, 2004, A) changed the model from GDL centered on goods to SDL centered on services. SDL regards economic exchange as a service and systematized the process of service creation from the viewpoint of marketing. This modeling can be thought of as a shift from value-in-exchange of goods to value-in-use of services. SDL is the idea that value is created with the structure of two entities, one entity provides services and the other entity is received services. This structure could be considered as the idea of co-creative value with the existence of both entities.

Vargo and Lusch (Vargo & Lusch, 2004, A) set the Fundamental Premises (FPs) in SDL-based marketing. In their research, eight fundamental premises were proposed, and in Vargo and Lusch (Vargo & Lusch, 2008, B), the definition was partially changed and expanded to ten fundamental premises. Furthermore, in Vargo and Lusch (Vargo & Lusch, 2016), the main fundamental premises were defined as axioms, and the contents were changed and extended to 11 fundamental premises. In particular, the concept of "actor" was included in the definition to clarify the autonomous subject.

2.1 Interpretation of Service-Dominant Logic

In this research, the concept of SDL used in the service and management field is applied to the tourism. The entity providing services is the "company", but in the case of tourism, the entity providing services is the “residents" or “tourism industries” of the tourist destination. On the other hand, the entity receiving the service is a "customer / consumer", but in the case of tourism, it can be regarded as a "tourist". Our research interpret each FP based on the following concepts.

FP1: Service is the fundamental basis of exchange

Interpretation of FP1: Applied activities (for example, co-creation activities such as events) based on knowledge and abilities by residents mean services, and these services consist of the fundamental bases of exchanging feelings between residents and tourists.

FP2: Indirect exchange masks the fundamental basis of exchange

Interpretation of FP2: Indirect exchange, such as exchange of services or events with co-creative activities, masks the fundamental bases of exchange, rather than direct exchange (of goods and money) by providing direct goods (souvenirs). This FP emphasizes the importance of indirect exchanges.

FP3: Goods are distribution mechanisms for service provision

Interpretation of FP3: Providing services through Goods. At this time, it is possible to create a shared space providing services to both residents and tourists through Goods.

FP4: Operant resources are the fundamental source of strategic benefit
Interpretation of FP4: Since operant resources correspond to knowledge related to how to use Goods and what kind of co-creation to make, they are the basic fundamental source compared to operand resources. Due to the diversity of operant resources, it is possible to generate many strategic benefits.

FP5: All economies are services economies

Interpretation of FP5: Not only is the service economically positive, but it also leads to a sense of accomplishment and happiness by adding “experience” to people. From those positive feelings, it may lead to economic activity as a result.

FP6: Value is cocreated by multiple actors, always including the beneficiary

Interpretation of FP6: Services with co-create values are created by multiple actors (such as tourists and residents). There are also beneficiaries who will benefit from the service.

FP7: Actor cannot deliver value but can participate in the creation and offering of value propositions

Interpretation of FP7: Local residents and tourism industry as actors alone do not accomplish "co-creation", but only provide the proposal from one side of the service. Therefore, the products and goods produced by companies are only proposals, not the common "experience” with tourists.

FP8: A service-centered view is inherently beneficiary oriented and relational

Interpretation of FP8: The service-centered view is beneficiary-oriented, and entities receiving profits exist. The relationship is constructed by both the service provider (residents and tourism industry) and the service receiver (tourists) with mutually creating values.

FP9: All social and economic actors are resource integrators

Interpretation of FP9: Social and economic actors, the people and organizations that exist in society and have economic relationships, integrate resources. Tourists and residents comprehensively utilize operand resources and operant resources.

FP10: Values always uniquely and phenomenologically determined by the beneficiary

Interpretation of FP10: Beneficiaries such as tourists who receive value through co-creation activities related to tourism recognize value through their individual recognition.

FP11: Value cocreation is coordinated through actor-generated institutions and institutional arrangements

Interpretation of FP11: Co-creation of value by both tourists and residents is coordinated through institutional arrangements created by actors (tourists and residents).

2.2 Viewpoint of SDL during Covid-19

In the medium and eradication of the Covid-19 disaster, the tourism industry is required to change its business method. The need for innovation in the tourism industry has been
recognized. Martinez-Roman, Tamayo, Gamero, and Romero (Martinez-Roman et al., 2015) proposed a two-step interaction model based on the company’s innovative capabilities and background. They showed that there is a positive linear relationship between process innovations and business profitability, that is, process innovation improves profitability. Johannisson and Olaison (Johannisson & Olaison, 2007) investigated how the impact of the hurricane Gudrun, which struck southern Sweden in January 2005, was treated by citizens and private and public organizations and discussed the concept of “emergency entrepreneurship.” They discussed the action guidelines necessary for revitalizing daily life and socioeconomic activities in an emergency term. These concepts led to action guidelines in the current social and economic situation in the Covid-19 for tourists and the tourism industry.

In Covid-19, the most important cause of infection is the availability of social distancing. Although "co-creative" activities with tourists and residents could increase the sense of well-being for residents, securing a certain area of social distancing makes “co-creative” activities difficult. As a result, coexistence of services and the Covid-19 in tourism activities seems to be a difficult task. Therefore, in the anxiety about infection during the Covid-19 pandemic, the following points should be considered in relating to “service”. In particular, the grammatical expression of “service” should be extracted in the context focusing on the co-creative activities.

1) Viewpoint of service provider and target person

The service is not provided as a "thing", but the service is provided as an "activity" from the "provider" to the "target person" by ensuring a certain level of social distancing. Therefore, in the context, the service may take the form of "verb" or "noun". The contents of co-creative activity compose a subject such as a person, a target person, and a co-creative verb.

2) Perspectives related to quality of service

The number of tourists from overseas is a factor in the spread of the Covid-19 pandemic, so the number of tourists from the oversea region may decrease. On the other hand, the number of tourists from domestic areas may increase. Services relying on the differences between traditional cultures may not bring as much sympathy to tourists as before, so local cultures will be conscious of domestic tourists as services on the different contents. The word corresponding to the object expresses the quality of service and is expressed as a noun. The "quality of service", however, may be expressed in the verb in other cases.

3. Experiments and Results

Using the Twitter API, three datasets were collected over a period of more than 10 months. Duplicate data was removed from this dataset and a unique Tweet was extracted. Tab. 1 describes the characteristics of these datasets. Previous paper (Lee, 2021) extracted two keywords, “Exchange” and “Participation”, from multiple co-creative keywords showing the typical co-creative activities are considered as positive activities in SDL. These keywords are prone to positive emotion (Lee, 2021). This research will examine what kind of Tweets are being spoken with those words and what kind of keywords are co-occurred with tourism during the Covid-19 pandemic.
### Table 1 The features of three datasets of Twitter

<table>
<thead>
<tr>
<th></th>
<th>Dataset-1</th>
<th>Dataset-2</th>
<th>Dataset-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyword(s) in Twitter</td>
<td>Tourism</td>
<td>Tourist + Exchange</td>
<td>Tourist + Participation</td>
</tr>
<tr>
<td>Sampling Period in 2020</td>
<td>Jan. 11 &lt;--&gt; Nov. 21</td>
<td>Jan. 09 &lt;--&gt; Nov. 20</td>
<td>Jan. 14&lt;--&gt; Nov. 20</td>
</tr>
<tr>
<td>The Number of Total Tweets</td>
<td>17637</td>
<td>1068</td>
<td>2390</td>
</tr>
</tbody>
</table>

The Covid-19 infection continued in this period in worldwide, but the situation in Japan is a little different. Since the infection of the Covid-19 spread from country to country, the transition of the number of infected people in Japan is shown in Fig. 1. Fig. 1 showed the number of infected people increased rapidly in April, and it was calmed down by the state of emergency after May. As many as 15,000 infected people per month, however, have appeared since July in Japan. This period could be classified into two periods such as the subsidence period and the expanding period.

Fig. 2 shows the percentage of positive and negative tweets per all tweets in Dataset-2 and Dataset-3 during subsidence and expanding period during the Covid-19. Positive and negative dictionary with 100 keywords are constructed in our experiments. If the tweet has a positive or negative keyword in each dictionary, then the tweet is called positive or negative tweet respectively. The monthly transitions are shown as the Pp-D2 (Percentage of positive tweets / total tweets in Dataset-2), Pp-D3 (Percentage of positive tweets / total tweets in Dataset-3), Pn-D2 (Percentage of negative tweets / total tweets in Dataset-2) and Pn-D3 (Percentage of negative tweets / total tweets in Dataset-3). Dataset-2 or Dataset-3 include the keyword “Exchange” or “Participation” respectively. The Pp-D2 and Pn-D2 show the trend of positive and negative tweets relating the keyword “Exchange” and Pp-D3 and Pn-D3 shows the same relating the keyword “Participation”.

**Figure 1 The number of infected people in Japan during January to November in 2020**

![Figure 1](https://www.mhlw.go.jp/stf/covid-19/open-data.html)

Tweets including “Exchange“ and “Participation” are more often expressed in positive tweets than in negative tweets. These results show the context containing co-creative keywords.
produces more positive expressions than negative expression. Furthermore, the tendency is strongly appeared in the expanding period. These tweets using co-creative words in tourism were expressed strongly even if the condition is under difficult situations such as the Covid-19. As a result, the co-creative word seems to have a meaning of resilience to the Covid-19 pandemic.

Figure 2 Percentage of positive/negative tweets for co-creative words

Percentage of positive tweets
Percentage of negative tweets

Figure 3 Percentage of the number of appearances of service-oriented words
Fig. 3 shows the percentage of the frequency of tweets including the keyword per total tweets appearing in Dataset-1. In this experiment, the trend of two keywords expressing the service, “Recommended” and “Hospitality” and keyword "Sights" frequently commented on tourism are showed in Fig.3. In these results, "Recommended" appears as frequently as "Sights", indicating the importance of services in tourism. On the other hand, the frequency of "Hospitality" is decreasing in sync with the decline of the tourism industry during the Covid-19.

**Figure 4 Percentage of the number of appearances of time perspective words**

Fig. 4 shows how the two characteristic words, “Capability” and “Expectation”, appeared in Dataset-1 over time. The vertical axis shows the percentage of the frequency of occurrence of each word divided by the total number of Tweets in Dataset-1. “Capability” and “Expectation” are not always used frequently for tourism, but this time we were able to extract as the characteristic word. The results showed the frequency of occurrence of “Capability” is decreasing due to the spread of infection. This may be due to the fact that policies to reduce the spread of infection have restricted many activities, including tourism. On the other hand, “Expectation” representing a temporal perspective is increasing in frequency despite the spread of infection. It seems that the number of tweets with strongly conscious of hope for the future is increasing, and this phenomenon shows social resilience represented by people as a member of society.

4. Conclusion

This study analysed the tendency of social media based on concrete data how the emotional expression related to Tourism changed in the process of the Covid-19 pandemic entering from the subsidence period to the expanding period. As the results, the following features could be extracted by monthly analysis. Firstly, tweets including “Exchange” and “Participation” are often expressed in more positive tweets. These results show the context containing co-creative keywords produces more positive expressions than negative expression. Furthermore, the
tendency is strongly appeared in the expanding period. These tweets using co-creative words in tourism were expressed even if the condition is under difficult situations such as Covid-19. As a result, the co-creative word seems to have a meaning of resilience to Covid-19 pandemic. Secondly, "Recommended" appears as frequently as "Sights", indicating the importance of services in tourism. On the other hand, the frequency of "Hospitality" is decreasing in sync with the decline of the tourism industry during Covid-19. Therefore, it could be shown that the influence of Covid-19 differs depending on the type of service. Thirdly, as the Covid-19 pandemic transitioned from the subsidence period to the expanding period, the frequency of occurrence of words with a temporal perspective representing the future, such as “Expectation”, increased. This seems to indicate that social resilience for tourism activities are exists during critical environmental changes such as Covid-19 pandemic. Furthermore, expressions related to the temporal perspective seem to be an element supporting the sustainability of tourism.

In the future, I would like to examine how the characteristics of tourism's social resilience for people are expressed in social media. In addition, I would like to analyze the factors that seem to support the sustainability of tourism.

Acknowledgment

This work is supported by JSPS KAKENHI Grant Number JP21k12464.

References


