

The Necessity for Co-Creative Actions in Tourism During the COVID-19 Pandemic

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ABSTRACT

Tourism has traditionally been considered an activity contributing to human quality of life and well-being. Under the current situation of the COVID-19 pandemic, tourism has been severely affected. However, it is important to look ahead and consider the factors to help revitalize tourism. This study focuses on the need for co-creative actions in tourism, using the characteristics of expression in social media during the COVID-19 infection in Japan. The key factor of this research is the service-dominant logic (SDL). 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. Upon applying SDL to the field of tourism, it was found that 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. As the COVID-19 pandemic enters from subsidence to expanding periods, this study analyzes how tourism-related emotional expressions transitioned, and the feelings of resilience, based on social media. This research obtained the following three features. First, co-creative activities were perceived as more positive activities during the pandemic. Second, service-related emotional expressions continued to be expressed during the pandemic. Thirdly, expressions with a temporal perspective representing the future were used.

1. Introduction

Tourism, as an industry, has become a major socio-economic factor 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 worldwide. Additionally, there is no other industry where people could cross the world and connect across many cultures. This makes tourism a source of cross-cultural exchange. The features of tourism contain the sharing of well-being and non-economical 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 experience of tourism is related to the quality of life (QOL) and the well-being of the tourists and the hosts. A study by Uysal et al. (2016) explores the framework of connections between tourists and the community. Tourists are consumers of

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different tourism and hospitality products and services at their destinations, and a community consisting of different providers serves as hosts to tourists. The effects of well-being could be understood within this framework. In particular, well-being is evaluated by subjective well-being (SWB), where positive and negative psychological aspects are discussed. The Uysal et al. (2012) study provides the most comprehensive discussion of quality of life and tourism.

However, tourism also suffers from economic instabilities, such as recession and stagnation, and social instability in the form of war/terrorism. The coronavirus disease - 2019 (COVID-19) began in Wuhan, China in 2019, spread worldwide in 2020, and in 2021, new variants started to spread in several countries, causing the ongoing pandemic. Tourism has been significantly affected throughout the world. World economic activities, including tourism, have negatively affected human interactions on a global scale, due to the rapid spread of infection of the COVID-19 infection. The specific impacts on tourism were caused by closed borders, docked cruise ships, and the continued restrictions on commercial aircraft operations, hotels, restaurants and attractions in tourist areas around the world. In tourism, research focusing on the COVID-19 is ongoing. The pandemic is much larger and more serious than previous viral infections, so a new theoretical foundation for scrutinizing existing theories needs to be evaluated. We discussed the extraction of activating factors for tourism in a strict environment. Elements were extracted based on the positive expressions expressed on Twitter. Our previous research focused on tourism and extracted positive expressions. In this study, we focus on the fact that COVID-19 is widespread as an obstacle to tourism and extract elements to activate tourism in positive expressions. According to the results of previous research (Lee, 2021), some collaborative actions could be merged with new positive actions as co-creative actions for tourists and residents. In this study, we propose a new approach to applying service theory, focusing on co-creative actions in the tourism field, to evaluate the impact of COVID-19 on tourism.

Vargo and Lusch (2004a) advocated the change of the concept of exchange from good dominant logic (GDL) to service dominant logic (SDL). These studies (Vargo & Lusch, 2004b; 2008a; 2008b) (Vargo et al., 2010) put service in the center, and not goods, as the economic exchange. They also systematized the process of creating a new service from the perspective of marketing. The key factor of this study is that 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. When SDL is applied to the field of tourism, the main entity providing services is the tourism industry and residents, while the entity receiving them is the tourist as the customer/consumer. In this study, during the increase in the COVID-19 infection in Japan, the following experiments were conducted. First, references to keywords related to co-creation in SDL were extracted. Second, references to keywords related to the concept of "service," which is the central concept of SDL, were extracted. Finally, during the period of the spread of the pandemic, the most emphasized keywords were extracted. These experiments will verify whether the interpretation of the SDL concept is appropriate or not. The analysis of these results could characterize the emotions that contributed to resilience during the pandemic.

2. Service-Dominant Logic

In conventional marketing, the mainstream understanding of exchange is the "value exchange," in which a company determines the value, or the price of goods, and the customer pays the price to acquire the product. This model of exchange is called GDL. In GDL, all the values of goods are provided by the company, while the customer is at the receiving end. The customer pays the cost to the company in return for enjoying its value. GDL is a logic modeling where the economic activity is centered on the exchange of things through money. Contrarily, Vargo and Lusch (2004a) changed the model from GDL to SDL, which is centered on services. SDL regards economic exchange as a service, and systematizes 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, where one entity provides services and the other receives them. This structure could be considered as the idea of co-creative value, through the existence of both entities. Vargo and Lusch (2004a) set the fundamental premises (FPs) in SDL-based marketing, where they proposed eight FPs. Vargo and Lusch (2008b) they partially changed the definition and expanded it to ten fundamental premises. Furthermore, in the next study by Vargo and 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

The SDL perspective highlights the concept of value co-creation, in contrast to the value co-production. The co-creation perspective creates a new perspective in other areas. Prebensen et al. (2017) introduced an application in the tourism field. Dong et al. (2008) found that participation in service recovery positively affected tourists' travel satisfaction. Mathis et al. (2016) revealed a positive relationship between tourists' satisfaction with co-creation and their overall satisfaction with the vacation experience. In addition, Grisseman and Stokburger-Sauer (2012) suggested that tourists participating in the process of co-creation will become more satisfied than otherwise. In this study, the concept of SDL used in the service and management field is applied to tourism. The entity providing services is usually the "company," but in the case of tourism, it is the "residents" or "tourism industries" of the tourist destination. Whereas, the entity receiving the service is a "customer/consumer," but in the case of tourism, we can consider it as "tourist" instead. Our research interprets 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 the knowledge and abilities of the 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 the exchange of services or events with co-creative activities, masks the fundamental bases of exchange, rather than a 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. Thus, 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 benefits

Interpretation of FP4: Since operant resources correspond to the knowledge related to how to use goods, and what kind of co-creation to choose, they are the basic fundamental sources, compared to operand resources. Due to the diversity of operant resources, it is possible to generate many strategic benefits from them.

- 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 co-created by multiple actors, always including the beneficiary

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

- FP7: Actors cannot deliver value, but can participate in the creation and offering of value propositions

Interpretation of FP7: Local residents and the 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 shared experiences 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), 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 and operant resources.

- FP10: Values are 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 its value through their individual recognition.

- FP11: Value co-creation 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 the actors (tourists and residents).

2.2. Viewpoint of SDL during COVID-19

In the management and eradication of the COVID-19 disaster, the tourism industry was required to change its business model. The need for innovation in the tourism industry has been recognized. 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 (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. They discussed the concept of "emergency entrepreneurship" and the action guidelines necessary for revitalizing daily life and socioeconomic activities in emergencies. These concepts led to the action guidelines for the current social and economic situation created by COVID-19, for tourists and the tourism industry.

During COVID-19, the most important prevention for the spread of infection is social distancing. Although "co-creative" activities between tourists and residents could increase the sense of well-being of the residents, social distancing makes such activities difficult. As a result, offering tourism activities, even with the relaxation of COVID-19 restrictions, seems to be a difficult task. Therefore, in the anxiety about infection during the pandemic, the following points should be considered in relation to service. In particular, the grammatical expression of "service," should be extracted from the context, focusing on co-creative activities.

1) Viewpoints of service providers and target persons

The service is not provided as a good, but 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 a verb or a noun. The contents of co-creative activity comprise 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 affecting the spread of the COVID-19 pandemic, so the number of international tourists may decrease in this situation. However, this may lead to an increase in the number of tourists from domestic areas. Services relying on the differences between traditional cultures may not bring as much engagement from tourists as before, so local cultures will have to be conscious of domestic tourists' service requirements for different contents. The word corresponding to the object expresses the quality of service, and is expressed as a noun. Whereas, the "quality of service" may be expressed as a verb in other cases.

3. Experiments and Results

Using the Twitter API, three datasets were collected over a period from January to November in 2020. Duplicate data was removed from this dataset, and unique tweets were extracted. Table 1 describes the characteristics of these datasets. A previous study (Lee, 2021) extracted two keywords — “exchange” and “participation” — from multiple co-creative keywords, showing typical co-creative activities that are considered positive activities in SDL. These keywords are prone to positive emotions (Lee, 2021). Most of data including "tourism" and "exchange" tweeted about specific international exchange activities that transcend national boundaries. There were many cases where different types of "people" interacted. The keyword “exchange” could be thought of as one word representing the concept of "co-creation." Tweets with “tourism” and “participation” keywords included events such as "inbound training," "tours," "tourism attraction activities, and "lives." Each expression creates an activity together meaning to a concept of “co-creation” (Lee, 2021). This study will examine what kind of tweets were posted with those words, and what kind of keywords co-occurred with tourism during the COVID-19 pandemic.

Table 1. The features of three datasets of Twitter

	Dataset-1	Dataset-2	Dataset-3
Keyword(s) in Twitter	Tourism	Tourist + Exchange	Tourist + Participation
Sampling Period in 2020	Jan. 11 <-> Nov. 21	Jan. /09 <-> Nov.20	Jan. 14<-> Nov.20
The Number of Total Tweets	17637	1068	2390

The pandemic continued worldwide in this period, but the situation in Japan was slightly different. The transition of the number of infected people in Japan is shown in Figure 1. It shows that the number of infected people increased rapidly in April, and calmed down after a state of emergency, post May. However, as many as 15,000 people per month have gotten infected in Japan since July 2020. This period could be classified into two periods: the subsidence period and the expanding period.

We first extracted all words and frequencies from the tweet data over several months, and then multiple researchers extracted 100 words that seemed to be positive and negative, respectively. Tweets containing positive and negative keywords were called positive and negative tweets, respectively. Figure 2 shows the percentage of positive and negative tweets, from all the tweets in Dataset-2 and Dataset-3, during the subsidence and expanding periods. Positive and negative dictionaries, with 100 keywords, were constructed in our experiments. If the tweet has a positive or negative keyword in either dictionary, then it is called a 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 and Dataset-3 include the keyword “exchange” and “participation,” respectively. The Pp-D2 and Pn-D2 show the trend of positive and negative tweets relating to the keywords “exchange,” and Pp-D3 and Pn-D3 shows the same for “participation.”

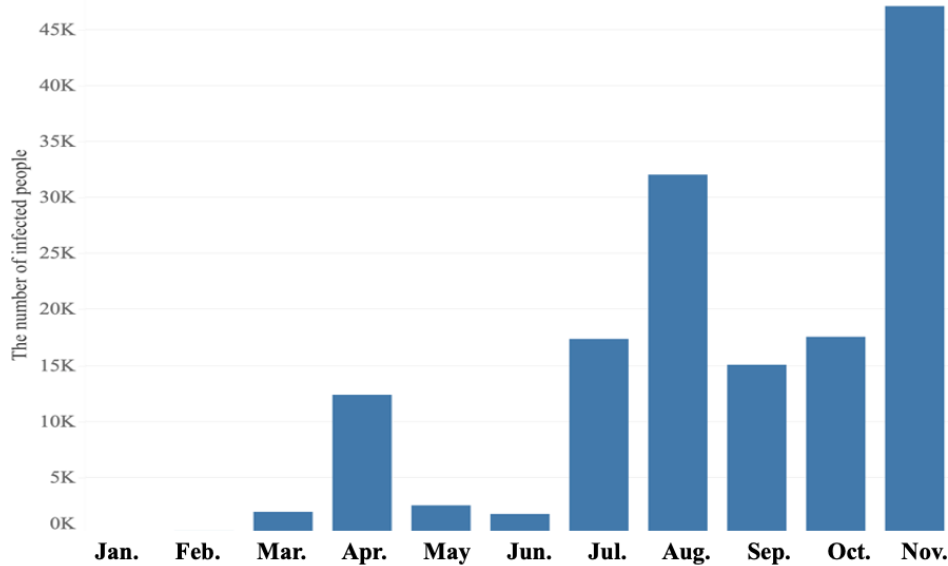


Figure 1. The number of infected people in Japan between January to November 2020

Source: (MHLW 2021) <https://www.mhlw.go.jp/stf/covid-19/open-data.html>

The two keywords are more often seen in positive than negative tweets. These results show how a context containing co-creative keywords produces more positive than negative expressions. Furthermore, the tendency strongly appeared during the expanding period. These tweets, using co-creative words in tourism, expressed positive feelings strongly even if the conditions were under a difficult situation, such as the COVID-19 pandemic. As a result, the co-creative word seems to mean resilience, in the context of the pandemic.

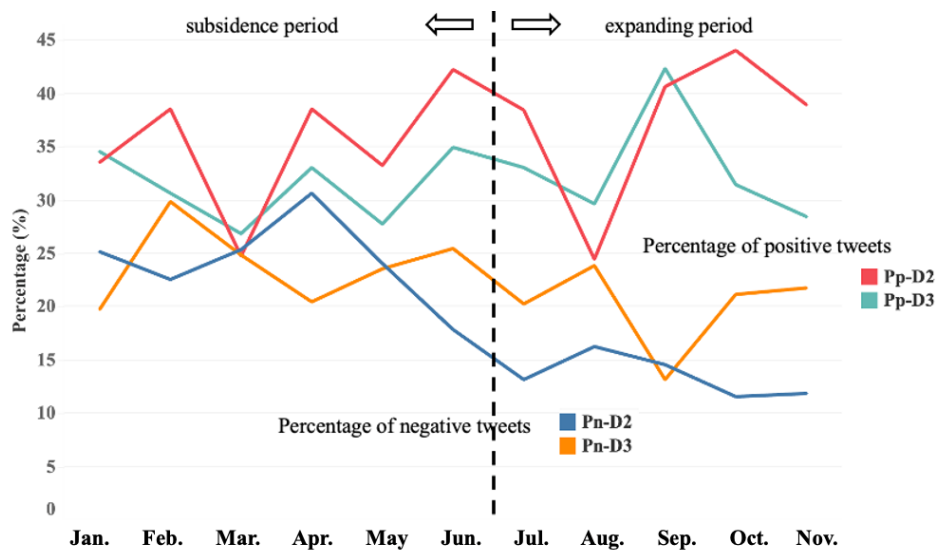


Figure 2. Percentage of positive/negative tweets for co-creative words

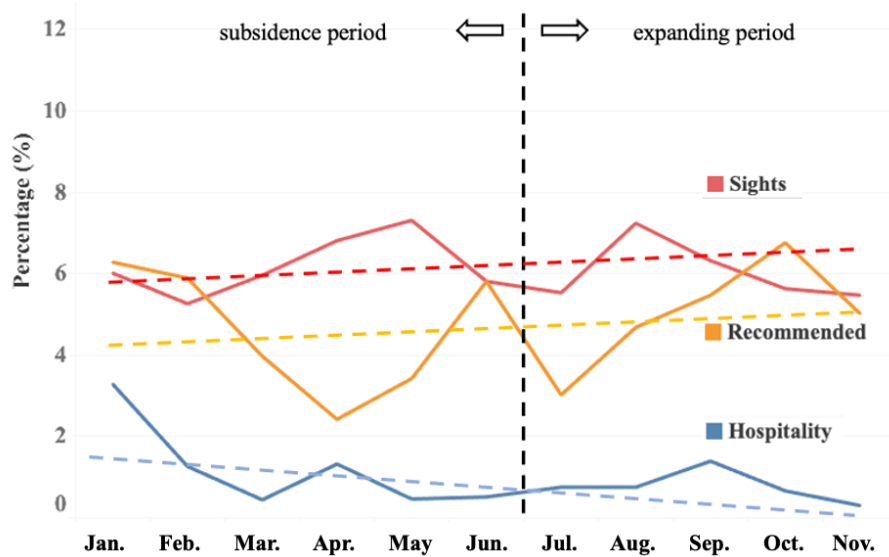


Figure 3. Percentage of the number of appearances of service-oriented words

Figure 3 shows the percentage of the frequency of tweets, including the keyword per total of tweets appearing in Dataset-1. In this experiment, the trend of two keywords expressing the service, “recommended” and “hospitality,” and the keyword “sights” frequently commented on tourism are shown in Figure 3. In these results, “recommended” appears as frequently as “sights,” indicating the importance of services in tourism. Whereas, the frequency of “hospitality” decreases, in sync with the decline of the tourism industry during the pandemic.

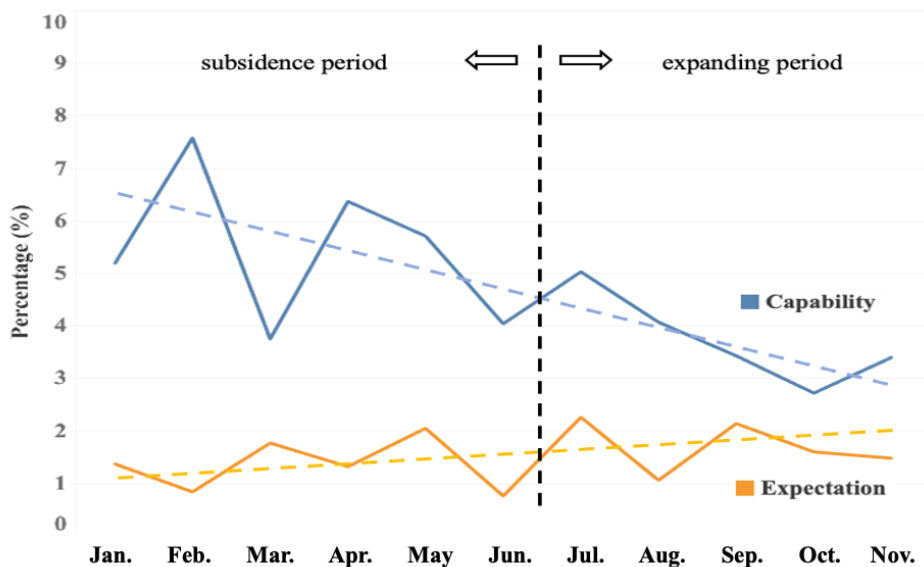


Figure 4. Percentage of the number of appearances of time perspective words

Figure 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 used frequently for tourism, but this time we were able to extract them as characteristic words. The results showed that the frequency of the occurrence of “capability” decreased, due to the spread of infection. This may be because policies to reduce the spread of infection restricted several activities, including tourism. On the other hand, “expectation,” representing

a temporal perspective, increased in frequency despite the spread of infection. It seems that the number of tweets, with strong suggestions of hope for the future was increasing, and this phenomenon shows social resilience represented by people as members of society.

4. Conclusion

This study analyzed how the tendency in social media, for emotional expressions related to tourism, changed during the course of the COVID-19 pandemic, from the subsidence to the expanding period, based on concrete data. The following features were extracted by monthly analysis. First, tweets including “exchange” and “participation,” are often expressed in more positive tweets. These results show the context containing co-creative keywords produce more positive than negative expressions. Furthermore, the tendency appeared more strongly in the expanding period. These tweets, using co-creative words in tourism, were expressed even when the conditions were difficult. As a result, co-creative words seem to suggest resilience during the COVID-19 pandemic. Second, “recommended” appears as frequently as “sights,” indicating the importance of services in tourism. However, the frequency of “hospitality” decreased, in sync with the decline of the tourism industry, during the pandemic. Therefore, it could be shown that the influence of COVID-19 differed, depending on the type of service. Third, as the pandemic transitioned from the subsidence 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 exists, even during critical environmental changes such as the 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 on social media. Additionally, I intend to analyze the factors that seem to support the sustainability of tourism.

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