

## A Systemic Approach to the Evaluation of Tourism Marketing Strategies Shaped by the Pandemic

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**Abstract:** This study considers the effects of the COVID-19 pandemic and the global health crisis caused on tourism marketing strategies internationally. The marketing strategies proposed and implemented by international tourism business community are described, in order to deal with the health crisis and to recover the global tourism movement. The general concepts of the research and the methodological tools are listed, with which the present study was conducted and which focused on the application of systems science in information management. Finally, the above strategies are evaluated from the perspective of systems science.

**Keywords:** Tourism marketing, marketing strategies, COVID-19 pandemic, health crisis, Systems Science.

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## INTRODUCTION

Tourism is a horizontal economic activity that holds a significant percentage of the global economy (Neou, 2021). According to the United Nations World Tourism Organization (UNWTO, 2021), tourism is an important source of export earnings for many countries and a significant part of their GDP, estimating that it directly represents 4.0% of global GDP in 2019, based on the direct tourism gross domestic product (TDGDP) reported by countries. It also has a significant indirect impact on other economic sectors, with a multiplier effect on the supply of other goods and services, investment and public expenditure. The figures for the year 2019 (before the impact of the COVID-19 pandemic on the relevant figures) and in absolute values were as follows (UNWTO, 2021):

- Global direct tourism GDP (TDGDP) = USD 3.5 trillion (4.0% of global GDP).

- Export earnings from international tourism = USD 1.7 trillion (6.8% of world exports).

Consequently, the tourism sector supports millions of direct and indirect jobs around the world, especially for women and young people. Tourism has therefore proven to be a tool for economic diversification and a driver of employment (UNWTO, 2021). Tourism is a steadily growing economic sector, connected globally more and more, where many people already participate, either as legal entities (organizations and companies) or as individuals, or as service providers, or as recipients/consumers (tourists) of these services (Νικολάου, Nikolaou, 2021). Tourism is synonymous with relaxation, pleasure and safety. It therefore stands in stark contrast to the concept of crisis, which is associated with insecurity and fear. The tourism economy is very vulnerable to any change in the external environment that may jeopardize the

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travel experience. The arrival of any crisis in destinations, where tourism plays a particularly important role in the economy, can cause a great blow to all related activities (Νικολάου, Nikolaou, 2021). Due to the reduction in tourist arrivals and spending, the business continuity of the local tourism economy is disrupted (Santana, 2004). Especially in those countries where tourism accounts for a significant percentage of GDP, the direct and indirect losses that may occur from a crisis or disaster have a significant impact, not only on the tourism economy, but also on the entire economy of the affected country (Aliperti *et al.*, 2019). Due to the recent pandemic (COVID-19), in the European Union (EU) GDP decreased by almost 8% in the year 2020 (European Commission, 2020), while most countries dependent on tourism experienced a dramatic drop in GDP. Global differences are even greater, with tourism in several countries accounting for more than half of their GDP (Chica *et al.*, 2021; WTTC, 2021).

The existence of an effective plan to deal with potential crises is necessary (Neou, 2021). Yet, especially in the context of health, as is the case of a pandemic, it may not be possible to prevent an upcoming disaster (Νικολάου, Nikolaou, 2021). The pandemic which has led to the confinement, the disuse of tourist markets and destinations, and the collapse of tourism demand can only be compared to the consequences caused by the two World Wars and the biological disasters that occurred throughout world history, in terms of impact on mobility and social interaction (Gössling *et al.*, 2020; Ozili & Arun, 2020). The global loss in tourist arrivals due to epidemics in the period from 1980 to 2019 amounts to 57 million; the corresponding loss in tourism spending amounts to US\$95 billion (Neou, 2021). As the world becomes more interconnected, in addition to increased healthcare costs and a reduced workforce, the pandemic had also hit airlines that suffered huge financial losses (Kolahchi *et al.*, 2021). The effects of the pandemic on tourism worldwide caused a decrease in international tourist arrivals compared to previous years by 74%. Thus, international tourist arrivals fell to 381 million in the year 2020, from 1.5 billion in the year 2019. The loss of jobs was also significant, since tourism is a sector of the labor market that employs a large number of workers (Neou, 2021). In the year 2019, jobs in tourism were estimated worldwide at 334 million, compared to 272 million in the year 2020. That is, there was a decrease of 62 million jobs representing a rate of 18.5% compared to the year 2019, thus contributing significantly in increasing unemployment (WTTC, 2021). Therefore, it becomes necessary to create appropriate pandemic management strategies in the tourism industry (Lagos *et al.*, 2021). The objectives of this

work were to record how were tourism marketing strategies shaped internationally, in order to face the crisis caused by the pandemic in tourism activity and economy, as well as how are the above strategies evaluated in the light of Systems Science, which is a holistic approach to the study of physical and social phenomena.

## MATERIALS & METHODS

A systematic literature review (SLR) identifies, selects and critically evaluates research in order to answer a clearly formulated question (Dewey & Drahota, 2016). A systematic review should follow a clearly defined protocol or plan, where the criteria are clearly stated before the review is conducted. It is a comprehensive, transparent search conducted across multiple databases and gray literature that can be replicated by other researchers. It involves planning a well-thought-out search strategy that has a specific focus or answers a defined question. The review identifies the type of information sought, judged and reported within known time frames. Search terms, search strategies (including database names, platforms and search dates) and boundaries should be included in the review. Systematic literature reviews originate from medicine and are linked to evidence-based practice. According to Grant & Booth (2009), the expansion of evidence-based practice has led to an increasing variety of review types. They compare and contrast 14 review types, listing the strengths and weaknesses of each. Tranfield *et al.* (2003) discuss the origins of the evidence-based approach to conducting literature review and its application to other scientific disciplines, including management science and business research. However, due to the diverse nature of research fields outside the natural sciences, the aforementioned methodological steps cannot be easily applied to all areas of business research. Efforts to transfer processes from medicine to business research include a step-by-step approach (Durach *et al.*, 2017), developing a standard procedure for conducting systematic literature reviews in business and finance.

Bearing in mind the above caveats about the effectiveness of the systematic literature review in economics and business, and despite the fact that the research methodology is initially based on the collection, classification, structuring and more generally on the management of information, it is found that this method often formulates instructions such as: "The systematic review allows for a rigorous ... evaluation of the results [...] care must be taken to ensure that all relevant data are collected", which are more general guidelines than conduct criteria of the review. In addition, the term "systematic" does not appear to be methodologically connected to the term "system" and its

consequences (cause-effect relationships) in the conduct of the research. Therefore, the literature review of the present paper is not conducted through the SLR, but through the methodological tools of Systems Science, which seek and hopefully ensure the holistic view of a problem.

### **The Principles of Systems Science**

Systems Science, although not a distinct scientific discipline, encompasses an interdisciplinary area of formal research aimed at developing, testing, and validating general theory, and is governed by the following 10 fundamental principles (Heylighen, 2001). Although principles or laws play the role of expressing the most basic ideas in a science, establishing a framework or methodology for solving problems, the few commonly used principles of General Systems, such as the law of requisite variety or the principle that the whole is more than the sum of its parts, were originally ambiguous or controversial and lacked coherence among themselves. However, and since there was a particular need for such principles, since they are supposed to guide thought, a necessarily limited and schematic overview of these principles was gradually formed, starting from the most primary and reaching the less obvious ones (Heylighen, 2001):

#### **1. The Principle of Selective Retention**

Stable configurations are retained; unstable ones are eliminated. The first principle is tautological in the sense that stability can be defined as that which does not (easily) change or disappear. Instability is therefore, through negation, that which tends to disappear or be replaced by some other configuration, stable or unstable. The word "configuration" denotes any phenomenon that can be discerned. It includes everything called a "trait", "property", "state", "pattern", "structure" or "system". More stable configurations are less easily eliminated than less stable ones.

#### **2. The Principle of Autocatalytic Growth**

Stable configurations that facilitate the emergence of configurations similar to them will become more numerous. This self-evident principle is the companion of the principle of selective conservation (1). While the latter expresses the conservative aspect of evolution, preservation or survival, the former expresses the progressive aspect, growth. Self-catalytic growth also describes biological reproduction, as the positive feedback or nonlinearity that characterizes most inorganic self-organizing processes, such as crystal growth. The principle simply states that it is sufficient for a configuration to be stable, and in some sense self-catalytic or self-replicating, in order to undergo potentially explosive growth.

#### **3. The Principle of Asymmetric Transitions - Entropy and Energy**

A transition from an unstable configuration to a stable one is possible, but the reverse is not. This principle implies a fundamental asymmetry in evolution, i.e., one direction of change (from unstable to stable) is more likely than the opposite direction.

#### **4. The Principle of Blind Variation**

At the most fundamental level, variation procedures "don't know" which of the variations they produce will be selected. This principle is not self-evident, but can be motivated by Ockham's Razor. If it was not valid, we would have to introduce some explanation (e.g., design by God) to account for the "prediction" of variation, and this would make the model more complex than necessary. The blindness of variation is evident in biological evolution, which relies on random mutations and recombinations. However, even perfectly deterministic dynamical systems can be called blind, in the sense that if the system is sufficiently complex, it is impossible to predict whether it will reach a particular attractor (choice of a fixed configuration of states) without explicitly identifying the sequence of transition states (Heylighen, 1991).

#### **5. The Principle of Selective Variety**

The greater the variety of configurations that a system has, the greater the probability that at least one of these configurations will be selectively maintained. Although this principle is again self-evident or tautological, it leads to a number of useful and important conclusions. For example, the fewer or more distant the potential stable configurations, the more fluctuations (going through a variety of configurations) the system must undergo to maintain its chances of finding a stable configuration. In cases where the selection criteria (determining which configurations are stable and which are not) can change, it is better to have a wide variety of possible configurations. If in a new selective regime configuration, they lose their stability, a large initial variety will make it likely that at least some configurations will retain their stability. A classic example is the risk of monoculture with genetically similar or identical plants, as a single disease or pest invasion can be enough to destroy entire crops. If there is variety, on the other hand, there will always be some crops that survive the invasion.

#### **6. The Principle of Recursive Systems Construction**

The processes of Blind Variation (4) and Selective Conservation (1), or BVSR, recursively construct stable systems by recombining stable building blocks. Stable configurations resulting from BVSR-processes can be thought of as primitives, where their stability distinguishes them from their variable background, and this distinction (which defines a “boundary”) is itself stable. The relationships between these elements, which extend beyond the boundaries, will initially still fluctuate. A change in these relationships can be interpreted as a recombination of the elements. Of all the different combinations of elements, some will be more stable and therefore selectively preserved.

## 7. Control systems

The preceding principles provide a set of mechanisms that describe the spontaneous emergence and self-organization of multilayered systems, which become increasingly stable (in a generalized “dynamic” sense), more appropriate, and more complex. Control systems are a particular type of such multi-level systems, where a stable configuration is maintained by selectively neutralizing disturbances. There is not space here to examine in detail how control systems emerge through the BVSR, but the issue can be clarified by considering the concept of the preemptive or vicarious selector (Campbell, 1974).

## 8. The Law of Requisite Variety

The greater the variety of actions available to a control system (7), the greater the variety of disturbances it can compensate for. This is another application of the Selective Variety principle (5) above. However, a stronger form of Ashby’s (1958) law, “the variety in the control system must be equal to or greater than the variety of disturbances in order to maintain stability”, does not hold in general. Indeed, the underlying assumption “only variety can destroy variety” contradicts the principle of Asymmetric Transitions (3), which suggests that spontaneous reduction of variety is possible. For example, a bacterium possesses a minimal variety of only two actions: increasing or decreasing the rate of random movements. However, it is able to cope with a rather complex environment, with many different types of disturbances (Powers, 1989). Its blind “transitions” are usually enough to find a favorable (“stable”) state, thus avoiding all risks.

## 9. The Law of Requisite Knowledge

To adequately compensate for disturbances, a control system must “know” which action to choose from the variety of available actions. This principle reminds us that a variety of actions is not enough for effective control; the system must be able to choose an appropriate one. Without knowledge, the system would have to try an action blindly, and

the greater the variety of perturbations, the less likely that action will prove to be sufficient. An equivalent principle was formulated by Conant & Ashby (1970) as “Every good regulator of a system must be a model of that system”. Therefore, the present principle can also be called *the law of regulatory models*.

## 10. The Principle of Incomplete Knowledge

The model incorporated in a control system is necessarily incomplete. A system cannot be fully represented, and therefore cannot have full knowledge of how its own actions can feed back perturbations. As a more general argument, one might note that models should be simpler than the phenomena they purport to model. Otherwise, the processes of differentiation and selection would take as much time in the model as in the real world and would be impossible to predict, precluding any control. Finally, models are constructed by blind variational procedures (4) and therefore cannot be expected to arrive at any form of complete representation of an infinitely complex environment. Existing well-known principles of systems (such as self-organization, or “the whole is more than the sum of its parts” and “order from noise”) can be reduced to the consequences of these primary laws, which form the core of any larger theoretical framework. Based on the above laws, the evaluation of tourism marketing strategies was carried out in this work, considering the global tourism market as a (super-) system.

## RESULTS AND DISCUSSION

The challenge for the tourism economy and the future sustainability of tourism is to become more resilient to such crises as the pandemic. Related studies explore the changing dimensions of tourism marketing after COVID-19, the growing challenges in tourism education, ways to deal with the health crisis, the impact of the pandemic on tourism governance and the emerging ethical issues of stakeholder responsibility (Anukrati et al., 2022). Governments are therefore taking steps to incorporate greater sustainability into tourism to help local communities benefit more from it. Examining developments, trends, case-by-case advantages and their impact on tourism, both internationally and in different regions, helps to visualize the future and better design related policies (OECD, 2020).

The actions carried out worldwide to deal with the health crisis in tourism, indirectly and directly, were as follows:

- International organizations, government agencies and business/industry organizations have conducted extensive research to determine

the extent and impact of the pandemic phenomenon.

- Those of the tourism businesses that did not close or suspend their operations immediately took financial and operational measures for their survival, such as ensuring liquidity, containing their expenses and resorting to state support measures.
- Governments took measures to support the affected businesses, such as lending with state guarantees, financial and social support for employees, the preparation of national action plans and the subsequent creation of services and committees to manage these actions, but also the application of flexible travel rules (e.g., visa issuance) to facilitate tourists.
- Implemented health and safety protocols to restore traveler confidence.
- Targeted advertising campaigns and promotions were carried out in selected tourist markets.
- Domestic tourism, of short distances, in less crowded destinations, combined with alternative/thematic tourism (nature, medical, cultural, etc.) was shown.
- The comparative/competitive advantages of each tourist destination were/are being highlighted.
- A large part of tourist services, products and activities were/are being digitized (e.g., reservations, advertising, virtual visits to museums etc.), while upgrading the relevant skills of the employees.
- Creating a more resilient, innovative, sustainable and viable tourism, with international cooperation.

The above strategies, and given that they do not differ internationally, can be evaluated as a whole for their effectiveness, only in the light of Systems Science and its principles. Any other opinion, either on the correctness or otherwise of these strategies or on the formulation of some other strategy, cannot be based on evidence, as the tourism season of the year 2022 was the first after the lifting of health restrictions, the financial year has not been completed yet, and the corresponding data are not complete to draw other conclusions. In addition to the financial data, the global evaluation of the effectiveness of the above strategies will also require a survey of the opinion of the consumer public.

Therefore, the evaluation of tourism marketing strategies in terms of the application of the principles of Systems Science is as follows:

- The Principle of Asymmetric Transitions (3) is reflected in the effort of the international tourism economy to take the necessary measures that will restore tourism activity to a

stable state. These measures are reflected at all five possible levels, that is, at the international (through the relevant international organizations, such as the World Tourism Organization), at the regional (e.g., European Union), at the national (measures of the countries), at the local (measures of the local government) and at the business (reaction of each individual business). Of these measures, the most effective ones on a case-by-case basis will ultimately be preserved, according to the Principle of Selective Conservation (1), and will be multiplied, according to the Principle of Autocatalytic Development (2). The selection and maintenance of the most effective measures remains to be proven.

- The Principle of Selective Variety (5) and the Law of Required Variety (8) are reflected in the variety of marketing strategies proposed, so that according to the Principle of Blind Variation (4), the most effective ones are chosen on a case-by-case basis in relation to the comparative advantages of a tourist destination. In the case of Greece, for example, the proposed most effective marketing strategies were formulated in the Strategic Marketing Plan for 2022 of the Ministry of Tourism.
- The Principle of Recursive Systems Construction (6) is reflected in the proposals formulated "hierarchically", at the global level by international organizations (e.g., the UN World Tourism Organization), at the supranational level (e.g., the European Commission), at the national level (states) and at the local government level (regions and municipalities).
- The principle of control systems (7) is reflected in the creation of services and the formation of state committees at multiple levels (central government, administrative regions and municipalities) to manage actions to deal with the effects of the pandemic on tourism.
- The Law of Required Knowledge (9) is reflected in the selection of the most appropriate measures by country and place to deal with the pandemic, highlighting the comparative/competitive advantages of each tourist destination. Such measures were proposed by the competent organizations of each country and at each geographical level.
- The Principle of Incomplete Knowledge (10) is reflected in the research carried out by international organizations, government agencies and business/industry organizations, in order to establish the extent and effects of the pandemic phenomenon, in order to model the problem and design a response model.



Time will show the value or otherwise of the above approach, so that it can be a model for dealing with similar or different crises in the future.

## CONCLUSION

Tourism is a complex phenomenon, the social dimensions of which concern the well-being and promotion of the mental and physical health of persons. At the same time, it is a particularly important branch of the global economy, since it promotes economic and social well-being through travel. The recent health crisis caused social insecurity and fear, resulting in a steep decrease in tourist traffic and the consequent drop in tourism economic transactions, resulting in great damage to both the economy and the labor market of the affected states. In conclusion and according to OECD, the survival of businesses across the tourism ecosystem needs continued government support and although governments have taken impressive steps to cushion the blow to tourism, minimize job losses and improve recovery from 2021 onwards, more needs to be done and in a more coordinated way. While flexible policy solutions are needed to enable the tourism economy to recover in the short to medium term, it is important for the international community to look beyond this, act and learn from the crisis, which has exposed gaps in the preparedness and response capacity of governments and the tourism business community, i.e., the development of a risk management plan is required. Coordinated action between governments and the private sector at all levels is essential. The crisis is an opportunity to rethink the tourism of the future. Tourism is at a crossroad and the measures put in place will shape the tourism of tomorrow. Governments need to consider the long-term implications of the crisis, while leveraging digitalization, supporting the transition to low carbon emissions and promoting the structural transformation needed to build a stronger, more sustainable and more resilient tourism economy.

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