Research Article

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How Does Destination Image Evolve? Introducing the Co-creation of the Destination Image Approach

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Abstract: Although destination image is one of the most studied topics in tourism literature, little is known about how it is formed in the minds of people and how destination image evolves through destination life cycle stages. Thus, the purpose of this paper is to present a theoretical approach to the destination image formation process. In this conceptual paper, the co-created destination image (CoDI) approach was introduced. Co-creation and tourism area life cycle (TALC) approaches were used as the theoretical frameworks. The main elements of CoDI are interaction value, self-regulated image, and the co-creation process. Twelve CoDIs were developed for the four main stages of the TALC model—namely, exploration, development, stagnation, and decline. The CoDI approach shows that destination image formation evolves throughout the destination life cycle. Co-creation of the destination image is first introduced in this paper, which is used to explain how the image of destinations evolves.

Keywords: Destination Image; Co-creation; Self-Regulated Image; Interaction Value; Tourism Area Life Cycle

1 Introduction

Destination image (DI) is one of the most studied subjects in destination management literature. However, understanding how the image of a destination occurs over time remains unexplored. According to many scholars, the affective and cognitive dimensions of images are the tools that are used to understand the image of a destination, with all its tangible and intangible features (Baloglu & McCleary, 1999; Beerli & Martin, 2004; Echtner & Ritchie, 1991; Gartner, 1994). These tools are beneficial

for destination management bodies, as it helps them to assess whether the projected image is well reflected in the minds of current and potential customers. The antecedents of destination image—that is, destination personality (Souiden, Ladhari, & Chiadmi, 2017), motivation (Esper & Rateike, 2010), and memorable tourism experience (Kim, 2018)—have been researched in numerous quantitative and qualitative studies. Moreover, the role of different information sources—for example, induced, autonomous, and organic sources—in the destination image formation process has also attracted many researchers (e.g., Beerli & Martin, 2004; Baloglu & McCleary, 1999; Gartner, 1994; Hanlan & Kelly, 2005; Lee, Busser, & Yang, 2015; Yacout & Hefny, 2015). Although these studies shed light on our body of knowledge about the image formation process, their impacts on destination image formation are limited due to the contradictory findings reported in such studies (Yilmaz & Yilmaz, 2020) and their insufficient theoretical basis in explaining how these sources affect destination image formation.

Another point to note is that destinations are not only different because they offer different products but also because they may be in different life cycle stage (Andergassen, Candela, & Figini, 2013). Two destinations that offer similar products, for instance, 3S (sea, sand, and sun), may have different images due to their development level, as one might be a mature destination and the other might be an emerging destination in the market. So, their image formation processes follow different paths. Therefore, it might be a missing evaluation if the impact of the destination evolution process on the image formation process is not considered.

This study aims to provide a theoretical perspective to answer the following questions: What is the role of co-creation in the destination image formation process? And, why do images of the destinations in different stages occur in different ways? In this paper, a new theoretical approach named ‘Co-created Destination Image (CoDI)’ is introduced to explain the destination image formation process, which is grounded and based on the co-creation approach and tourism area life cycle (TALC) theory.

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2 Theoretical Framework

2.1 Co-creation Approach and Destination Image

The co-creation concept has been used in different areas of studies like design (Sanders and Stappers, 2008), product development (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010), innovation (Lee, Olson & Trimi, 2012), brand (Hatch & Schultz, 2010), public sector (Osborne, Radnor, & Strokosch, 2016; Wise, Paton, & Gegenhuber, 2012), engagement in service delivery (Auh, Bell, McLeod, & Shih, 2007), and service recovery (Dong, Evans, & Zou, 2008; Heidenreich, Wittkowski, Handrich, & Falk, 2014). Co-creation has been, perhaps, mostly connected to the concept of value in the literature (e.g., Grönroos & Voima, 2013; Payne, Storbacka, & Frow, 2008; Prahalad & Ramaswamy, 2004; Vargo, Maglio, & Akaka, 2008; Yi & Gong, 2013).

In value co-creation, consumers assume an active role and create value together with the firm (Ranjan & Read, 2016). Edvardsson, Tronvoll, and Gruber (2011) stated that value co-creation should be understood in a social context that is shaped by social forces and reproduced in social structures. Ind and Coates (2013) extend this scope and believe that co-creation is to be recognized by taking into account the perspectives of different disciplines and approaches like management science, innovation, design, and literary theory rather than adopting a narrow view of the concept. They also see co-creation as a way of creating value through co-opting the skills and creativity of individuals. The co-creation process is more related to customer interaction, and thus it moves away from a firm-centric view of customer orientation (Binkhorst & Dekker, 2009; Chathoth, Altinay, Harrington, Okumus, & Chan, 2013). Improvements in information technologies also ease the co-creation process and enable new forms of producer–consumer collaboration (Cabiddu, Lui, & Piccoli, 2013; Füller, Mühlbacher, Matzler, & Jawecki, 2009; Füller, 2010).

In tourism literature, co-creation studies have tremendously increased over the last decade (Campos, Mendes, Valle, & Scott, 2018). Service-Dominant (S-D) logic was mainly used as a base in these studies (Cabiddu et al., 2013; Chathoth et al., 2013; Grisseman & Sauer, 2012). S-D logic suggests that value occurs through customer engagement at every stage of the value creation process (Chathoth et al., 2013; Grönroos, 2006). Empirical evidence on value co-creation, on the other hand, is limited in tourism literature (Binkhorst & Dekker, 2009; Liang, 2017), and the full potential of co-creation has not

been fully explored in the tourism industry (Hoyer et al., 2010). The literature review of Campos, Mendes, Valle, & Scott (2018) shows that the scope of this research varies from specific tourism experience contexts to broad industry or destination analyses. These studies support the idea that the co-creation of experiences impacts the satisfaction and loyalty of the tourists positively (Grisseman & Sauer, 2012) and thus results in increased value for consumers and others (Prebensen, Vittersø & Dahl, 2013). As it is seen from the literature, co-creation is based mostly on the interaction of the customer and company, where experience value is discovered and innovatively used in the production process of new goods or services (Campos et al., 2018). However, the interaction does not only occur between customer and company but also occurs between the individuals (Bitner, 1992). Moreover, co-creation should not be considered as if it were only a part of the design, production, or value creation. Although these are highly critical elements of competitiveness in the market, they are only effective if the beliefs and perceptions of the customers about a product or brand are positively distinguished from the others. Beliefs and perceptions are developed through many interactions with other people and organizations, so beliefs are also co-created because humans are social creatures that affect and are affected by other humans' beliefs, knowledge, and perceptions. If this is the case, it is reasonable to assert that the image of a product or destination can be an output of a co-creation process. As the interaction level gets higher, the co-creation process is felt more intensely. Furthermore, the magnitude and content of the interaction differ under different conditions and contingency factors.

2.2 Tourism Area Life Cycle Model (TALC)

The main idea of the TALC model is to show the development stages of destinations and each stage's characteristics. As the destination passes from one stage to another, it means that the destination is not the one it used to be anymore. For instance, changes occur in product development strategies (e.g., in numbers or variety), pricing strategies (e.g., premium or competitive pricing), promotion strategies (e.g., creating awareness or branding), and distribution strategies (e.g., direct or through intermediaries). Besides structural features of the destination (e.g., political and economic), the development level of infrastructure and technology can affect the visitors' experiences and images as well (Murphy, Pritchard, & Smith, 2000; Stevens, 1992).

Kozak and Martin (2012) mentioned the differences that happen in the stages of the life cycle. According to the authors, in the introduction stage, product categories represent recent innovations, prices are high, distribution is limited, and word-of-mouth communication exposes the destination to the next tourist wave. The growth stage is where destination awareness increases and more attention is given to the variety of products (i.e., food or accommodation). In this stage, happy tourists mean more positive word-of-mouth and repeat visitors. As the tourism destinations reach the maturity stage, they are no longer differentiated from destinations that offer similar experiences. In the decline stage, destinations have fewer visitors and revenue. Therefore, they need to create unique niches to maintain their existence (Kozak & Martin, 2012).

There are also differences in the perceptions of destinations that are in different stages of their life cycle (Dolnicar & Grabler, 2004; Yun & Zhang, 2017). Such differences can also be observed in studies that search for the personality and image of destinations. For instance, a mature destination like London was characterized as being open-minded, unorthodox, vibrant, and creative (Hall, 2004), and Paris was characterized as romantic (Morgan & Pritchard, 2002). These personality traits need evolutionary periods to develop. It is not possible for a destination at its early stage of development to have such a sound perceived personality.

Thus, it can be inferred that beliefs, perceptions, and opinions about a destination change as the destination matures. The main reasons for this change can be explained by looking at the different paths of the co-creation process that destinations follow throughout their life cycles. Cole (2012) mentioned the missing ingredient of the TALC equation in his paper, which was, as Butler (2005) stated, written in an unpublished paper of Brougham and Butler (1972). In this equation, $dV/dt = kV(M-V)$, the tourism development process is calculated with the help of the 'k' parameter, which is called the 'telling rate, or the spread of knowledge of resort'. This means that there will be few people receiving the message for the first time, and so the increase slows down as V (number of visitors) approaches M (maximum number of visitors) and market penetration of a destination is complete.

There might also be differences for destinations offering similar tourism products or for destinations at the same maturity level because of their unique characteristics (i.e., geographical or cultural). Besides, contingency factors related to destinations or visitors can be influential in this process. Therefore, studying the destination image formation process and contingency factors requires the

consideration of a destination's development level and unique characteristics.

2.3 Contingency Factors of Destination Image Formation

The contingency factors can be handled with two dimensions: scope and time of visit. The scope is divided into two groups that are originated from the person and the destination. The time of visit is divided into three phases: before, during, and after visiting the destination (Table 1). Person-related contingency factors such as familiarity, age, education level, motivation, and origin of country mainly affect the DI before visiting the destination (or for non-visitors). Perceived risk and safety, trust, physical and cultural proximity, usage of emotional triggers, and destination offerings are among the destination-related contingency factors of this period. During the visit, perceived quality and satisfaction are the major personal contingency factors; destination governance and creating memorable experiences are among the destination-related contingency factors. The past experience could be the strongest personal contingency factor after the visit; this is called the 'primary image' by some authors (Kislali, Kavaratzis, & Saren, 2016). This experience, once shared with other people, affects other people's thoughts about the destination. Destination image differs between those who have never visited a destination and those who have visited one or more times. Studies show that even if people have an image of a place before they visit the destination, this image may change after the visit (Yilmaz, Yilmaz, Icigen, Ekin, & Utku 2009). This change is the result of the personal experience with the destination through the interaction he or she has with other people or institutions in the destination. With the increase in the number of visits, the image may still change, but this change would be not significant (Santana & Gosling, 2018). Organizations, like DMOs, try to use Customer Relationships Management (CRM) effectively to create a favourable image during this period.

Impacts of contingency factors may differ for the various stages of the destination's life cycle as well. For instance, motivation or interaction value is quite different for explorers in the early stage of the destination's development than for the visitors of a mature destination. Likewise, destinations act in quite different ways throughout their life cycle, e.g., for product development or communication strategies. Therefore, the DI formation process can be said to be unique for all destinations due to the different combined effect of the contingency factors for desti-

Table 1. Contingency factors of DI for before, during, and after the visit

Period (Interaction)	Destination Image Co-Creation			Contingency Factors		Image Dimension
	Image Forma- tion People Interaction	Image Forma- tion Organizati- onal Interaction	Other Image Formation Agents	People	Destination	
Before (Mainly Passive)	Social Networks Friends and relatives	Marketing Branding actions	Films, News, Books, etc.	Tourist typology Familiarity Education Age Origin of country Motivation Credibility of source Interaction value	Perceived safety Perceived risk Trust Physical and cultural proximity Usage of emotional triggers Development level of destination Destination offerings	Mainly Affective
During (Active)	Physical contact with other tour- ists and local people	Contact with service provid- ers and DMO	Shared atmos- phere	Perceived quality Satisfaction	Destination govern- ance Coordination of activities Creating memorable experiences	Mainly Cognitive
After (Active or Passive)	Social Networks	Relationships with service providers and DMO	Comparison with other destina- tion (Conceptual mapping)	Past experience Congruity level	CRM effectiveness	Affective plus Cognitive (and Conative)

nations, as well as the different paths the destinations go through in their life cycle.

2.4 Destination Image Formation

Destination image has been studied by many researchers for over fifty years which makes it one of the most popular areas of study in tourism literature. The cognitive and affective dimension of destination image, referring to beliefs and knowledge about a travel destination's attributes and emotions or feelings attached to the destination, respectively, have been well formalized in these studies (e.g., Baloglu & McCleary, 1999; Beerli & Martin, 2004; Echtner & Ritchie, 1991; Gallarza, Saura & Garcia, 2002; Gartner, 1994; Santana & Gosling, 2018; Tasci, Gartner & Cavusgil, 2007; Wang, Li & Lai, 2018).

Despite the vast amount of research on destination image, the process of destination image formation attracted less attention. The main contribution to our body of knowledge to the destination image formation process may be rooted in the study of Gartner (1994), who categorized the information sources as over induced, covert induced, autonomous, unsolicited organic, solicited organic, and organic information sources. After-

wards, the impact of information sources on destination image has been investigated widely (Yilmaz & Yilmaz, 2020). Impact of induced sources (e.g., Beerli & Martin, 2004; Lee, Busser, & Yang, 2015; Santana & Gosling, 2018; Yacout & Hefny, 2015), autonomous sources (e.g., Hudson, Wang, & Gil, 2011; Kim & Kerstetter, 2016; Lee et al., 2015), and organic sources (e.g., Baloglu & McCleary, 1999; Lee et al., 2015; Santana & Gosling, 2018) on destination image formation have been researched. Moreover, the number of information sources that the people used may be influential in the destination image formation process. There are pieces of evidence that the amount of information sources influences cognitive image positively (Baloglu & McCleary, 1999; Santana & Gosling, 2018). However, no evidence was found for its effect on affective or unique images of destinations (Santana & Gosling, 2018). On the other hand, the credibility of sources is defined as the believability that the destination management is willing and capable of delivering on its promises related to a specific destination (Veasna, Wu, & Huang, 2013), which can contribute to destination image formation process (Spry, Pappu & Cornwell, 2011).

Although information sources are one significant determinant of destination image formation, impacts of many other constructs have been researched as well,

such as the effect of pictorial elements (MacKay & Fesenmaier, 1997), destination personality (Kim, Malek, Kim, & Kim, 2018), country image (De Nisco, Mainolfi, Marino, & Napolitano, 2015; Palau-Saumell, Forgas-Coll, Amaya-Molinar, & Sánchez-García, 2016), cultural value (Yacout & Heftny, 2015), place identity (Foroudi, Akarsu, Ageeva, & Foroudi, 2018), familiarity (Tan & Wu, 2016), and event quality (Jin, Lee & Lee, 2013; Moon, Forgas-Coll, Amaya-Molinar, & Sánchez-García, 2011). It is evident in the literature that the destination image formation process is a phenomenon affected by various intrinsic and extrinsic factors that need to be investigated from a different point of view. In this study, the destination image formation process is treated from individual and destination perspectives. In the following sections, firstly, the co-creation process of destination image will be introduced, and then impacts of this process in the development stages of destinations will be discussed through twelve co-created destination images (CoDIs).

3 Co-creation of Destination Image

Co-creation of destination image occurs with an iterative and interactive process that includes three stages: interaction value, self-regulated image creation, and the co-creation process.

3.1 Interaction Value

Each person has his or her own networks and these networks behave as guides through life (Binkhorst & Dekker, 2009), which are also effective in shaping people's beliefs, including about places. The nature of interactions is critical in this regard. Interactions take place between people to people, an organisation to people, and other stimuli to people (like movies or books). Each interaction makes more or less a contribution to one's belief in an object positively or negatively, and it creates an interaction value that is determined by the power and impact of the interaction.

If we could calculate the interaction value, then formula (1) can be used for this purpose. Formula (1) indicates that interaction value is the result of the power of interaction and the impact of the interaction. Power of interaction refers to the importance given to the interacted person or organisation (source), whereas the impact of interaction refers to the magnitude and direction of the interaction. The power of the interaction is related to the trustworthiness of the source. Impact, on the other hand,

is related to the amount (much or less) and content (positive or negative) of information in the interaction process. Interaction value occurs as the result of this process.

$$X_i = a_{ij} \cdot p_{ij} \quad j = 1, \dots, k \quad (1)$$

where X is interaction value; i is the person who is interacting; a is the power of interaction; p is the impact of interaction; j is who is interacted with, and k is the number of the interaction of i person.

The impact of interaction (p) could be positive or negative. Therefore, it leads to interaction value to be either positive or negative. As the magnitude of information amount passed in the interaction process increases, the interaction value is affected highly in positive or negative directions. Power of interaction (a), regarded as the importance of interaction, intensifies the total interaction value, which is affected by the trustworthiness of the interacted source. People tend to give higher importance to an interaction process when they feel trust in a person or organisation. Hence, believability and trustworthiness of the source determine the importance and, consequently, the power of interaction.

3.2 Self-Regulated Image

Adolphs (2003) states that according to the social information processing system, people make distinctions between different kinds of information, categorize and generalize them, and lastly, incorporate them with their past experience. Reappraisal and self-regulation are specific feedback modulation modes in which social stimuli evaluation and emotional response can be voluntarily affected.

A person has many interactions throughout his or her life, and the combined effect of these interactions leads to having a total belief about an object (i.e., product, company, or destination), which is called a self-regulated image (SI). If it is about the image of a place, a self-regulated image occurs through the composite value of all interactions, which are directly or indirectly related to that place. It then plays an active role in the co-creation process of the destination image. SI evolves along with the interactions and values assigned to these interactions.

A self-regulated image about a destination is the individual's total beliefs and opinions, which are the results of positive and negative interaction values of all interactions. Hence, it is the composite value of all interactions that a person has about a destination. Formula (2) indicates the self-regulated image of a person about a destination.

$$SI_i = \sum_i^k X_i \quad (2)$$

where SI is self-regulated image, X_i is interaction value of i . person, and k is the number of interaction of i person.

3.3 Co-created Destination Image

Destination image is the aggregate of all self-regulated images attributed to the destination's cognitive and affective character and occurs through a co-creation process. Co-creation is a multidirectional and iterative process in which interaction values determine the self-regulated image, and then the aggregate of self-regulated images determines the destination image. It is also a dynamic process. It evolves as new interactions and self-regulated images are included in this process. The direction of the image change depends on the impact (i.e., positive or negative) and the power (i.e., importance) of interactions. Once the self-regulated images are created and interactively shared in networks (for example, through WOM, e-WOM, etc.), the destination image co-creation process begins, and the co-created destination image (CoDI) is built. Affective CoDI evolves when emotional-based interactions are dominant in self-regulated images and co-creation processes. Similarly, cognitive CoDI evolves when physical elements of the destination are the main subjects in the co-creation process. Formula (3) indicates CoDI is formed through the co-creation process, which is comprised of the total self-regulated images.

$$CoDI = \sum_i^n SI_i \quad (3)$$

where CoDI is co-created Destination Image; n is the total number of people; organisations, and other sources (e.g., movies and books) in the co-creation process, and SI_i is the self-regulated image of i person.

4 Co-creation of Destination Image Approach and Destination Life Cycle

A limited number of studies investigated the destination image changes over time. Gartner and Hunt (1987) repeated the study about the image of Utah in 1983 and reported that the destination image had changed greatly compared to the year 1971. Pike, Gentle, Kelly & Beatson (2018) stated that destination image can change over a

longer period. There is a positive correlation between the destination life cycle and the destination image formation process. Destination image is expected to enhance as the destination goes through from exploration to development and stagnation stages (Figure 1). Similarly, the destination image is to be weakened in the decline stage. There are two main reasons for this change. First, the image of a destination created in the first stages through the co-creation process becomes the essence of the destination. Second, the power of perception, which is created collectively, will be high in shaping the perceptions, beliefs, and thoughts of other people. The intensity of the co-creation process exponentially increases to the point that self-regulated images (SIs) become very similar to each other. At this point, it slows down, and CoDI does not change easily. Now, the destination needs a new communication strategy to strengthen its image.

Humans make judgments using various patterns that function as shortcuts. Particularly, other people's tastes, judgments, and experiences affect the development of these patterns. Therefore, for instance, a person may have an image of a well-known destination that was created with the aid of this shortcut. In other terms, a destination, which is not known at the early stages of its development, requires an intense co-creation image process because there is no apparent pattern developed yet. On the other hand, as the destination grows and is known more, the co-created image now affects people's beliefs and opinions. So, there is a mutual interaction between self-regulated images of people about destination and CoDI. The *mirror effect* is seen in the destination image formation process of the destination life cycle. At the first half of the destination life cycle, the sequence is Interactions - SIs - CoDI, whereas at the second half, it is CoDI - SIs - Interactions.

The level of interaction and the development stage directly affect the formation of the destination image.

Figure 1: Destination images through destination life cycle

Therefore, it becomes vital to know the possible destination images at different stages of the TALC model.

4.1 Destination Image in Exploration and Involvement Stage

There is limited interaction between visitors and non-visitors of a new destination. Interaction from visitors to non-visitors determines the self-regulated image creation and co-creation of the destination image. This is the first stage of DI creation, so the image of the destination has not been shaped yet. It is highly affected by the first visitors' opinions, so first impressions of first visitors reinforce the images of followers, and DI is getting shaped. The level of consistency of thoughts determines the solidity of the image for the further stages of the destination life cycle. At this stage, there is very little or no interaction between people and organizations or other image formation agents (e.g., books, news), so only limited interaction between people is influential in the formation of DI. If there is a low co-creation process, there will be *no image* at all at the beginning, and there will be *tentative positive* or *tentative negative* images following the first visitors of the destinations that depend on whether the co-creation process is positive or negative.

4.2 Destination Image in Development and Consolidation Stage

The interaction level between people gets higher at this stage. Besides, there is a moderate level of interaction between people and organizations because organizations (private and public) started to emerge and understand the need for communication with current and prospective customers. They try to use both induced and autonomous sources at this interaction. Image of destination in the minds of people becomes stronger, and the co-creation process of destination image accelerates at this stage. Other image formation agents also have a moderate impact on DI. If the low interaction goes up, self-regulated images cannot be formed easily, and CoDI will be *Indecisive*. On the other hand, in the case of a high positive co-creation process, the power and impact of interactions will be high and positive, which leads positive self-regulated image. CoDI is called a *Promising Image* because the aggregate of self-regulated images is positive. On the contrary, a high negative co-creation process, which is the result of high negative interactions between people and the non-exist-

ence of organizational efforts to develop a positive image, leading CoDI to be an *Imminent Image*.

4.3 Destination Image in Stagnation Stage

The popularity of destination could be low due to the low interaction level; thus, fragile self-regulated images, which are more affected by contingency factors, occur. Aggregate SIs influenced by the emergent strategies of destination lead CoDI to be an *Evasive Image*. When a destination becomes a popular mature destination because of the high positive co-creation process, which includes high positive bi-directional interactions (people to people, organization to people, and others), this leads to high positive SIs. CoDI is at its most desired type a *Premium Image*. If the co-creation process is highly negative, the popularity of the destination decreases as the self-regulated images are affected by an increasing number of negative interactions; then, aggregate SIs turn to have a *Dull Image* as CoDI.

4.4 Destination Image in the Decline Stage

In the decline stage, CoDI could be *Naught Image* due to the low and less powerful interaction because of the low popularity of destination led self-regulated image, as if the destination never existed. There might be still medium to high positive interactions which could produce positive but not powerful SIs that barely change the behaviour intentions (e.g., visit/revisit the destination). Especially, nostalgic content of aggregate SIs leads to *Evocative Image* as CoDI. If the co-creation is negative, then it reinforces SIs to be negative that results in *Distorted* CoDI. Interactions, self-regulated images, and CoDIs in the stages of the destination life cycle are summarized in Table 2.

5 Conclusion

The contents of destination image (i.e., cognitive or affective image dimension) and antecedents or consequences of these destination image dimensions have been well researched. Although there are hundreds of such studies, we have very little knowledge about how the image is formed. An important reason for this is the lack of a sufficient number of theories that try to explain how the image is formed in one's mind and how this affects the image that the destination owns. In this paper, a theoretical per-

Table 2: Destination Images in destination life cycle stages

		Low Co-Creation	High Positive Co-Creation	High Negative Co-Creation
Exploration Stage	I	Very low	Limited and positive interactions	Limited and negative interactions
	SI	No self-regulated image	Uni-directional P to P interactions lead to limited but positive self-regulated image	Uni-directional P to P interactions lead to limited but negative self-regulated image
	CoDI	No Image	Limited positive aggregate of self-regulated images produces Tentative Positive Image	Limited negative aggregate of self-regulated images produces Tentative Negative Image
Development Stage	I	Low interaction	Power and/or impact of interactions are high and positive	Power and/or impact of interactions are high and negative
	SI	Due to low interaction value, Self-regulated Image is hard to occur	Increased number of interactions, including O to P, which are mostly positive, lead to positive self-regulated image	High volume, negative content of interactions, and also the non-existence of O to P interaction lead to negative self-regulated image
	CoDI	Aggregate co-created DI is Indecisive	Aggregate of self-images is positive, which produces Promising Image	Aggregate co-created DI is negative, which produces Imminent Image
Stagnation Stage	I	Popularity of destination is low as is the interaction	Destination becomes popular mature destination thanks to the reciprocal impact of high positive interactions	Highly negative interaction values
	SI	Fragile self-regulated image affected by contingency factors that can change easily	Exponential increase of high positive bi-directional interactions (P to P, O to P, and others) leads to a highly positive self-regulated image	Popularity of destination dramatically decreasing as the self-regulated image is affected by the increasing number of negative interactions
	CoDI	Aggregate SIs influenced by the emergent strategies of destination lead to Evasive Image	Aggregate of SIs is highly positive, which leads to Premium Image	CoDI is highly negative, which leads to Dull Image
Decline Stage	I	Low interaction	Medium to High positive interaction	Medium to High negative interaction
	SI	Self-regulated Image rarely exists because of the less powerful and low impact interactions	self-regulated image of the destination is still positive but not powerful as it was to visit the destination again. Old good memories are effective	Negative interaction value reinforces self-regulated image to be negative
	CoDI	Destination has never become popular, which leads it to have Naught Image	Nostalgic contents of aggregate SIs lead to Evocative Image	Highly negative aggregate SIs lead to Distorted Image

spective was introduced called ‘Co-Created Destination Image (CoDI)’ to put forth an explanation on how destination image is formed at the life cycle stages through the lenses of the co-creation approach and tourism area life cycle theory.

This approach also helps to understand why destinations with similar characteristics follow a different course of life, given the criticism of Butler’s (1980) TALC model. Even though there are destinations that seem to offer similar products and experiences, they are unique in essence. Their geographical regions, inhabitants, cultures, legends, and histories are special and unique like a fingerprint. In addition to being physically, culturally,

and socially unique, the development path of the self-regulated image, as the co-creation of destination image, differs from one to another. From an atomic viewpoint, each interaction that takes place between people, organizations, or in other forms produces different value for a person. Each person also has his or her network, and all interactions directly or indirectly related to the object (destination in this case) that happened in this network produce a unique total self-regulated image of the person about that object (destination). The co-creation process of destination image formation continues with the interactions of people who have a varying solidity level of self-regulated images. After a point in time (i.e., growth or

stagnation stage), co-created destination image begins to affect self-regulated images; therefore, there are bi-directional influences between CoDI and self-regulated images, but CoDI is much more influential at this stage.

CoDI can be evaluated according to the power and content of the co-creation process as low co-creation, high positive co-creation, and high negative co-creation. Interactions and self-regulated images of each situation that have different characteristics lead to 12 different CoDIs for four stages of the destination life cycle.

The image formation process of destinations, through uni- or bi-directional interactions before, during, and after the visit, is also influenced by various contingency factors. These factors can be divided into personal and destination-based factors. Their impacts on the co-creation process of destination image vary for each destination and the destinations in different stages of their life cycle. Hence, it is shown in this theoretical approach that CoDI occurs in different ways for the destination at different stages and follows different paths depending on the nature of the destination's level of maturity and total interaction value.

In future studies, the theory outlined in this paper should be tested and developed by applied studies, with special attention to examining the effect of social media on destination image co-creation process; determining the power and impact of the interactions obtained in these channels; establishing the values of the interactions affecting the self-regulated image formation; finding the relationships between self-regulated image and CoDI for destinations at different stages of the life cycle; and determining the effect of contingency factors on CoDI that are considered as prominent research areas.

Bionote

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References

- [1] Andergassen, R., Candela, G., & Figini, P. (2013). An economic model for tourism destinations: Product sophistication and price coordination. *Tourism Management*, 37, 86–98.
- [2] Adolphs, R. (2003). Cognitive neuroscience of human social behaviour. *Nature Reviews Neuroscience*, 4(3), 165–178. <https://doi.org/10.1038/nrn1056>
- [3] Auh, S., Bell, S. J., McLeod, C. S., & Shih, E. (2007). Co-production and customer loyalty in financial services. *Journal of Retailing*, 83(3), 359–370.
- [4] Baloglu, S., & McCleary, K. W. (1999). U.S. International pleasure travelers' images of four Mediterranean destinations: A comparison of visitors and non-visitors. *Journal of Travel and Tourism Research*, 8(2), 144–151.
- [5] Beerli, A., & Martin, J. D. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3), 657–681.
- [6] Binkhorst, E., & Dekker, T. D. (2009). Agenda for Co-Creation Tourism Experience Research. *Journal of Hospitality Marketing & Management*, 18(2–3), 311–327, DOI:10.1080/19368620802594193
- [7] Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, 56, 57–71.
- [8] Brougham, J. & Butler, R. (1972). The applicability of the asymptotic curve to the forecasting of tourism development. *Travel Research Association 4th Annual Conference*, Quebec, July.
- [9] Butler, R. W. (1980). The concept of a tourist area cycle of evolution: implications for management of resources. *Canadian Geographer*, 24, 5–12. doi:10.1111/j.1541-0064.1980.tb00970.x
- [10] Butler, R. (2005). *The TALC volume I: Applications and limitations*. Clevedon, England: Chanel View Publications.
- [11] Cabiddu, F., Lui, T. W., & Piccoli, G. (2013). Managing value co-creation in the tourism industry. *Annals of Tourism Research*, 42, 86–107.
- [12] Campos, A. C., Mendes, J., Valle, P. O., & Scott, N. (2018). Co-creation of tourist experiences: a literature review. *Current Issues in Tourism*, 21(4), 369–400, DOI: 10.1080/13683500.2015.1081158
- [13] Chathoth, P., Altinay, L., Harrington, R. J., Okumus, F., & Chan, E. S. V. (2013). Co-production versus co-creation: A process based continuum in the hotel service context. *International Journal of Hospitality Management*, 32, 11–20
- [14] Cole, S. (2002). Synergy and congestion in the tourist destination life cycle. *Tourism Management*, 33, 1128–1140.
- [15] De Nisco, A., Mainolfi, G., Marino, V., & Napolitano, M. R. (2015). Tourism satisfaction effect on general country image, destination image, and post-visit intentions. *Journal of Vacation Marketing*, 21(4), 305–317.
- [16] Dolnicar, S., & Grabler, K. (2004). Applying city perception analysis (CPA) for destination positioning decisions. *Journal of Travel & Tourism Marketing*, 16(2–3), 99–111.
- [17] Dong, B., Evans, K. R., & Zou, S. (2008). The effects of customer participation in co-created service recovery. *Journal of the Academy of Marketing Science*, 36(1), 123–137.
- [18] Echtner, C. M. & Ritchie, J. R. B. (1991). The meaning and measurement of destination image. *The Journal of Tourism Studies*, 2(2), 2–12.
- [19] Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding understanding of service exchange and value co-creation: a social construction approach. *Journal of the Academy of Marketing Science*, 39(2), 327–339.

- [20] [20] Esper, F. S., & Rateike, J. A. (2010). Tourism destination image and motivations: The Spanish perspective of Mexico. *Journal of Travel & Tourism Marketing*, 27(4), 349–360.
- [21] Foroudi, P., Akarsu, T. N., Ageeva, E., & Foroudi, M. M. (2018). PROMISING THE DREAM: Changing destination image of London through the effect of website place. *Journal of Business Research*, 83, 97–110.
- [22] Füller, J. (2010). Refining virtual co-creation from a consumer perspective. *California Management Review*, 52(2), 98–122.
- [23] Füller, J., Mühlbacher, H., Matzler, K., & Jawecki, G. (2009). Consumer empowerment through internet-based co-creation, *Journal of Management Information Systems*, 26(3), 71–102, DOI: 10.2753/MIS0742-1222260303
- [24] Gallarza, M. G., Saura, I. G., & Garcia, H. C. (2002). Destination image: Towards a conceptual framework. *Annals of Tourism Research*, 29(1), 56–78.
- [25] Gartner, W. C., & Hunt, J. D. (1987). An Analysis of State Image Change Over a Twelve-Year Period (1971–1983). *Journal of Travel Research*, 26(2), 15–19. doi:10.1177/004728758702600204
- [26] Gartner, W. C. (1994). Image formation process. *Journal of Travel and Tourism Marketing*, 2(2–3), 191–216.
- [27] Grisseman, U. S., & Stokburger-Sauer, N. E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management*, 33(6), 1483–1492.
- [28] Grönroos, C. (2006). Adopting a service logic for marketing. *Marketing Theory*, 6(3), 317–333.
- [29] Grönroos, C., & Voima, P. (2013). Critical service logic: making sense of value creation and co-creation, *Journal of the Academy of Marketing Science* 41, 133–150 DOI 10.1007/s11747-012-0308-3
- [30] Hall, J. (2004). Branding Britain. *Journal of Vacation Marketing*, 10(2), 171–185.
- [31] Hanlan, J. & Kelly, S. (2005). Image formation, information sources and an iconic Australian tourist destination. *Journal of Vacation Marketing*, 11(2), 163–177.
- [32] Hatch, M. L. & Schultz, M. (2010). Toward a theory of brand co-creation with implications for brand governance. *Brand Management*, 17(8), 590–604.
- [33] Heidenreich, S., Wittkowski, K., Handrich, M., & Falk, T. (2014). The dark side of customer co-creation: exploring the consequences of failed co-created services. *Journal of the Academy of Marketing Science*, 43(3), 1–18.
- [34] Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M., & Singh, S. S. (2010). Consumer co-creation in new product development. *Journal of Service Research*, 13(3), 283–296.
- [35] Hudson, S., Wang, Y., & Gil, M. (2011). The influence of a film on destination image and the desire to travel: A cross-cultural comparison. *International Journal of Tourism Research*, 13(2), 177–190.
- [36] Ind, N., & Coates, N. (2013). The meanings of co-creation. *European Business Review* 25 (1), 86–95.
- [37] Jin, N., Lee, H., & Lee, S. (2013). Event quality, perceived value, destination image, and behavioral intention of sports events: The case of the IAAF World Championship, Daegu, 2011. *Asia Pacific Journal of Tourism Research*, 18(8), 849–864.
- [38] Kim, J. H. (2018). The impact of memorable tourism experiences on loyalty behaviors: The mediating effects of destination image and satisfaction. *Journal of Travel Research*, 57(7), 856–870.
- [39] Kim, J., & Kerstetter, D. L. (2016). Multisensory processing impacts on destination image and willingness to visit. *International Journal of Tourism Research*, 18(1), 52–61.
- [40] Kim, W. H., Malek, K., Kim, N. J., & Kim, S. H. (2018). Destination personality, destination image, and intent to recommend the role of gender, age, cultural background, and prior experiences. *Sustainability*, 10(1), 87–105.
- [41] Kislali, H., Kavaratzis, M., & Saren, M. (2016). Rethinking destination image formation. *International Journal of Culture, Tourism and Hospitality Research*, 10(1), 70–80. <https://doi.org/10.1108/IJCTHR-05-2015-0050>
- [42] Kozak, M., & Martin, D. (2012). Tourism life cycle and sustainability analysis: Profit-focused strategies for mature destinations. *Tourism Management*, 33(1), 188–194.
- [43] Lee, S. M., Olson, D. L., & Trimi, S. (2012). Co-innovation: convergenomics, collaboration, and co-creation for organizational values. *Management Decision*, 50(5), 817–831.
- [44] Lee, S. J., Busser, J., & Yang, J. (2015). Exploring the dimensional relationships among image formation agents, destination image, and place attachment from the perspectives of pop star fans. *Journal of Travel & Tourism Marketing*, 32(6), 730–746.
- [45] Liang, R. D. A. (2017). Considering the role of agritourism co-creation from a service-dominant logic perspective. *Tourism Management*, 61, 354–367.
- [46] MacKay, K. L., & Fesenmaier, D. R. (1997). Pictorial element of destination in image formation. *Annals of Tourism Research*, 24(3), 537–565.
- [47] Moon, K. S., Kim, M., Ko, Y. J., Connaughton, D. P., & Lee, J. H. (2011). The influence of consumer's event quality perception on destination image. *Managing Service Quality: An International Journal*, 21(3), 287–303.
- [48] Morgan, N., & Pritchard, A. (2002). Contextualizing destination branding. Destination branding: Creating the unique destination proposition, in *Destination Branding creating the unique destination proposition*, Edited by Morgan, N.; Pritchard, A.; Pride, R., Butterworth-Heinemann Ltd, Oxford, 11–41.
- [49] Murphy, P., Pritchard, M. P., & Smith, B. (2000). The destination product and its impact on traveler perceptions, *Tourism Management*, 21, 43–52.
- [50] Osborne, S. P., RadnorZ., & Strokosch, K. (2016). Co-Production and the Co-Creation of Value in Public Services: A suitable case for treatment? *Public Management Review*, 18(5), 639–653, DOI: 10.1080/14719037.2015.1111927
- [51] Palau-Saumell, R., Forgas-Coll, S., Amaya-Molinari, C. M., & Sánchez-García, J. (2016). Examining how country image influences destination image in a behavioral intentions model: The cases of Lloret De Mar (Spain) and Cancun (Mexico). *Journal of Travel & Tourism Marketing*, 33(7), 949–965.
- [52] Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value, *Journal of the Academy of Marketing Science*, 36, 83–96. DOI 10.1007/s11747-007-0070-0
- [53] Pike, S., Gentle, J., Kelly, L., & Beatson, A. (2018). Tracking brand positioning for an emerging destination during the advent of the social media era: 2003 to 2015. *Tourism*

- and Hospitality Research, 18(3), 286–296. <https://doi.org/10.1177/1467358416646821>
- [54] Prahalad, C. K. & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.
- [55] Prebensen, N. K., Vittersø, J., & Dahl, T. I. (2013). Value co-creation significance of tourist resources. *Annals of Tourism Research*, 42, 240–261.
- [56] Ranjan, K. R., & Read, S. (2016). Value co-creation: concept and measurement. *Journal of the Academy of Marketing Science*, 44(3), 290–315.
- [57] Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-Design*, 4(1), 5–18. DOI: 10.1080/15710880701875068
- [58] Santana, L. D., & Gosling, M. D. S. (2018). Dimensions of image: A model of destination image formation. *Tourism Analysis*, 23, 303–322.
- [59] Souiden, N., Ladhari, R., & Chiadmi, N. E. (2017). Destination personality and destination image. *Journal of Hospitality and Tourism Management*, 32, 54–70.
- [60] Spry, A., Pappu, R., & Cornwell, T. B. (2011). Celebrity endorsement, brand credibility and brand equity. *European Journal of Marketing*, 45(6), 882–909.
- [61] Stevens, T. (1992). Trends in the attractions industry. *World Travel and Tourism Review*, 2, 177–181.
- [62] Tan, W. K., & Wu, C. E. (2016). An investigation of the relationships among destination familiarity, destination image and future visit intention. *Journal of Destination Marketing & Management*, 5, 214–226.
- [63] Tasci, A. D. A., Gartner, W. C., & Cavusgil, S. T. (2007). Conceptualization and operationalization of destination image. *Journal of Hospitality & Tourism Research*, 31(2), 194–223.
- [64] Vargo, S. L., Maglio, P. P., & Akaka, M. A. (2008). On value and value co-creation: A service systems and service logic perspective. *European Management Journal*, 26, 145–152.
- [65] Veasna, S., Wu, W. Y., & Huang, C. H. (2013). The impact of destination source credibility on destination satisfaction: The mediating effects of destination attachment and destination image. *Tourism Management*, 36, 511–526.
- [66] Wang, Y., Li, X., & Lai, K. (2018). A meeting of the minds: Exploring the core–periphery structure and retrieval paths of destination image using social network analysis. *Journal of Travel Research*, 57(5), 612–626.
- [67] Wise, S., Paton, R. A., & Gegenhuber, T. (2012). Value co-creation through collective intelligence in the public sector A review of US and European initiatives. *VINE, The Journal of Information and Knowledge Management Systems*, 42(2), 251–276.
- [68] Yacout, O. M., & Hefny, L. I. (2015). Use of Hofstede’s cultural dimensions, demographics, and information sources as antecedents to cognitive and affective destination image for Egypt. *Journal of Vacation Marketing*, 21(1), 37–52.
- [69] Yi, Y., & Gong, T. (2013). Customer value co-creation behavior: Scale development and validation. *Journal of Business Research*, 66, 1279–1284.
- [70] Yilmaz, Y., Yilmaz, Y., Icigen, E. T., Ekin, Y., & Utku, B. D. (2009). Destination image: A comparative study on pre- and post-trip image variations. *Journal of Hospitality Marketing and Management*, 18(5), 461–479.
- [71] Yilmaz Y. & Yilmaz Y. (2020). Pre- and post-trip antecedents of destination image for non-visitors and visitors: A literature review. *International Journal of Tourism Research*, 22(4), 518–535. <https://doi.org/10.1002/jtr.2353>
- [72] Yun, H. J. & Zhang, X. (2017). Cultural Conservation and Tourism Development in the Consolidation Stage of the Tourism Area Life Cycle Model. *Tourism Planning & Development*, 14(3), 353–368. DOI: 10.1080/21568316.2016.1243147