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Chaordic Event Co-creation and Tourism Destination Image: Strategic Carnival Shifts in the Post-pandemic Era

Summary:

The study investigates the chaordic relationship between event co-creation and destination image using evidence from the carnival of Patras, also theoretically contributing to the experiential co-creational approaches to destination image.

Key-points:

- The study uses complexity theory for the examination of the chaordic systems.
- Fuzzy-set Qualitative Comparative Analysis is used as a research method.
- The solutions are generated concerning involvement and satisfaction, event image, and experience-satisfaction nexus.
- The article offers several managerial implications for DMOs and event organisers.

J.E.L. Classification Codes:

L8: Industry Studies: Services

L83: Sports • Gambling • Restaurants • Recreation • Tourism

Abstract

Major street events, such as carnivals, offer a unique opportunity for destination experience value co-creation by participants which relates directly to the destination image. This study uses Service-Dominant Logic (SDL) to consider the effects of event co-creation on destination image from the point of view of a participatory process rather than from an outcome perspective. Drawing from a sample of 400 street event participants in the Patras Carnival in Greece, it examines the complexity aspects of co-creational experience and its influence upon the destination image of the host city. Those aspects are examined by means of fuzzy-set Qualitative Comparative Analysis. The findings revealed three sufficient configurations (co-creational involvement and satisfaction; co-creational event image; experience-satisfaction nexus) that could affect the destination image of the host destination. The paper contributes to the theoretical body of experiential co-creational approaches to destination image with clear managerial implications for both event organisers and destination managers.

Keywords: event co-creation; destination image; complexity theory; carnival; Patras

Introduction

Traditional cultural events are well-recognised as strong pull factors for authentic experiences in tourism destinations. Visitors, either as active participants or passive spectators, engage consciously and unconsciously in the formulation of a shared experience value that constitutes the event co-creation (Dimanche & Andrades, 2014). Concerning value co-creation (referring to joint value creation in multi-actor networks [Siaw & Okorie, 2022; You et al., 2022]) the level of engagement is subject to the cognitive and perceptual characteristics of the actor, the expected affective value, but also the sentiment of affinity associated with the event and destination (Campos et al., 2016; Chen et al., 2016). Previous research has further expanded the value co-creation approach by also including broader ecosystems of consumers and stakeholders that actively participate in enterprising or event initiatives having a networking format (Zhang et al., 2021). Carnivals as open street events bare a strong traditional character as they are tightly associated with the particularities of the local culture and landscape (Batty et al., 2003). With an increasing number of destinations strategically rebranding themselves around unique traditional features, traditional carnivals reposition themselves as ever-growing events that appeal to the expectations of a varying audience (Koukopoulos & Koukopoulos, 2017). The direct connection between event and destination image is well documented in the academic literature (e.g. Davis, 2017; Deng et al., 2015; Yang, 2016). Research, however, primarily explores the impact of event brand on the host destination image from the point of view of the event attendee/spectator as in the case of major sports events. Such research, while valuable, associates the affective destination image with the outcome of the event development and the strategic strength of its brand (Beerli & Martin, 2004; Deng & Li, 2014). Furthermore, the conceptualisation of events is suggested to be held as an overall “ecosystem”, where the co-creative value experience does not only rely on the audience and the procedural aspects across the journey of consumers, but relies on the

interaction between the networks of the stakeholders and the social actor multitude (Azara et al., 2023).

Considering the underlying complexity of the event delivery as a system of multiple interacting actors and components (Glyptou, 2022), an exploration of the perspective of event participants as co-creators of the shared experience value is deemed necessary. Such research will shed light on the strategic formulation of destination image through a process-led, rather than outcome-related, participatory approach (Gallarza et al., 2002).

The study adopts the definition in Payne et al. (2008) of co-creation as the way in which multiple actor perspectives and efforts are aligned to create new products and services. Where this applies to cultural traditional events it implies the official and unofficial co-ordination of the efforts and actions of event attendees as participants, owners and contributors to the event delivery process and shared experience value (Grunwald, 2022). To investigate the fundamental relationships and the complex relationship between event co-creation and affective destination image, the research makes use of Service-Dominant Logic (SDL), which is an approach that recognises value co-creation as a dynamic social value exchange between event actors (providers and consumers) and considers their role and contribution in the broader service ecosystem, in this case, the host destination (Greer et al., 2016). The exploration of the intersection between event co-creation and destination image will be studied in the context of a large street carnival, the Carnival of Patras in Greece. More specifically, the aim of this study is to examine the co-creational complexity of Patras Carnival and its impact upon the destination image of Patras, which is a city which is not an established tourism destination.

Even if SDL has been broadly used in event and festival research to examine the context and degree of involvement in image co-creation, it has been primarily employed using a linear deterministic approach (Della Corte et al., 2018; Prebensen et al., 2013). The theoretical contribution of this research is twofold: on one hand it advances understanding of the destination image strategic formulation from a process-driven participatory and co-creational perspective rather than as emotional reaction to a pre-established outcome. In this regard it paves the way for a more extensive exploration of the impact of catalysts and enablers of the co-creation process to the host destination image and avoids pitfalls of co-destruction (Plé & Cáceres, 2010). To achieve this, on the other hand, it goes beyond linear cause-effect thinking to examine the underlying complexity of multiple level interactions through the use of fuzzy-set Qualitative Comparative Analysis (fsQCA), a method which has recently begun to be applied in the tourism and events field. From a managerial perspective, the examination of the effect of the complex configurations of the event co-creation process on the image of the host destination may support a different set of branding, marketing and management strategies for both destination managers and event organisers. With experiential marketing approaches gaining ground as means of promoting affective destination image (Lee et al., 2023; Tan, 2017) co-creating participatory events could contribute considerably towards a collaborative experience value even in non-established tourism destinations.

Event co-creation and destination image

The place attachment and event identity of traditional cultural events, such as street parades and carnivals, are strongly associated with context (Quinn, 2003). Place attachment encompasses both the cognitive and affective reactions people associate with a specific place and is co-defined by the concepts of place dependence and place identity (Davis, 2017; Zhang et al., 2019). Place dependence in particular implies the cognitive association and

evaluation of an experience materialised within defined spatial boundaries, and hence is firmly associated with a destination's affective image and the intangible attributes that constitute its identity (Raymond et al., 2010). Destination management and branding scholars conceptualise a destination's image along with the expectations, beliefs, and emotions tourists associate with the experience of a place (Brown et al., 2016; Zhang et al., 2019). A tourist's image of a destination is inherently perceptual and strongly influenced by both the underlying circumstances and the actual experience during the visit (Kotler et al., 2017).

Similarly, an event image and identity relate to the unique features of event delivery (output) and primarily to the event-associated experience (process) and values (Deng et al., 2015).

Cultural traditional events often have a strong destination affiliation as they support a long immersion in the socio-cultural destination context (Hernandez-Mogollon et al., 2018).

Glyptou (2022) strongly associates the emotional consumption of traditional cultural events with the concepts of psychological and social carrying capacity. Carnivals and traditional street events in particular are inherently associated with the hedonistic output of thrill, enjoyment and pleasurable reactions to engaging in an aesthetically exciting experience in the destination alongside the local community (Hernández-Mogollón et al., 2018; Wakefield & Blodgett, 1994). It is through such emotional reactions to the event experience that event spectators as participants consciously or unconsciously co-create an overarching and shared feeling of enjoyment that satisfies value expectations and stimulates affective destination image creation (Uhrich & Benkenstein, 2012; Vargo & Lusch, 2008).

The recognition of the quality and intensity of interactions between event actors (providers, organisers, spectators, participants) as key catalysts for event success is well-documented in the literature (Campos et al., 2018; Getz, 2010). At an early stage, Latané's Social Impact

Theory (1981) discussed the hedonistic arousal that stems from mere co-existence with other event participants, even those with whom we are unacquainted. Davis (2017) more specifically identified two main categories of event interaction, namely: customer-to-customer (attendees and participants) and customer-to-event-provider. In carnivals and street events interactions between customers and providers can take place during both official (organised shared activities) and unofficial encounters in the broader event-hosting destination. Interactions with the local community may fall into both categories. The effect of event participant interactions on destination image is well documented with regard to mega and sports events (Rocha & Fink, 2017), but research on traditional street events is ongoing. Notwithstanding the quality of these encounters, manifested through feelings of enjoyment and/or frustration, Yang (2016) suggests that it is mainly their intensity that dictates the emotional response (positive or negative) and thus affects the overall destination image. On one hand, frequent and intense encounters may enhance and co-stimulate the celebratory vibe and co-create feelings of companionship and event co-ownership. Excessive intense interactions, on the other hand, could undermine the event and destination image and lead to a co-destructive effect if participants feel the interactions are uncontrolled, and if their psychological carrying capacity is also undermined (Gannon et al., 2019; Glyptou, 2022).

The direct and strong relationship between an authentic local event brand and the hosting destination image is undoubted (Lai, 2018). Destinations and companies use strategic marketing management for the development of their tourism principles and their brand characteristics (Gilmore & Simmons, 2007). Increasingly destinations formulate strategies and policies in order to build their brand image on traditional cultural attributes that constitute their unique selling points. With traditional events serving as strong pull factors for visitation intention, the formulation of the destination image for event participants comes down, to a

great extent, to the enablers of and barriers to event value and experience (Getz & Page, 2015). What remains to be explored is whether and how participants' engagement in and satisfaction with the event co-creation process further intensifies or amplifies perceptions about the destination. Such research could provide valuable insights for both event organisers and destination managers and highlight the interconnectedness of both process and outcome within the notion of experience co-creation management (Buonincontri et al., 2017).

The complexity of the co-creation process

Service research calls for conceptual shifts that move value creation from a product-centric to a customer-centric experience (Campos et al., 2018). Customer and participant engagement in the service and experience design and delivery process is deemed essential to nurturing a cohesive environment that best satisfies experience value recognition and appreciation (Della Corte et al., 2018). SDL builds on transfer of the experiential nature of value from the individual consumer to a collective co-created phenomenon relevant to all engaged actors (consumers and producers) (Vargo & Lusch, 2008). This interactive dimension of experience is the foundation of the participatory co-creation process in traditional cultural events as service systems composed of multiple actors and value propositions.

The conceptualisation of events as service systems reiterates Payne et al. (2008), who suggest that experience value is rooted in co-creation and good relations between prime movers. Yet complexity is inherent in systems of multiple interconnected interactive and multidimensional components (Wallace & Michopoulou, 2023). The underling complexity amongst the multiple actors and attributes of the event system make the exploration and prediction of its co-creating behaviour a challenge (Fotiadis et al., 2016; Zahra & Ryan, 2007). The application of complexity theory is pivotal in the analysis of traditional events as complex

adaptive systems whose behaviour is dictated by non-linearity and unpredictability (Glyptou, 2023). The complexity theory actually derives from the chaos theory (Battistella, 2018; Pappas, 2021), whilst the chaordic (chaos vs order) perspective investigates the existence of order within chaos conditions (Olmedo, 2011). The conceptualisation of the co-creation process in traditional events, such as street carnivals, should embrace the inherent chaordic systems in the interactions between actors and their experience value particularly since the formation of the destination image comes as the affective manifestation of these dynamic complex interactions.

However, the way we understand the complex mechanisms and processes in tourism and events leads to a more complex, non-parametric evaluation of the examined aspects (Pappas et al., 2021). This is because the comprehension of the main tourism-related drivers and outcomes is characterised by chaordic conditions due to the inter and multi-dimensional perspective of the tourism industry (Rosato et al., 2021). Other than the complexity and generated chaordic systems of carnivals as co-creating experience systems, the formation of destination image is subject to fundamental elements of non-linearity and unpredictability as well (Ryan & Cave, 2005). Destination image is grounded in the affective evaluation of the destination experience which is again influenced by the complexity of the interactive tourism destination system components (Baggio et al., 2010) but also the relevant tourist decision making process (Zenker & Kock, 2020). Notwithstanding the event typology nor the psychographic traits that influence tourist decision making and engagement in the co-creation process, destination image co-creation bares the chaordic perspective of all relationships dictating the experience and satisfaction of tourists at a destination (Gallarza et al., 2002).

The Patras Carnival

Patras, located in the northern Peloponnese, is the third largest city in Greece with a population of around 170,000 inhabitants (Greek Census, 2021). The identity of the city is strongly associated with the annual carnival celebrations (commonly known as Patrino Carnavali) which mark the period preceding the lent of an Orthodox Easter. The Carnival of Patras consists of all of the carnival celebrations and street events that take place between the opening ceremony in the second half of January and the Grand Sunday Parade in early March (Roditis, 2023).

Dating back to a ball in the home of a local merchant in 1829 and the public dances during the Belle Epoque, the Carnival of Patras is the largest carnival event in Greece and one of the major carnivals in Europe (<https://www.carnivalpatras.gr>). The carnival prides itself on a continuous increase in participation in carnival events, which include dances, parades, treasure hunts, the children's carnival, the Bourboulia (folk dances from masked participants), street theaters, exhibitions, artistic activities, and concerts, amongst other activities. The event is organized by the Municipal Development Company with visitors and local carnivalists becoming actively engaged through the official crews or the unofficial events, parades and masked parties that take place in the streets of the city. After a two-year break due to the COVID-19 pandemic, the Carnival of Patras resumed operations this year (2023) with spectators and participant numbers exceeding those in all previous years. With 139 carnival floats, this year participants exceeded 60,000 people and the event was attended by more than half a million (in the last three days of the celebrations alone, attendees numbered a quarter of a million) (Skai, 2023).

The numbers of participants and spectators reflect the reality of a traditional cultural event whose reputation has spread beyond the local community to become a well-recognised

national and international touristic attraction and a strong advocate of the destination image of the city of Patras and the region of Achaia as a whole (Della Corte et al., 2018). The value and image of the carnival is attributed to the communal co-creation atmosphere and shared experience between carnivalists and spectators who consciously or unconsciously engage in the event activities and in networks of culture creatives (Koutsobinas & Michalopoulou, 2022). By adopting a Service-Dominant Logic (SDL) that recognises both event consumers and producers as key players in the event brand and value co-creation process, this study will examine the interrelationships within event co-creation experience and their implications for the hosting destination image.

Study tenets

In service research, the term ‘tenet’ refers to testable precepts associated with the identification of complex conditions, in this case linking event co-creation to the destination image (Pappas & Glyptou, 2021). The examination of complex conditions does not involve, nor is it subject to, statistical hypotheses nor their metrics of consistency. The adequacy of complex configurations is evaluated through outcome scores instead, where the same set of causal factors may yield different outcomes (Ordanini et al., 2014). In this regard, the study here explores whether or not binary sets exist between engagement in the co-creation of open events and the perception of destination image.

The exploration of the complexity of destination image formation as a result of engagement in the co-creation of open events is subject to a number of considerations. When employing asymmetric analysis, as in the case of Complexity Theory, Y scores are assumed to be considerably different from the causes of low Y scores (Weick & Sutcliffe, 2007). Moreover, complex configurations (multiple paths) may lead to the same outcome (Woodside, 2017).

Building on previous research (Pappas & Glyptou, 2021; Xie & Wang, 2020), the six tenets are formulated as follows:

T1: A single attribute can be included in different pathways that relate to open event co-creation and, depending on its interaction with other attributes, it can lead to destination image formation.

T2: Recipe principle: A complex condition (including a minimum of two simple conditions) leads to an outcome condition that is likely to yield a consistently high score.

T3. Complex interactions can affect the impact of engagement in open event co-creation on the formulation of destination image.

T4. The various combinations of simple conditions can influence the impact of engagement in open event co-creation on the formulation of destination image in a positive or negative way.

T5. Equifinality principle: A sufficient effect upon the impact of engagement in open event co-creation on destination image is not always based on a high score outcome.

T6. Even in cases of high Y scores, there is no certain recipe for the impact of engagement in open event co-creation on destination image formulation.

Methods

Participants

The research was conducted between mid-January and the end of February 2023 in the city of Patras (Greece) and involved adults who participated in the Patras carnival and were members of one of the carnival groups. The respondents were selected randomly during the carnival festivities, and were asked to fully complete a self-administered questionnaire. The

maximum time taken to complete the questionnaire was about 10 minutes. The respondents were approached in communal areas of the city of Patras (e.g. parks and traffic cites), a method that is commonly used to recruit participants (Gursoy & Kendall, 2006; Prayag et al., 2013). List-wise deletion was adopted to reduce study bias (all partially completed questionnaires were excluded from further analysis), since this was perceived to be the most versatile method of handling missing data (Raghunathan, 2020).

Sample size

The research adopted the methods proposed by Akis et al. (1996) to ensure that the sample size was representative. More specifically, the unknown perspectives of the respondents led to a 50/50 conservative hypothesis for response estimation, meaning that half of the participants were expected to express positive perceptions and the other half negative ones. Moreover, the study had to achieve a minimum level of confidence of 95 percent, with a maximum statistical error of five percent. According to Sekaran and Bougie (2009), the cumulative probability (Z) should be set at 1.96. Following the above guidelines, the sample size calculation was as follows:

$$N = \frac{Z^2(\text{hypothesis})}{S^2} \Rightarrow N = \frac{1.96^2(0.5)(0.5)}{0.05^2} \Rightarrow N = 384.16$$

The sample was rounded to 400. As Kumar et al. (2020) suggest, the sample size calculation is independent of the overall population, because the error is determined by the sample. In order to collect 400 useful questionnaires, 476 carnival participants were asked to fill in the self-completion questionnaire, and the study ultimately achieved a response rate of 84.03 percent (400 out of 476).

Measures

There were 37 Likert scale (1: Strongly disagree; 5: Strongly agree) statements included in the questionnaire. All items were derived from previous studies. More specifically, the statements concerning event co-creation were adopted from the study by Karadimitriou (2023). The items dealing with brand co-creation were taken from Sung and Lee (2023). The statements examining experience co-creation were taken from research by Dimitrovski et al. (2022) and Kim et al. (2022). The four items focusing on the degree of co-creation were adopted from Grisseman and Stokburger-Sauer (2012). The satisfaction items were derived from studies by Dimitrovski et al. (2022) and Lam et al. (2020). Finally, the statements focusing on destination image were adopted from Akhmedova et al. (2020) and Shugla and Busser (2020). The study also examines three socio-demographic measures (Gender: male/female; Age: 18-35/36-50/over 50; Level of education: primary and secondary/higher).

The descriptive statistics, factor analysis, and reliability were examined using 'SPSS 20.0' software, and 'fsQCA' software was employed to analyse the complex solutions. The fsQCA (fuzzy-set Qualitative Comparative Analysis) approach has only recently been employed in the travel and tourism domains. According to Longest and Vaisey (2008), fsQCA is a mixed method, since it embeds quantitative data handling and further progresses to qualitative inductive reasoning. It is considered to be the most appropriate method for handling perceptual complexity and its derived chaotic systems (Olya & Al-Ansi, 2018; Pappas, 2023). The study also uses negated sets (as suggested by Woodside and Zhang [2013]) for the examination of the inclusion or exclusion of a specific condition. When a simple condition is absent, the symbol ' \sim ' is used. Following the study by Ordanini et al. (2014), the estimation of consistency and coverage is made by using the formulae below:

$$\text{Consistency}(X_i \leq Y_i) = \sum_i [\min(X_i; Y_i)] / \sum_i (X_i)$$

$$\text{Coverage}(X_i \leq Y_i) = \sum_i [\min(X_i; Y_i)] / \sum_i (Y_i)$$

For the carnival participants i , X_i is the configurational score for membership. Accordingly, the outcome condition is expressed by the membership score of Y_i . Following the study by Skarmeas et al. (2014), a configuration is considered sufficient and can be accepted as a solution when the generated consistency is higher than 0.74 and the row coverage ranges between 0.25 and 0.75.

The study progressed to a non-parametric analysis, since it was characterised by general asymmetry. According to Skarmeas et al. (2014), general asymmetry exists when all values in the correlation matrix are lower than 0.6. Table 1 illustrates the general asymmetry of the study. Consequently, different combinations of the examined simple conditions can result in the same outcome (Geremew et al., 2023; Woodside, 2013). The research examines the effect of co-creation upon destination image using the Carnival of Patras as a case study, and evaluates the causal recipes generated by the antecedents of: (i) event co-creation; (ii) brand co-creation; (iii) experience co-creation; (iv) degree of co-creation; and (v) satisfaction.

Please insert **Table 1**

Algorithms

In total, 33 individual cases were used for the calibration of the research. As suggested by Ragin (2008), for each of the examined causal conditions the membership score ranged between zero (non-membership) and one (full membership). Based upon this, the thresholds for non/full membership and cross-over points were also established. Following Xie and

Wang (2020), the original values were five percent for non-membership, 50 percent for the cross-over point, and 95 percent for full-membership.

As presented above, the research uses a five-point (1: strongly disagree; 5: strongly agree) Likert scale. In accordance with Pappas and Woodside (2021), the values of two, three, and four were set as thresholds. Accordingly, relevant thresholds were applied for the examined socio-demographics (gender; age; level of education). The destination image 'f_di' for the participants in the Carnival of Patras was examined through the fuzzy-sets of gender 'f_g', age 'f_a', level of education 'f_le', event co-creation 'f_ec', brand co-creation 'f_bc', experience co-creation 'f_exc', degree of co-creation 'f_dc', and satisfaction 'f_s'.

Findings

Table 2 presents the socio-demographics of the sample. Table 3 illustrates the items used, and the descriptive statistics of the research.

Please insert **Table 2**

Please insert **Table 3**

Since all items were adopted from previous studies (Akhmedova et al., 2020; Dimitrovski et al., 2022; Grissemann & Stokburger-Sauer, 2012; Karadimitriou, 2023; Kim et al., 2022; Lam et al., 2020; Shugla & Busser, 2020; Sung & Lee, 2023), the study progressed to CFA (Confirmatory Factor Analysis). Apart from EC2, all the other examined items exceeded the minimum threshold of 0.4 (Norman & Streiner, 2008) so qualified for further analysis.

Internal consistency was measured using Cronbach's A, and ranged between 0.879 and 0.947

(higher than the minimum acceptable limit of 0.7 [Nunnally, 1978]). Accordingly, the convergent validity (AVE: Average Variance Explained) was higher than the minimum acceptable limit of 0.5 (Kim, 2014), whilst the reliability (CR: Composite Reliability) was higher than the AVE (Huang et al., 2013). Table 4 presents the factor analysis, internal consistency, convergent validity, and reliability findings.

Please insert **Table 4**

Complex configurations

The employment of fsQCA has generated three solutions (Table 5). The first sufficient configuration includes two socio-demographics (age; level of education) and generates high outcome scores for the simple conditions of event co-creation, degree of co-creation and satisfaction. This pathway appears to have the highest unique coverage (.11390) and consistency (.83573). The second sufficient configuration includes the socio-demographics of age and gender, and produces high outcome scores for event co-creation, brand co-creation, and experience co-creation. This solution has the highest raw (.41834) and lowest unique (.08384) coverage. The third pathway includes the level of education and demonstrates high outcome scores for the antecedents of experience co-creation and satisfaction. This configuration has the lowest consistency (.78405).

Please insert **Table 5**

Discussion

Sufficient pathways

In accordance with the presentation of the three complex configurations in Table 5, the first sufficient pathway concerns co-creational involvement and satisfaction. The relationship between involvement in an event and satisfaction is something that has been repeatedly identified in previous studies (Brown et al., 2016; Sato et al., 2016). However, the findings of this study indicate that the co-creational aspects of involvement and satisfaction can operate as a driver for strengthening destination image, something about which the current literature is silent. Hence, it can be concluded that the co-creational involvement and satisfaction generated by the carnival of Patras impacts upon the city's destination image. The second sufficient configuration is focused on the co-creational event image. From previous research it is already known that event image directly impacts upon destination image and vice versa (Lai, 2018). Nevertheless, this study asserts the co-creational perspective of the event image and its impact upon the destination image, suggesting that co-creational aspects and activities can strengthen the event image and ultimately the destination image. The third generated solution reveals the experience-satisfaction nexus. This nexus is one of the most established in tourism (Chen et al., 2016; Coves-Martínez et al., 2021) and event literature (Kim et al., 2022; Mainolfi & Marino, 2020). Conversely, the co-creational effect upon the experience-satisfaction nexus and its impact upon the destination image is an under-researched aspect. This study reveals those aspects and highlights the influence of co-creation on the experience-satisfaction nexus, and finally its influence upon destination image.

Confirmation of tenets

A prerequisite for accepting the findings of the fsQCA is the confirmation of the previously presented six set tenets. As shown by the findings presented in Table 5, each of the five examined antecedents (event co-creation; brand co-creation; experience co-creation; degree of co-creation; satisfaction) is included in at least one sufficient configuration. As a result, the

first set tenet (T1) is confirmed. Furthermore, all the generated solutions are complex since they include at least two of the examined simple conditions (the first and second pathway consist of three antecedents each; the third pathway includes two antecedents). These results confirm the recipe principle, and accordingly they confirm the second set tenet (T2). The analysis has generated three pathways (co-creational involvement and satisfaction; co-creational event image; experience-satisfaction nexus), each of them having a different combination of the examined simple conditions. To the extent that different complex solutions can produce the same outcome the third tenet (T3) is also confirmed. Following the chosen contrarian case analysis, none of the examined simple conditions can be included in all the generated solutions. The results indicate that none of the five antecedents is included in all three pathways (event co-creation, experience co-creation and satisfaction are included in two pathways each; brand co-creation and degree of co-creation are included in one pathway each). Subsequently, the fourth tenet (T4) is confirmed. The equifinality principle is also confirmed, since the generated outcome scores of the sufficient configurations do not appear to be high, although they finally lead to the same outcome. Therefore, the fifth tenet (T5) is confirmed. Finally, none of the sufficient configurations actually includes all cases. This is revealed by the fact that the raw coverage ranges from 0.379 to 0.418. As a result, the sixth tenet (T6) is also confirmed.

Managerial implications

The findings of the study identify engagement in event co-creation as a key determinant of the quality of host destination image. As previously mentioned, local carnivals have the ability to further enhance the particularities of the local culture and landscape (Batty et al., 2003), and the current research focuses on such enhancements through the co-creational route. Catalysts and enablers of effective and enjoyable event co-creation serve as positive

triggers for affective destination image (Rihova et al., 2018). Even though they are specific to the context of carnivals and street events, the research findings have a broader applicability to event providers (organisers and decision makers) and destination managers. As the findings indicate, the context of cognitive and affective reactions that event participants associate with a specific place and is co-defined by the concepts of place dependence and place identity (Davis, 2017; Zhang et al., 2019), can be further strengthened by an appropriate co-creational participation of the carnival participants, further strengthening the destination image of Patras. For event providers, the challenge is to strategically maximise the experience value of ever-growing participatory and co-creating event attributes without compromising the psychological carrying capacity and/or emotional expectations of the participants in a way that could lead to co-destruction (Glyptou, 2022; Harris & Duckworth, 2005). This is of particular relevance to the organisers of the Carnival of Patras due to its ever-growing numbers and participation. It is imperative to understand that the desire of consumers for authenticity is able to maximise their intentions to visit a destination, generate higher consumption patterns and showcase a substantial experience beyond product and service consumption (Grolleau et al., 2022). With the co-creation satisfaction here relating more to the affective image of the event rather than the cognitive one, event organisers should take steps to enhance event experience value through communal activities that promote active involvement and the feeling of shared event ownership and trust amongst participants (Vega-Vasquez et al., 2013). For destination managers, the implications extend to the strategic capitalisation of the event co-creation sentiment with regard to the development and promotion of destination brand (Payne et al., 2009). Each of the three generated solutions supports a combination of interventions that could strategically intensify relationships and interactions among local actors (e.g.: permanent residents of the local community; local businesses) as co-creators of the event and destination experience. Nowadays, the consumers

cannot and should not be considered as passive subjects, since they are actually active participants through their engagement in value development (Ardley & McIndosh, 2019). The application of the Service-Dominant Logic (SDL) reiterates the importance and value of the co-creation process amongst destination actors rather than the product outcome, yet it further highlights the complexity of the underlying dynamics between the roles and interests of key actors (Della Corte, 2018). Such strategic changes can lead to value sharing where the event participants can substantially influence the related decision-making (Ardley & McIntosh, 2019). Destination managers can have the ability for increasing the destination brand desirability (a high attractiveness of a brand by certain consumer categories [Phau et al., 2022]) of Patras. This can be achieved through further aligning the destination brand with co-creation incentives and enablers appropriately matched to the behavioural patterns and visiting motivations of their main destination clientele (Mainolfi & Marino, 2020). Recognising the inherent complexity and the generated chaordic systems associated with the co-creation process of both the event and destination image, a starting point would be the coordination of more inclusive, participatory and experience-driven events aligned with the authentic attributes of the host destination.

Conclusions

The study explores the impact of event co-creation experience on the image of the host destination. Using the biggest carnival in Greece (carnival of Patras) as a case study of a continuously growing and ever developing participatory event, the research adopted a Service-Dominant Logic (SDL) approach to explore the chaordic systems of the co-creation process and its implications for the destination image of the host city of Patras. Findings were obtained through the application of non-linear complex thinking methods of analysis to appropriately capture the complexity associated with both concepts studied. The co-creational

aspect of the carnival of Patras affects the affective image of the city through three distinctive pathways: (i) co-creational involvement and satisfaction; (ii) co-creational event image; (iii) experience-satisfaction nexus. All pathways suggest the importance of ensuring and enhancing the complex experience value both at event and destination level through the facilitation of catalysts and enablers for engagement, shared-ownership and satisfaction. Establishing boundaries for co-creation and event psychological carrying capacity may evolve into another layer of co-creating process. The theoretical and managerial implications of the study reside in the advancement of knowledge and experience around collective ways of formulating the chaordic destination image.

The study contributes to the better comprehension of the strategic formulation of destination image under a participatory and co-creational perspective, and actually creates the grounds for further examination of the co-creation process as a strategic catalyst for further development. Moreover, it contributes through the examination of the chaordic systems of event participants' interactions by employing fsQCA.

The research findings are subject to the following limitations. From a methodological perspective, the rather limited use of fsQCA hinders its full potential in the examination of complexity aspects in tourism and events. A more extensive application of non-linear methods of analysis would allow a deeper understanding of the dynamics dictating the co-creation experience by focusing on specific enablers in more detail. This also includes the future evaluation of the chaordic dynamics in a much wider spectrum of activities and challenges in the tourism and events domain. Moreover, this research focused solely on the experience of carnival participants, who in this case were officially registered individuals that were involved as crew. Further differentiation between first-time and repeat carnivalists

would have allowed a clearer identification of the enablers of and barriers to the co-creation process. To better enable a systematic and complementary perspective on experience value to be developed, future research should further explore the perceptions of the non-actively participating groups of spectators. Research that takes into consideration both carnival participants and spectators would provide further insights into the co-creation effect on the destination image. **In addition, it needs to be noted that the perspectives of the respondents are likely to change throughout time. Therefore the repetition of this research in the future may provide evidence for the changing dynamics of the expressed perceptions.** Finally, these findings reflect the particularities of a specific type of traditional street event (carnival) in an urban destination without a strong destination brand. Any generalisation of the findings should be made with caution as a similar study in a more established tourism destination could have identified different dynamics between event and destination image.

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Table 1: Correlation Matrix

	1	2	3	4	5	6
1 Event Co-creation	1					
2 Brand Co-creation	-.018	1				
3 Experience Co-creation	-.069	.043	1			
4 Degree of Co-creation	.002	-.081	.048	1		
5 Satisfaction	-.038	-.045	.018	-.064	1	
6 Destination Image	-.080	.001	.075	-.013	.017	1

Table 2: Socio-demographics

	N	%
<i>Gender</i>		
Male	225	56.3
Female	175	43.8
<i>Age</i>		
18-35	238	59.5
36-50	121	30.3
Over 50	41	10.3
<i>Level of Education</i>		
Primary & Secondary	244	61.0
Higher	156	39.0
<i>Total</i>	<i>400</i>	<i>100</i>

Table 3: Descriptive statistics

	Statements	Means	SD	Gender		Age			Education	
				Male	Female	18-35	36-50	50+	P&S	Higher
<i>Event Co-creation</i>										
EC1	It is beneficial for me to follow the Patras Carnival regulations.	3.93	.692	3.95	3.90	3.92	3.94	3.90	3.92	3.94
EC2	I feel that I can actively participate in the formulation of Patras Carnival regulations.	2.73	.832	2.78	2.67	2.73	2.82	2.49	2.73	2.73
EC3	It makes me feel better to engage in Patras Carnival activities.	4.07	.728	4.09	4.03	4.07	4.07	4.05	4.03	4.12
EC4	At Patras Carnival I am able to support other people participating in the event.	3.81	.768	3.83	3.79	3.85	3.74	3.80	3.78	3.86
EC5	I am motivated by Patras Carnival to support other people involved in the event.	3.88	.768	3.92	3.83	3.93	3.79	3.88	3.87	3.90

EC6	By participating in Patras Carnival activities I can reach my personal goals.	3.72	.850	3.80	3.62	3.74	3.72	3.61	3.71	3.74
EC7	My engagement in Patras Carnival contributes to the strengthening of the event.	4.09	.727	4.11	4.07	4.09	4.04	4.22	4.08	4.10

Brand Co-creation

BC1	I repost/retweet content made by me during the carnival on social media.	4.24	.889	4.17	4.33	4.50	4.28	2.63	4.30	4.15
BC2	I take photos of myself during the carnival and actively share them with others.	4.20	.812	4.16	4.24	4.37	4.21	3.12	4.25	4.12
BC3	I provide ideas on how to improve the carnival on social media.	3.91	1.159	3.88	3.93	4.18	3.88	2.39	4.06	3.67
BC4	If I notice a problem with the carnival, I tell the organisers even if it doesn't affect me.	4.22	.777	4.20	4.25	4.37	4.23	3.34	4.24	4.19
BC5	I say positive things about the carnival to others.	4.37	.755	4.30	4.46	4.54	4.34	3.46	4.40	4.32

BC6	I help other participants, if they have issues with questions about the carnival.	4.27	.711	4.25	4.28	4.39	4.20	3.76	4.30	4.22
BC7	I give advice to other participants about the event.	4.33	.719	4.33	4.33	4.45	4.24	3.90	4.37	4.27
<i>Experience Co-creation</i>										
EXC1	My active participation in the Carnival of Patras helps to make it an experience.	4.29	.619	4.32	4.26	4.21	4.36	4.61	4.34	4.22
EXC2	I feel confident regarding my capabilities during the event.	4.11	.844	4.14	4.08	4.05	4.16	4.37	4.18	4.01
EXC3	My event experience is enhanced because I participate in the activity.	4.37	.594	4.41	4.31	4.27	4.47	4.61	4.41	4.29
EXC4	The event provides situations that present a challenge to skills and abilities.	4.10	.926	4.12	4.06	3.99	4.15	4.54	4.14	4.03
EXC5	My overall experience of the event is enhanced by other content.	4.02	.981	3.96	4.11	3.92	4.07	4.49	4.06	3.97

EXC6	My experience of the carnival was a shared experience.	4.35	.620	4.41	4.29	4.29	4.40	4.61	4.41	4.28
EXC7	I will tell others about my experience of the carnival.	4.36	.613	4.38	4.33	4.28	4.42	4.61	4.41	4.28

Degree of Co-creation

DC1	I have been actively involved during my participation in the event.	3.06	.846	3.07	3.04	2.84	3.28	3.68	3.03	3.10
DC2	I have used my experience from previous events in order to inform my participation in this event.	3.20	.842	3.24	3.15	3.03	3.36	3.73	3.18	3.23
DC3	The ideas on how to participate in this event were predominantly suggested by myself.	2.85	1.004	2.87	2.83	2.62	3.15	3.34	2.80	2.94
DC4	I have spent a considerable amount of time participating in this event.	3.38	.991	3.49	3.24	3.20	3.56	3.88	3.34	3.44

Satisfaction

S1	I made the right choice in participating in this event.	4.21	.535	4.20	4.22	4.23	4.14	4.29	4.20	4.22
S2	This event gave me great satisfaction.	4.25	.548	4.24	4.25	4.26	4.17	4.34	4.24	4.26
S3	This event fulfilled my expectations and desires.	4.31	.559	4.31	4.30	4.32	4.22	4.44	4.30	4.31
S4	I have no regrets about participating in the event.	4.12	.667	4.14	4.09	4.23	4.07	4.15	4.09	4.16
S5	In general, I am satisfied with my event experience.	4.24	.603	4.26	4.22	4.27	4.17	4.24	4.23	4.26

Destination Image

DI1	The carnival adds value to the city of Patras.	4.75	.445	4.76	4.74	4.74	4.75	4.80	4.75	4.74
DI2	The carnival adds new features to the city's destination image.	4.63	.492	4.60	4.68	4.63	4.64	4.68	4.62	4.66
DI3	The carnival increases the visitor experience of the city.	4.54	.591	4.51	4.59	4.55	4.53	4.59	4.54	4.55
DI4	The carnival increases the destination image of the city.	4.50	.588	4.47	4.55	4.49	4.50	4.61	4.49	4.53

DI5	Working together on the carnival we add to the destination image of Patras.	4.60	.563	4.58	4.62	4.61	4.53	4.68	4.57	4.64
DI6	Cooperating with each other on the carnival we add to the destination image of Patras.	4.51	.609	4.51	4.50	4.52	4.47	4.51	4.52	4.49
DI7	In the carnival we create together a stronger destination image for Patras.	4.42	.587	4.42	4.42	4.43	4.40	4.41	4.44	4.40

Table 4: Factor analysis

	Loadings	A	AVE	CR
<i>Event Co-creation</i>		.912	.670	.933
EC1	.942			
EC2	LC			
EC3	.832			
EC4	.871			
EC5	.798			
EC6	.751			
EC7	.812			
<i>Brand Co-creation</i>		.924	.723	.948
BC1	.909			
BC2	.822			
BC3	.689			
BC4	.919			
BC5	.872			
BC6	.883			
BC7	.837			
<i>Experience Co-creation</i>		.895	.682	.936
EXC1	.967			
EXC2	.742			
EXC3	.879			
EXC4	.682			
EXC5	.643			
EXC6	.912			

EXC7	.898			
<hr/>				
<i>Degree of Co-creation</i>		.879	.744	.920
DC1	.950			
DC2	.875			
DC3	.842			
DC4	.774			
<hr/>				
<i>Satisfaction</i>		.947	.835	.962
S1	.948			
S2	.960			
S3	.937			
S4	.840			
S5	.879			
<hr/>				
<i>Destination Image</i>		.939	.733	.950
DI1	.709			
DI2	.841			
DI3	.927			
DI4	.942			
DI5	.844			
DI6	.896			
DI7	.810			
<hr/>				

Table 5: Complex configurations

<i>Complex Solution</i>	<i>Raw Coverage</i>	<i>Unique Coverage</i>	<i>Consist.</i>
Model:			
f_di=f(f_g,f_a,f_le,f_ec,f_bc,f_exc,f_dc,f_s)			
~f_g,f_a,f_le,f_ec,~f_bc,~f_exc,f_dc,f_s	.37947	.11390	.83573
f_g,f_a,~f_le,f_ec,f_bc,f_exc,~f_dc,~f_s	.41834	.08384	.80832
~f_g,~f_a,f_le,~f_ec,~f_bc,f_exc,~f_dc,f_s	.39228	.09723	.78405
Solution Coverage:	Solution Consistency:		
.42088	.81839		

f_g: Gender

f_a: Age

f_le: Level of education

f_ec: Event co-creation

f_bc: Brand co-creation

f_exc: Experience co-creation

f_dc: Degree of co-creation

f_s: Satisfaction

f_di: Destination image