

#### ABSTRACT

Cooperation in tourism is recognized as the only way for a destination to gain competitive advantage: it is the key to achieving successful and sustainable promotion. Following the main literature on the topic, this study considers a model of temporary cooperation originating for the manufacturing industry and widely applied in different domains, the virtual enterprise (VE). As the model has not been considered for the tourism domain before, this work suggests a model of VE for tourism, particularly when cooperation occurs among local Authorities and public entities. In order to fit the peculiarities of the tourism industry and to highlight the main features of a temporary alliance, a life cycle model is elaborated and the four main features of a VE emerge: the pivotal role of the Destination Management Organization, the relevance of information and communication technologies for the VE's operability, the short lifetime of the VE, and the overall destination promotion.

#### KEYWORDS:

*Short-time cooperation, virtual enterprise, dynamic adaptation, destination management organization*

#### AIM OF THE WORK

The study aims at filling the gap in the Literature by adapting a model widely considered in several domains, the virtual enterprise (VE) – a form of temporary cooperation, to the peculiarities of the tourism industry in global hyper competitive markets. The adaptation is considered according to the particularities of the industry under examination, and especially when cooperation involves public entities – such as local tourism authorities and Destination Management Organizations. The following hypotheses to validate drive the work:

Cooperation is a natural response – and one of the few, practical strategies that can be used - for the destination's comprehensive development (Wang, 2008)

Authorities play a double role of facilitators of the relationship between actors (van der Zee and Vanneste, 2015; Chim-miki and Batista-Canino, 2017) and coordinators of the parts involved (i.e., economic and social agents; Melián-González and García-Falcón, 2003)

Short time cooperation and dynamic adaptation (reconfigurability) are the main features required to compete in globalized hypercompetitive markets.

#### LITERATURE REVIEW AND FUNDAMENTAL

The existing literature on tourism cooperation has referred to a comprehensive and sustainable promotion of the destination (Wood & Gray, 1991; Bramwell & Lane, 2000, van Der Zee & Vanneste, 2015). Effective collaboration represents conditio sine qua non for tourism development success and seems to have some common features: partners diversity (Wood & Gray, 2001; Waligo 2013), trust (Czernek & Czakon, 2016), coordination activities (Timothy, 1998), power (Saito and Ruhanen, 2017). The Literature review on cooperation in tourism revealed relevant lacks in nowadays global markets. As first, few studies referred to the spread of digital technologies as one of the main means to facilitate cooperation. Secondly, the Literature usually refers to cooperation as entailing long-term relationships: one of the main features of global markets, a rational use of time (which relates to an agile management of time in hypercompetitive conditions), is not directly considered, although its pervasiveness.

The virtual enterprise, a short time cooperative agreement, seems to overcome the limitation described, although usually considered in the manufacturing industry. The following table offers a short overview of the main contribution on topic.

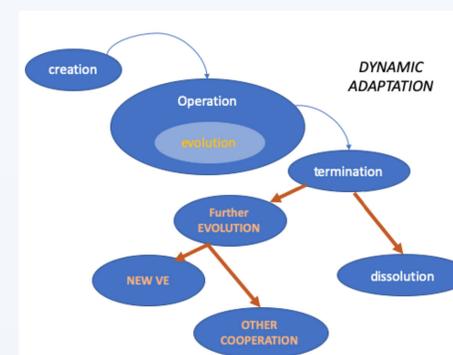
	Davidow & Malone (1992)	Camarinha-Matos et al. (1997)	Childe (1998)	Browne & Zhang (1999)	Quozonic & Shammer (1999)	Goel et al. (2010)	Rabelo et al. (2016)
aim	Common aim	Business opportunity	Common aim	Specific aims; specific markets	Different business domains collected	A common manifesto; a common goal	To handle a given demand better than individually
lifetime		Temporary alliance				Temporary alliance	Temporary aggregation
dynamicty		Agility depending on the partners' abilities				Partners completely free to join or drop at any time	Dynamic aggregation
partner			A purchasing company and several suppliers				Autonomous, heterogeneous, geographically dispersed
resources	Minimize costs	shares skills and resources		Shared resources; shared costs	Shared business processes		Logical aggregation
output	Maximize efficiency		Shared returns			A business opportunity	
tools	An aggregate value chain	Several tools (e.g., computer networks, IT)					

#### METHODOLOGY

Through an in-depth systematic literature review, this paper matches the theories on cooperation in tourism with the concept of temporary cooperation, in order to adapt a particular model, the Virtual Enterprise, to the Tourism. Literature review on topic is considered in depth, underlying the main features of the model. The four stages Virtual Enterprise life cycle, described by Camarinha-Matos and Afsarmanesh (2013) for the manufacturing industries, is further developed in order to fit the tourism industry.

#### RESULTS

The VE offers a model particularly fitting the features of global markets, driving attention around two main features (Rabelo et al., 2016): the relevance of time, as this form of cooperation exists for a short-term life span; but the high reconfigurability, too, fitting and evolving into the global markets using optimal methods, and meeting high turbulence levels (dynamicity). The VE model for tourism is built by developing the simplified four-stage life cycle model suggested by Camarinha-Matos and Afsarmanesh (2013: creation, operation, evolution, dissolution), in a 9 stages – highlighting the specificity of the tourism industry: common aim identification (purpose); partner selection; resources attribution; cooperative VE planning (timing, milestones); operation of the VE; in-process check; in-process adaptation of cooperative VE planning; achievement of the common aim; dissolution of the VE or further evolution into a new VE or a steady cooperation.



A focal role is clearly attributed to the destination management organization (DMO) – promoter of and responsible for the entire life cycle, confirming the theory of van der Zee and Vanneste (2015). The aim should be directly related to a joint, inclusive, and comprehensive promotion of the destination; the VE entails the use of information and communication technologies (ICTs) as the basis of making the VE effective, while reducing time and supporting the rational use of resources devoted to the common project by the VE partners.

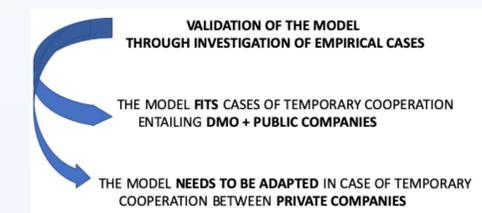
Also, four condition for effectiveness emerge: the pivotal role of the destination management organization, the relevance of information and communication technologies for the VE's operability, the short lifetime of the VE, and the destination's overall promotion.

#### CONCLUSION AND FURTHER STEPS

The work clearly states the opportunities underneath cooperation in tourism while focusing on dynamic adaptation and the short-time. Also, the role of four main facilitators is considered.

Purpose	Exploit a specific business opportunity for joint, comprehensive promotion of the destination
Partners selection	Destination management organization plays a pivotal role Should be representative of the whole destination for comprehensive development
Participation	Participants may join or drop at any time and may be involved in multiple VEs at the same time
Partner Dependency	Low, limited to shared resources and declared commitment
Organizational structure	<ul style="list-style-type: none"> <li>Controlled by a common goal and manifesto; requires a formal business plan</li> <li>Activities should be planned and timing should be defined</li> <li>The destination management organization can serve as facilitator and coordinator</li> </ul>
Lifetime	Ad-hoc and temporary; depends on the VE's purpose
Costs and Resources involved	Low cost, labor related. Mainly indirect
Technology	Necessary to make it effective: <ol style="list-style-type: none"> <li>For intra-VE connection</li> <li>For the VE's activities</li> </ol>
Reconfigurability	Very high; in-process adjustments

As a limitation, the VE model highlights the peculiarities of the partners involved, local public entities. Although this qualifies just some of the features of the proposed VE, it can be considered a limitation to extend the model to non-public actors of the tourism industry. Further works should both check the model validity for cooperative situation not entailing public entities in an exclusive base



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