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A MACRO-LEVEL VIEW OF TOURISM SECTOR: BETWEEN SMARTNESS AND SUSTAINABILITY

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ABSTRACT

Adopting the interpretative lens provided by the studies on T-shaped, the paper proposes a conceptual framework to support a better understanding of managerial and organizational contributions in the field of tourism management. The domains of smartness and sustainability are analysed as key elements of macro-level dynamics in tourism sectors and the need for increasing the attention about the decision making dynamic in tourism management is underlined. The principal aim is to enrich previous managerial and organizational contributions in tourism sector identifying key paths and dimensions useful to improve the efficiency of tourism management in the next decades.

KEYWORDS

Tourism Sector, Tourism Management, T-Shaped, Smartness, Sustainability, Macro-level dynamics.

ECONLIT KEYS

L83; Z32.

1. INTRODUCTION

Over the time social and economic paths have been affected by the vibrant changes in social and economic actors' behaviours (Durlauf and Young, 2004; Barile et al., 2014, 2015a). Traditional market sectors have progressively changed their boundaries with the aim to better satisfy market expectations and needs (Del Giudice et al., 2016). Old market domains are progressively disappeared as consequence of their inability to be aligned with social and economic evolutions (Coase, 2012) and new market are emerging pushed by the new consumers' requests (Khanna, and Palepu, 2013).

Among the emerging market domains, the tourism sector represents an interesting field of reflections (Otto and Ritchie, 1996; Weaver and Oppermann, 2000; Ryan, 2002; Shaw and Williams, 2009). According to Otto and Ritchie (1996), "tourism is a business comprising many service sectors" (p. 165). Tourism sector includes several economic sectors such as transportation, private and public services, food, and hospitality among the others (Wyss et al., 2014). As core activity, the tourism sector combines private and public services with local resources and infrastructures with the aim to propose a value propositions able to satisfy multiple consumers' needs (business, leisure, enjoyment …).

The atypical features of tourism as market domain have pushed both researchers and practitioners to analyse multiple topics with the aim to enrich the conceptual framework on which are based the managerial and organizational approaches in tourism sector (Bigné et al., 2001; Oh et al., 2007). Among the others, Haber and Reichel (2005) and Gooroochurn and Sugiyarto (2005) have focused the attention on the performance measurement and on the competitive indicators; Atilgan et al. (2003) have investigated possible approaches to measure and map service quality, and Buhalis and Law (2008) have summarized the role of information technology in defining evolutions and changes of tourism management.

The great number of variables engaged in tourism dynamics represents a critical condition for the definition of wider conceptual framework on which are based the efficient and effective managerial models and instruments for tourism sector (Jafari, 1987; Leiper, 2004). Each change in social and economic dynamics produces a variation in tourism balance and each new relevant dimension or trend in social and

economic configurations requires that to rebuild approaches and models in tourism sector be built.

Recognizing the high variability of tourism sector, it emerges the need to analyse its dynamics and to build possible managerial and organizational models on the base of the macro level dynamics of social and economic configurations arises and not only on the specific time and space based issues that direct tourism changes along the time. Accordingly, the paper aims to define a possible interpretative framework and model able to clarify the link between macro level dynamics and micro level paths in tourism sector.

Contextualizing the conceptual contributions provided by the research stream on T-shaped profile (Hansen and Von Oetinger, 2001; Karjalainen et al., 2009; Barile et al., 2012; 2015c, 2015d), the paper distinguishes between paths and dynamics related to the decision making and issues and problems linked to the problem solving. Specifically, as shown in the following Figure 1, the paper builds on the assumption that in tourism sector, such as in every kind of social and economic sector, it is possible to identify macro-level dynamics that refer to the social and economic trends and that should be faced in the light of decision making approach. Moreover, it is also possible to identify micro-level paths that represent the ways in which the macro-level dynamics are contextualised in a specific social and/or economic domain (f.e. the tourism sector) producing 'particular' issues and problems.

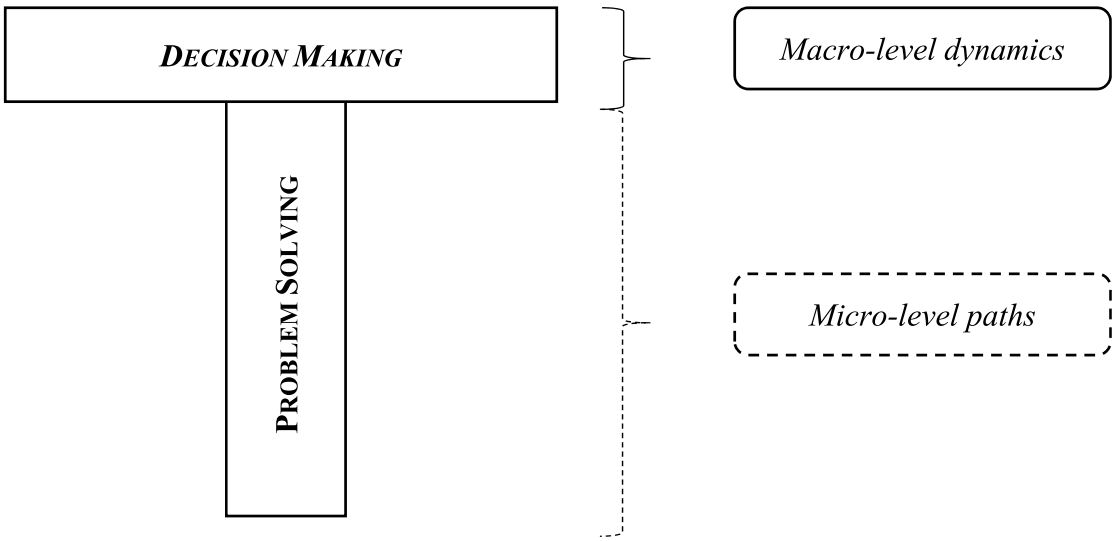

Figure 1: A T-shaped representation of macro and micro level in social and economic configurations.
Source: Our elaboration on Barile et al. (2012).

Building upon this general interpretative framework, the paper points the attention on the macro-level dynamics able whir the aim to clarify their influence on the efficiency of tourism management. In detail, the paper focuses the attention on the smartness and sustainability with the aim to provide possible answers to the following research question:

In which ways the increasing social and economic attention towards smartness and sustainability can affect tourism management contributing to the definition of more efficient managerial and organizational models?

The reason for which the attention is focused on the topics of smartness and sustainability is related to their increasing relevance in managerial and organizational studies (Gil-Garcia et al., 2016; Caputo et al., 2017; Lee et al., 2017) and to the existence of a gap in literature with reference to the ways in which they can be linked to improve efficiency of managerial and organizational approaches in tourism sector.

With the aim to bridge this gap, in the following sections previous managerial and organizational contributions about smartness (*section 2*) and sustainability (*section 3*) are briefly analysed, a conceptual framework is defined with the aim to explain the role of these topics in tourism sector (*section 4*) and some conclusions and future directions for research are proposed (*section 5*).

2. SMARTNESS: KEY CONCEPTS AND MANAGERIAL IMPLICATIONS

According to Ross (1993), “Smartness is intelligence that is cost- efficient, planner-responsible, user-friendly and unerringly obedient to its programmers” designs” (p. 101). This general definition offers the opportunities for catching the multiple dimensions that have been put under the conceptual umbrella of smartness over the time.

The concept of smartness refers to the possibility to make something reducing its costs, its time, and its external (social and environmental) impact. At the same time, smartness refers to the ability to make a process in a more profitable way improving its social and economic positive impacts and externalities. In other words, the concept of smartness is related to the *improving of efficiency*.

Smartness can be related to the products (Gellersen et al., 2000; Mühlhäuser, 2007), processes (Matheson and Matheson, 1998), approaches (Butcher and Clarke, 2001), and organizations (Caragliu and Del Bo, 2012; Hatt, 2012). Smartness represents an interpretative lens through which the final aim is the improving of efficiency acting on the elements, resources, and interconnections on which a process is based.

Accordingly, studies on smartness have been proposed with reference to the ways in which smart products can affect our everyday life (Atzori et al., 2010; Kortuem et al., 2010), to the emergence of smart world, city, and organizations (Nam and Pardo, 2011; Caputo et al., 2016; Saviano et al., 2016; Caputo and Walletzky, 2017) and with reference to the impact of increasing social and economic smartness on individual learning abilities and behaviours (Mezirow, 2003). Despite the relevance of all these contributions, they approach the concept of smartness focusing the attention on the *micro-level paths* related to specific issues and problems. In such a line, they use smartness as a possible instrument to solve ex-ante defined problems in the light of problem solving approach.

With the aim to enlarge this approach, it is possible to assume that smartness is a more general construct that addresses social and economic dynamics influencing the ways in which organizations, actors, and entities face their 'evolutionary' dynamics connecting through a relational view (Pellicano, Perano, Casali, 2016) to each other.

With the aim to propose a macro-level view of smartness, an interesting contribution provided by Gardner Howard can be recalled who, in 1983, stated that "what is one to make of this situation, where one part of the 'intelligence community' is moving further and further toward social and cultural accounts of intelligence while another part is amassing evidence of the neurological and genetic basis of intelligence? Can they both right? I do not see these two research traditions as necessarily on a collision course" (Howard, 1983: 17). With the aim to enrich previous contributions on this topic, the Author proposed nine types of intelligence as summarized in the following Table 1:

TYPE OF INTELLIGENCE	BRIEF DESCRIPTION
Naturalistic Intelligence	It refers to the individual ability to be aligned with the rules of 'natural world'. Specifically, this type of intelligence can be summarized in the ability to distinguish among nature's different features.
Musical Intelligence	It is linked to the ability to recognize the several parts that compose the sound. Thanks to this ability individuals are able to identify, understand, and reproduce multiple kind of sounds and music.
Logical-Mathematical Intelligence	This type of intelligence can be summarized in the ability to perform mathematical operations and easily understand mathematical logics and rules.
Existential Intelligence	It is linked to the concepts of spirituality, morality, and ethic. It refers to the individual attempts to understand and investigate the reasons of his/her existences.
Interpersonal Intelligence	It refers to the individual relational ability. This type of intelligence permits to easily identify the expectations of others actors and/or organizations and to align personal behaviours with the aim to increase the opportunities for a suitable relationship.
Bodily-Kinesthetic Intelligence	It can be summarized as the individual ability to be self-confident with physical skills. Thank to this type of intelligence individuals are able to better coordinate their physical acts and movements.
Linguistic Intelligence	It refers to the individual ability to clearly transfer his/her idea and thoughts using in functional ways the linguistic abilities. Thanks to this intelligence, individuals can easily transfer and share articulated concepts and constructs.
Intra-Personal Intelligence	It can be summarized in the individuals' ability to very well know his/her self and to use this knowledge for building better relationships with the social community.
Spatial Intelligence	It refers to the ability to observe, reflect, and depicture considering all the three dimensions. Thanks to this ability, individuals are able to easily understand physics dynamics and rules.

Table 1: The nine types of intelligence proposed by Gardner Howard.
Source: Our elaboration on Howard (1983).

Focusing the attention on the nine types of knowledge summarized in the Table 1 and following the 'symmetry' between individuals and organized entities proposed by the systems thinking, and specifically by the Viable Systems Approach (Golinelli, 2010; Barile, 2011, 2012; Badinelli et al., 2012; Saviano and Caputo, 2012; Calabrese et al., 2017; Tronvoll et al., 2017), it is possible to consider the nine types of intelligence as relevant dimensions of the articulated concept of smartness and key levers on which act to improve the efficiency in the management of every kind of organized entity as represented in the following Figure 2.

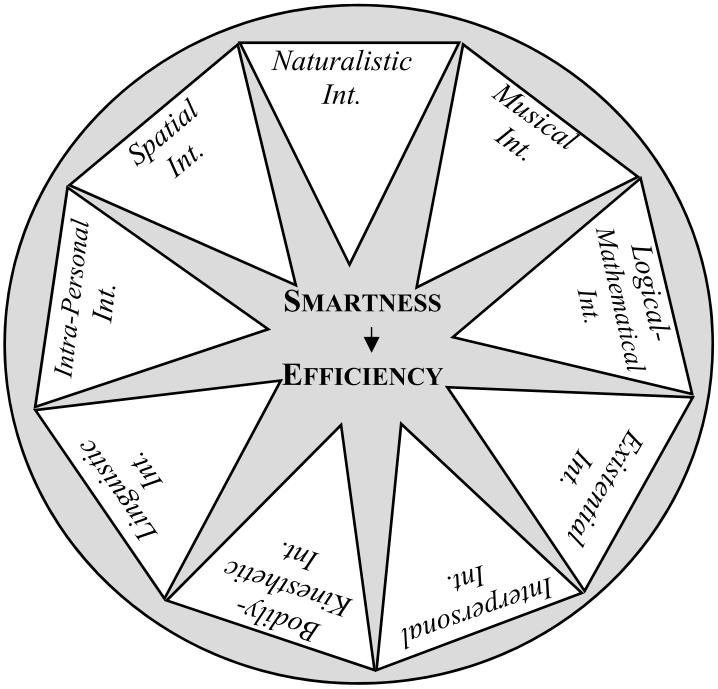

Figure 2. Key dimensions and levers of smartness.
Source: Our elaboration.

Adopting the proposed interpretative framework with reference to the concept of smartness, it is possible to better understand the multiple contributions offered my managerial studies in tourism sector with reference to topics such as Smart Tourism (Gretzel et al., 2015), Smart Territory (Giovannella, 2015), and Smart Development (Carayannis and Sipp, 2005). All these research streams represent the contextualization of the general umbrella related to the smartness (the horizontal bar proposed in the figure 1) with reference to specific issues and problems in the tourism sector (the vertical bar proposed in the figure 1).

3. SUSTAINABILITY: KEY CONCEPTS AND MANAGERIAL IMPLICATIONS

The most common and shared definition on which modern studies on Sustainability are based has been provided in 1987 by the World Commission on Environment and Development (WCED) for which “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987: 2).

Nowadays, the concept of sustainability incorporates multiple research streams as consequence of the general acceptance of sustainability as ‘science’ interested in defining the correct balance among environment, economy, and society. This wide picture of sustainability has been pushed by the preliminary studies of Elkington (1997) who proposed the Triple Bottom Line Model and by the contributions of Etzkowitz and Leydesdorff (2000) who defined the Triple Helix Model. Both these models are reported in the following Figures 3 and 4.

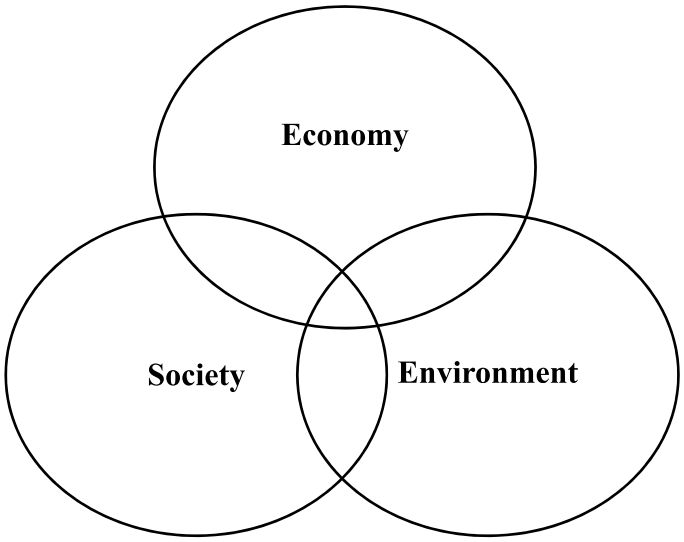

Figure 3. The Triple Bottom Line Model.
Source: Elkington (1997).

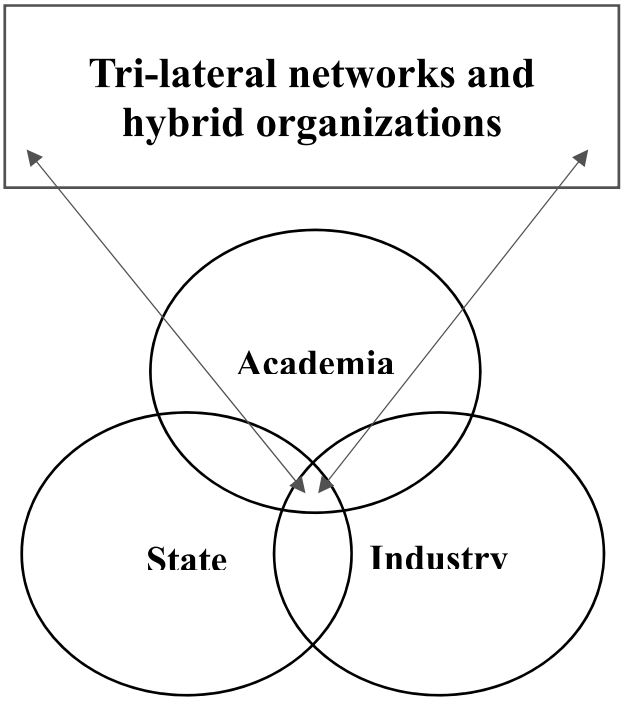

Figure 4. The Triple Helix Model.
Source: Our elaboration on Etzkowitz and Leydesdorff (2000).

Thanks to these fundamental contributions, managerial and organization studies have recognized that the concepts of Sustainability and Sustainable Development represent a common umbrella that embrace the relationships among environment, economy, and society and that they depend by the ways in which Academia, Government, and Industry interact defining conditions of reciprocal influence and alignment (Barile et al., 2013, 2015b; Saviano et al., 2017).

One of the last advancements in knowledge proposed in theoretical and empirical domains of sustainability has been proposed by Carayannis and Campbell (2009) with the Quadruple Helix Model that distinguishes the bottom up and top down approaches in the ways in which social and economic actors interact and, at the same time, underlines that social and economic interactions are affected by 'Media-based and culture-based public, and civil society' as shown in the following Figure 5.

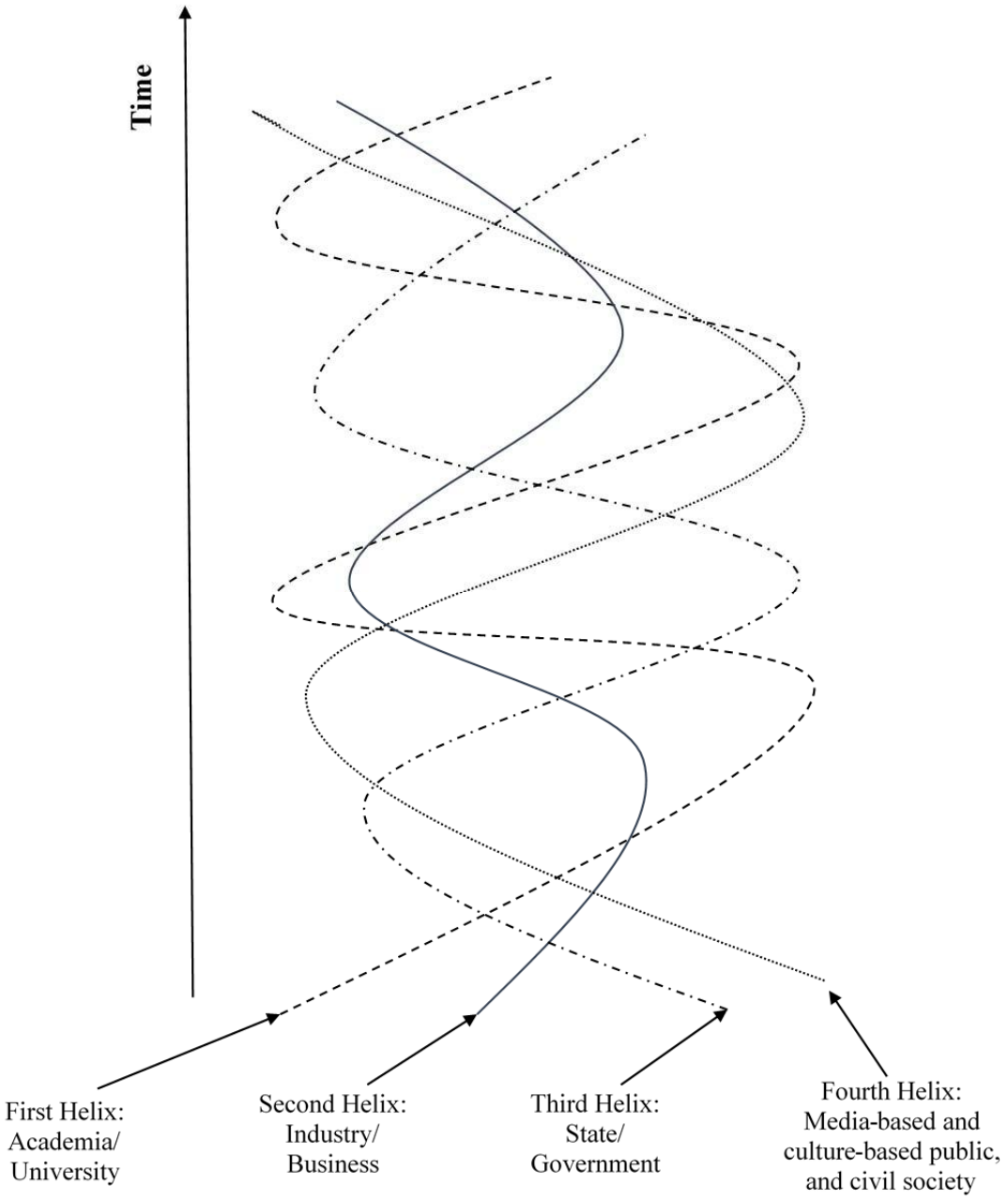

Figure 4. The Quadruple Helix Model.
Source: Carayannis and Campbell (2012).

Recognizing the validity of all these contributions, it is possible to highlight that the concept of sustainability is strictly related to the ways in which multiple actors interact in order to achieve in a more efficient ways shared aims and goals (Polese et al., 2016; Dominici et al., 2017). According to this view, from a macro-level point of view, the sustainability can be considered a relevant element of the horizontal bar

proposed in the figure 1 and environment, economy, and society are its key dimensions and levers as briefly summarized in the following Table 2.

DIMENSIONS OF SUSTAINABILITY	BRIEF DESCRIPTION
Environment	The environmental dimension implies the minimization of human activities' negative externalizations in terms of the use of natural resources and impact on nature balances.
Economy	The economic dimensions requires to build profitable processes able to ensure the economic needs of all the involved and interested actors (government, suppliers, property, employees, …)
Society	The social dimensions imply the built of processes and organizations in which individual rights are guaranteed and personal aims can be achieved through shared pathways.

Table 2: The three dimensions of Sustainability.
Source: Our elaboration.

In a nutshell, from a meta level point of view, sustainability can be considered a general framework able to direct social and economic acts towards efficient behaviours rooted on the consideration of environmental, economic, and social dimensions with the aim to satisfy present needs without compromising future needs and expectations. According to this view, some recent studies interested in the study and modelling of sustainable approaches for tourism management (Clarke, 1997; Ko, 2005; Choi and Sirakaya, 2006) represent the contextualization of the general framework of sustainability with reference to specific topics such as social development (Dempsey et al., 2011), economic growth for a territory or a community (Roseland, 2000), and environmental protection in the human-nature interactions (Adams, 2003).

In such a perspective, they tend to consider the sustainability as a possible driver of tourism sector (Pigram & Wahab, 2005) usually forgetting that sustainability in tourism sector is possible only in the case in which all social and economic actors that populate the temporal and spatial domain in which tourism approaches are thought and implemented are influenced, interested, and inspired by the principles of

sustainability (Kates et al., 2001). A clear example of this position has been provided by Bramwell & Lane (1993) for which “sustainable tourism is a positive approach intended to reduce the tensions and friction created by the complex interactions between the tourism industry, visitors, the environment and the communities which are host to holidaymakers”. In the same direction, Hassan (2000) states that “sustainable tourism is expected to make a major economic contribution to the world economy as well as to the economies of local tourism destinations” underling that sustainability could be a sort of marketing strategy to improve economic performances and outcomes. Differently from this position, the basic assumption of this paper is that sustainable tourism requires a radical change in perspective in the ways to perceive, manage, and measure the interactions among resources, actors, and organizational models because, as underlined by Swarbrooke (1999), “sustainable tourism is not just about protecting the environment; it is also concerned with long-term economic viability and social justice” (p. VII).

4. LINKING SMARTNESS AND SUSTAINABILITY IN TOURISM SECTOR

As outlined in the first paragraph of this paper, a large part of managerial and organizational contributions interested in the domain of tourism management adopts a problem solving approach directed to investigate the micro-level paths of tourism with the aim to propose possible solutions to face the emerging problems and trends (Weaver and Oppermann, 2000). Unfortunately, this approach is unable to catch the real challenges of tourism as vibrant domain influenced by the multiple dynamics, paths, and changes related to several sectors (Jafari and Ritchie, 1981).

With the aim to bridge this gap, useful contributions can be derived by the conceptual framework of T-shaped profile in order to distinguish between the domains of decision making and problem solving in the management and the governance of every kind of organized entity or sector (Barile et al., 2012). Adopting this interpretative lens, the tourism sector can be analysed both with reference to macro-level dynamics as well as with reference to micro-level paths. Adopting this general framework, it is possible to recognize the advancements in knowledge proposed by previous managerial and organizational contributions with reference to the micro-level paths in the light of problem solving approach while an unclear field

emerges with reference to the dynamics that affect macro-level dynamics for which the adoption of decision making approaches is required.

With the aim to bridge this gap in the managerial and organizational literature about the tourism management, the domains of smartness and sustainability are analysed as relevant fields in recent managerial and organizational studies about decision making. Some key dimensions are identified with reference to both these domains and their managerial implications have been shortly introduced. Building upon this, the need for link smartness and sustainability emerges in order to highlight in what ways these general frameworks can affect and direct the definition of more efficient approaches for tourism management. Accordingly, the general representation of T-Shaped profile proposed in the Figure 1 can be recalled in order to contextualize its contributions with reference to the specific domain of tourism sector and in the light of proposed reflections about smartness and sustainability as shown in the following Figure 5.

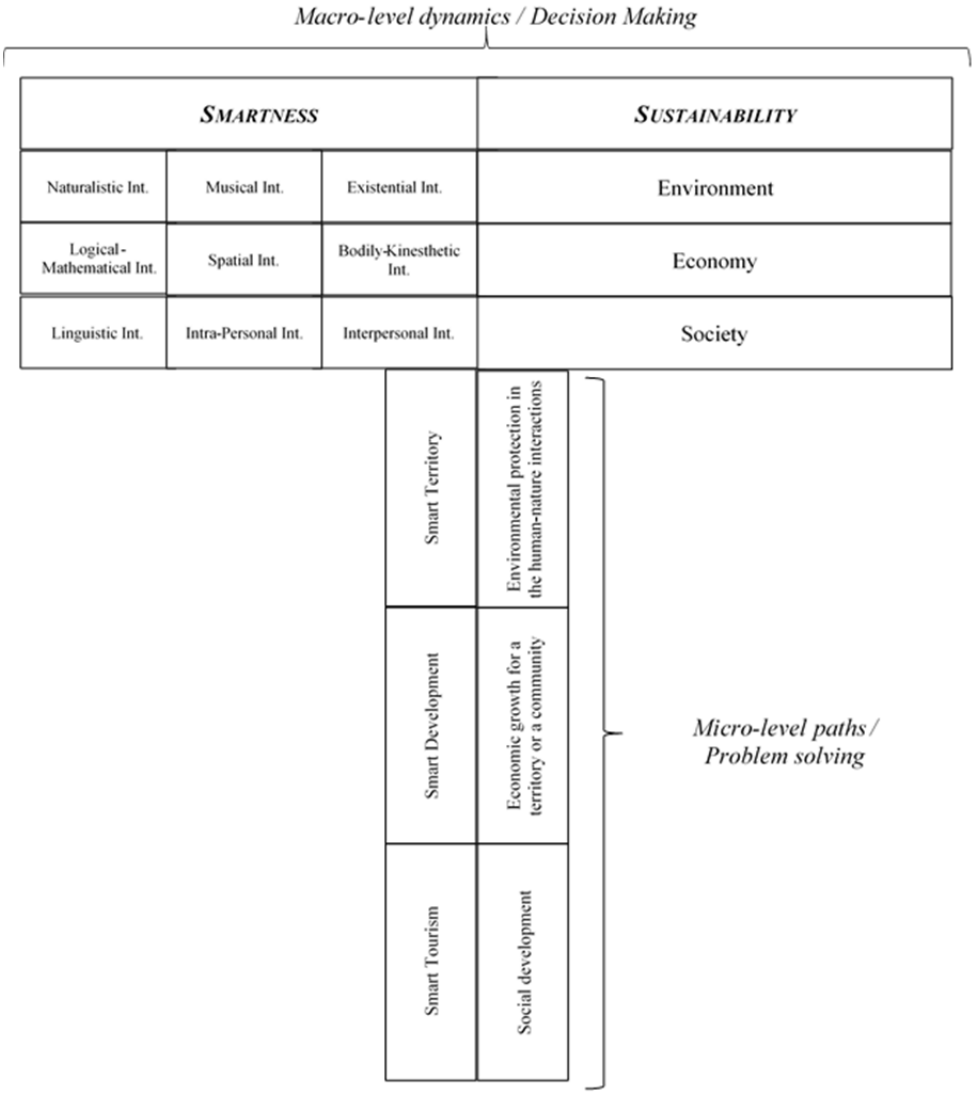

Figure 5. A T-Shaped view of tourism sector between Macro-level dynamics (Decision making) and Micro-level paths (Problem solving).
Source: Our elaboration.

The conceptual representation proposed in the Figure 5 highlights that smartness and sustainability can represent two domains able to influence macro-level dynamics. To face these domains in tourism management both researchers and practitioners should develop decision making approaches direct to support a better understanding and decoding of social and economic dynamics with the aim to improve the efficiency in problem solving approaches with reference to tourism sector.

Accordingly, smartness and sustainability define the general rule of efficiency to which organizations, processes, and actors in tourism sector should be aligned to survive. Focusing the attention on these two domains, it is possible to state that they continually define conditions of new balance as consequence of social and economic

dynamics pushing tourism sector in a circle directed to ensure higher standard of efficiency as summarized in the following Figure 6.

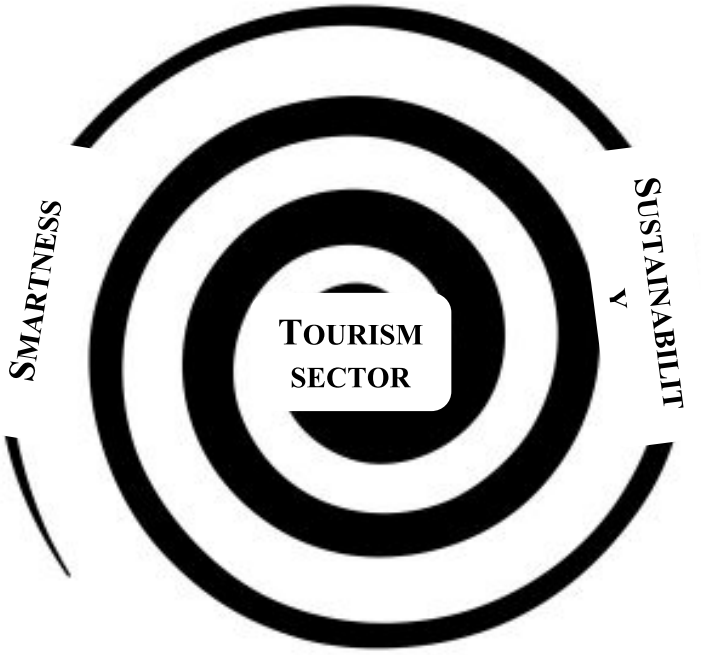

Figure 6. The circle of efficiency for tourism sector between smartness and sustainability.
Source: Our elaboration.

Again, reflecting upon the general representation proposed in the Figure 5 it is possible to underline the existence of a correlation between the type of intelligence assumed as key dimensions of smartness and the dimensions of sustainability as summarized in the following Table 3.

TYPE OF INTELLIGENCE	DIMENSIONS OF SUSTAINABILITY
Naturalistic Intelligence	*Environment*
Musical Intelligence	
Logical-Mathematical Intelligence	
Existential Intelligence	*Economy*
Interpersonal Intelligence	
Bodily-Kinesthetic Intelligence	
Linguistic Intelligence	*Society*
Intra-Personal Intelligence	
Spatial Intelligence	

Table 3: Linking Smartness and Sustainability.
Source: Our elaboration.

According to the hypnotized links between smartness and sustainability proposed in the Table 3, it is possible to state that the building of more efficient approaches in tourism management could be achieved acting on the three dimensions of sustainability through the development of abilities, competences, and capabilities related to the nine type of intelligence defined by Gardner (1983). In such a perspective, with reference to the tourism management:

- The environmental dimension requires improving Naturalistic, Musical, and Logical-Mathematical Intelligence with the aim to improve the alignment between actors of tourism sector and dynamics of nature world.
- The economic dimension requires enforcing Existential, Interpersonal, and Bodily-Kinesthetic Intelligence in order to better understand the emerging market dynamics and to quickly catch their advantages.
- The social dimension requires implementing Linguistic, Intra-Personal, and Spatial Intelligence with the aim to ensure an efficient communication and collaboration among multiple actors interested in achieving common and shared aims.

5. CONCLUSIONS, IMPLICATIONS, AND FUTURE DIRECTIONS FOR RESEARCH

In the last few years, the increasing relevance of tourism as an economic sector has pushed more researchers and practitioners in trying to build more efficient and effective managerial models able to better satisfy the several needs and expectations of the multiple actors involved in tourism sector. With the aim to propose models and approaches able to solve the emerging issues and problems in the tourism sector, multiple contributions have been provided while few attention has been paid with reference to the dimensions and domains not related to the micro-level paths of tourism.

Building upon this assumption and contextualising the general framework proposed by the research stream on T-shaped profile, the paper offers a possible representation of managerial and organizational contributions in tourism sector. Distinguishing between macro-level dynamics and micro-level paths, the paper clarifies the existence of a double level of study in tourism sector and emphasises the great attention of researchers and practitioners on the micro-level paths based on the definition of problem solving approaches and a little attention reserved to the macro-level dynamics for which the development of decision making approaches is required. Stressing this theoretical contribution some interesting implications could be derived from practical point of view. Specifically, it emerges the need for:

- Enlarging the 'decision making perspective' in the tourism sector with the aim to catch the embedded relationship between smartness and sustainability and its managerial implications.
- Developing multi-dimensional tools and instruments able to include in tourism management the multiple dimensions related to sustainability and smartness with the aim to ensuring better economic performance and improving sector viability and survival over the time.
- Increasing trans-disciplinary knowledge, competences, and capabilities of actors involved in tourism sector with the aim to reinforce the link and the feedback process between macro level dynamics and micro level paths in tourism domain.

Finally, focusing on the domains of smartness and sustainability some reflections are proposed to bridge the gap in organizational and managerial literature interested

to the topic of tourism sector with specific reference to the macro-level dynamics. It is required to specify that the reflections herein cannot be considered exhaustive because they only identify two possible domains able to influence macro-level dynamics but more topics should be connected with the proposed conceptual framework. Accordingly, more contributions are requested in order to better clarify macro-level dynamics in tourism sector and their impact on tourism management and an empirical investigation is needed to verify the validity of the proposed theoretical model and its ability to be aligned with time and cultural based conditions.

Furthermore, recalling the research question proposed in the first section of this paper it appears that the domains of smartness and sustainability can provide a contribution to improve the efficiency in tourism management while their contribution to the effectiveness of this sector is not clearly defined. Accordingly, the efficiency in tourism sector should be analysed focusing the attention on the ways in which aims are defined by actors and organizations in tourism sector as consequence of their values and strong beliefs.

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