A NEW CONCEPTUAL MODEL FOR THE HOTEL INDUSTRY: SUSTAINABILITY VS OPEN INNOVATION

Abstract
Scattered hotel is born as a solution to develop tourism in an innovative way and can be considered a project of valorization of a territory in a sustainable view, even if literature doesn’t provide a measurement of its level of sustainability. At the same time, scattered hotel is designed to offer an authentic experience of the “Italian life style” and it has been rewarded by UNDP (United Nations Development Program) for its innovation. While innovation in the hotel industry has been largely debated in literature, the emerging topic of Open Innovation is unexplored in SMEs operating in hotel industry. This paper aims at (1) providing a measure for both the level of sustainability and the level of Open Innovation in scattered hotels (2) creating a matrix SHSI-SHOI able to map scattered hotels on the base of these dimensions in order to draw development strategies. Drivers of SHSI (Scattered Hotel Sustainability Index) and SHOI (Scattered Hotel Open innovation Index) are chosen by means of literature. The two indices are got throughout an adaptation of the SERVPERF questionnaire. Paper results in a mapping of scattered hotels that allows tourist operators to draw paths of development.

Keywords: Open Innovation; Sustainability; Scattered Hotels; SMEs; Innovation in Tourism; SERVPERF Questionnaire; Measurement; Likert Scale; Conceptual Model.

Introduction
The paper contributes to the body of knowledge of two streams of research that are growing in popularity (Bramwell, 2015; Tejada and Moreno, 2013): sustainability and Open Innovation. These concepts are analyzed and contextualized in the accommodation sector, with a specific focus on small tourism enterprises. The positive links between sustainable tourism objectives and small tourism enterprises have been asserted by many authors (Horobin and Long, 1996; Revell and Rutherford, 2003; Vernon et al., 2003). However, no literature exists about the possibility to develop tourism proposals in a more sustainable way by collaborating with external entities to obtain innovative outcomes. Although Open Innovation approach (Chesbrough, 2003) states the opportunities related to opening up the organizational boundaries and to acquire ideas/knowledge by external actors, this approach has been accepted and implemented within large companies operating mainly in high-tech
sectors (i.e., Spithoven et al. 2010; Giannopoulous et al., 2011;). In this perspective, research is mainly focused on how large firms open their internal research and development department (R&D) and acquire knowledge by external sources for innovation (Chesbrough, 2003; Dahlander and Gann, 2010). Only few studies have investigated this phenomenon in SMEs (i.e., Brunswicker and Vanhaverbeke, 2014; Parida et al. 2012; Bianchi et al., 2010; Lee et al. 2010; Van de Vrande et al., 2009) and, also, scarcer are those focusing on SMEs operating in service sector (Mina et al., 2014) and, especially, in hospitality industry (Souto, 2015). Therefore, there is clearly a need for more qualitative and/or quantitative studies to advance the understanding regarding the Open Innovation in this type of firms. To address these gaps in literature and to deepen the knowledge on the relationship between sustainability and Open Innovation within SMEs context, the paper proposes a theoretical model using an emerging form of “Small Medium Tourism Enterprise” named “Albergo Diffuso” (or scattered hotel in English), growing in popularity in the Italian hospitality industry. Scattered hotel offers authentic and complete experiences of the “Italian life style” (Paniccia and Valeri, 2010). The idea of this accommodation type is to sell a proposal characterized by the innovative combination of local tangible resources (i.e., environment, cultural heritage, agriculture and crafts) and distinctive intangible resources (i.e., knowledge, traditions, culture, social capital, etc.). Several research initiatives have been undertaken in Italy to analyze this type of accommodation (i.e: Paniccia and Valeri, 2010; Confalonieri, 2011; Silvestrelli, 2013), even if the concept remains under researched and it is largely unknown within the international context. In the scattered hotel the two aspects - sustainable tourism and innovation – seem to cohabit. In fact, it looks like a viable sustainable entrepreneurial innovation that increases a destination’s accommodation capacity in an inclusive and locally controlled manner. With this in mind, the paper aims at (1) providing a measure for both the level of sustainability and the level of open innovation (2) creating a matrix SHSI-SHOI able to map scattered hotels on the base of these dimensions in order to draw development strategies. Drivers of SHSI (Scattered Hotel Sustainability Index) and SHOI (Scattered Hotel Open innovation Index) are chosen by means of literature. The two indices are got throughout an adaptation of the SERVPERF questionnaire.

**Literature review**

*About the concept and features of the scattered hotel*

In recent years, this typology of accommodation has caught the interest of tourists,
professionals and institutions as a new form of “Small Tourism Enterprise” (STE). The
“Albergo diffuso” began in the hilltop towns of Italy and is based on the renovation of historic
city centre buildings (often in poor condition or abandoned) into accommodation for tourists
(Paniccia and Valeri, 2010). Small, locally owned tourism enterprises are viewed as one of the
vehicles by which the economic, environmental and socio-cultural benefits of tourism can be
spread. Several studies have been undertaken in Italy to analyze and gain an understanding
about this type of accommodation (Paniccia et al., 2010; Vallone et al., 2013; Silvestrelli,
2013). However, the concept remains largely unknown within the international context.
Scattered hotel is a type of accommodation often family-owned, small sized company
utilizing traditional and local resources, culturally valuable surroundings and putting forward
more a lifestyle rather than a staying as visitors or guests (Camillo and Presenza, 2015). It
consists in a type of accommodation (and other hotel services) in the historical centre of a
town or village with the scattered guest rooms, distributed or dispersed among several
buildings within approximately 200 meters from the heart of the hotel. The Italian term
Albergo Diffuso can be expressed in English as “horizontal hotel”, “multi-building hotel”,
“integrated hotel”, “diffused hotel” or “scattered hotel”. The verb ‘diffuse’ means, broadly,
‘disperse’. From Latin diffuse - ‘poured out’, from the verb ‘diffundere’, from dis- 'away' +
fundere 'pour'. Within this context, it means “Spread out over a large area; not concentrated”
(Oxford Dictionaries, 2014). Scattered hotel shows typical characteristics of a hotel, such as
accommodation, assistance, catering, and common spaces and facilities for guests. However,
it presents distinctive peculiarities that have been formalized in a set of guidelines elaborated
by the Italian Association of Alberghi Diffusi. The term “diffuso” (diffused) denotes a
structure that is horizontal, and not vertical like the one pertaining to standard hotels that are
often not visually appealing. The reception, the rooms and the ancillary services are located in
different buildings, although closed to each other. The facilities are housed in existing
buildings after a careful process of restoration and conversion that must comply with the local
laws and regulations. The intent is to give guests the direct contact with the local culture, and
the experience of an authentic representation of resident life. The key requirements of a
scattered hotel are: a) the presence of a living community (usually a small village, with a few
hundred inhabitants); b) an owner operated management structure; c) an environment that is
“authentic” made of fine homes, completely renovated and furnished; d) a reasonable distance
between the guest rooms and common areas (usually no more than 300 meters); e) non-
standard professional management, consistent with the proposal of authenticity of experience,
and with roots in the community and region; and f) a recognizable style, an identity, a
common feel that is identifiable throughout the facility buildings. Accordingly to Presenza et al. (2015), there are some first insights about this accommodation. The analysis of the profile of the customer highlights how foreign customers appreciate this accommodation very much; in fact, foreign demand is 46.4% of the total. Most of the customers are represented by couples (54.8%), followed by families while seniors account for only 3.2%. Primary interests of the customers are the environment and nature, as well as the food and wine and the typical places. Considering 2012 as the reference year, it should be noted that the average stay is low (2.9 nights), while the average occupancy rate is 68%. In the scattered hotels employees are 4.7 on average and 75.8% of them are Italian. It is interesting to highlight that among the Italian staff, there is a prevalence of “territorial” personal (64.2%), i.e., employees who live in the vicinity of the structure. This means that is indeed possible to have a real contact with the residents, thanks to the staff who works there. The success of the initial entrepreneurs has led the development of other establishments and now they are about 100 (February, 2016) throughout Italy and other ones are under development (www.alberghidiffusi.it). The growing of this type of accommodation remarks the significance of the socio-cultural embeddedness of lifestyle approach. In fact, “a growing number of small-firm owners elect to ‘stay within the fence’ in order to preserve both their quality of life in their socio-environmental contexts and their ‘niche’ market position catering for travelers similarly seeking out alternative paradigms and ideological values” (Ateljevic and Doorne, 2000, p. 388). The search to distance themselves from a suffocating market environment has provided a niche opportunity.

**Sustainable and innovative SMEs in tourism**

Among the plethora of destination stakeholders, a pivotal role is played by small tourism enterprises (STEs) (Jones and Tang, 2005), and among the various types of STEs, the accommodation/lodging businesses are key-players (Jaafer, 2011). Roberts and Tribe (2008, p. 575) underline that “the numerical dominance of STEs, their central role in human activities, and their increasing importance within the framework of sustainable tourism development, all suggest that these entities have the potential to help tourism destinations progress towards sustainability objectives”. In this context, small, locally owned tourism enterprises are viewed as one of the vehicles able to create economic and socio-cultural benefits for tourism and to achieve the goals of sustainable tourism. There is a common conviction that local ownership of STEs will encourage community stability, raise the level of participation in the local economy and decrease the level of residents’ antagonism directed towards tourists and the industry (Dahles, 1999; Shaw and Williams, 1998). Local STEs have better chances to satisfy
the “third generation tourist”, also known as “post-fordist tourist” (Urry, 1995). It is a way that is more observant of the local environment and culture (Tung and Ritchie, 2011; Wanhill, 2000). Arguably, there is the assumption that small-scale, locally owned developments that are environmentally focused are unequivocally (Swarbrooke, 1999; Wheeller, 1993). There is still considerable interest in small-scale, environmentally sensitive and locally owned developments that allows the equitable flow of tourism’s benefits throughout the community (Dahles, 1999). Such sustainable tourism developments, feasible to be undertaken by local residents, “have generated a growing interest in encouraging micro businesses and small entrepreneurs” (Dahles, 1999, p. 2) to consider the benefits of sustainability based on key-concepts (i.e. centrality of the person, respect for the environment, the culture and the traditions, and preservation of the place’s authenticity). These concepts (or efforts) arose in response to the negative outcomes, ranging from environmental damage to impacts on society and standard cultures, associated with mass tourism and unrestrained tourism development (Krippendorf, 1987; Nash, 1992). In addition, to being plentiful within the tourism industry, smaller organizations are more aligned with sustainable development objectives because they tend to be locally; in this way they are able to create employment and economic benefits for tourism throughout the community (Dahles, 1999). This premise helps to reflect about this new form of accommodation - i.e. scattered Hotel - as a sustainable business: it stimulates social symbiosis in a place and recognizes and increases the value of cultural assets and traditions. This accommodation combines the use of local tangible and intangible resources, providing an interesting way to partially mitigate the socio-economic impact often linked to tourism development. The business concept of the scattered hotel is based on organic growth in a socially inclusive and locally controlled manner. Accordingly, the concept may mirror the characteristics and effects of “a bottom-up community based tourism initiative” (Zapata et al., 2011).

Open innovation in SMEs and in hotel industry

Open Innovation approach fosters firms to acquire ideas and knowledge of external entities in their innovation processes, underlined that firms that are ‘too focused internally’ are ‘prone to miss a number of opportunities because many will fall outside the organization’s current business or will need to be combined with external technologies to unlock their potential’ (Chesbrough, 2003). Therefore, the boundaries between firm and its environmental are more porous, permeable and embedded in networks of different external knowledge sources (i.e., suppliers, customers, research centers, universities, competitors, and other companies)
collectively and individually working toward developing and commercializing knowledge (Chesbrough, 2003). There are three core processes in OI (see fig. 1): outside-in, inside-out and coupled process (Enkel et al., 2009). In the outside-in process firms improve their own knowledge through the use of external knowledge, emphasizing the relevance of dense networks of innovation, the forms of integration of customers/suppliers/entities and the use of third parties that facilitate interactions among different sources. In the inside-out process companies are oriented to external exploitation of their internal knowledge by carrying out ideas to market, selling intellectual property rights (IPR), licensing mechanisms and bringing technologies to outside environment. This core process aims at allocating and commercializing externally ideas and technological innovation derived by their internal R&D activities. Finally, in the coupled process, that combines the out-side and inside-out, the concept of co-creation with complementary partners is relevant; it defines forms of collaboration with subjects operating in different sectors and having different interests. These complementary partners offer \textit{ad hoc} solutions that can improve the company’s innovations or can exploit solutions developed by company (Enkel et al., 2009). Several studies have proposed potential advantages of opening up the innovation processes (Gassmann 2006; Dahlander and Gann, 2010; Lee et al. 2010; Hossein, 2015): shorter time to market with less costs and risk associated with product development; increased quality of products and services; exploitation of new market opportunities; increased knowledge base within organization; improved flexibility, adapting knowledge base to shifting market needs; access and participation to large networks.

![Figure 1. The three core processes in OI Approach](source://personal elaboration)

First studies on the adoption of Open Innovation in SMEs underline how these firms have increased their activity in Open Innovation (i.e., Brunswicker and Vanhaverbeke, 2014) with
out-side processes. In this way they seem to acquire ideas, knowledge and competences from external actors, to activate forms of collaboration for developing innovation projects, to reduce the costs of development, to improve the product development process and to take advantages of a wider range of market opportunities (Laursen and Salter, 2006; van de Vrande et al., 2009; Parida et al., 2012; Brunswicker and Vanhaverbeke, 2014). In this perspective, Open Innovation is the suitable approach for many SMEs to take. However, it has effectively defined and implemented in firms operating within the technology sector and, then, in the service industry (Mina et al., 2014). But, the OI in hospitality field is still not common (Artic, 2013) and also scarcely implemented, even if firms operating in this sector need to develop new products/services faster and more effectively; this allows them to overcome the difficulties that characterize SMEs, independently by the sector of activities, and that are mainly linked to their scarcity of internal resources and capabilities, their lack of resources for R&D activities, their less structured approach to innovation and their restricted multidisciplinary competence base (Chesbrough and Crowther, 2006; Laursen and Salter, 2006; van de Vrande et al., 2009; Parida et al., 2012; Brunswicker and Vanhaverbeke, 2014).

Only Talwar (2012), considering the hotel industry forecasts until 2020, assigns a leading role to open innovation approach, while Artic (2013) underlines that in Slovenia the concept of open innovation is not known in most hotel companies, but some of them perform the concept through business cooperation.

**Methodology**

In recent years, the growing interest in innovation and sustainability in tourism has had an influence on the study of hotel industry. Despite the numerous attempts to define innovation and sustainability in this type of industry, there are not contributions concerning the analysis of these dimensions in a systemic way, in particular with regard to Open Innovation. For this reason, this theoretical paper aims at answering to the following research questions:

RQ1. How can we measure the level of sustainability and the level of Open Innovation in scattered hotels? RQ2. How can a scattered hotel be positioned on the base of these two dimensions?

The general goal consists in offering a descriptive and prescriptive framework in order to classify scattered hotels upon the basis of their level of sustainability and open innovation. This allows the creation of a matrix SHSI-SHOI able to map scattered hotels and draw development strategies. The methodology used consists of: (1) a systematic analysis of the
drivers supported by literature with regard to sustainability and open innovation in the hotel industry and (2) the creation of a prescriptive model able to canvass all the aspects affecting these two dimensions and to provide them a suitable measure. The measurement model can be structured in terms of an adaptation of a SERVPERF questionnaire (Cronin and Taylor, 1992): (1) for the measurement of the level of sustainability of scattered hotels, consisting of three dimensions (environmental, social and economic dimensions) and 11 items; (2) for the measurement of level of Open Innovation, structured on three dimensions (In-side OI, Out-side OI and Coupled innovation process) and sixteen items. An adaptation of the SERVPERF questionnaire has been chosen because it allows to collect the level of agreement by interviews about several items describing the level of sustainability and open innovation in scattered hotels. In a first time, we selected, throughout a review of literature, the dimensions affecting sustainability and open innovation that constitute the main parts of the questionnaires. After this, we decided how to formulate the questions and their order on the base of an analysis of other questionnaires on similar topics. Measurement items of each questionnaire will be measured through a five-point Likert scale (1= strongly disagree to 5= strongly agree) (Table 1 and Table 2). In order to create the SHSI and the SHOI it is necessary to evaluate the SHSI and SHOI perceived by each single manager of Italian scattered hotel. This results in the average SHSIj and SHOIj of judgements provided by the same to the 11 items for the sustainability dimension and to the 16 items for the open innovation dimension.

\[
\begin{align*}
(1a) \ \text{SHSI}_j &= \frac{\sum_{i=1}^{11} (\text{SHSI}_{ij})}{11} \\
(1b) \ \text{SHOI}_j &= \frac{\sum_{i=1}^{16} (\text{SHOI}_{ij})}{16}
\end{align*}
\]

Then, the average of the values of SHSIj and SHOIj registered for all the interviewees must be computed.

\[
\begin{align*}
(2a) \ \text{SHSI} &= \frac{\sum_{j=1}^{n} (\text{SHSI}_j)}{n} \\
(2b) \ \text{SHOI} &= \frac{\sum_{j=1}^{n} (\text{SHOI}_j)}{n}
\end{align*}
\]

The statistical analysis of data will be carried out through SPSS. The model must be tested on a sample, asking respondents to express agreement or otherwise to the items for a specific dimension. The survey should be uploaded on a web platform and the link be sent to potential respondents. The reliability of the instrument and its dimensions requires to be tested by using Cronbach’s Alpha, and appropriate convergent and discriminant validity tests must be
undertaken to ensure the construct validity, stability and robustness of the measurement model. After these steps, we are able to cross the two dimensions (sustainability and open innovation in scattered hotels) and on the base of their values (low, medium, high) to classify them in different categories (Figure 1). On the base of their positioning in the matrix sustainability-open innovation it will be possible to draw different paths of development.

<table>
<thead>
<tr>
<th>SUSTAINABILITY</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRONMENTAL DIMENSION</td>
<td>Compl. disagree</td>
<td>Disagree</td>
<td>Neither disagree nor agree</td>
<td>Agree</td>
<td>Compl. agree</td>
</tr>
<tr>
<td>Renewable energy is largely adopted in my scattered hotel (solar systems, eco-friendly chemicals and equipment)</td>
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<tr>
<td>There is an increasing awareness in a smarter water use in my scattered hotel</td>
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</tr>
<tr>
<td>We are very careful to the recycling and waste management (composting and recycling)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCIAL DIMENSION</td>
<td>Compl. disagree</td>
<td>Disagree</td>
<td>Neither disagree nor agree</td>
<td>Agree</td>
<td>Compl. agree</td>
</tr>
<tr>
<td>We are careful to assume also employees with disabilities</td>
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</tr>
<tr>
<td>In this scattered hotel we are careful to needs of tourists with disabilities</td>
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<tr>
<td>The respect of tourists towards employees is strongly incentivized</td>
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</tr>
<tr>
<td>We involve customers into sustainable practices application encouraging them to actively participate and collaborate in sustainable practices</td>
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</tr>
<tr>
<td>We are very careful to the needs of every stakeholder</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECONOMIC DIMENSION</td>
<td>Compl. disagree</td>
<td>Disagree</td>
<td>Neither disagree nor agree</td>
<td>Agree</td>
<td>Compl. agree</td>
</tr>
<tr>
<td>We privilege the hiring of local employees</td>
<td></td>
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<tr>
<td>We privilege to buy local food and materials or produce by ourselves food/materials</td>
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<td></td>
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<tr>
<td>This accommodation establishment has a local ownership</td>
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</tr>
</tbody>
</table>

Table 1. Questionnaire for the measurement of the level of sustainability of scattered hotels
Source: Personal elaboration.

<table>
<thead>
<tr>
<th>OPEN INNOVATION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT-SIDE OF PROCESS</td>
<td>Compl. disagree</td>
<td>Disagree</td>
<td>Neither disagree nor agree</td>
<td>Agree</td>
<td>Compl. agree</td>
</tr>
<tr>
<td>We use technologies developed by others to manage bookings/invoicing/orders/employees selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We are careful to develop a CRM system through social networks</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We profit of R&amp;D/educational programs provided by external research and education centers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We ask suggestions to improve services/solve problems throughout online collaboration platforms or social media (crowdsourcing)

We general finance our business or business expansion through non traditional financing such as joint-ventures/alliances

**IN-SIDE OF PROCESS**

We externalize technologies that other hotels/organizations are able to commercialize better

We grant our licences/patents and/or know-how to create an adding incomes for the hotel

We are willing to sell results of our internal R&D, transforming programs of development in open source projects

Our smart people doesn’t work for us so we must find and tap into the knowledge/expertise of bright individuals outside our company

We incentive internal innovation processes (that could be exported outside) in through multimedia channels, informal meetings, competition of ideas, etc.

**COUPLED OF PROCESS**

We incentive the development of strategic partnerships with other hotels in order to get economic advantages

We try to make the best use of internal and external ideas

We use special cards that allow tourists to get different services

We develop strategic co-operations with other hotels in order to promote scattered hotels of our territory

We develop strategic co-operations with accommodations/tourist exercises to promote local products/services/information about local cultural heritage

We profit of external R&D to create value while internal R&D is needed to claim some portion of this value

| We ask suggestions to improve services/solve problems throughout online collaboration platforms or social media (crowdsourcing) | We general finance our business or business expansion through non traditional financing such as joint-ventures/alliances | **IN-SIDE OF PROCESS** | We externalize technologies that other hotels/organizations are able to commercialize better | We grant our licences/patents and/or know-how to create an adding incomes for the hotel | We are willing to sell results of our internal R&D, transforming programs of development in open source projects | Our smart people doesn’t work for us so we must find and tap into the knowledge/expertise of bright individuals outside our company | We incentive internal innovation processes (that could be exported outside) in through multimedia channels, informal meetings, competition of ideas, etc. | **COUPLED OF PROCESS** | We incentive the development of strategic partnerships with other hotels in order to get economic advantages | We try to make the best use of internal and external ideas | We use special cards that allow tourists to get different services | We develop strategic co-operations with other hotels in order to promote scattered hotels of our territory | We develop strategic co-operations with accommodations/tourist exercises to promote local products/services/information about local cultural heritage | We profit of external R&D to create value while internal R&D is needed to claim some portion of this value |

| Table 2. Questionnaire for the measurement of the level of open innovation of scattered hotels | Source: Personal elaboration. |

The matrix SHSI-SHOI

Starting from the previous results it is very interesting to position scattered hotels on the base of their level of sustainability and open innovation that seem to cohabit. We cross the two dimensions, getting a nine-cell matrix. This allows to position scattered hotels on the base of the level (low, medium, high) they assume with regard to each single dimension. In such a way, these types of hotels could be classified in seven different “boxes” on the base of their position: (1) Innovative distance runners: these scattered hotels are those in the best position
and they will be the benchmarks for other scattered hotels; they show both a high level of sustainability and of Open Innovation. There is also an increasing belief that several potential drivers of innovation can impact on sustainable tourism (Ribaric, 2015), a continuous valorization of OI can create benefits to sustainability of the scattered hotel. (2) Obsolete distance runners: these scattered hotels are very careful to the aspect of sustainability but show a low level of innovation. Probably, they are focused on environmental, social and economic aspects of sustainability, but have a scarce propensity to innovate, undervalued the effect that innovation can have on sustainability (Schaltegger, 2011). An effort of investment in Open Innovation could push them toward the position of innovative distance runner. (3) Marathon runners in training: in this category there are all those scattered hotels that show a medium level in one dimension and a high level in the other one. They excel in innovation or in sustainability and are training them in order to reach the highest position in the other dimension. With a little effort in the less performing dimension they are able to reach the position of innovative distance runners. (4) Hotels at work: these scattered hotels show medium values for both the dimensions. For these hotels the game is open and it will depend on their ability to develop their innovation and their sustainability. (5) Unsustainable open innovators: these scattered hotels embrace the challenge of innovation but have a scarce interest to be sustainable. These are those hotels that don’t consider sustainability as an important driver affecting competitiveness/attractiveness and invest their resources in order to use external sources of innovation within the firm, the external pathways for the purpose of developing and commercializing innovations (Chesbrough and Crowther, 2006) or for coupled innovation process. Given that innovation is important to ensure sustainable growth, a higher focus on sustainable innovation can results in the development or use of technologies allowing to save energy, to offer facilities to tourists with disabilities, etc. (6) Out of training runners: these scattered hotels are placed in a low position with regard to one dimension and in the middle position with regard to the other one. They are directed towards the position of unsustainable closed innovators and a recovery requires large investments in both the directions. (7) Unsustainable closed innovators: these are the scattered hotels in the worse position because they don’t invest in innovation or in sustainability. This probably will affect negatively the level of their competitiveness because nowadays innovating and being sustainable are the imperative in order to remain competitive in an increasingly global environment.
<table>
<thead>
<tr>
<th>LEVEL SUSTAINABILITY (SHSI)</th>
<th>LEVEL OF OPEN INNOVATION (SHOI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>LOW</td>
</tr>
<tr>
<td></td>
<td>Obsolete distance runners</td>
</tr>
<tr>
<td></td>
<td>Marathon runners in training</td>
</tr>
<tr>
<td></td>
<td>Innovative distance runners</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>Out of training runners</td>
</tr>
<tr>
<td></td>
<td>Men at work</td>
</tr>
<tr>
<td></td>
<td>Marathon runners in training</td>
</tr>
<tr>
<td>LOW</td>
<td>Unsustainable closed innovators</td>
</tr>
<tr>
<td></td>
<td>Out of training runners</td>
</tr>
<tr>
<td></td>
<td>Unsustainable open innovators</td>
</tr>
</tbody>
</table>

Table 3. The matrix SHSI-SHOI

This matrix can constitute a framework for hotel operators, tourist organizations and managers in order to analyze the position of a particular scattered hotel and to draw suitable development strategies. This positioning is useful because allows managers of scattered hotel to know what dimension (sustainability or/and open innovation) must be valorized or supported or modified and in which way in order to develop this innovative type of accommodation.

Conclusions

The aim of this paper consists in providing a measure for both the level of sustainability and the level of Open Innovation in scattered hotels and in creating a matrix SHSI-SHOI able to map scattered hotels on the base of these dimensions. First, results of our conceptual paper provide a substantial contribution to the development of an emergent research area on Open Innovation – that represents the sustainable approach for several SMEs to take (Chesbrough et al., 2006) - in the hospitality industry and also to the literature on sustainable tourism (Dahles, 1999), replying to the two research questions not usually linked and investigated. From theoretical point of view, this is realized through the creation of a specific matrix SHSI-SHOI that permits to classify effectively scattered hotels on the base of their different level of sustainability and Open Innovation, providing different “types of runners”. This framework represents an innovative view in the literature of scattered hotel, often lacking in strategic models of analysis created on the base of their needs and features. In the future it would be useful also to assess the correlation between the two variables in order to know how one can affect the other one. From a managerial point of view, we suggest the adoption of this matrix by tourism organizations and we propose to consider seriously their different position in order to define and develop strategies oriented to improve their open innovation activities and their
commitment in sustainable initiatives. Despite the importance of these results for the literature about scattered hotels, this paper should be considered at the light of important limits: first it proposes only a conceptual framework, not tested through its application to a real case; second, it doesn’t validate the items used through a Delphi methodology. Anyway, as this is a conceptual paper, a number of possible new future lines of research can be suggested, such, for example, the study of the level of sustainability and the level of Open Innovation considered in the framework in an empirical way, either by case studies (deep interviews of selected scattered hotels) or by quantitative analyses. Finally, in addition to the literature review, the suitability of different dimensions should be validated also by experts.

References


