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A review of innovation research in tourism

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ABSTRACT

Over the past two decades, there has been increasing focus on the topic of innovation in tourism. This article reviews the research contributions. Various categories of innovation – product, process, managerial, marketing and institutional – are addressed. Important determinants of innovation are acknowledged, including the role of entrepreneurship, technology push and the existence of territorial industry clusters. Representation of knowledge is also identified as a critical factor for both the occurrence and nature of innovations. The review reveals that there is still only limited systematic and comparable empirical evidence of the level of innovative activities and their impacts and wider implications for destinations and national economies. An agenda for future research is emerging, suggesting that there is quest for both formal quantification and for qualitative studies of the foundations, processes, implications and policies of innovation in tourism.

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1. Introduction

Throughout history, tourism has been a phenomenon characterized by immense innovativeness. Books and articles have drawn attention to particularly distinctive individuals and enterprises, and their achievements have been analysed and assessed from all angles. Thomas Cook, for example, broke with the conventional thinking of his time and created – in congruence with the emerging rail infrastructure – a comprehensive concept that included the travel and entertainment ingredients for a completely new segment of customers, together with an efficient organisational framework that made it possible to provide the services at a price that people could afford (Brendon, 1991). Later examples of equally groundbreaking innovation are found within the Disney Corporation with its movie and media-synergized theme parks, appealing not only to a local audience but attracting a global interest (Weth, 2007). Ray Kroc at McDonald's transformed the whole idea of the organisation of food provision (Love, 1986) to such an extent that the concepts developed served as inspiration for the whole catering sector and far beyond (Ritzer, 2008).

No matter how spectacular and influential these innovations, and numerous others like them, they have seldom been taken on board in traditional academic innovation research as built up in the wake of Joseph Schumpeter (1934). The classical innovation literature (reviewed excellently by Dosi, 1988 and contributors in Landau & Rosenberg, 1986) has, until recently, primarily been concerned

with the manufacturing industries and patenting intensity. The emerging service economy in general, and the upcoming software boom of the 1980s in particular, changed the notion of innovation to include immaterial products, with the result that service industries were also gradually recognised for their measurable innovative potential (Miles, 2003; OECD & Eurostat, 2005).

It has been repeatedly claimed that rigid innovation research has been applied to tourism to only a limited extent and empirical tests of the phenomenon have been modest (Hjalager, 2002; Sundbo, Orfila-Sintes, & Sørensen, 2007). It should also be noted that innovation has become a buzzword which in many cases is used without deeper reflection for anything that is moderately novel. It is true that tourism analysts seem to be late starters in transferring the theory, concepts and methodologies already known and applied in other sectors for several decades. However, as this review of the literature on innovation in tourism will show, recent research is now reaching a level which is comparable with studies in other economic sectors. Fortunately, growing numbers of tourism researchers are addressing the wide palette of issues that fall within the innovation headline and expanding the methodological scope. This increased attention must be welcomed, as innovation research represents a meaningful and valuable way of understanding the economic dynamics of the sector, and deeper insights will be helpful for the industry and policy makers alike.

The purpose of this article is to identify literature on tourism innovation, present the issues raised and their main conclusions. In order to structure the sometimes unclear use of the term innovation in tourism research, the review will stick closely to primary classical innovation issues, such as they are reviewed for example

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by Dosi (1982). First, the nature, driving forces and determinants of innovative behaviour will be addressed describing how tourism innovations can be categorised. Further sections of the article will look at the innovative activity including how firms collect information and expand their knowledge. The immediate and wider impacts of innovative activity are also addressed. Policy studies are part of the innovation research, but have only been applied to a limited extent in tourism, as it will be explained. This review concludes by drawing attention to the challenging research needs.

A significant variation in interpretation of what constitutes tourism still exists, and there is a general lack of concretion regarding how innovation is defined:

“Innovation refers to the process of bringing any new, problem solving idea into use. Ideas for reorganizing, cutting cost, putting in new budgetary systems, improving communication or assembling products in teams are also innovations. Innovation is the generation, acceptance and implementation of new ideas, processes, products or services... Acceptance and implementation is central to this definition; it involves the capacity to change and adapt” (Kanter, cited from Hall & Williams (2008) p 5).

Further, innovations are – compared to inventions – brought to the stage of implementation and commercialisation (Hjalager, 1994). In practice and in many of the empirical studies, enquirers are willing to accept that innovation is generally characterised by everything that differs from business as usual or which represents a discontinuance of previous practice in some sense for the innovating firm (Johannesson, Olsen, & Lumpkin, 2001). This pragmatic Schumpeter-inspired definition is not unusual in connection with services, where the art of performing systematic innovation studies is still under development (Drejer, 2004; Flikkema, Jansen, & Van der Sluis, 2007).

To a significant extent, innovation studies in tourism still rely on explorative and qualitative cases where the phenomenon is investigated and explained from a number of angles and where rigid definitions are less prevalent. In parallel however, there is a quest for mainstream tourism innovation studies to meet international standards and procedures, thus providing better opportunities to compare levels of quantifiable innovativeness across sectors and national borders on a consistent basis (Hall, 2009). This ambition calls for firmer definitions of what constitutes an innovation and what identifies the industry, such as it is exposed by OECD and Eurostat (2005) in the Oslo Manual.

2. Categories of innovation

The Schumpeterian approach to the search for innovation categories has been applied to some extent in tourism research. Hall's (2009) study complies with OECD's four categories innovation, Hjalager (1997) provides a basic categorisation close to Schumpeter's original one, while Weiermair (2006) modifies slightly. Product, process, organisational/managerial and market innovations constitute the main body of innovation categories. Distribution innovations and institutional innovations are examples of attempts to consider particularities of innovation in tourism, and cater for them in the research. In a wider context Hjalager et al. (2008) operate with reverse community innovations and spin-offs into the educational system in innovation systems. As noted in OECD and Eurostat (2005) distinguishing innovation types is not necessarily simple as innovations are often bundled: innovation in one field leads to subsequent innovations in others (Barras, 1986).

Product or service innovations refer to changes directly observed by the customer and regarded as new; either in the sense of never seen before, or new to the particular enterprise or destination.

Product or service innovations are perceptible to tourists to such an extent that they may well become a factor in the purchase decision.

In the accommodation sector, the “Formule 1” concept introduced by the Accor hotel chain represents a generic innovation. These hotels were started to provide a low-price service without compromising essential and basic hotel standards such as accessibility, cleanliness, and comfortable beds (Hall & Williams, 2008). Later, as illustrated by Reiwoldt (2006), a diversification of the mainly small-scale accommodation sector has occurred through design and niche hotels as a way to create a sensuous atmosphere, illusions and aesthetics which are important ingredients in the product on a footing with functional attributes. Some studies in the hotel sector refer to single qualities of the hotel services as innovative, for example gastronomy, animation, infrastructure, or wellness facilities (Jacob, Tintoré, Aguiló, Bravo, & Mulet, 2003; Pikkemaat, 2008), customised comfort (Enz & Sigauw, 2003) or environmental measures (Le, Hollenhorst, Harris, McLaughlin, & Shook, 2006).

Adding a summer season to winter sports destinations may be considered a far-reaching innovation. Clydesdale (2007) identifies this, and a series of other innovations, that add value for customers and expand the range of experience options, examples include snow board parks, dog sledding, tubes, snow bikes, navigational games, accessories development and sales, after ski activities etc. Many other experience tourism provisions have been through similar periods of intensive product development in recent years (Sørensen, 2001; Stamboulis & Skayannis, 2003). Innovation of products and services in the field of natural and cultural heritage is interpreted along the same lines, with products reshaped, reinvented and commoditized. The many aspects and outcomes of this imaginative process and the “creative destruction” (a reference to Schumpeter) involved is widely covered in the heritage experience literature (the fathers of which are, for example, Ashworth, 1994 and Lowenthal, 1985).

Both Riley (1983) (tour operating), Novelli, Schmitz, and Spencer (2006) (health tourism) and Stamboulis and Skayannis (2003) (sustainable tourism) refer to the tradition for packaging tourism products. When bundled intelligently, and when applied to new issues and new market segments, it may be possible to talk about product innovations, as far as these and other studies are concerned.

Process innovations refer typically to backstage initiatives which aim at escalating efficiency, productivity and flow. Technology investments are the anchor of mainstream process innovation, sometimes in combination with reengineered layouts for manual work operations.

Information and Communication Technology (ICT) has been the backbone of many process innovations in recent decades, and it has attracted a significant strand of research interest with its own agendas and institutions (Buhalis & Law, 2008). Due to the ubiquitous capabilities for organising information and knowledge, across geographical and user boundaries, ICT constitutes a main agent for process innovations, and there are many industry related examples provided in the proceedings of the annual ENTER-conference (latest published: O'Connor, Höpken, & Gretzel, 2008; Sigala, Mich, & Murphy, 2007). Some research contributions dig into the stages of technology utilization and the gradual evolution and deepening of the process innovations. Yuan, Gretzel, and Fesenmaier (2006), for example, map ICT implementation in visitor bureaus, and they point out that the prospects of technology are confronted and modified by the organisational features and specific managerial objectives. Also Blake, Sinclair, and Soria (2006) demonstrate that productivity in tourism enterprises can be improved by introducing new ICT, but favourable impacts are especially obtained where ICT is combined with other strategic and managerial measures such as competence building and HRM (Human Resource Management).

Restaurant kitchens offer many examples of intensive process innovations. The application of food service technologies embraces faster and better preparation methods, energy and labour savings, waste reduction, better sanitation, faster service and higher flexibility (Rogers, 2007). Rogers characterizes the major part of the food sector as largely defensive and adaptive in its choice of process technologies, and she claims that offensive innovations have yet to be observed in the (larger) food processing units. Such new developments could, for example, include automation using robots, radically new preparation methods, and sensor controlled cooking and flavouring methods.

Process innovations take place widely in tourism. With an example from winter sports, Clydesdale (2007) explains how ski lift capacity is a critical element in process efficiency and that choice of technology for that purpose is decisive. Airports adopt a wide variety of technologies that ensure the mobility of people, luggage, goods and information, in order to alleviate the challenges of transportation. Over the years, and for a number of reasons, new types of technology have entered airports, for example, iris-recognition and X-raying (Sheller & Urry, 2006). The same style of process innovation can be found permeating into visitor attractions for the purposes of crowd control. Process innovations that address energy consumption and climate impacts are on the future agenda for many types of tourism enterprise, not least transportation (Peeters, Gössling, & Becken, 2006).

Eventually, process innovations may be platforms for improved services that will be recognizable to the customer and add to the value of the product. For example automatic check-in-systems can save time for both customers and staff. Climate challenges have been found to encourage entrepreneurs to reduce vulnerability and costs and to improve their image vis-à-vis customers by combined use of processes and promotional measures (Hall, Gössling, & Weaver, 2008; Hjalager, 1997; Liburd, 2005). Empirical studies, however, tend to conclude that the lodging industry employs technology to improve employee productivity and enhance revenues, but that limited strategic priority is given to technologies designed to improve guest services (Martin, 2004; Sigauw, Enz, & Namasivayam, 2000; Sundbo et al., 2007).

Managerial innovations deal with new ways of organising internal collaboration, directing and empowering staff, building careers and compensating work with pay and benefits (Ottenbacher & Gnoth, 2005). A main challenge for many tourism enterprises is to develop methods to retain staff, maintain flexibility and control costs. Managerial innovations can also be aimed at improving workplace satisfaction and nurturing internal knowledge and competence assets (Hall & Williams, 2008; Shaw & Williams, 2009).

Leidner (1993) outlines McDonald's early conceptual accomplishments in this particular field of innovation: well-planned training and socialisation, promotion from within, and enforcement of corporate values. Many enterprises have tried to adapt these methods and develop them further, for example the Disney Corporation. An early seminal contribution to an understanding of the managerial innovativeness was delivered by Hochschild (1983), who critically describes how airlines succeeded in "managing the hearts" of the air hostesses, and including the human feeling in the product. Walsh, Enz, and Sigauw (2003) investigate a comprehensive portfolio of traditional HRM instruments, which are found to be innovative in many enterprises in the lodging industry, although not in general managerial practice. Likewise, Jones et al. (2003) focus on the cultural dimension behind augmentation of business concepts and creation of unique selling points. Building team spirit is also described as a more contemporary managerial innovation – and a prerequisite for further service improvements in companies within knowledge dependent segments of the tourism industry (Hu, Horng, & Sun, 2009).

Managerial innovations are not only reserved for paid employees, but also directed towards voluntary staff. For example, it is crucial for museums and festivals that depend on volunteers to construct packages of benefits that range far beyond simple and normal compensation, for example by comprising a well-designed do-good element. Gupta and Vajic (2000) go a step further and include the "managed customer" as a target of managerial innovation. This is, for example, already emerging in adventure tourism, where the participation of the customer in the production of the experience is particularly crucial (Ellis & Waterton, 2005).

Management innovations. Tourist boards, destination management entities and individual enterprises often declare themselves as innovative in an attempt to identify with a new segment of customers or redirect existing messages and strengthen brands. This may be misuse of the term innovation. However, new marketing concepts can develop into imperative innovations in their own right, when such approaches change the way that overall communication to, and with, customers is undertaken, and how relationships between the service provider and customer are built and withheld (Hankinton, 2004).

A prominent and early example within the tourism sector is the elaboration and introduction of loyalty programs, which are now widespread and come in numerous versions (Morais, Dorsch, & Backman, 2004). These programs basically change the relationships between tourism providers and the customer from a single and simple purchase procedure to an exchange of loyalty and intangible supplements, and transform the interaction to a long-term affair with a bounded and complex rationality.

Development of the World Wide Web over the past decade has led to complete series of marketing innovations that impinge on the majority of the tourism businesses, and which have already led to a far-reaching reduction in traditional marketing and sales intermediaries such as travel agencies. The ability of customers to service themselves, combined with access to a dramatically widened range of offers, is a prime motivator for tourists, where saved costs are essential for service providers and customers alike. A sweeping revolution is that search engines allow small providers of tourism products a more equal exposition on the market place together with the market leaders. Xiang, Wöber, and Fesenmaier (2008) address the importance of monitoring and rethinking the representation of destinations and tourism enterprises on the Internet. Enhanced social media invite consumers to contribute and modify searches, which is likely to change the core assumptions and methods of marketing by shifting significant communication power towards the customers. However, the specific nature and effects in terms of marketing innovations are yet to be seen (Buhalis & Law, 2008; Schegg, Liebrich, Scaglione, & Ahmad, 2008).

Marketing innovations also consist of the co-production of brands (Hankinton, 2004), an activity which takes place for example in gastronomy and tourism. Marketing of wine, for example, often goes hand in hand with marketing of a specific destination (Carlsen, 2006). The result is that marketing of tourism destinations and tourist experiences takes place in subtle ways in supermarkets throughout the world and on food packaging. Innovation in this field comprises cultivation of the inter-linkages with international media, where journalists agree to report from food competitions, events with famous chefs – always cleverly intermingled with promotion of the attractions of the destinations (Scarpato, 2002).

Institutional innovations. An institutional innovation is a new, embracing collaborative/organisational structure or legal framework that efficiently redirects or enhances the business in certain fields of tourism. Research on networks and alliances has been

a significant theme in tourism research over time, and single networks are considered essential for the fostering of innovations, not the least among small and medium sized enterprises (Lynch & Morrison, 2007).

New institutions may, however also constitute more widespread changes, affecting the business of many enterprises and their customers. Credit card banks represent an institutional innovation with far-reaching implications. The intense relationships between American Express and tourism actors illustrate the imperative constellations. The establishment of CRS (computer reservation systems), which centralised access to air tickets, was another very vital institutional innovation (Hall & Williams, 2008) with an immense subsequent influence on access to a larger variety of products and on competition and prices.

When they first arose in the 1950s, franchising and licensing arrangements were major institutional innovations. They brought about a boost in the supply and a dissemination of product and process innovations to the most remote parts of the world, also to places without any capacity for innovation themselves (Lashley & Morrison, 2000). Labelling and certification entities belong to the same category of institutional innovations, including a variety of set-ups with independent agencies that are responsible for control, development and promotion.

Social tourism organisations that ensure holiday opportunities for disadvantaged groups have been established for decades, but when first introduced they broke new ground in the understanding of the importance of restitution for all (Hall & Brown, 2005; Hjalager, 2005a). In recent years and in western societies, social tourism is reinventing itself into “pro-poor” tourism organisations that work with NGOs (Ashley, Roe, & Goodwin, 2001).

This section of the review attempts to distinguish between five categories of innovation: product, process, management, marketing and institutional innovations. This is useful for analytical purposes. However, as shown by Weiermair (2005), there is often a close interplay between different categories of innovation, as innovators are implicitly, and as soon as they start considering changes, motivated to address their activities in a value chain approach. For example, investments in technology may often lead to improvements and enhancement of services, while the availability of technology may also affect the ways that marketing is undertaken (Buhalis, 2004). Experience design will almost certainly lead to the breakdown of borders between categories (Mattsson, Sundbo, & Fusing-Jensen, 2005; Novelli et al., 2006; Stamboulis & Skayannis, 2003). This is not unique for tourism, but a central element in services in general and often referred to as “fuzzy” by Gallouj and Weinstein (1997).

3. Determinants and driving forces

Self-evidently, innovations in individual tourism enterprises are inspired and affected by a range of external and internal factors. No comprehensive understanding of the driving forces in tourism innovation literature has yet been established. Implicitly, the issue is addressed from three different theoretical schools, referring to classical contributions in the innovation literature. Firstly, a Schumpeterian approach where entrepreneurs represent a major contribution to innovative dynamics. Secondly, the technology-push/demand-pull paradigm. And thirdly, the Marshallian innovation systems or innovation cluster approach.

3.1. Entrepreneurship and innovation

According to Schumpeter (1934) entrepreneurs cause a continual disturbance to the equilibrium of the market. Entrepreneurs are “creative destructors”, who with their concepts, products and ideas

set new standards, and with their innovativeness radically shift the taste and preferences of their customers. Entrepreneurship is a crucial factor in the evolutionary redirection of tourism products and increasing competitiveness. Hall and Williams (2008) point to a number of examples of “heroes” of tourism innovation in the course of history. Russel and Faulkner (2003) explain the development of surfing on the Gold Coast of Australia from a chaos theory point of view, which also includes the role of entrepreneurial activity.

The research about entrepreneurship and innovativeness is highly divided in its conclusions. Entrepreneurs in tourism are often found to start off with scarce business skills, and their innovativeness is mostly limited (Lerner & Haber, 2000; Morrison, Rimmington, & Williams, 1999). Some segments of tourism are easily entered by new businesses, but many entrepreneurs fail, and turbulence challenges both long-term consolidation and improvements based on experience of business models. Lifestyle entrepreneurs, who are often found in the SME-segments of tourism, may be innovative, but mostly on a small-scale (Getz & Petersen, 2005). Ateljjevic and Doorne (2000) conclude that lifestyle entrepreneurs, who base their products on their own explicit values “... are often instrumental in the creation and introduction of innovative products to the wider industry...” (p 378). When assessing the dynamic progression of (successful) entrepreneurs into local areas, it is demonstrated that the amalgamation of local resources together with the brought-in competences in terms of energy, contacts and capital can fill gaps in the value chain and raise commercial momentum to shift the scope of the product or open the media umbrella (Hjalager et al., 2008).

3.2. Technology-push/demand-pull

Coombs, Saviotti, and Walsh (1987), Dosi (1982) and Mowery and Rosenberg (1979) recognise science and technology as driving forces for innovation, but also acknowledge environmental factors such as market changes and political issues as contributors. Not surprisingly, market demand is a main point-de-fix in mainstream tourism research, and is implicitly or explicitly considered the single most important driving force for innovation (Buhalis, 2000; Hall & Williams, 2008). Stamboulis and Skayannis (2003) claim in their study of experience-based tourism that customisation is a crucial element in contemporary innovativeness in tourism. They indicate the importance of “lead users” and first movers among the customers, who show the way for emerging products and services, which will eventually sift down to become commonplace. Inquiries into demographics constitute another familiar way of forecasting or reading tourists’ wants and needs: An ageing population has led to the introduction of a multitude of new health related products. The disconnected lifestyles of Generations X, Z and Y have implications for product construction and image (Weiermair & Mathies, 2004). Increased affluence in emerging markets, such as Asia, together with amplified global production and consumption systems, encourages adaptation and quality augmentation both in enterprises and at tourism destinations (Shaw & Williams, 1994).

Studies are gradually occurring that explain the impact of technology on production processes, services and delivery mechanisms in tourism. With Barras’s (1986) theory of innovations in services as a starting point, Hjalager (1994) explains how when implemented new technology first leads to simple quality and productivity gains “backstage” and is followed by organisational changes, for example escalating the flexibility and changing the composition of staff. Eventually, when enterprises have accommodated the technology and had the chance to explore it, new products or services may be generated vis-à-vis the customer. In accordance with this line of research, Blake et al. (2006)

demonstrate that productivity in tourism enterprises can be improved by introducing new ICT, but that favourable impacts are especially obtained where ICT is combined with other strategic and managerial measures such as competence building and HRM (Human Resource Management). The limited inclination to use technology as a distinct push factor is underpinned by Jacob and Groizard (2007), who document the role of down-sifting technologies in multinational hotel corporations; pioneering units search for and test new technologies, which will eventually benefit the operations of local units. Jacob and Groizard claim that this corporate process of innovation determines the pace of technology dissemination and motivates the occurrence of subsequent innovations considerably, in comparison with independent hotels.

The whole concept of ICT as a driving force for innovation has attracted significant research interest over the past decade, with airlines and travel agencies/tour operators as the first objects of study (Bowden, 2007; Buhalis, 2004). However, ICT seems to generate rapid innovation impacts in broader fields in tourism, and many issues are yet to be explored in greater depth. One example is online auctions, claimed to truly transform the business models, rather than simply transplanting trade to a different medium (Ho, 2008). Another example is the use of iPhones, GPS and other remedies for interpretation and guide services (Liburd, 2005). Museums and other (heritage) attractions are rapidly moving into these areas, and evidence is emerging that ICT can improve understanding, attraction and accessibility for tourists and lead to higher organisational efficiency (Go, Lee, & Rosso, 2003; McLoughlin, Kaminski, & Sodagar, 2007; Nielsen & Liburd, 2008). In practice, social media are gaining importance to such an extent that they are likely to entirely change (destination) marketing practices. The wider impacts of this massive technology push on the business of tourism, destinations and subsequent innovations still has to be investigated (Schegg et al., 2008; Werthner & Klein, 2006).

3.3. Innovation systems

Over the years tourism innovation research has been inspired by achievements in economic geography following from Alfred Marshall's (1920) original concept of industrial districts. Industries are embedded in certain localities, and resource composition in a locality is crucial to the development of individual enterprises as well as the place as such. Marshall highlighted inherited business traditions, specific infrastructures, competences and skills and trade systems as components of an industrial district. He observed that due to social networks and their geographical proximity, novelties are rapidly disseminated and implemented.

Do tourism destinations resemble classical Marshallian districts and are these territorial environments critical for the occurrence and dissemination of innovations? Further, how may such innovations system be created, nurtured and maintained for the benefit of the community and tourists? These questions constitute the essence of a new and still fairly embryonic tourism research agenda. Several publications contribute with conceptualisations and discussions, for example Decelle (2006) and Nordin (2003), who refer to the importance of both "social glue" and "co-opetition" for the success of innovations. Hall and Williams (2008) discuss the application of typologies of regional innovations systems.

In general, there is a lack of comprehensive empirical evidence to document the nature of driving forces in innovation systems. However, human relations and inter-organisational structures are considered particularly important. Svensson, Nordin, and Flagestad (2005) map governance and partnership structures and demonstrate that open, inviting and cross-sectoral collaboration explains part of the success of the Åre Ski Destination as a cluster. Likewise, Hjalager (2009) finds that numerous voluntary organisations constitute

transparent switchboards for the innovation system at the Roskilde Festival. The governance structures and profit (re)distribution mechanisms efficiently suppress any secretiveness which might be counterproductive for the festival's continual development. From the ten case studies in the Nordic countries (Hjalager et al., 2008) it is concluded that the public sector is often a key stakeholder and co-driver in tourism innovations systems, contributing for example strategic capacity, infrastructures, (research based) knowledge, legal frameworks, and skill enhancement facilities.

4. Search processes and knowledge sources for innovation

A primary focus in mainstream innovation research is the identification and measurement of R&D (Research & Development) intensity in enterprises and research bodies (for an overview, see Smith, 2005). Input of resources – money and manpower – are indicators of a committed search activity, and it is assumed that this dedication may eventually lead to the introduction of new products or processes. Another indicator is often the extent of collaboration between commercial enterprises and universities and research laboratories. Both expressions of search processes, however, are found to be less relevant in services and tourism, where tourism enterprises rarely have R&D departments or other dedicated resources for innovation, and there are rarely spin-offs from universities (Drejer, 2004; Flikkema et al., 2007). Christensen (2008) and Sundbo (1997) recognise that service enterprises do innovate, but that search and knowledge acquisition processes take place in a more complex and informal manner. Cooper's (2006) and Shaw and Williams' (2009) reviews of knowledge transfer and management in tourism underline this point and suggest that new approaches are needed to create a better insight. Flikkema et al. (2007) address the difficulties involved and talk about "ad hoc" and emerging innovations, thus indicating that search processes are not always well-planned, and knowledge resources are diffuse. The nature of more subtle search and learning processes prior to innovations are included in some tourism innovation research, as shown below.

4.1. Embedded knowledge

The incorporation of enterprises into business chains and networks are very important prerequisites for knowledge transfer processes in tourism. Knowledge and technology are transferred from head offices to affiliated units together with, and embedded in, capital and managerial capacities and systems. Thus, Jacob and Groizard (2007) demonstrate that there is a runoff of capability from investors in developed countries to hotel industries in developing economies. Go and Pine (1995) discuss how rapid implementation of new practices is facilitated, if appropriate channels are constructed and receptive human capacity is available. Similarly, the swift expansion of fast-food concepts relies on the neat codifying of all relevant knowledge ingredients from franchise-givers, packaged in a way that is easily accessible for proprietors and teams of employees. The real innovative impacts of incorporated knowledge transfer are however, still disputable, and it may be claimed that firm standardisation is hindering rather than enhancing an entrepreneurial and innovative spirit. Thus, Sundbo, Johnston, Mattsson, and Millett (2001) emphasise that two-way communication is crucial, and that hegemony is not likely to succeed over time, even in franchised systems.

Technological equipment of any kind has embedded within it a significant quantity of knowledge, which is unleashed when the technology is implemented in an enterprise. Food technology can change menus or work processes in catering (Rogers, 2007). ICT constitutes a springboard for internal re-engineering (Martin, 2004; Stamboulis & Skayannis, 2003; Yuan et al., 2006). By

purchasing embedded knowledge, enterprises will be able to avoid significant search costs and the related risks (Le et al., 2006). This type of access to knowledge resources and innovations should not be underestimated, and it is sufficient for many categories of tourism enterprises (Evangelista, 2000; Hjalager, 2002).

4.2. Competence and resource-based knowledge

Behara (2000) assumes that significant knowledge is already available in any enterprise and among its participants, but that this is tacit knowledge. In order to influence innovation processes, knowledge has to be captured, made explicit and properly understood, interpreted, restored, adapted into specific innovations and recoded.

Up until now, tourism research has only scraped the surface of these issues, and a proper understanding of how such innovation processes take place is still only fragmentary. Knowledge management is not yet widely regarded as a significant discipline in the tourism business (Cooper, 2006). However, an emerging body of case based literature deals with and advocates use of search processes. For example, Frehse (2005) found the resource-based theory applicable to product development activities in a hotel chain's new wellness facilities, where an intensive internal process led to a concise understanding of how the amenities could meet requirements of non-imitability by competitors, company specificity, and non-substitutability. Hallenga-Brink and Brezet (2005) explain how to facilitate the process with the aim of enhancing environmentally sustainable tourism services.

With reference to the theories of core competences, Pechlaner, Fischer, and Hammann (2005) show that managerial and collaborative elements are essential in harvesting knowledge from internal processes and acquired competences. Similar results are found by Hu et al. (2009) in the hotel industry, where the establishment of knowledge sharing behaviour is a preliminary managerial step. Human resources migrate, and knowledge and innovative capacity may be essential parameters for recruitment on a labour market which is becoming increasingly internationalised (Williams, 2006). This issue is still not sufficiently investigated in tourism.

4.3. Localised knowledge

The pursuit of innovations can rarely be seen exclusively as an internal activity in individual enterprises (Pikkemaat & Weiermair, 2007). The destination as such is a repository of competence and knowledge, and parts of this knowledge are unique and inimitable, and crucial for the development of products and services. Hjalager (2000) and Nordin (2003) discuss tourism clusters from a localised knowledge perspective. The assumption is that the ability to change and adapt is greater in industrial clusters than in communities with more fragmented structures (Guia, Prats, & Comas, 2006). However, knowledge structures may be implanted in local areas. Mattsson et al. (2005) offer examples of successful and very innovative tourism destinations which have developed without prior knowledge structures. The literary town Hay-On-Wye (UK) was established by a visionary individual entrepreneur, whose initial advances were a springboard for others, who have elaborated on the concept with a wide range of events and services. Likewise, Hjalager et al. (2008) describe how the Icelandic whale-watching cluster emerged from an in-sourcing of knowledge derived from the whaling business, biological sciences, heritage protection and traditional tourism knowledge sources.

Other studies also demonstrate that destinations contain decisive cross-sectoral knowledge which is of importance for innovation, while simultaneously claiming the need for institutional structures (formal or informal) in order to enable knowledge dissemination and exploitation process (Bieger & Weinert, 2006).

Such structures often go beyond, or bypass, traditional destination management systems, as shown by Novelli et al. (2006) in the case of a "Health Lifestyle Tourism Cluster" in the UK.

4.4. Research based knowledge

Academic research and research based education are generally considered indispensable for the occurrence of inventions and innovations and for their subsequent commercial exploitation. Public and private funds for universities are therefore part of the official innovation indicators of the OECD and Eurostat (2005). However, most investigation of this relationship shows that, for all business sectors of the economy, the impact of relationships between academia and business on innovation is far below that of other knowledge sources such as relations with customers and suppliers. Or, at best, academic results are disguised, forgotten or lost in transition.

Cooper (2006) suggests that the diffusion of knowledge from academic research to practical application in the tourism industry accounts for less than academics would like to see. The relative insignificance of academic research for innovation is not exclusively found in tourism, but is also similarly reflected in other service sectors (Tether, 2005). Establishing a scientific community that includes research and industry is a continuous challenge, which according to Cooper (2006) includes: ... the recognition of the important role played by tacit knowledge in organisations; the impasse between consultancy and academic research; the difficulty in transfer between the differing cultures of researchers and practitioners; the real barriers of transferring research to operational adopters.... (p. 59).

However, this diffusion is expected to take place through the employment of well-educated staff (Stergiou, Airey, & Riley, 2008), and the knowledge base is not therefore always recognised. This assumption is also contested based upon the fact that tourism has a high staff turnover and a low general educational level.

5. The extent and effects of innovative activities

Some of the essential preconditions for innovation have been outlined above. But in practice, and on balance, how much is tourism innovating? No matter how crucial, there is still no ultimate answer to this question. There is a lack of consistency in definition and measurement of rates of innovation, which could facilitate comparisons across industry sectors and national borders. The sources reviewed below represent the state-of-art, but still offer only fragmented, unconsolidated and partly incomparable documentation of the issue.

The most comprehensive study to date is based on the Australian and New Zealand consolidated national innovation statistic (Hall, 2009). The study shows that accommodation and restaurants are innovative at a quite comparable level with other sectors in these economies. Evangelista (2000), who provides a comprehensive empirical picture of the extent of innovation inclination in Italian services enterprises, demonstrates the significant inter-sectoral differences that partly contradict Hall's findings. In Italy less than 20% of hotels and restaurants innovate, while 31% of services enterprises in general innovate. Innovation costs per employee in hotels and restaurants are also found to be at the very low end compared with almost all other service sectors. Christensen (2008), who works with the European CIS standard for innovation research, confirms Evangelista's unpretentious level of innovativeness in Danish tourism enterprises, but notes somewhat crucially that many firms in the survey simultaneously hold themselves to be quite innovative. In his study Miles (2008) takes stock of HORECA enterprises inclination to launch technological and organisational innovations. In both

respects, HORECA enterprises demonstrate a low degree of innovation compared to most other enterprises in the service sector. Less than 20% undertake technological innovations, and 25% claim to have implemented organisational innovations.

Other studies widen this fairly blurred picture with information about the inclination to innovate by size, subsector, affiliation, networks, geography, national industry structure etc. A major and broadly recognised impediment for tourism innovation is the small size of many enterprises (Jacob & Groizard, 2007; Orfila-Sintes & Mattsson, 2007; Pikkemaat, 2008; Pikkemaat & Peters, 2005; Sundbo, 1997). Vadell and Orfila-Sintes (2008) find that Internet-related innovation in the lodging sector is highly dependent on the size of enterprise, but that lower susceptibility to seasonal factors is also crucial. This is indirectly confirmed by Sundbo et al. (2007), who compare innovativeness in tourism-intensive Spain with Denmark. They (and Orfila-Sintes, Crespi-Cladera, & Martinez-Ros, 2005) also conclude that franchised units innovate less than hotels that are incorporated into or linked together with a chain.

Intermediary travel enterprises tend to be more innovative than other segments of the tourist industry (Weiermair, 2005). For hotels, Pikkemaat and Peters (2005) find that innovativeness is higher in larger destinations than in smaller, and that this also increases with the formal quality standard of the product. Strategic awareness and targeting of particular customer groups also coincides with innovativeness. Enterprises that bundle innovation issues across products and processes perform better (Orfila-Sintes and Mattsson, 2007).

Managerial capacities including product and group management skills and learning culture are crucial for the inclination to innovate (Enz & Siguaw, 2003; Kumar, Kumar, & Grosbois, 2008). Team culture and knowledge sharing is also a facilitating factor (Christensen, 2008; Hu et al., 2009), as is staff training and a consistent HRM-practice (Ottenbacher & Gnoth, 2005). Pikkemaat and Peters (2005) do not uncover convincing indications about the significance of the age and competence of the proprietor. However, Hoelzl, Paechlaner, and Laesser (2005), who deal with “creative imitation” as a special mode of innovation in tourism, point to managerial quality as an important prerequisite. Proprietors who are active in business networks are found to be more innovative than enterprises not collaborating with others (Kokkonen & Touhino, 2007; Pikkemaat, 2008).

A few studies subdivide innovation into categories. Jacob et al. (2003) found that Balearic hotel enterprises mainly launch non-technological innovations that change organisational, delivery and work processes. Technology innovations are mainly ICT-based. Many studies are very specific and descriptive when defining the types of innovations, for example Victorino, Verma, Plaschka, and Dev (2005) who categorize innovations on the basis of guests' needs: innovations in pet services, kitchen facilities, customised rooms, internet access in rooms etc.

The reasons behind the limited inclination to innovate in many tourism enterprises are only marginally and indirectly addressed in tourism research. General studies of services suggest that the perceived cost is very important, but that many service providers do not either believe that customers will be likely to recognise or pay for the improvements. Proprietors also claim that they are too busy to innovate or that they do not have competent staff (Ottenbacher, Shaw, & Lockwood, 2005). Technology is found to pose minor problems, according to proprietors, who do not regard their own management style as a barrier (Tether & Howells, 2007).

6. Implications and impacts of innovations

There is very limited empirical knowledge about the effects of innovation action in tourism enterprises and on tourism destinations.

Some studies are concerned with the consequences on competitiveness, cost profiles and market attractiveness at the individual enterprise level. Hall and Williams (2008) link innovativeness with the propensity to survive as an enterprise.

Victorino et al. (2005) assess the impact of innovation in different categories of North American hotels, and their empirical evidence suggests that innovative enterprises do gain a competitive advantage and a subsequent customer preference. This is a dynamic effect as, in response to technology improvement many service-oriented firms strive to integrate novel features into their product-service offerings. Enterprises that differentiate their product profile are clearly more successful than those who do not, but this effect is enhanced if there is a subsequent human capital development, as shown by Walsh, Enz, and Canina (2008). Cost reductions are not surprisingly obtained when hotels introduce technology service delivery schemes (Buhalis, 1999; Chan, Go, & Pine, 1998), and a rapid pay-off is indeed often a main motivator (González & León, 2001; Siguaw et al., 2000).

In their study of productivity gains, Blake et al. (2006) survey the considered impacts of various types of innovations. They disclose that accommodation and attraction enterprises find marketing, promotional and product innovations particularly important for their businesses, while organisation and management innovations are matters of somewhat less attention as contributors to productivity gains. Attractions have a higher focus on process innovations than accommodation firms.

For many enterprises and groups of enterprises, innovations are not episodic, but rather a continuous and never-ending process. Starting such a process will create snowball effects. Martin (2004) for example demonstrates that an increased creative use of the Internet in hospitality firms gives rise to a range of other benefits for managers and employees. ICT is the reconstructive factor which introduces a new interactive interface between tourism providers and tourists, and it has pervasive effects on the creation, production and consumption of the tourism adventure product, as reported by Stamboulis and Skayannis (2003).

As mentioned above, it is widely recognised that tourism enterprises can seldom be understood entirely as solitary units; tourist's consumption patterns link them together in bundles, either in formal, informal or in de facto structures at the destination or in other environments. It is therefore often claimed in tourism research that inter-firm relations are crucial for the transfer of information and inspiration, and eventually innovations. In recent years, tourism research has increasingly begun to address not only the structures and characteristics in innovation systems and tourism clusters (Guia et al., 2006; Mattsson et al., 2005; Nordin, 2003), but also the wider implications in terms “aggregate” innovativeness. The research provides documentation for the existence of cumulative growth at specific locations where preconditions are particularly favourable, for example as seen in ten distinctive Nordic tourism innovations systems (Hjalager et al., 2008).

Sørensen (2007) has severe reservations about the extent of wider innovative impacts under less extraordinary circumstances than in the cases mentioned above. On a representative data set comprising a larger number of tourism enterprises, he finds relatively weak social networks and a limited inclination to learn from others and become involved in collaboration, both locally and more widely. His research does however support the case based studies by arguing that the contextual issues are very fundamental. Policy documents tend to suggest that collaborative efforts among homogeneous actors at the destination level will advance innovativeness. However, most often leaders and followers are identifiable (Nordin & Svensson, 2007). Control over destination based innovation processes is contested, and a destination may also be seen as a less romantic field of competition, where elimination races and

monopolistic tendencies will prevail, unless governance structures prevent this.

It has frequently been contended that core tourism actors possess limited resources for innovation. However, tourism innovation takes place in more complex supply chains where tourists' needs are captured and addressed – not by tourism enterprises – but by manufacturers of physical artefacts, which will eventually re-emerge in the tourism industry in the form of service innovations. As an example, some cosmetics manufacturers are merging heavily with the wellness industry where they can affect the image and sales of fragrances, skin care products, new age musical records etc (Mair, 2005). Accordingly, spill-over and spill-back effects to the supplying industries occur (OECD, 2006) largely compensating for a lack of innovation capability in tourism and sometimes also vice-versa.

7. Innovation polices

Tourism policy is a key subject in tourism research, and the role of the local, national and over-national governmental bodies is emerging as a field of study. Hall and Williams (2008) embrace the role of the state as coordinators, planners, legislators, regulators, sponsors, stimulators, promoters, and protectors. Hjalager et al. (2008) outline the more inclusive and interactive roles of public agents in innovation systems, for example allying the resources of educational systems with the commercial partners, facilitating trade with intellectual property, acting as “intelligent consumers”, facilitating knowledge spill-overs etc. The scope for policy interventions at the destination level also includes more traditional risk-financing, networking and incubation facilities for upcoming enterprises and projects (Decelle, 2006). The emerging research interest includes direct or indirect, intentional and unintentional impacts of public policies on tourism innovation. However, the literature on tourism innovation policies is mainly conceptual or prescriptive, and there is still only vague evidence of its effects and effectiveness.

In addressing the issue of promoting innovation in tourism, an OECD report emphasizes the need to increase productivity and to reduce the cost squeeze in tourism. Herein Weiermair (2006) encourages policy makers to be careful with subsidies for innovation, due to the risk of considerable opportunism and free-riding. Much of the (so-called) innovation support to tourism is focused on facilitating market access rather than amending industry structures and products at the enterprise or destination level (Keller, 2006a, 2006b).

The strongest emphasis in literature is placed on collaborative and networking polices. Under particular circumstances such measures are regarded by many tourism researchers as the most workable way to pursue a distinctive and productive innovation track at destinations. Quite a few case studies demonstrate that increased, unbiased and open interaction can foster innovations and entrepreneurial initiatives (Pikkemaat & Weiermair, 2007), and efficient technology transfer (Pansiri, 2008). A balance between cooperation and competition is essential for such processes, but so is an accepted and trustworthy leadership, no matter whether this leadership is borne from below or top-managed as part of a policy strategy (Flagestad, 2006; Hjalager et al., 2008). Based on the conclusion that many SMEs are disfavoured, it is suggested that innovation policies should be targeted towards the needs of these enterprises in particular (Vadell & Orfila-Sintes, 2008). However, as Pechlaner et al. (2005) recognise, modifications have to be made in terms of collaboration as a policy measure; free-riding is extensive in tourism, and the cost of collaboration is often considered too high by SMEs. Much of the tourism research restricts itself to identification of new – but still untested – models for collaboration. However, collaborative exercises are often very difficult and need to be addressed in a long-term perspective (Novelli et al., 2006), and

the research suggests that a change of models may be needed in the future.

It is argued by DTI (2007) that innovation policies for services may turn out to be more efficient, if consistently embedded in regulative environments. The role of the Scandinavian welfare state and its intensive involvement in the provision of leisure and cultural facilities has a clear spill-over effect for tourism, which is provided not only with “free” resources, but also with encouragement to develop complementary products (Hjalager, 2005b). As a territorial manager, the state is a powerful co-producer of tourism facilities at the destinations (Keller, 2006b). Liburd (2005) and Stamboulis and Skayannis (2003) suggest that public and regulatory capabilities may be put to use in the creation of “cyberspaces” and thus contribute to the dynamism in terms of employing and harvesting the benefits of ICT.

The literature provides a number of examples of how regulations intentionally, or unintentionally, result in innovations. Graham et al. (2008) explain how the occurrence of budget airlines changed the travel product dramatically, and how this development coincided with deregulation in the aviation sector. Regulations in the field of health and safety, for example, can enforce innovations that would not have taken place under other circumstances. Eventually, following elimination of the less adaptive suppliers, this may lead to enforcement of safety standards and an altogether better and more competitive product in ferry transport and cruising ships, as suggested by Laws and Prideaux (2006). As Peeters et al. (2006) demonstrate, regulation is a never ceasing factor and more is awaited in response to climate changes. The positive prospect is that new travel products will substitute air travel and/or radically improve energy efficiency in existing transportation forms. According to Hall et al. (2008) and Hjalager (1997) climate policies may be the future catapults for significant innovations in tourism. This is supported by Saarinen and Tervo (2006), who found that adaptation strategies in the industry are modest without such targeted political and regulatory measures.

Hall and Williams (2008) demonstrate that policy evaluations may be a way to provide a better understanding of the role of public support to innovation processes in tourism. Taken from the examples given by Hall and Williams, it becomes very questionable whether a special innovation policy for tourism is recommendable at all, or whether tourism, in order to achieve more comprehensive effects, may benefit more from being integrated into general national innovation policy frameworks.

8. Research gaps

Innovation research in tourism is a young phenomenon. Issues are only gradually being elaborated in theory and illuminated by empirical evidence. This review demonstrates that we are barely at the beginning of this path and that many tracks may be pursued towards a consolidated knowledge about the phenomenon. Which tracks should be followed?

Basically, tourism innovation research may follow a **converging** or a **diverging** line. The converging approach acknowledges that, over the past decades, a comprehensive and many-faceted research tradition in the field of industrial innovation has been built up, but tourism is not yet well represented in this mainstream trajectory. Learning from and even duplicating research hypotheses and methodologies will provide advantages in terms of comparability, which will give deeper value to the tourism studies as well as the general innovation research. A converging approach may also help to create a greater visibility for tourism in innovation policies and eventually generate a position for the tourism researchers in mainstream innovation academia. On the other hand, the divergent track celebrates the opinion that tourism is a phenomenon, rather

than an industry. Tourism is different from manufacturing and many other services, and the investigation of innovation must be based partly or fully upon other research angles and instruments. In order to support these investigations new methodologies must be developed, and tourism innovation research must reach out in a cross-disciplinary manner and include inquiries not yet strongly represented in mainstream innovation research such as anthropology, social and cultural studies.

The consolidation of innovation in the **quantitative or qualitative** tradition is also debateable. Until now tourism innovation has mainly been examined in a piecemeal case-by-case manner. Hall and Williams (2009) and Hall (2009) find that there is an obvious quest for better empirical evidence about innovation in tourism, and that quantification is essential. The tourism industry should be comparably represented in comprehensive survey programs and barometers, such as the European Community Innovation Surveys (CIS), where firms are asked about various aspects of their innovative activities, including inquiries about the extent to which they have introduced new or significantly changed products or processes (Smith, 2005). Other quantified approaches are probably equally necessary to accommodate the special issues in tourism, including measurement of newness based on tourists' assessments and values (Volo, 2005). An Austrian research team is currently working on the development of a comprehensive model that allows investigations of innovativeness, both at the enterprise and the destination level (Pikkemaat & Walder, 2006), and which when tested in an Austrian context others might adopt and enhance. The value of hard data untold, qualitative approaches are also indispensable in tourism innovation research. It will hardly be possible to grasp the richness of for example local or regional innovations systems without a considerable degree of emic insight. Case studies are deemed important in innovation research, as they contribute at various stages of the research process with insights and explanatory value that cannot be produced with quantitative data alone.

Accordingly, there is a strong plea that tourism innovation is addressed in multiple ways and with several methodological approaches. At a more detailed level, many specific and central innovation themes have received patchy coverage thus far:

8.1. Innovation processes

There is an incomplete understanding of how innovation processes take place in tourism enterprises and organisations, including what types of capacities and incentives they draw on. While it is recognised that much innovation is incremental and adaptive, managerial awareness and strategies may still be required (Faché, 2000). Consumer driven innovation, and the inclusion of consumers in innovation processes, is a current topic (Von Hippel, 2005) that deserves attention throughout the service sector, and which is highly applicable in tourism where consumer–producer interaction is closer than for many other types of enterprises.

8.2. Driving forces

Innovations are often a response to major external development trends. Presently, climate change (Peeters et al., 2006) and the economic crisis are most commonly referred to as major obstacles to continuous growth in the industry. Trends like these may be assessed as devastating in the short term but they may also contain the impulses for product and process innovation and institutional changes that are crucial for a regained competitive power in a new economic prosperity cycle. In this way, economic and political turmoil is a perfect laboratory for the study of emerging innovations in a competitive elimination race.

8.3. Barriers to tourism innovation

As shown above, massive structural and behavioural factors hinder innovation in tourism, and there is already solid evidence that SME's may demonstrate an inclination to free-ride and be late and safe adopters. Overcoming barriers requires new knowledge about, for example, intellectual property rights and imitation and diffusion patterns. In addition there is a plea for a more balanced focus on pros and cons of regulation as obstacles or incentives to innovation.

8.4. Innovation and economic performance

Some of the studies referred to above suggest a positive correlation between the inclination to innovate, on the one hand, and business success on the other hand. However, evaluations of impact are far from exhaustive. What types of innovation produce what type of results, and in which categories of enterprises? The same questions can be asked for destinations or nations, where the answers to these questions are even more neglected.

8.5. Technological innovations

Presently, ICT represents a key spur for tourism innovation, and inquiries into emerging product and delivery methods are hardly complete. However, technology comes in many forms, and it affects a great variety of production conditions. Services are being included into manufactured products and vice-versa, and this intermingling in reciprocal relations is highly relevant as an analytical approach for tourism, but has not yet been cultivated to any great extent.

8.6. Diffusion of innovation

Tourism innovations are increasingly global in nature. They travel well, are easy to imitate, systemise and export. Diffusion channels are therefore crucial, and so is a better enquiry into the spatial and social implications. In other words: which are the winning and losing regions and countries in this diffusion process? What are effects for social equality, employment and welfare?

8.7. The role of entrepreneurship

The traditional Schumperian approach to innovation stresses the role of the visionary entrepreneur (Sundbo et al., 2007). There is a challenge in adopting this approach in tourism, bearing in mind that SMEs are widespread and that firm entry (and closure) is very rapid. What motivates entrepreneurial innovators, what knowledge do they bring with them, and what strategies do they apply to fulfil their ambitions? The fostering of entrepreneurship in tourism innovation systems is another neglected approach on the research agenda.

8.8. Policy studies and evaluations

The issues of innovation policy have not been given the priority that they deserve in tourism research. The nature of innovations in public tourism service provision, in destination management and governance, in cultural institution etc. belongs to this list of items. Policy evaluation studies are a possible short cut to information about the effects and efficiency of various specific interventions. There is a need to address the formats of innovation policies that will appeal to those categories of enterprises that policy makers would like to target (for example SMEs). A spatial approach is also

crucial, for example how policies successfully affect the dynamics of industry clusters and innovation systems.

8.9. Academia and innovation

The studies point towards skills deficits as barriers to innovation in tourism. There is a need to re-emphasise issues concerning the production and diffusion of academic knowledge into the business community and the role of education as a means to do so. Universities are obliged to redefine their role in the knowledge acquisition process vis à vis enterprises and regions. They could feasibly launch a mediating and catalysing role in the innovation process, and this interaction is a research subject in its own right. The new media can change the nature of this interaction, and proactive universities are likely to gain an advanced insight into new modes of diffusion for research based knowledge.

8.10. Developing tourism innovation theories

The topics and areas of research mentioned above are crucial, but mainly empirical and applied. Taking advantage of, and placing, tourism innovation into existing theoretical frameworks is clearly to be recommended. The particularities of tourism – for example the spatial bonds to specific destinations – may be a platform for the construction of new empirically grounded theories that take into consideration the distinctive features of tourism, and compare it with other sectors of the economy that have received the attention of the world's best innovation researchers for so long.

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