

Presentation

This work has its roots in a place marketing research project that I developed in the late '90s. In the wake of some seminal works by international research (mainly, Kotler, Haider and Rein 1993), that period saw increased interest in applying strategic marketing principles to socio-economic entities other than firms. In Italy, in particular, there was increased conviction that public bodies and institutions should be governed according to the criteria of efficiency, effectiveness, and profitability that characterize corporate management. Public opinion considered the introduction of a managerial approach based on privatization necessary to end the waste of public funds and the financial deficits that had characterized many public institutions. However, after twenty years of liberal policy, that conviction proved to be flawed, at least with regard to the replacing the traditional public governance logic with a market-oriented one, in the aim of achieving equity and income redistribution among citizens. In fact, it is increasingly obvious, even to the strongest supporters of capitalism that, by themselves, business principles such as profit maximization and market expediency cannot be the only solution to communities' problems, as they inevitably increase wealth concentration and social disparities.

Of that period, the lesson that remains is that a new method of managing public affairs is needed, one that is inspired by approaches that consider sustainable development as the main goal that public authorities should pursue when they manage public goods, institutions, and territories. *Sustainable development* is not only economic growth, which may involve substantial public costs in terms of pollution, environmental degradation, and resource depletion, but also social, economic, and environmental progress which ensures opportunities, wellbeing, and adequate quality of life to present and future generations. A strategic approach to place marketing, such as the one

embraced in this book, aims to achieve this complex goal, rather than mere economic growth.

In 1999, I was part of a research group that published the first Italian textbook on place marketing (Caroli, Boccardelli, Guido and Paniccia, 1999), which soon reached its seventh edition. It laid the theoretical foundations that I developed into a strategic place marketing model (Guido 2000), designed to guide territorial planning policies and increase sustainable development. This model soon will be the object of another volume based on a larger theoretical and empirical research on place marketing and territorial planning that Giovanni Pino and I have conducted over the last fifteen years. This research expands the model into a multi-stage, strategic approach and implements it in practice.

In the present work, Giovanni Pino proposes an alternative conceptualization and application of part of the afore-mentioned model, which is essential to developing viable place marketing strategies for place marketing's "units of analysis", that is the *Local Territorial Systems* (LTSs), which are places that have homogeneous economic, social, and spatial characteristics, and a mainly relational, rather than geographical, connotation. Following other works dealing with complementary aspects of strategic place marketing planning (e.g., Guido, Rizzo, Prete, Cazzarò and Pino, 2016; Pino and Guido, 2016; Pino, Guido and Peluso, 2015; Pino, Guido and Prete, 2014), Giovanni Pino examines the strategic capabilities of four LTSs in the province of Lecce (Italy), focusing on their competitive capacity, customers, technological endowment, and intrinsic potential. For each unit of analysis (i.e., LTS), he offers indications about the most appropriate ways to combine the available resources and capabilities to valorize its production orientation (or "vocation"). By analyzing these internal factors together with some external factors regarding the attractiveness of the broader macro-economic environment (the so-called "competitive ambit") in which the LTSs compete, the proposed approach enables defining a global territorial offering of products and services potentially able to support sustainable development while satisfying the needs of each LTS's main user categories – i.e., residents, tourists, firms, and export markets.

From a broader point of view, this book offers LTSs guidance for designing planning strategies aimed to achieve specific competitive advantages. Such strategies would enable LTSs to successfully

compete in their environment, managing their available resources dynamically, thus making themselves attractive and able to create wealth for all people.

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Acknowledgements

This book is part of a broader research project that I am developing with Professor Gianluigi Guido of the University of Salento. Our goal is to create and empirically implement a place marketing model to support local development. To this end, Professor Guido conceived a multi-layered theoretical framework that place marketing specialists could use to increase the development of regional and local areas. Year after year, we have discussed, formalized, and revised the pillars of this project and have tested it in small geographical areas to gain an insight into its theoretical and practical value.

This work illustrates a crucial part of our project. It revolves around key concepts in the strategic management literature – i.e., *competitive capacity, customers, technology, strengths/weaknesses* and *opportunities/threats* – that, from a place marketing perspective, identify relevant socio-economic and spatial factors able to trigger and sustain local development processes. Such a strategic approach is novel in the place marketing literature, as previous studies in this field have mainly focused on branding strategies (e.g., Anholt 2007, 2010; Ashworth and Kavaratzis 2010; Govers and Go 2009; Kavaratzis 2009) and have rarely adopted structured analytical approaches to investigate factors that may enable vs. inhibit territorial development. However, place marketing does not only aim to create favorable place images; it is an emerging and multi-faceted discipline that incorporates theoretical advancements in different research areas: from regional development theory to strategic marketing, consumption behavior, and innovation theory (Nyedomisl and Jonasson 2012). In line with this reasoning, this book adopts a twofold perspective and proposes an analytical model that examines the above mentioned factors of local development from a strategic marketing perspective as well as the perspective of a place's users – i.e., its residents, tourists, institutions, local and external firms.

Implementing this model was a demanding, challenging task. The model focuses on aggregations of municipalities (local territorial systems), whereas socio-economic and spatial data are often aggregated at the regional level. Thus, in many cases, I needed to make specific requests to extract municipal data from local, regional, and national statistical archives. During the data collection phase, I had the opportunity to interact with several people and I am grateful to all of them for their time and support. In particular, I would like to express my gratitude to Vittorio Savina at the Lecce Chamber of Commerce and Claudio Caprioli at the Apulian Tourist Agency, who patiently provided data about firms, employees, and tourist flows in the province of Lecce. I am also grateful to the IPRES (Istituto Pugliese per le Ricerche Economiche e Sociali) Research Institute, the UIBM (Ufficio Italiano Brevetti e Marchi) Italian Office for Patents and Trademarks, the Apulian office of the ISTAT-Italian National Statistical Institute, the statistical office of the Province of Lecce, and the FCRP (Fondazione Cassa di Risparmio di Puglia) Foundation for its financial support. Last, but not least, I am thankful to Prof. Alessandro M. Peluso, of the University of Salento, who provided invaluable suggestions regarding methodological issues and data analysis.

Finally, I would like to emphasize that, of course, this book, does not aim to propose a general solution to the complex issue of local development. Instead, it principally aims to highlight the importance of examining in depth and comprehending local socio-economic dynamics as this is an indispensable step toward making sensible choices that, in the near or distant future, could benefit local communities and their places.

Introduction

Socio-economic differences among regional and local areas represent a relevant threat to the development of national and trans-national economic systems (Fratesi 2010; González 2010). In addition to weakening the production structure of such systems, these differences may also activate vicious circles capable of relegating less developed areas to a marginal position in the national and international economic scene (Camagni and Capello 2015; Doran and Jordan 2013). In Italy's case, recent data indicate that such disparities persist and may increase in the near future (Calignano and Quarta 2015; Servillo and Lingua 2013; Torrìsi *et al.* 2015). For instance, in 2011, the annual per-capita income in southern regions was more than 25% lower than the national average (Istat 2013a) and the employment rate in those regions was ten percentage points lower than in the northern regions (Bank of Italy 2012). Furthermore, in 2014, the incidence of poverty in southern regions (8.6%) was double than that in the northern ones (4.2%, Istat 2015).

To cope with this problem, national governments and international institutions, including the European Union and the Organization for Economic Co-operation and Development (OECD), have recently introduced initiatives to contain such imbalances and foster internal cohesion. Regional and local authorities have also deployed initiatives to increase the involvement of local players in the governance of local territories (Accetturo and De Blasio 2012). However, despite the adoption of this bottom-up approach, these initiatives have achieved unsatisfactory results in terms of local development. A major cause of this failure has been the lack of a strategic vision able to guide institutional decisions and create consensus around territorial development plans (Viesti 2011). Related to this problem is the lack of strategic approaches which, based on the assessment of the socio-economic and environmental dynamics of local areas, identify development goals and develop appropriate strategies to achieve them

(Healey 2010). This drawback has reduced the effectiveness of *place marketing* initiatives (Kotler, Haider and Rein 2002), which have often been confused with mere promotional tactics, instead of being considered as medium- or long-term strategies for local development (Gilodi 2004; Govers 2013; Turvey 2006). Place marketing is, in fact, a planning procedure whose goal is to satisfy people's needs and meet their expectations (Kotler et al., 1999)

In light of this situation, this book presents a strategic place marketing approach (cf. Guido 2000, 2013) aimed at guiding the formulation of local development policies and applies such an approach to a relatively underdeveloped province in southern Italy, in the Apulia region. This approach focuses on an appropriate unit of analysis, referred to as *Local Territorial System, LTS* (Guido 2000, 2007, 2013; see also Governa and Salone 2004), and aims to identify the strategies most suitable to fostering its development. An LTS is a group of municipalities that have common socio-economic and spatial features and that are not necessarily located in a contiguous space. LTSs transcend geographical and administrative boundaries and are characterized by a prevalent production orientation, here termed "vocation". Depending on their tangible and intangible resources and competences, LTSs may be stereotypically characterized by either a prevalent industrial vocation or a prevalent tourist vocation (Golfetto 1996). In particular, LTSs endowed with labor pools and other resources that favor manufacturing activities have a *prevalent industrial vocation*; whereas, LTSs rich in natural resources and able to attract tourists have a *prevalent tourist vocation*. By taking into account the prevalent vocation, this approach assesses the LTSs' strategic potentialities and, through diverse layers of analysis, aims to draw indications useful to formulating effective local development strategies.

The research presented in this book applies the afore-mentioned strategic place marketing approach to the four LTSs in the Province of Lecce (see Figure 1). These LTSs were identified by a previous study (Guido 2007) that applied a hierarchical cluster analysis¹ to hundreds

¹A hierarchical cluster analysis is a statistical technique that groups data based on their similarities and identifies groups of data (cluster) maximally homogeneous in their internal structure and maximally heterogeneous with each other (Everitt 1993; Hair, Anderson and Tatham 1987).

of spatial, economic, and social data relative to the 97 municipalities in the province. Such an analysis identified: the *Capital* LTS, corresponding to the province's capital city; the *Coastal* LTS, grouping 10 municipalities located in the province's coastal areas; the *Inland* LTS, grouping 56 municipalities located in the province's interior; the *Western* LTS, grouping 30 municipalities located near the province's western coast. The latter two LTSs are the province's largest, but only the Western LTS has a concentration of inhabitants comparable to that of the Capital LTS (Table 1). The annual income of people living in the latter LTS is significantly higher than that of people living in the other LTSs. By applying a Principal Component Analysis (PCA)² to the same data used to identify these four territorial systems, the study mentioned above also established that: the Capital and Western LTSs have a prevalent industrial vocation; the Coastal LTS has a prevalent tourist vocation; the Inland LTS does not have a clear prevalent vocation.

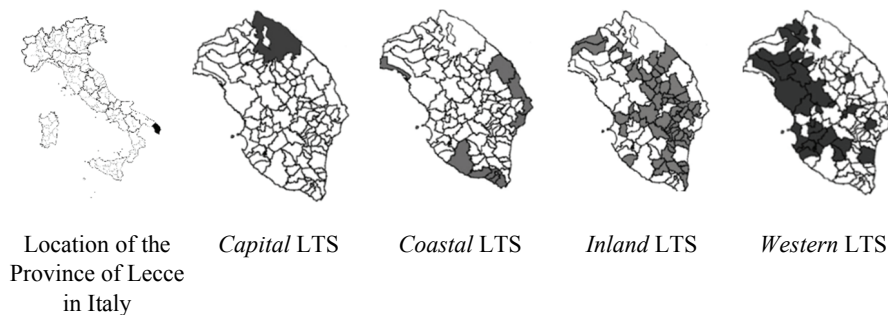


Figure 1 – *The Province of Lecce and its four LTSs*

Source: Authors' own elaboration.

²A principal component analysis is a statistical technique used to analyze relationships among data. It synthesizes an initial set of variables by identifying linear combinations (or "components") of said variables (Dillon and Goldstein, 1984; Jolliffe 2002).

Table 1 – *Basic characteristics and prevalent vocations of the studied LTSs*

LTS	Land area (Km ²)	Number of towns/cities	Inhabitants per Km ²	Annual per capita income	Prevalent vocation
<i>Capital</i>	238.390	1	400.687	11,517	Industrial
<i>Coastal</i>	406.470	10	133.350	5,821	Tourist
<i>Inland</i>	1,075.530	56	236.081	5,871	None
<i>Western</i>	1,039.160	30	396.481	6,150	Industrial

Source: Author's elaboration of data provided by the Statistical office of the Province of Lecce (2012).

The strategic place marketing approach presented in this book hereafter – “strategic analysis” – focuses on four main dimensions relevant to the formulation of strategies aimed to support LTSs' development, namely:

- a) *Customers*, namely, the individuals and organizations, or “users”, in general, of the products/services produced in the LTS;
- b) *Competitive capacity*, which is the LTS's ability to satisfy users' needs at least with the same efficacy and efficiency of competing LTSs;
- c) *Technological endowment*, which is the LTSs' set of material resources, technical competences, and knowledge applicable to production processes;
- d) *Intrinsic potential*, which regards the LTSs' inherent strengths and weaknesses assessed in relation to the opportunities and threats arising from the external macro-economic and social environment.

By focusing on these dimensions, the present work aims to provide information useful to formulating policy suggestions potentially able to foster local development in the LTSs in the Province of Lecce.

The book is organized as follows: the first chapter illustrates the theoretical foundations of the strategic analysis, its goal, and its articulation. The second chapter illustrates the methodology adopted to apply this analysis to the studied LTSs. The third chapter presents and discusses the results of the strategic analysis. Finally, the fourth chapter draws conclusions from the research in terms of strategic suggestions for local policy-makers, thus providing them with guidance for formulating strategies able to foster development in the examined territorial systems.

Strategic analysis of an LTS: Theoretical foundations

1.1. Introduction

The Strategic analysis endeavors to assess a set of spatial and socio-economic features that may affect the development of a Local Territorial System (LTS) (Guido 2000; 2007). Such an analysis examines the internal potentialities of an LTS as well as its relationships with the external environment. This analysis is a relevant step in formulating strategies to foster local development. According to Guido (2000), the strategic analysis is based on four main pillars, each of which considers a strategic dimension relevant to an LTS's development. In particular, these dimensions concern an LTS's competitive capacity, its users (or "customers"), technological resources, and intrinsic development potentialities (Table 1.1). When examined together, these dimensions identify a number of variables of importance in formulating local development policies. Each of the following sections focuses on a specific strategic dimension.

1.2. An LTS's competitive capacity

The business literature defines competitive capacity as a firm's ability to successfully deal with changing market dynamics and adapt to the evolution of the economic environment (Littlefield 2004; Minguzzi and Passaro 2001). For private or public bodies, competitive capacity refers to their ability to meet users' needs in a more effective and efficient way than competitors do. Competitive organizations are capable of producing superior quality products and services and

Table 1.1. – *The four pillars of the strategic analysis of an LTS*

<i>Competitive capacity</i>	<i>Customers</i>	<i>Technology</i>	<i>Intrinsic potential</i>
Factors of competitive capacity: – Production of strategic services – Embeddedness in strategic networks – Decisional efficiency	Identification of target market segments: – Residents – Visitors – Local firms – Export markets	Structure of the technological endowment: – Technological competences – Technologies' potential for commercial applications – Classification of the available technologies	– Strengths – Weaknesses – Opportunities – Threats
Comparative assessment: – Competitiveness of the LTS's production structure – Identification of competing LTSs – Risk of marginalization	Control over market segments: – Awareness of customers' decisional criteria – Customer classification – Relative control of customer segments – Identification of key customer segments	Development potential of the technological endowment: – Comparative assessment of the technological endowment – Technology policies – R&D policies	

Source: Adapted from Guido (2000).

delivering them in an effective and efficient way (Dongli, Dong and Wncheng 2010). Such capacity lies in a series of technical, organizational, creative, and managerial capabilities that allow these organizations to design and implement a valuable offering and update it through new knowledge and skills.

For businesses, competitive capacity also represents the ability to attain a situation of competitive advantage and gain higher profits than those of competitors (Barney 1991). Whereas, for LTSs, competitive capacity regards their ability to gain advantage from a favorable competitive positioning with respect to other LTSs and to attract

external resources, capital, competences (cf. Budd and Hirmis 2004; Huggins 2003; Kitson, Martin and Tyler 2004; Napolitano, 2000). Indeed, competitive LTSs host more production activities than uncompetitive ones and, depending on their economic vocation, attract either the interest of investors and entrepreneurs (when the LTS has an industrial vocation), or that of companies and other organizations in the tourism sector (when the LTS has a tourist vocation). Industrial-oriented LTSs compete to attract business executives, public funds, or production plants. Tourism-oriented LTSs aim to attract tourists through their endowment of natural and cultural beauties, amenities, hallmark events, etc. (Russo and Smith 2012; Servillo, Atkinson and Russo 2011).

Castellet and D'Acunto (2006) underscored that, in place marketing literature, the notion of competitive capacity has a different meaning and characteristics than it has in business literature. In particular, for companies, changing their strategic orientations to react (or anticipate) competitors' moves could be relatively easier than LTSs. Changes in local development strategies are generally significantly constrained by the inner characteristics and resource endowment of an LTS and the interplay of different users' goals and expectations. Hence, the afore-mentioned authors argue that strategies aimed at fostering companies' competitive capacity are formulated by taking into account changes occurring in the competitive environment, whereas the strategies directed at increasing an LTS's competitive capacity are essentially designed on the basis of their intrinsic features, and the dynamics of the external environment determine their effectiveness.

1.2.1. *Assessing LTSs' competitive capacity*

An LTS's competitive capacity stems from several factors (Guido 2000): first, local institutions, public authorities, and private companies should be able to provide *strategic services* to their communities as well as customers settled in other LTSs (Son 2007). These services may range from funding research projects to technology transfer initiatives or supply chain integration services. Their production is generally grounded on the availability of peculiar competences in the technological or managerial field. These services favor the development of an environment conducive to innovation and activate the self-enhancing processes at the basis of economic development. Second, an LTS should be embedded in *strategic networks*, that is relevant

transport, logistic, or telecommunication networks (Andrésen, Lundberg and Roxenhall 2010; De Maggio, Gloor and Passiante 2009). These networks allow local operators to access tangible and intangible resources that may have strategic relevance for local development (from production components to competences, information, etc.) and establish cooperative relations with external organizations (financial institutions, research centers, etc.). Thus, such networks may help operators achieve competitive positioning in the macroeconomic environment and facilitate local development. Third, it is important to assess an LTS's *decisional efficiency* (Grandori 1997), i.e., its ability to assume strategically relevant decisions in an efficient way. In other words, the firms, public authorities, and other relevant organizations of the LTS should be able to devise the most suitable strategies to ensure prosperity for the local community and stand up to competing territorial systems (Dudensing and Barkley 2010).

Assessing LTSs' competitive capacity also involves performing a comparative analysis aimed at (Guido 2000):

- a) determining the level of competitiveness of an LTS's production structure;
- b) identifying competing LTSs that may hinder the achievement of development goals (for example, by subtracting resources or customers); and
- c) evaluating the likelihood that economic downturns or other phenomena (e.g., increase in international competition, natural calamities, etc.) will lead economic operators to progressively abandon the LTS and transfer their activities to other territorial systems (so-called "risk of marginalization").

The first point is aimed at determining the extent to which an LTS is endowed with infrastructures and competences that allow for the production of goods and services valued by the market (Cuadrado-Roura and Maroto Sánchez 2010). In other words, it is directed at assessing the extent to which an LTS is characterized by an established and productive economic fabric. Indeed, productivity – the value of the goods and services produced by utilizing the production factors available in an LTS – is a peculiar facet of competitive capacity (Méndez and Sánchez Moral 2011). By its very nature, productivity refers to the amount of output generated by each input unit (i.e., each unit of a production factor) and is enhanced by the concentration of technical knowledge, business services, and/or labor pools in a certain

LTS (Di Giacinto and Nuzzo 2006). This condition, which determines the so-called “agglomeration effect” (Krugman 1991), permits reduced production costs, contains the risks associated with the development of new technologies, and favors the diffusion of cross-fertilization processes among production sectors, which is a relevant precondition for innovation development (Frenkel and Shefer 1996).

The second point refers to identifying territories that, due to their economic vocation and inherent characteristics, may compete with a certain LTS to attract the same resources or customer segments (Russo and Smith 2012). Such an assessment is generally performed in the form of a benchmarking process and allows us to understand the extent to which an LTS’s offer is unique compared to that of competitors. Importantly, such an assessment should not only aim to identify an LTS’s actual competitors, but also territorial systems that, in the future, may threaten an LTS’s sustainable development.

Finally, the third point involves evaluating the LTS’s actual and prospective capacity to ensure adequate employment opportunities for its population, enable firms to profit in the long term, and upgrade the available competences through a continuous learning process (Huggins and Strakova 2012). When this condition is satisfied, an LTS is able to attract and retain human capital and material resources, partake in strategic networks, acquire new competences and, hence, prosper. In contrast, an LTS that is not able to renew its production structure, attract talents, and adequately react to the evolution of the external environment may lose resources and development opportunities. Such an LTS could be confined to a marginal position in the national and international economy (Doran and Jordan 2013). In this respect, the analysis of competitive capacity may yield relevant information about the extent to which an LTS is able (or not) to deal with these risks. Such an analysis identifies factors that limit these territorial systems’ capacity to maintain competitive positioning with respect to other LTSs, and hence may guide the formulation of effective local development strategies.

1.3. “Customers” of an LTS

Identifying an LTS’s user categories, the goods and services users’ needs, and what motivates them to purchase such goods and services

is a basic precondition for the production and delivery of a valuable territorial offering (Zenker 2009). This offering includes the variety of goods and services that private or public organizations settled in an LTS produce and deliver to their customers (Braun and Zenker 2010). These goods and services may be either private or public; the former category includes goods that are generally used by a single individual or organization (e.g., food, clothes, private insurances, logistic services, etc.), whereas the latter category includes goods and services that are simultaneously shared by several individuals and organizations (e.g., urban parks, sewage services, public transport, etc.). While an LTS's offering is basically produced by individuals and organizations located in such a territory, its demand is represented by the set of goods and services requested by individuals and organizations that may be located in the LTS as well as in other places (Zenker and Beckmann 2012)

From a strategic marketing perspective, satisfying users' needs involves recognizing an LTS's target market segments and assessing the level of control that the firms, authorities and associations located in this territorial system are able to exert on each of these segments (cf. Guido 2000). Consequently, it can be argued that the analysis of an LTS's customers is a two-step process that involves: 1) identifying the LTS's target market segments, that is customer segments that private and public organizations operating in the LTS may want to attract and retain in the LTS; and 2) assessing the level of control that the LTS's private and public organizations exert on each segment, that is, the extent to which these organizations are able to foresee and accomplish each customer segment's needs.

1.3.1. *Identifying target market segments*

In broad terms, target market segments could be classified either as internal customers, i.e., people who live and work in the LTS as well as organizations and companies located in this territorial unit, or as external customers, i.e., people who normally live outside the LTS and visit it for hedonic or utilitarian reasons, and organizations settled in other territorial systems (Stănciulescu 2004).

Another broad classification, proposed by Kotler, Haider and Rein (2002), distinguishes four main customer segments: *residents*, *visitors*, *local firms*, and *export markets* (see also Zenker 2009). The first

category includes people (“inhabitants”) who already live and work in a certain LTS as well as new residents, who recently moved to that LTS. The second category includes tourists (i.e., people who visit an LTS for leisure purposes) and people who temporarily visit a certain LTS for other reasons (e.g., to conclude a business transaction, meet business partners, etc.). The third category includes resident firms, that is, entrepreneurs and/or companies that conduct their activity in the LTS. Finally, the fourth category includes customers and firms located outside the LTS.

1.3.2. Control exerted over market segments

The analysis of the level of control LTSs exert on their market segments can be disentangled in four phases (cf. Guido 2000). First, local firms and institutions should understand the *criteria* at the basis of each market segment’s decisions to use the LTS’s goods/services. This involves assessing the needs of the different customer segments and the relative importance of such needs. Such an analysis establishes the extent to which the institutions and companies of a certain LTS are aware of the necessities of the different segments.

Second, the same segments may be analyzed in light of the principles of customer life-cycle theory (Pinchuk 2009), which postulates that, depending on the type of relationship customers have with a certain company, they can be classified as:

- a) *declining customers*, i.e., customers who intend to abandon a certain LTS and live or transfer their activities to other LTSs;
- b) *habitual customers*, i.e., customers who, for several years, live and work in a certain LTS;
- c) *new customers*, i.e., customers who have recently moved into a certain LTS (for example, new residents, tourists who visit a certain LTS for the first time, etc.); and
- d) *potential (prospective) customers*, i.e., customers who may move into a certain LTS or transfer their activities into an LTS.

Third, it is important to determine the level of control an LTS is able to simultaneously exert on the different categories of customers in comparison to competing LTSs, and hence the so-called *competitive pressure* relative to different market segments (Furrer, Tjemkes and Henseler 2012). To this end, it is necessary to assess: 1) the share of

each segment's demand for goods/services addressed to an LTS; 2) the growth rate of each segment's demand; 3) the global amount of goods and services requested by each segment; and 4) the level of control the LTS and its competitors exert on each segment.

Finally, the fourth step of this analysis involves understanding who the *key customers* of the LTS are, generally through a portfolio customer analysis (cf. Ryals and Rogers 2007). This analysis compares the level of importance of different customer segments by simultaneously considering:

- a) the market share relative to each segment *controlled* by an LTS, which indicates the extent to which an LTS is capable of satisfying the demand of each segment;
- b) the growth rate of the market relative to each customer segment; and
- c) the contribution of each customer segment to the development of the LTS.

Specifically, for the market segments of residents, tourists, and export markets, the latter variable can be measured by referring to the amount of goods/services requested by the same segments. Whereas, for the segment of local firms that variable can be measured by considering the amount of goods/services that such firms produce. Both the analysis of competitive pressure and the customer portfolio analysis can be conducted in the form of a matrix analysis and shed further light on the characteristics of the LTS's target market segments.

1.3.3. *Strategic approaches to satisfy customers' needs*

The outcomes of the analyses introduced above orientate the strategies local actors adopt to satisfy different customer segments' needs. In this respect, Ashworth and Voogd (1990) suggested that local actors may opt for a concentrated, a differentiated, or an undifferentiated strategy. A *concentrated* strategy focuses on a specific market segment and may be particularly effective in boosting the development of an LTS, at least in the medium term. However, economic shocks, an increase in the level of competitiveness, or unexpected changes in customers' preferences may weaken the efficacy of such a strategy.

Differentiated strategy involves identifying a number of target market segments and deploying suitable actions to satisfy their needs. Such a strategy typically involves higher costs than the other strategic options, as production and distribution processes as well as communication campaigns should be tailored to the expectations and needs of the selected target segments. In contrast, this strategy's major advantage is the possibility of developing an articulated territorial offering and customer base and reducing the negative effects derived from unpredictable market changes.

The third strategic option, *undifferentiated* strategy, regards adopting the same market approach with respect to all possible customer segments. This strategy generally allows local economic actors to bear lower costs than do the other strategic alternatives by virtue of the adoption of the same production, distribution, and communication actions for all customer segments. At the same time, it involves the risk that none of these segments may be fully satisfied with the products and services offered by an LTS. Hence, selection of the most suitable strategy should be the result of careful evaluation of all possible market segments, the LTS's capacity to match the different segments' expectations, and the possible evolution of such expectations.

1.4. The technological endowment of an LTS

The term "technology" refers to "the process of transforming basic knowledge into useful applications" (Srinivasan 2008, p. 634). Technology is a crucial determinant of local development; it represents a fundamental precondition of higher productivity, competitive capacity, and satisfactory quality of life. Furthermore, it may allow less developed LTSs to close the gap with respect to highly industrialized and competitive LTSs (OECD 2008, p. 2). These benefits mainly derive from two characteristics of the knowledge embedded in all technologies, that is "tacitness" and "cumulateness" (Fratesi 2007). *Tacitness* limits the possibility of transferring knowledge among spatially distant places; *cumulateness* refers to the fact that every technology is the result of the evolution and combination of previously developed technologies.

Technology represents the main driver of innovation, as it enables

improvement of products' and services' functionalities and qualities. The introduction of new technologies may also create new markets, generate new competitive advantages, determine the need for new technical skills, etc. (Dwyer and Kim 2003). However, recent studies underscore that, for smaller and isolated areas, the link between innovation and regional growth may not be clear. Shearmur and Bonnet (2011), for example, noted that, due to the so-called "spillover effect," innovation may be generated in a place, but its application may interest a different area that benefits the most from its development.

To fully understand how and to what extent technology may contribute to shape an LTS's development, Guido (2000) suggests that it is important to examine: 1) the structure of the technological endowment of a territorial system; and 2) the development potential of such an endowment.

1.4.1. *The structure of an LTS's technological endowment*

Assessing the structure of an LTS's technological endowment does not only mean gaining awareness of the technological competences available in such a territory, but also determining the extent to which local companies, authorities, and other institutions are able to employ the technologies available in their own territory. Indeed, technological instruments are of little value if the people who should use them do not possess adequate knowledge and learning skills. Learning capabilities, in particular, have a critical relevance: they enable competence building as well as the creation, absorption, and exploitation of knowledge (Zahra and George 2002).

Previous studies have introduced several measures to assess technological competences from a territorial perspective (cf. Archibugi and Coco 2003), from the employment rate in activities that require high intellectual capital (e.g., high-tech manufacturing activities and Knowledge Intensive Business Services, KIBS), to residents' literacy rate, the number of people with a technical or scientific background, etc. Such an assessment should necessarily be complemented by an analysis of the *potential for commercial applications* of available technologies. Indeed, technological competencies represent "the ability to develop and design new products and processes" (Teece et al. 1994). This implies that the

analysis of an LTS's technological endowment involves investigating both its competences and their potential commercial outcomes. One of the measures commonly used to evaluate the latter aspect is the number of patents granted to people and organizations located in the LTS (cf. Acs, Anselin e Varga 2002). Indeed, patents indicate the extent to which given technologies can be applied to production processes.

As regards the classification of the technologies developed in a certain LTS, *evolutionary theory* (Adner and Levinthal 2001; Parhankangas, Holmlund and Kuusisto 2003) maintains that technologies may be classified as: "basic" (or mature) technologies, "complementary" technologies (which enrich the functionality of other technologies), "key" technologies (which enable the achievement of competitive advantage), or "emerging" (new-to-the-world) technologies. An LTS's ability to develop these different technologies depends on its knowledge base and a set of territorial characteristics that may range from the LTS's integration in strategic networks, to its ability to attract financial resources, the level of internationalization of its firms, etc. Thus, certain LTSs may specialize in developing emerging technologies, whereas other territorial systems may adopt a more conservative approach and develop incremental innovations. Analogously, certain LTSs may value advancements in basic research, whereas other LTSs may prize technological applications (cf. Capello and Lenzi 2012).

1.4.2. *The development potential of an LTS's technological endowment*

Assessing the development potential of an LTS's technological endowment involves (Guido 2000):

- a) a comparative assessment of such an endowment with respect to competing LTSs;
- b) an analysis of the *technology policies* that may improve an LTS's technological development; and
- c) an analysis of the *Research & Development (R&D)* policies aimed at generating new knowledge in the LTS.

The comparative assessment of an LTS's technological competitiveness can take the form of a benchmarking analysis aimed at comparing an LTS's ability to successfully develop new products

and services with its competitors' analogous abilities. Such an analysis also allows for an evaluation of an LTS's "technological attractiveness" (Viassone 2008), that is, its ability to attract external companies interested in using its resources and competences to develop new technologies. In turn, this dimension can be measured by referring to the innovation expenditure of non-resident firms in relation to the total innovation expenditure of an LTS.

Technology policies represent the outcome of private and public institutions' decisions about the development, commercialization or adoption of new technologies (Mowery and Oxley 1995). Albers, Hervas and Hidalgo (2006) maintain that these policies may be classified either as "supply policies" or "adoption policies." In the first case, the policies aim to support technology development processes, whereas, in the second case, the policies aim to favor the introduction of newly developed technologies in production processes. The first category includes regional innovation policies (Fiore, Grisorio and Prota 2011), that is, policies whose primary goal is developing new products and production processes. In turn, these policies may be "firm-oriented" policies, which basically aim at boosting firms' innovation capacity by enhancing their human and physical capital, or "system-oriented" policies, which are aimed at favoring the collaboration between firms and academia and hence the creation of innovation networks (Nauwealers and Wintjes 2003). However, as Shearmur and Bonnet (2011) observed, both policies should not only seek to favor the development of new routines and knowledge, but should ultimately ensure that the local economic system captures the benefits derived from these new routines and knowledge.

Independently from their goals, technological policies may contribute in a more (or less) direct way to fostering innovation, which may take the form of *disruptive innovation* if it significantly alters existing production systems or generates new market opportunities and radically new products, or *incremental (or sustainable) innovation* if it modifies – and possibly improves – existing production systems and technologies or creates new market niches (Christensen 2003). The formulation of technology policies generally grounds on a comparison between the technologies available in an LTS and those available in the market. This allows analysts to identify possible lags in technological development. Meanwhile, from an operational point of view, technology policies may revolve around the acquisition of

patents and licenses, participation in scientific projects, the conclusion of research contracts, and agreements with high-tech companies (cf. Guido 2000).

Finally, R&D policies principally aim at developing new knowledge to create new products and services (e.g., Parent and LeSage 2012; see also the *Frascati Manual* 2002). The analysis of these policies generally focuses on (Guido 2000): 1) the criteria that local authorities employ to define the resources that should be devoted to research projects (e.g., establishing a percentage of annual turnover, adopting the same criteria employed by competing companies located in other LTSs, adopting criteria employed in previous years); 2) R&D policies' temporal horizon; 3) the impact on the local economy; and 4) the extent to which the results of each project can be foreseen and reliably quantified.

Another important aspect that it is worth noting in this analysis is the assessment of local organizations' capacity to implement R&D projects, which in turn depends on their ability to: 1) evaluate each project; 2) adopt critical decisions; 3) collaborate with external companies, public authorities and other institutions; and 4) manage different projects and control the achievement of the expected results.

Assessing such capabilities enables an LTS to identify possible obstacles to the successful implementation of technological projects and hence supports the formulation of actions that, by targeting specific deficiencies (e.g., poor decisional capacity, weak propensity to collaborate with other research units, etc.), seek to maximize the projects' efficacy.

1.5. The intrinsic potential of an LTS

The intrinsic potential of an LTS represents the outcome of an assessment of endogenous factors – strengths and weaknesses – as well as exogenous factors – opportunities and threats – capable of affecting the development of an LTS. Such an assessment can be performed in the form of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis (Helms and Nixon 2010; Humprey 2004) and will yield information useful in devising the most opportune strategies to foster an LTS's development (Imparato 2003).

Strengths are internal tangible and intangible factors (e.g., raw

materials, industrial infrastructures, human resources, managerial skills and competences, etc.) that enable the production of wealth in an LTS. A tourist-oriented LTS's strengths, for instance, are its beauties, amenities, hospitality of local people, reputation, and the like (Clardy 2013). In contrast, *Weaknesses* are internal factors that hamper the process of development of an LTS and may include the lack of economic resources and workforce, poorly developed infrastructures, lack of cooperation among local actors, intensification of crime, etc. *Opportunities* are external factors that may positively influence an LTS's development. They include national and international programs targeting specific economic variables, normative changes set by national regulatory bodies, the rise of new market niches, expansion of specific industries, and the like. Normally, local actors cannot directly influence these factors, but may deploy specific actions to take advantage of them. *Threats* are external factors that may slow down or hinder an LTS's development. These factors include phenomena such as periods of economic recession, unfavourable normative changes, modifications of users' likes, international socio-political tensions, calamities, etc. As for opportunities, an LTS's actors cannot influence or predict threats, but may only react to such phenomena and seek to contain their negative effects (Gierszewska and Romanowska 2002).

By categorizing the factors that positively/negatively affect the creation of wealth within a given place, the SWOT analysis guides the selection of the most suitable strategies to draw utility from available resources and counterbalance possible obstacles to local development. Such an analysis allows local actors to identify internal sources of competitive advantage as well as opportunities that could be seized. At the same time, this analysis allows local actors to recognize internal deficiencies that should be overcome through tailored interventions as well as external threats to the development of an LTS that should be faced through adequate actions (cf. Leppälä 2011).