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**Tourism development, quality of life and
exogenous shocks. A systemic analysis
framework**

Research Memorandum 2013-22

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Tourism Development, Quality of Life and Exogenous Shocks

A Systemic Analysis Framework

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Abstract:

The purpose of this paper is to propose an analytical framework describing a trinity relationship between tourism development (TD), quality of life of residents (QoL), and shocks or disturbances (SD) (defined here as occurrences, expected or unexpected, outside the dominion of both TD and QoL, but capable to impact both). The impacts of TD on QoL have been studied on numerous occasions in the literature, but the possible effects of QoL on TD have only been implicitly considered in a number of studies. Moreover, the influence of SD on both TD and QoL has only been tacitly covered in the literature, so that the overall relation between these three constructs has remained unstructured, and, thus, incompletely formulated. This unfinished specification has left a gap in the understanding of the behavior of TD and a failure to fully recognize the potentials of QoL and SD as active factors that contribute to the trends and patterns of TD. The proposed framework contributes to a better understanding of both TD and QoL, thereby providing opportunities for their improvement. Additionally, understanding the possible implications of SD for both TD and QoL provides prospects for improving the preparedness and responsiveness, and potentially speeding up the recovery after unexpected events.

Keywords: tourism development; quality of life; shocks; disturbances; subjective approach; objective approach.

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1. Introduction

The purpose of this paper is to propose an analytical framework describing a trinity relationship between tourism development (TD), quality of life of residents (QoL), and shocks or disturbances (SD) (defined here as occurrences, expected or unexpected, outside the dominion of both TD and QoL, but capable to impact both). The framework postulates a series of bilateral relations between TD and QoL on the one hand, and between SD and both TD and QoL on the other hand. As such, there is a triangle of relationships between these three constructs. For example, increased TD can negatively affect the QoL of residents of a destination, possibly causing them to be less supportive of tourism, and by doing so, they could affect the course of future TD. Similarly, when SD occur (e.g., and earthquake), they can severely affect both TD and QoL.

The tourism literature reveals two strands with respect to the relationship between TD and QoL. The first strand discusses the unilateral nature of the relation (e.g., Perdue et al., 1991; Andereck & Vogt, 2000; Kim, 2002; Sdrali & Chazapi, 2007; Marzuki, 2009; Meng et al., 2010). The relation here is considered one-sided, whereby TD is seen as a determinant of QoL, and QoL is just the outcome of TD.

The second strand in the tourism literature asserts that TD is the result of QoL (Perdue et al., 1991; Crofts & Holland, 1993; King et al., 1993; Cecil et al., 2010; Croes, 2011a; Meng et al., 2010), whereby QoL has an active role to play in its relation with TD. For example, a minimum level of education of those working in the tourism industry is needed to handle the product and, thus, secure future TD. This may explain why some countries with low levels of QoL (e.g. Haiti and Zimbabwe) are struggling with the development of their tourism industries.

The existing literature is, however, conspicuously silent on the existence of a reciprocal relationship between TD and QoL. While QoL has been considered in the tourism literature as a passive element being affected by TD (e.g., Andereck & Vogt, 2000; Kim, 2002; Beckendorff et al., 2009; Andereck & Nyaupane, 2010), it has not been thought of in terms of the freedom of people to do or be what they feasibly can do or be. In other words, the notion QoL in the tourism literature has often not gone beyond people's command of resources (including income) or their cognitive and affective evaluations of their lives (subjective well being), thereby missing the opportunity to provide QoL with an active role in determining TD (capability approach).

Understanding the bilateral relationship between TD and QoL could shed light on enhancing the knowledge why some tourism destinations perform better than others. Failure to acknowledge the prospects of QoL influencing TD could have detrimental consequences for the latter (e.g., lower number of visitors and receipts), particularly in a global environment where more destinations are competing to increase their tourism flows and market shares, while originating markets have remained almost unchanged (Croes, 2011a).

The literature has hinted as well at the existence of SD that some way or the other impact both TD and QoL (Goodrich, 2002; Torabi & Seo, 2005; Birkland et al., 2006a/2006b; Wilder-Smith, 2006; Park & Reisinger, 2009; Chen, 2011; Mohanty, 2011; Harris, 2011). Considering a model without these external sways produces an incomplete picture, and can either lead to missed opportunities for improving both TD and QoL, or severely deepen and/or prolong the negative effects stemming from the occurrence of SD.

The proposed framework contributes to the literature, in the first place by improving the understanding of the relationship between TD and QoL, i.e., by actively involving QoL in the relation, and, in the second place, by explicitly incorporating SD as a potential third factor that can affect both TD and QoL. Linking TD and QoL to SD further adds to the understanding of both constructs while enhancing the preparedness, response and potential recovery process of destinations.

2. The concepts of tourism development and quality of life

The concepts of TD and QoL have been represented in a variety of ways in the literature. In the case of TD, for example, Perdue et al. (1991) and Meng et al. (2010) applied per capita tourism expenditure as a proxy for TD, while Crots & Holland (1993) employed a per capita tourism and recreation tax. Kim (2002) analyzed TD in terms of its impact (economic, social, cultural, and environmental) and its development stage (beginning, growth, maturity, and decline). Andereck & Vogt (2000) considered TD in terms of a number of options (parks, outdoor recreation, retail store, museums, etc.). These differences in representation of TD are a reflection of the lack of a readily available definition in the literature of what exactly TD is (Airey, 2005).

To further examine the TD concept, we need to separate it into two distinct elements: *tourism* and *development*. There is no generally accepted definition of what tourism is, because there are so many uses for tourism (Smith, 1988), and because tourism has different meaning to different people (Theobald, 2005). As Smith (1988) puts it, one “must learn to accept the myriad of definitions and to understand and respect the reasons for those differences.” (p. 180). Still, there is a need for a standard definition of tourism that makes comparable measurement of the tourism phenomenon possible (Theobald, 2005). The World Tourism Organization (1995) defined tourism in terms of “the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes.” (p. 12). Boniface & Cooper (2001) criticize this definition for being more demand-side oriented, because it is more concerned with the tourist than the tourism sector or industry (supply-side). Goeldner & Brent Ritchie (2012) do consider both the demand and supply side of tourism, and defined tourism as “the processes, activities, and outcomes arising from the relationships and the interactions among tourists, tourism suppliers, host governments, host communities, and surrounding environments that are involved in attracting and hosting visitors.” (p. 4). However, their definition lacks the dynamic properties of tourism, which according to Butler (1997), is one of the major characteristics of this phenomenon. Moreover, this latter author argues that tourism consists of a large number of elements and processes that can change considerably over time. Another deficiency of the definition is that it lacks a purpose: what is the ultimate goal of tourism? Perhaps involving the development concept can shed light on these deficits.

Peet & Hartwick (1999) distinguish between a weak form of development (more of everything for everyone), and a stronger version (using the productive resources of society to better the living conditions of the poorest people). This latter version is in line with the first purpose indicated by Szirmai (2005) who, referring to Myint (1980), divides the development concept into (1) the fight against poverty; and (2) the analysis of long-term economic and social development. When it comes to the tourism phenomenon, the latter can significantly contribute to poverty reduction (World Tourism Organization, 2002; Scheyvens & Homsen, 2008; Croes, 2011c), but at the same time the strive for more and more out of tourism can impact both the economy and social life, and even other aspects like the culture and environment of destinations (Kim, 2002; Wall & Mathieson, 2006). The GNP has long been regarded as the dominant

indicator of societal goal and performance (Simonis, 2011), but the number of indicators of development is vast, and do not necessarily cover only economic aspects of development. The World Bank, for example, has been producing an annual collection of more than 800 indicators (a.o. on poverty, education, gender equality, and environmental sustainability) for over 150 countries, aimed at presenting an integrated view of development.

Development must have a purpose (e.g., poverty reduction), but at the same time it must create value for the individual actors at a destination (Haugland et al., 2011). Sen (1999) brings an overarching element to the development concept, whereby expanding the real freedoms that people enjoy ultimately dominates above the more narrow elements of development (e.g., growth in GNP, increase in personal incomes, industrialization, technological advance, social modernization or political rights). In essence, the concept of freedom here emphasizes the significance of empowering people to help themselves, and be the actors of their own development (Stiglitz et al., 2009).

The two elements of TD show that it is a pluriformal concept that can vary from situation to situation, a feature also recognized by Pearce (1985). Nevertheless, combining all the previous produces the following definition of TD: *tourism development is the sum of dynamic processes, activities, and outcomes originating from the relationship between the actors involved in the tourism phenomenon (e.g., tourists, tourism suppliers, residents of a destination, the government), with the ultimate aim of endowing the residents of a destination with the freedom to decide on their own development.* What is important is, thus, that TD occurs in a way that promotes a successful and sustainable destination while meeting the QoL aspirations of those who reside in the destination (Goeldner & Brent Ritchie, 2012).

Croes (2011c) invoked three paradigms as a way to give meaning and measurement to the QoL concept. First, there is the income paradigm, which entails that individuals use their income to buy market goods, combined with time, knowledge and non-market goods to provide a more preferable QoL. The latter is seen here from the perspective of the choices that need to be made about how to allocate scarce societal resources to achieve the QoL. If the income is below a certain minimum or threshold, it will limit the individual's ability to afford a minimum bundle of goods and service that affect their well being (Croes, 2011c). Income is, thus, up to a certain extend important for the QoL of the individual. One criticism on this income approach is that the degree to which income matters in people's life is subjective, and varies from person to person.

Moreover, the relation between income and the purchase of more basic foods and services can be non-linear, and people, particularly the poor, tend to be inclined to satisfy their non-basic needs with their available income. For example, Banerjee & Duflo (2007) found in their investigation on the economic lives of the extremely poor people in 13 countries that the average person living under US\$ 1 per day does not seem to put every available penny into buying more calories, but spends it as well on other commodities such as alcohol and tobacco. On the other side of the spectrum, higher incomes are related to lower marginal utility of money: money becomes increasingly less important, the further a person advances on an organizational hierarchy (Li-Ping Tang, 2007). There are even some instances where income can have a negative effect on people's QoL, while in others it can even be unrelated to QoL (Li-Ping Tang, 2007). From this archetype, it seems clear that income alone cannot explain the state of QoL of the individual, but is merely one of the influences (Ruta et al., 2007). Once the individual's income threshold has been reached, other factors become important as well in determining the individual's QoL, whereby the individual's utility function provides direction.

A second point of departure within the QoL caption is the subjective well being approach, which asserts that individuals are the best judges of their own welfare condition. Rath & Harter (2010) advocate that well being is not just about being happy, or being wealthy or successful, and even not limited to physical health and wellness, but "is about the combination of our love for what we do each day, the quality of our relationships, the security of our finances, and the pride we take in what we have contributed to our communities." (p. 4). Based on the Gallup Inc.'s comprehensive global study of more than 150 countries (representing more than 98 percent of the world population) these authors pinned down five elements that are essential to all people, i.e., career well being (how you occupy your time, or simply liking what you do every day); social well being (having strong relationships and love in your life); financial well being (effectively managing your economic life); physical well being (having good health and enough energy to get things done on a daily basis); and community well being (having the sense of engagement with the area where one lives). The important thing for well being is how these five elements interact with each other. QoL is seen here from the perspective of how satisfied people are with the circumstances in which they live (Croes, 2011c).

A third paradigm for the concept of QoL is the so-called capability approach, based on the work of Sen (1985a, 1985b, 1988, 1997, 1999), who argued in favor of the capability of

people to function, i.e., what an individual can do or can be. He defined a person's capabilities as "the alternative combinations of functionings that are feasible for her to achieve." (1999, p. 75) In other words, capabilities refer to a person's or group's freedom to promote or achieve functionings that are valuable (Alkire, 2002). Functionings are described by Sen (1999) as "the various things a person may value doing or being." (p. 75), referring to the valuable activities and states that make up an individual's well-being, e.g., a healthy body, a warm friendship, an educated mind, a good job, etc. (Alkire, 2005). It can be considered an achievement of a person, i.e., what he/she manages to do or be (Clark, 2005). QoL concentrates here "on the way human life goes...and not just on the resources or income that a person commands." Sen (1999, p. 24).

Both the subjective well being and the capability approaches bring forward the multi-dimensional character of QoL. The dimensions of QoL may include physical, spiritual, health state, independence level, social relationship with the environment, and others (Susniene & Jurkauskas, 2009). Cummins (1996) did perhaps one of the most extensive work on the dimensions of QoL by attempting to group 173 different elements of QoL into seven dimensions (material well being, health, productivity, intimacy, safety, community, and emotional well being) termed the Comprehensive Quality of Life Scale. More recently, Stiglitz et al. (2009) introduced their seven domains of QoL (health, education, personal activities, political voice and governance, social connections, environmental conditions, and insecurity) that are in their view recurrent of nature, thereby opening the way for QoL comparisons across people and countries.

Numerous definitions of QoL have been applied in the literature (Table 1), yet there is no universally accepted definition of this concept (Susniene & Jurkauskas, 2009). However, some important features of QoL can be distinguished from the literature. Firstly, it is a multi-dimensional concept, meaning that it does not focus solely on material issues like income, but can include non-material aspects such as health and education. Secondly, it is a dynamic process, meaning that values and self-evaluations of life can change over time, following life and health events and experiences as well as the influence of the individual dimensions on either each other or the sum of all dimensions (i.e., QoL itself) (Bowling, 2003). Thirdly, QoL impacts and gives contours to human life, whether this is in a positive or negative way. Based on the above, the following definition of QoL is proposed: QoL is *a dynamic set of both material and non-material dimensions that affect and delineate people's life.*

[INSERT TABLE 1]

The conceptualization of both TD and QoL makes it possible to expand the conventional unilateral relation that has been explicitly covered in the literature to a higher order connection. Still, both TD and QoL are not imprisoned in a closed-circuit relation, but can be influenced by SD that can alter their position significantly, thereby requiring the inclusion of this third element into the analytical framework. The bridging process between these constructs is the topic of the next section.

3. From unilateral to trilateral interactions

The customary approach in the tourism literature has been to consider TD as a triggering factor to QoL. For example, Andereck and Vogt (2000) found that TD positively affected the QoL of a community. Fredline et al. (2005) found that the positive effects of TD impacted QoL of both the community and the individual in a beneficial way, while the negative effects had an undesired impact on the community and the individual's QoL. Similar studies have almost all found that TD had a positive (and in some instances also a negative) impact on QoL (Table 2).

[INSERT TABLE 2]

The reviewed literature further suggests that the relation between TD and QoL was often seen in terms of the cost and benefit effects of TD on QoL (e.g., Kim, 2002; Fredline et al., 2005; Gjerard, 2005; Sdrali and Chazapi, 2007), whereby these effects varied from study to study. The economic effects of tourism have received most of the attention in the literature (Zhou et al., 1996; Walpole & Goodwin, 2000; Ennew, 2003; Eugenio-Martín et al., 2004; Lee & Chang, 2007; Brida et al., 2009). Still, other types of impacts have received coverage as well, and several authors have included two or more of the types of impact in their analysis (e.g., Haralambopoulos & Pizam, 1996 (economic and social impacts); Kim, 2002 (economic, social, cultural and environmental impacts); and Neto, 2003 (economic and environmental impacts)). So

the most often applied mechanisms through which TD influences QoL are of an economic, social, cultural, and environmental nature.

The findings in the conventional unilateral approach provide no explanation for what is considered a second strand of the literature, which hints at a more active role for QoL in the TD-QoL relation. The connection between TD and QoL becomes bilateral when QoL is considered an active factor influencing TD. Three mechanisms have been identified through which QoL's influential role is emphasized. Firstly, QoL can affect TD in terms of the support for future TD. For example, King et al. (1993) found a negative impact of TD on the QoL of residents of Nadi (Fiji), but as the authors contend, the awareness of those negative impacts did not cause diminished community support for tourism, because of the economic dependency on this activity. In a sense, the authors implied that if TD had a negative impact on the individual's QoL, he/she could also have reacted by not (actively) supporting TD, which on itself can negatively impact future TD. Supportive residents tend to be receptive and friendly to tourists, which in turn provide a positive experience for tourists, influencing their intention to return and/or their word-of-mouth recommendations (Carmihael, 2006). The possible impact of QoL on future TD has also been implicitly recognized by Ap (1992), who considered residents of a destination as important players "who can influence the success or failure of the local tourism industry." (p. 668). Disgruntled residents may, for example, oppose and/or show hostile behavior towards tourists, which can negatively affect TD in the future. Authors such as Andereck et al. (2007), Claiborne (2010), and Andereck and Nyaupane (2010) have also hinted at the possibility of QoL impacting future TD through the willingness of people to support tourism. Residents' participation in the planning, development, and operation of tourism attractions, as well as their hospitality extension to tourists are, thus, prominent inputs for future TD.

Secondly, QoL can influence TD through the provision of amenities that not only benefit the residents, but future TD as well. Cecil et al. (2010) presented the case of the Indianapolis Cultural Development Commission which embarked on a cultural tourism initiative. Through a so-called Cultural Districts Program, the Commission facilitated the cultural development of six district neighborhoods, to share the authentic and diverse character of Indianapolis and its people with residents and visitors alike, with the main goal of improving the QoL of its residents. On a similar note, Croes (2011a) investigated the economic impact of cultural tourism for the island of Aruba, where TD has propelled one of the highest standards of living in the Caribbean. His

findings basically revealed that although cultural tourism consumption contributed to only about 2 percent of the island's total tourism receipts, it affected a relatively large share of salaries and income in Aruba. The author also asserted the implicit link of TD to QoL through a high living standard for the island, and that development of cultural tourism could further add to the comparative and competitive advantage of the island. This would not only be beneficial to Aruba's TD, but ultimately would affect the QoL of its residents (at least the material well-being aspect). These examples indicate that TD could be the outcome of the pursuit of a better QoL, implicitly providing evidence of an influential role of QoL on future TD. In a sense, improvement in both TD and QoL can be achieved by further developing the amenities of the destination.

Thirdly, QoL can influence TD through the education route. According to the United Nations Economic and Social Council (2007), TD has enabled governments to allocate financial resources to improve their countries' education conditions. The report provides the example of the Maldives where TD has contributed to almost 100% of the population becoming literate over time. Education is often considered one of the dimensions of QoL, and improvements in the education level have a positive contribution to the QoL of individuals. Stiglitz et al. (2009) argue that better-educated people generally have better health status, lower unemployment, more social connections, and greater engagement in civic and political life. The influence of TD on QoL is clear from the ensuing. However, education can influence future TD on its turn, as appropriate education is an important requisite for the development of tourism. The tourism industry is labor-intensive depending on the availability of good quality personnel to deliver, operate, and manage the tourist product (Amoah & Baum, 1997). Even more, the tourist experience depends importantly upon the interaction between the tourist and the personnel of the tourism industry. A good experience for tourists can have a positive influence on their willingness to come back to the destination, as well as on their word-of-mouth recommendations to others, all contributing to a positive effect on future TD. Education can play a decisive role as well in the attitudes of residents towards TD, as it can, for example, educate them about the significance of tourism to the economy of the destination, and how they may contribute to a positive TD in the future.

Besides the unilateral and bilateral relations, there is a possible third relation affecting both TD and QOL, which is SD. This consists of both expected and unexpected events (Table 3). The expected events consist of both man-made (e.g., wars, technological, political & economic

events, and sports) and natural occurrences (e.g., weather) that can affect both TD and QoL. For example, tourists come more to Kathmandu (Nepal) during the winter season than other parts of the year (Mohanty, 2011), and the 2010 Soccer World Cup in South Africa was not only attractive in terms of tourism, but the construction of the stadiums alone created 66,000 new jobs, thereby contributing significantly to lowering the poverty levels of the employees in question (Harris, 2011).

The unexpected events consist mostly of crises, both man-made and natural, with disastrous consequences. In the first place, there are the man-made crises, such as acts of wars, terrorism, political instability, and crime in general that can discourage tourists to travel to a destination, while simultaneously affecting the lives of those living there. The September 11 terrorism attacks (2001), for example, had considerably affected the lifestyles and behavior of Americans (Torabi & Seo, 2005), while immediately impacting the travel and tourism industry in the U.S. (Goodrich, 2002). Moreover, the global financial and economic crisis of 2007-2010 was the most serious crisis to hit the world since the Great Depression (1929-1939), and had serious implications on QoL (e.g., loss of jobs, loss of income, deterioration of health conditions). For example, Breisinger et al. (2011) found that the financial and economic crisis had raised the poverty rate in Yemen from 34.8% (2005/2006) to 42.8%, while Brinkman et al. (2010) found that this global crisis has triggered a large number of households to reduce the quality and quantity of foods they consume, at the risk of increased malnutrition. The crisis had also impacted TD, as tourism on a global scale is estimated to have decreased by 4.3%, despite some countries (e.g., China, Brazil and Spain) experiencing a better TD, as tourists tended to travel closer to home (UNWTO, 2010).

[INSERT TABLE 4]

In the second place, there are clearly natural crises (e.g., earthquakes, hurricanes, tsunamies, volcanic eruptions) that cause human suffering (including the loss of lives), while at the same time affecting the tourism industry due to, e.g., damage to coastal resorts and attractions. For example, the 2004 tsunami of South East Asia caused heavy losses of life of both tourists and residents, particularly in the coastal provinces of Phuket and Phang Nga, and a substantial drop-off in tourist visits afterwards (Birkland et al., 2006a/2006b). Chen (2011) found that tsunamies,

hurricanes and floods were perceived to have the largest influence on international travel. Health threats are another natural factor that can affect both residents and tourists. According to Pine and McKercher (2004), the outbreak of SARS caused a dramatic fall in both air travel and tourist arrivals to Hong Kong, while causing 1,755 people to be infected and 298 deaths.

Three comments need to be made in the case of the impact of SD on both TD and QoL. First, the shocks do not have to be negative for both TD and QoL all the time. The case of the global financial and economic crisis above has shown that there were countries that benefitted in terms of TD, as tourists substituted far destinations for nearer ones. Moreover, Tambunan (2010) reported that Indonesia managed to keep a positive economic growth rate during this crisis, while poverty kept decreasing, the latter implying an improvement in the QoL of people.

Second, it is not inconceivable that both TD and QoL could decrease in the short run, but become much better afterwards than what had been the case before the crisis. For example, the Republic of Lebanon underwent a series of crises of assassinations (2005), a Hezbollah-Israeli War (2006), and subsequent military and political turmoil (2007-2008) which gave a heavy blow to its tourism industry, but the recovery has been not only fast but produced opportunities as well for new forms of tourism (e.g., eco-tourism), while the addition of new high luxury hotels (e.g., Four Seasons) have raised the luxury quotient of the destination (Jallat & Shultz, 2011).

Third, it cannot be excluded that TD as well as QoL can on their own have an influence on SD. Fang (2011), for example, argued that tourism is both a contributor and a victim of climate change, and it is therefore important that the tourism sector is also committed to reducing CO₂ emissions. According to Thambiran and Diab (2011), air quality and climate change are inextricably linked to each other, and Wu (2011) reasons that air pollution is becoming one of the major problems that China is facing as a consequence of a rapid growth in pursuit of QoL. Similarly, many citizens in Mexico choose to work in the production of marijuana and opium because it pays better than traditional crops and provides for some QoL improvements (Barclay, 2009), but at the same time this contributes to drug trafficking and organized crime, two sources of the violent crime affecting this country since 2006.

Within TD itself, there are some forces that influence its outcome as well. Lohmann (2004), for example, speaks about an endogenous dynamism within the tourist behavior, whereby the experienced and educated traveler will change his/her behavior even in a constant framework situation. Moreover, the tourist industry itself can influence tourism demand through,

e.g., product standardization and pricing strategies, implicating the workings of endogenous elements on TD.

The discussions in this section suggest that there is a possible triad relationship existing between TD, QoL, and SD, whereby all three constructs have an active role to play in the relation. This makes the situation more complex than what has been considered up to now in the tourism literature, where the emphasis was on the effect of TD on QoL. The situation gets even more complicated when considering an integrated approach to assessing this trinity connection, the topic of the next section.

4. A dual analysis approach

The impacts of TD on QoL have been mostly grounded on micro-based data collected through some kind of survey, a procedure known as the subjective approach. Pivotal of this approach is the measurement of people's responses to a set of questions, where they report their own subjective state and values (Stiglitz et al., 2009).

Only a small number of studies have been based on the objective approach where the analysis is based on macro underpinnings that are some way or the other applied as proxies thought to be representative for each of the individuals being studied.

[INSERT TABLE 3]

Both approaches have their benefits and limitations. The subjective approach captures experiences that are important to the individual (Kim, 2002; Das, 2008), but at the same time, this approach suffers from the fact that "people usually judge their well-being against that of other people rather than in absolute terms." (Kazana & Kazaklis, 2009, p. 211). This condition is known in the literature as social comparison and entails a person comparing himself/herself with others in order to assess an aspect of the self, for example the person's well being. According to Suls et al. (2002), comparing oneself with others is a pervasive social phenomenon, and can influence many outcomes, including a person's self-concept, level of aspiration, and feelings of well being. Depending on the person(s) one compares oneself with, the results can be either positive or negative on the perception of the respondent.

The strength of the objective approach is that it can be defined and quantified in a relatively easy way, without relying too much on individual perceptions (Kim, 2002; Das, 2008). However, data collected through the objective approach may suffer from the problems of under (e.g. crime rate) or over reporting (e.g., income), and may not accurately reflect people's experience of well-being (Das, 2008). Stiglitz et al. (2009) argued further that variables such as the GDP in the national accounts are influenced by imputed transactions for non-market activities, making them less reliable than observed values.

It is because of the signaled imperfections in both approaches that an integrated use of them has been suggested (Constanza, 2006, Das, 2008; Kazana & Kazaklis, 2009; and Stiglitz et al., 2009) to get a more comprehensive picture of the relation between TD and QoL. As put by Graham (2011) "having both to look at gives us a more complete picture of the drivers of well-being in the same way that X-rays taken from different angles help a doctor to diagnosis a medical problem correctly." (p. 109).

A combined application of both the subjective and objective approaches has implications as well on the unit of analysis, which generally refers to the choice of a conceptualization of a phenomenon against the background of a theoretical perspective or a framework (Säljö, 2009). Units of analysis in social research can range from individuals to groups (e.g., families, cities or geographic regions), to formal social organizations (e.g., corporations, church congregations), to social interactions (e.g., telephone calls, e-mail exchanges), to even social artifacts (e.g., books, poems, paintings) (Babbie, 2010). According to Andereck & Nyaupane (2010), the unit of analysis in QoL studies can range from the individual to the world, but drawing conclusions about individuals based on data collected from a unit larger than the individual itself, for example a community, is an erroneous assumption, a faulty reasoning called ecological fallacy. Individual characteristics are then derived from aggregate data, while the latter can disguise a great deal of variability among individuals (National Academy of Sciences, 2002). Similarly, Stiglitz et al. (2009) argue that when measuring QoL, the emphasis should be on people rather than on the communities they are member of. This is because larger units such as a community may contain asymmetries in how resources and opportunities are distributed among the members (e.g., among men and women), that are only uncovered at the most basic level of analysis which is the individual. The individual offers the only feasible alternative in terms of the unit of analysis, in a situation when both the subjective and objective approaches are applied together.

5. An analytical framework

The previously discussed issues are combined in an analytical framework for a more complete picture than what has been presented up to now in the (tourism) literature (Figure 1). Each of the three constructs has an active role to play in the trinity relationship. The direction of the arrows indicates that one construct has an impact on the other. For example, the utmost left arrow departing from SD indicates that SD has an impact on TD. Between TD and QoL, there are two arrows in different directions, indicating the bilateral relation that could exist between these two constructs.

[INSERT FIGURE 2]

The framework presents a combined application of both the objective and subjective methods to compensate for the individual imperfections of each of these methods. The objective approach (dotted area in the middle of the framework) is more straightforward and looks solely at possible relations between the three constructs, and as such does not involve the individual in a more detailed manner than in the case of the subjective approach (striped lines), where the emphasis is on a more in-depth analysis of individual choices. In essence, the combined analysis looks at whether macro and micro data provide a consistent picture of the ensued relation. According to Antoniewics, et al. (2005), one should view the discrepancies between micro and macro estimates “as a source of valuable information on possible measurement issues in both sets of data.” (p. 3), and Becker & Haltiwanger (2006) conclude that the integration of micro and macro data should be an objective of economic measurement. The assessment of both objective and subjective approaches is made possible by considering the individual as the unit of analysis.

The transmission mechanism of the influence of TD on QoL consists of impacts of economic, social, cultural, and environmental nature, all of which are frequently found in the literature on the relation between TD and QoL. The impact of QoL on future TD is represented by three mechanisms, i.e., the support of residents, amenities provided at the destination and the education level of the residents. SD influences TD through both demand and supply factors, and TD impacts SD through, e.g., climate change. Participation in criminal organizations can explain

the influence of QoL on SD, and the influence of SD on QoL can flow through either human suffering or alleviation. The circling arrow indicates the influence of endogenous factors on TD.

The benefit of the presented analytical framework is that it provides structure to several types of relations that have been presented in a scattered manner in the tourism literature. Moreover, it allows for the linkage of both micro and macro data by assessing the relations through both an objective and a subjective approach.

6. Conclusion

The impacts of TD on QoL have been studied on numerous occasions in the literature, but the possible effects of QoL on TD have only been implicitly considered in a number of studies. Moreover, the influence of SD on both TD and QoL has only been tacitly covered in the literature, so that the overall relation between these three constructs has remained unstructured, and, thus, incompletely formulated. This unfinished specification has left a gap in the understanding of the behavior of TD and a failure to fully recognize the potentials of QoL and SD as active factors that contribute to the trends and patterns of TD. The consequences of the omission of an active role of QoL can be detrimental to tourism (in terms of numbers of visitors and the amount of money left behind), particularly in a globally competitive environment where more destinations are competing to increase both tourism flows and market shares, while the originating markets have experienced little change (Croes, 2011a). Moreover, only passively recognizing SD can have negative consequences in terms of losing opportunities for improvements in both TD and QoL (in case of expected events), or even worse (in the case of unexpected events), expanding the depth and increasing the duration of unexpected events by being unprepared or unable to respond adequately, or by having to wait too long for the proper recovery to take place.

The analytical framework proposed in this paper allows for a more complete approach to conceptualizing and interpreting the relation between TD, QoL, and SD. The framework also presents new opportunities for further research. Besides assessing the linkages that exist between the three constructs, and the incorporation of micro and macro analysis, this framework makes it possible to study specific aspects of the trinity relationship. For example, one can investigate how the impact of an SD (e.g., a hurricane) translates itself to the sectoral level of the economy.

Or, one can research how the weather as a seasonal element does influence, through the application of business models (e.g., human resource management), both TD (e.g., the availability of service) and QoL (e.g., the availability of jobs). Moreover, one can analyze how the occurrence of an SD (e.g. an oil spill) affects the sustainability of both TD and QoL. All in all, the opportunities of applying the TD-QoL-SD model are plentiful.

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Table 1: Selected definitions of QOL

Author	Definition
Sirgy (1986)	Hierarchical need satisfaction level of most of the members of a given society (p. 329).
Bowling (2003)	A collection of interacting objective and subjective dimensions (p. 1).
Gjerald (2005)	Emotions and perceptions, both positive and negative, hosts have of their day-to-day life and how it is affected by tourists (p. 38).
Constanza et al., (2006)	A multi-scale, multi-dimensional concept that contains interacting objective and subjective elements (p. 267).
Stiglitz et al., (2009)	Those aspects of life that shape human well-being beyond the command of resources (p. 143).

Table 2: Selected studies and their findings on the impact of TD on QOL

Author	Findings
Meng, Li & Uysal (2010)	Positive correlation between TD and QOL.
Andereck & Nyaupane (2010)	TD had a positive impact on both the community's and individual's QOL.
Marzuki (2009)	TD had brought more benefits than costs to residents' QOL.
Andereck, Valentine & Knopf (2007)	TD had both positive and negative effects on the community's QOL.
Sdraly & Chazapi (2007)	Cultural TD had positively impacted the destination's and its residents' QOL.
Fredline, Deery & Jago (2005)	TD can have positive and negative impacts on QOL, both at the personal and community levels.
Gjerald (2005)	TD had a pronounced impact on the QOL of local life.
Kim (2002)	Some types of impacts of TD impacted some of the dimensions of QOL.
Andereck & Vogt (2000)	Tourism can positively impact the QOL of a community.
Crotts & Holland (1993)	TD is a feasible means of improving a rural community's QOL.
Perdue, Long & Gutske (1991)	TD is a viable means for improving local QOL.

Table 3: Major shocks or disturbances since 2000 (non-exhaustive list)

Type	Category	Subcategory	Examples
Expected	Man-made	Wars	Wars in Iraq and Afghanistan; Mexican drug war; war in Dardur; Georgia-Russia war.
		Technological events	Further growth of the internet (incl. social networks, etc.), new apps (e.g., mobile phones, tablets, etc.).
		Political events	New presidents in several nations, including the United States and Brazil.
		Economic events	Emerging economies like Brazil, India, China, and Russia; Physical introduction of the euro in 2002 and the further expansion of the euro zone; merger of United and Continental Airlines.
		Sports	Summer and winter olympics games; Fifa World Cups soccer.
Unexpected	Natural	Weather	Seasonal weather, El Niño and La Niña
	Man-made/natural	Terrorism	Terrorist attack on USS Cole; September 11; Bali bombings; London bombings; Madrid train bombings; Istanbul bombings; Mumbai terrorist attack.
		Economic events	Global financial and economic crisis; euro crisis.
		Political events	Coup d'etats in Venezuela, Haiti, and Honduras; Arab Spring Revolution.
		Fires	Wildfires in Australia, Russia, and the United States
		Health disasters	SARS, avian flu, swine flu; cholera outbreak in Haiti.
		Weather	Worst heat waves in Europe, Australia, and Russia.
		Geological disaster	Haiti earthquake; Kashmir earthquake
		Meteorological disaster	Hurricane Katrina; cyclones in Bangladesh and Myanmar.
		Hydrological disasters	Great Indian Ocean tsunami (2004) and Japan tsunami (2011)
		Industrial disaster	British Petroleum Deep Water Horizon oil spill; Fukushima Daiichi nuclear disaster.

Table 4: Subjective versus objective approaches in the TD-QOL literature

Subjective approach	Objective approach
Andereck & Nyaupane (2010)	Meng, Li & Uysal (2010)
Marzuki (2009)	Crotts & Holland (1993)
Andereck, Valentine & Knopf (2007)	Perdue, Long & Gutske (1991)
Sdraly & Chazapi (2007)	
Fredline, Deery & Jago (2005)	
Gjerald (2005)	
Kim (2002)	
Andereck & Vogt (2000)	

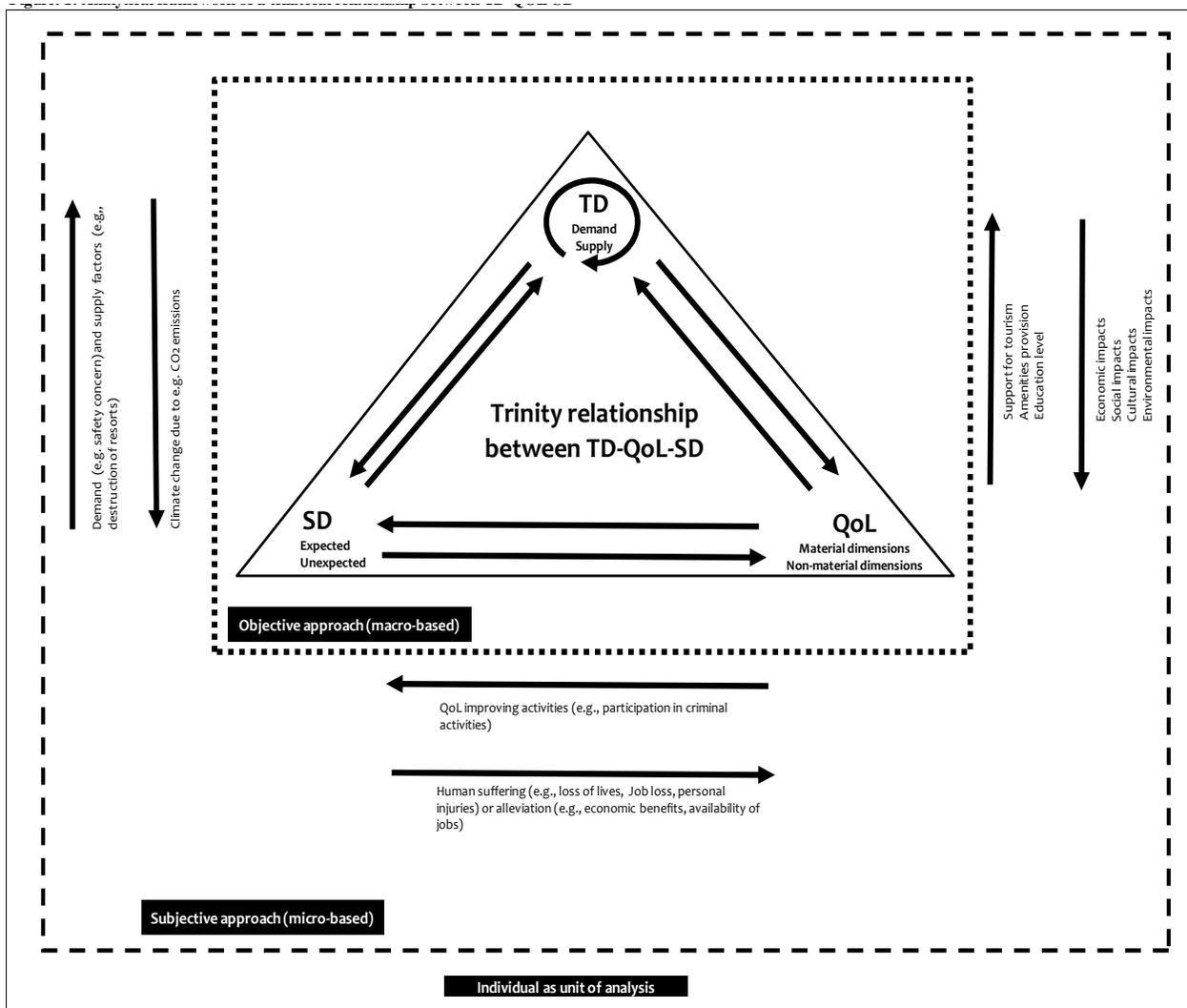


Figure 1: Analytical framework of a trilateral relationship between TD-QoL-SD

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